SKRIPSI

STUDI ALTERNATIF PONDASI TIANG BOR (STRAUSS) PEMBANGUNAN RUSUNAWA UNIVERSITAS NEGERI MALANG

Disusun Oleh :

BAYU ENDIK PRASETYO 05.21.074

JURUSAN TEKNIK SIPIL S-1
FAKULTAS TEKNIK SIPIL DAN PERENCANAAN
INSTITUT TEKNOLOGI NASIONAL MALANG
2011

[illegible]

[illegible]
[illegible]
[illegible]

[illegible]
[illegible] [illegible]

[illegible]
[illegible]
[illegible]
[illegible]

LEMBAR PERSETUJUAN

SKRIPSI

STUDI ALTERNATIF PONDASI TIANG BOR (STRAUSS) PEMBANGUNAN RUSUNAWA UNIVERSITAS NEGERI MALANG

Diajukan Sebagai Salah Satu Syarat Memperoleh Gelar Sarjana Teknik Sipil (S-1) Institut Teknologi Nasional Malang

Disusun Oleh :

BAYU ENDIK PRASETYO

05. 21. 074

Menyetujui:

Dosen Pembimbing I	Dosen Pembimbing II
(Ir. Eding Iskak Imananto, MT.)	(Ir.A. Agus Santosa, MT.)

Mengetahui,

Ketua Program Studi Teknik Sipil S-1

(Ir. H. Hirijanto, MT)

PROGRAM STUDI TEKNIK SIPIL

FAKULTAS TEKNIK SIPIL DAN PERENCANAAN

INSTITUT TEKNOLOGI NASIONAL MALANG

2011

LEMBAR PENGESAHAN

STUDI ALTERNATIF PONDASI TIANG BOR (STRAUSS) PEMBANGUNAN RUSUNAWA UNIVERSITAS NEGERI MALANG

SKRIPSI

Dipertahankan Dihadapan Majelis Penguji Sidang Skripsi

Jenjang Strata Satu (S-1)

Pada hari : Kamis

Tanggal : 25 Agustus 2011

Dan Diterima Untuk Memenuhi Salah Satu Persyaratan

Guna Memperoleh Gelar Sarjana Teknik

Disusun Oleh :

BAYU ENDIK PRASETYO

05. 21. 074

Disahkan Oleh:

Ketua	Sekretaris
(Ir. H. Hirijanto, MT.)	**(Lila Ayu Ratna Winanda, ST, MT.)**

INSTITUT TEKNOLOGI NASIONAL MALANG FAKULTAS TEKNIK SIPIL DAN PERENCANAAN TEKNIK SIPIL

AnggotaPenguji :

Dosen Penguji I	Dosen Penguji II
(Ir. Bambang Wedyantadji, MT.)	**(Ir. H. Sudirman Indra, MSc.)**

PROGRAM STUDI TEKNIK SIPIL

FAKULTAS TEKNIK SIPIL DAN PERENCANAAN

INSTITUT TEKNOLOGI NASIONAL MALANG

2011

KATA PENGANTAR

Puji syukur penyusun panjatkan kehadirat Allah SWT, karena berkat-Nya penyusun dapat menyelesaikan **Laporan skripsi yang berjudul " Studi Alternatif Pondasi Tiang Bor (Strauss) Pada Pembangunan Rusunawa Di Universitas Negeri Malang "** yang merupakan salah satu syarat untuk memperoleh geler Sarjana Teknik Sipil S-1 Institut Teknologi Nasional Malang. Dalam kesempatan ini penyusun juga ingin menyampaikan rasa terima kasih kepada berbagai pihak yang telah membantu dalam menyelesaikan laporan ini, diantaranya :

1. Bapak Ir. Soeparno, MT., selaku Rektor ITN Malang.
2. Bapak Ir. Agus Santosa, MT., Selaku Dekan Jurusan Tehnik Sipil S-1 dan dosen Pembimbing II
3. Bapak Ir. H. Hirijanto, MT., selaku Ketua Jurusan Teknik Sipil S-1.
4. Ibu Lila Ayu Ratna Winanda, ST., selaku Sekretaris Jurusan Teknik Sipil S-1.
5. Bapak Ir. Eding Iskak Imananto, MT., selaku Koordinator Skripsi Bidang Geoteknik sekaligus dan dosen Pembimbing I.
6. Rekan-rekan Teknik Sipil S-1 yang telah membantu baik secara langsung maupun tidak langsung dalam penyelesaikan laporan ini.
7. Kedua Orang Tuaku yang selalu memberi semangat baik dalam moril dan material yang tak henti-hentinya sehingga dapat menyelesaikan semuanya.

Penyusun berharap laporan ini dapat menambah wawasan bagi penyusun, khususnya untuk pembaca pada umumnya. Dan penyusun menyadari bahwa laporan skripsi ini masih kurang sempurna, oleh karena itu penyusun sangat mengharapkan kritik dan saran yang bersifat membangun untuk perbaikan di masa mendatang.

Malang, 2011

Penyusun

ABSTRAKSI

Bayu Endik Prasetyo, **Studi Alternatif Pondasi Tiang Bor (Strauss) Pembangunan Rusunawa Universitas Negeri Malang.** Pembimbing I : Ir. Eding Iskak Imananto, MT. Pembimbing II : Ir. Agus Santosa, MT.

Kata Kunci : Daya dukung, Biaya pengerjaan pondasi

Perkembangan ilmu pengetahuan dan teknologi dalam bidang analisa dan perencanaan konstruksi semakin meningkat terutama pada bagian pondasi. Hal ini mendorong para perencana, pelaksana dan pengawas pembangunan untuk menindak lanjuti seberapa jauh konsep teknologi itu diterapkan dalam pembangunan pondasi.

Pondasi berfungsi untuk memikul dan menahan beban yang bekerja diatasnya yaitu beban konstruksi diatasnya ke lapisan tanah keras. Dalam perencanaan pondasi tiang harus dilakukan dengan teliti dan sebaik mungkin karena setiap pondasi harus mampu mendukung beban sampai batas keamanan yang ditentukan termasuk memikul beban maksimum yang mungkin terjadi.

Tujuan dari penulis adalah memberikan alternatif pondasi tiang bor,yang sebelumnya pondasi yang digunakan adalah pondasi sumuran. Disamping itu penulis juga membandingkan daya dukung pondasi tiang bor (strauss) dan pondasi sumuran dari beberapa beban yang bekerja serta biaya pengerjaan pondasi tersebut. Data yang digunakan adalah data sondir, nilai sondir yang di gunakan adalah nilai sondir pada titik S2 : 150 kg / cm^2 pada kedalaman 6,40 m.

Hasil dari perhitungan analisa struktur diperoleh beban aksi tipe I = 306000 kg, tipe II = 283000 kg dan tipe III = 57000 kg, daya dukung antara pondasi tiang bor (strauss) dan pondasi sumuran (caisson) mampu menahan beban struktur dan dari beberapa tipe beban yang bekerja diperoleh hasil daya dukung sebagai berikut : a. pondasi tiang bor : tipe I dan II = 321539 kg, tipe III = 124794 kg; b. pondasi sumuran : tipe I, II, dan III = 392500 kg. Sedangkan untuk biaya pengerjaan pondasi tiang bor : Rp 5.484.062.761 dan pondasi sumuran : Rp 2.049.522.395, sehingga pondasi yang digunakan adalah pondasi sumuran karena lebih murah, aman dan efisien.

DAFTAR ISI

DAFTAR TABEL

DAFTAR GAMBAR

BAB I

PENDAHULUAN

1.1 Latar Belakang

Perkembangan ilmu pengetahuan dan teknologi dalam bidang analisa dan perencanaan konstruksi semakin meningkat terutama pada bagian pondasi. Hal ini mendorong para perencana, pelaksana dan pengawas pembangunan untuk menindak lanjuti seberapa jauh konsep teknologi itu diterapkan dalam pembangunan pondasi.

Pondasi merupakan bagian terpenting dalam sebuah konstruksi bangunan karena bertugas meneruskan beban bangunan di atas ke dasar tanah yang cukup kuat untuk mendukungnya. Untuk itu pondasi harus diperhitungkan agar dapat mendukung kestabilan bangunan, dengan cara memperhatikan kekuatan pondasi itu sendiri.

Apabila tanah mampu memikul beban yang bekerja diatasnya maka pondasi dapat dibangun diatas tanah tersebut, apabila tidak maka diperlukan konstruksi seperti pondasi tiang bor (strauss) untuk meneruskan beban ke lapisan tanah yang mampu memikul beban itu sepenuhnya.

Secara umum ada dua jenis pondasi yaitu pondasi langsung dan pondasi tidak langsung. Pondasi langsung seperti pondasi batu kali, pandasi plat, pondasi menerus, karena lapisan tanah keras yang tidak begitu dalam dari permukaan tanah. Sedangkan pondasi tidak langsung adalah yang tidak langsung diletakkan pada lapisan tanah keras yang letaknya sangat dalam tetapi dibantu dengan struktur pembantu. Pemilihan pondasi tergantung dari kondisi tanah dimana tahan merupakan dasar pondasi pendukung suatu bangunan yang dibedakan atas tanah lunak dan tanah keras. Dimana untuk menentukan kedalaman pondasi tiang bor dicoba dahulu dengan menggunakan qc minimum = 40 kg/cm^2 begitu seterusnya sampai mendapatkan kedalaman pondasi yang sesuai dengan beban yang ditopangnya sehingga lebih aman dan ekonomis. Pada perencanaan awal pondasi yang di gunakan adalah pondasi sumuran, kemudian penyusun merencanakan jenis pondasi lain yang diharapkan akan menghasilkan daya dukung yang lebih besar yaitu dengan menggunakan pondasi tiang bor. Keuntungan yang di dapat dari pondasi tiang bor adalah kedalaman dan diameter dapat divariasikan sesuai dengan beban struktur yang akan ditopangnya selain itu juga pembangunan pondasi ini dalam pengerjaannya tidak mengganggu lingkungan sekitarnya. Dalam hal ini penyusun akan mengangkat

pembahasan mengenai **STUDI PERENCANAAN PONDASI TIANG BOR (STRAUSS) PADA PAMBANGUNAN RUSUNAWA DI UNIVERSITAS NEGERI MALANG.**

1.2 Identifikasi Masalah

Pondasi merupakan bagian struktur bangunan yang sangat penting dimana pondasi akan menerima beban dari bangunan untuk diteruskan ke lapisan tanah yang mempunyai daya dukung yang cukup kuat dan penurunan yang terjadi sekecil mungkin. Sehingga dalam merencanakan pondasi harus didukung dengan data - data yang dapat dipertanggung jawabkan secara teknis, agar hasil yang didapatkan sesuai dengan yang diinginkan.

Pembangunan Gedung Rusunawa di Universitas Negeri Malang yang terdiri dari 4 lantai. Dengan menggunakan data tanah dengan test SONDIR didapat data sebagai berikut :

Tabel 1.1 : Pelawanan Konus dan JHP Untuk Berbagai Macam Kedalaman

Titik Uji	Kedalaman Tanah Keras (m)	Perlawanan Konus (Kg/cm^2)	JHP (Kg/cm)
S1	6.00	150	710.00
S2	6.40	150	1080.00
S3	6.60	155	880.00

*Data lengkap dapat dilihat pada lampiran

Pada pelaksanaan di lapangan pondasi yang digunakan adalah pondasi sumuran (Caison), tetapi penyusun akan mencoba menggunakan pondasi Strauss untuk mendapatkan hasil yang optimum dari data analisa.

1.3 Rumusan Masalah

Berdasarkan dari uraian diatas maka dapat dirumuskan masalah yang dapat dibahas yaitu:

1. Bagaimana menentukan pondasi yang tepat ditinjau dari data yang diperoleh dari penyelidikan maupun dari lokasi di lapangan.

2. Bagaimana merencanakan pondasi strauss yang aman, efisien dan ekonomis.
3. Bagaimana hasil volume dan biaya antara pondasi strauss dan pondasi sumuran.

1.4 Maksud Dan Tujuan

Maksud penyusun disini adalah untuk memberikan alternatif perencanaan pondasi strauss, sedangkan tujuannya adalah untuk mendapatkan struktur pondasi yang mempunyai daya dukung yang cukup dan perbedaan biaya yang dikeluarkan antara pondasi srtauss dan sumuran.

1.5 Lingkup Pembahasan

Dengan memperhatikan maksud dan tujuan maka ruang lingkup pembahasan tugas akhir ini adalah meliputi:

1. Analisa pembebanan dan analisa statika.

   Sebagai pedoman perhitungan didasarkan pada:

   a. Peraturan Pembebanan Indonesia untuk gedung (PPIUG) 1983
   b. SNI 30-2847-2002 (Tata Cara Perhitungan Beton Bertulang)
   c. SNI 29-1726-2002 (Tata Cara Perencanaan Struktur Baja Untuk Bangunan)
   d. Analisa statika dengan menggunakan program bantu komputer (STAAD PRO).

2. Perhitungan daya dukung pondasi strauss.
3. Perhitungan penulangan pondasi strauss.
4. Perhitungan daya dukung pondasi sumuran.
5. Perhitungan penulangan pondasi sumuran.
6. Perbandingan volume dan biaya pondasi strauss dan sumuran.

BAB II

LANDASAN TEORI

2.1 Pengertian Pondasi Secara Umum

Pondasi adalah suatu konstruksi bagian bawah struktur yang fungsinya untuk meneruskan beban bagian atas bangunan ke lapisan tanah yang mempunyai daya dukung yang cukup, tanpa mengakibatkan penurunan (settlement) tanah yang berlebihan.

Dalam merencanakan suatu pondasi adapun faktor-faktor yang harus dipertimbangkan adalah:

1. Fungsi bangunan yang akan dipikul oleh pondasi.
2. Beban yang harus dipikul.
3. Keadaan tanah dasar dimana pondasi akan didirikan.
4. Segi ekonomi pembuatan pondasi.

2.1.1 Pondasi Langsung

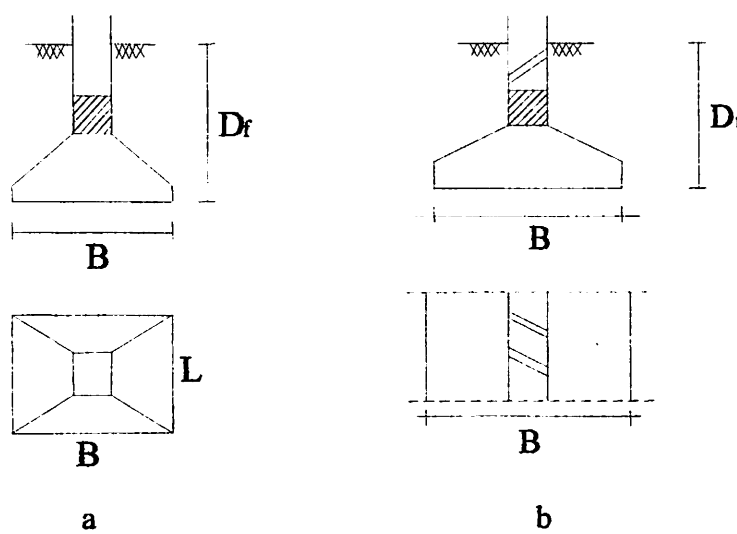
Pondasi langsung digunakan bila lapisan tanah yang mampu memikul pondasi relatif dalam dari permukaan tanah, dimana kedalaman maksimum antara 2-3 m, dan pondasi langsung diletakkan diatas tanah keras. Seperti pondasi setempat, pondasi telapak dan pondasi menerus.

Ada beberapa contoh dari pondasi langsung yaitu:

1. Pondasi telapak, adalah pondasi beton bertulang dan pondasi batu kali yang dibuat dibawah kolom struktur.

2. Pondasi menerus, adalah pondasi yang dibuat sepanjang arah melintang dan arah memanjang bangunan dibawah deretan kolom struktur.

Jenis pondasi ini sering digunakan pada bangunan – bangunan dengan pondasi yang langsung berada pada lapisan tanah keras yang mempunyai daya dukung yang cukup untuk menahan struktur bangunan tersebut.



Gambar 2.1 Pondasi Langsung : a. Pondasi Telapak; b. Pondasi Menerus

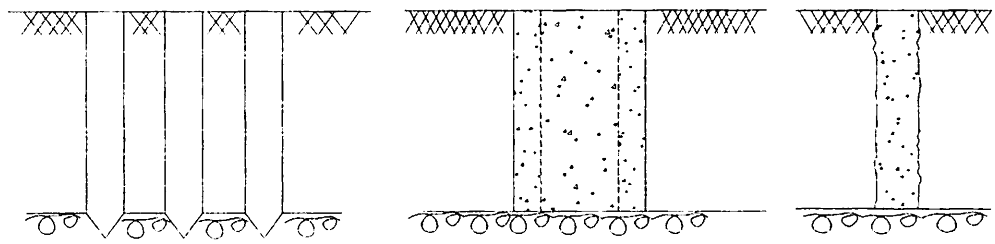
2.1.2 Pondasi Tidak Langsung

Pondasi tidak langsung didefinisikan sebagai pondasi yang meneruskan beban bangunan ke tanah keras yang terletak relatif jauh dari permukaan dengan menggunakan perantara. Hal ini dimaksudkan untuk mendapatkan suatu kedalaman tanah keras yang mempunyai daya dukung yang cukup dengan penurunan sekecil mungkin.

Pada kondisi tertentu pondasi dapat juga diletakkan tidak pada lapisan tanah kerasnya, contohnya pondasi rakit. Dimana pondasi rakit tidak perlu mencapai lapisan tanah keras, karena perhitungan telah mampu untuk menahan semua gaya yang bekerja. Pondasi ini dibuat dari plat beton penuh seluas bangunan dan diletakkan pada lapisan tanah yang mempunyai daya dukung rendah atau berbeda-beda di beberapa tempat letak kolom atau dinding pendukung struktur berdekatan satu sama lainnya pada arah melintang dan memanjang. Untuk pondasi jenis ini termasuk pondasi tidak langsung, karena masih menggunakan perantara dalam meningkatkan daya dukungnya.

Sehingga dapat ditarik kesimpulan bahwa pondasi tidak langsung merupakan jenis pondasi yang digunakan pada struktur yang masih menggunakan struktur perantara untuk mencapai lapisan tanah kers yang diinginkan dan mempunyai daya dukung yang cukup.

Pondasi tidak langsung antara lain: Pondasi tiang Pancang, Pondasi Sumuran (kaison), dan Pondasi Strauss.



Gambar 2.2 Pondasi Dalam : a. Pondasi tiang pancang; b. pondasi sumuran;

c. Pondasi strauss

2.2 Pondasi Tiang Bor (Strauss)

Pondasi tiang bor adalah pilar pancang yang dibor dibuat dengan cara membuat sebuah lubang silindris hingga pada tanah keras yang cukup untuk memikul beban-beban dari struktur diatasnya dan sesudah itu diisi dengan adukan beton.

Untuk cara tersebut diatas dapat di laksanakan dengan dua cara yaitu :

1. Dengan pipa baja yang dipancangkan ke dalam tanah, kemudian diisi dengan beton dan ditumbuk sambil pipa baja tersebut di tarik keatas.
2. Dengan pipa baja yang dipancangkan kedalam tanah, kemudian diisi dengan beton sedangkan pipa baja tersebut tetap tinggal didalam tanah.

Tiang bor yang dicor di tempat mempunyai keuntungan dan kerugian.

Keuntungan yang di peroleh dari pemakaian pondasi tiang bor ini adalah :

1. Karena getaran pada saat melaksanakan sangat kecil sehingga cocok untuk pekerjaan pada daerah yang padat penduduk.
2. Karena tanpa sambungan, dapat dibuat tiang yang lurus dengan diameter yang besar dan juga untuk tiang yang panjang dapat dilakukan dengan mudah.
3. Diameter biasanya lebih besar dari pada tiang pracetak dan daya dukung tiap tiang juga lebih besar sehingga tumpuan dapat di buat lebih kecil.
4. Selain cara pengeboran dalam arah yang berlawanan jarum jam tanah galian dapat di amati secara langsung dan sifat-sifat tanah pada lapisan antara tanah pendukung pondasi dapat langsung di ketahui.
5. Pengaruh yang di timbulkan terhadap bangunan di dekatnya cukup kecil.
6. Kedalaman pipa dapat divariasikan.
7. Tanah dapat diperiksa dan dicocokan dengan data laboratorium.

8. Tiang dapat dipasang sampai kedalaman yang direncanakan, dengan diameter besar dan dapat dilakukan pembesaran pada ujung bawahnya jika tanah dasar berupa lempung atau batu lunak.

Kerugian yang dapat di peroleh dari pemakaian pondasi tiang bor adalah :

1. Dalam banyak hal, beton dari tubuh tiang yang berada dibawah air kualitasnya setelah selesai lebih rendah dari tiang pracetak. Disamping itu, pemeriksaan kualitas hanya dapat dilakukan secara tidak langsung.

2. Ketika beton dituangkan, di kuatirkan adukan beton akan bercampur dengan runtuhan tanah. Oleh karena itu beton harus di tuangkan dengan seksama setelah penggalian di lakukan.

3. Walaupun penetrasi sampai tanah pendukung pondasi dianggap telah terpenuhi kadang-kadang terjadi bahwa tiang pendukung kurang sempurna karena adanya lumpur yang tertimbun di dasar.

4. Karena diameter tiang cukup besar dan memerlukan banyak beton sehingga biaya yang di butuhkan jaga cukup besar.

5. Karena pada cara pemasangan tiang yang di putar berlawana jarum jam dipakai air maka, lapangan akan menjadi kotor, lagi

pula untuk setiap cara perlu diperhatikan bagaimana cara menangani tanah yang telah digali.

6. Pengecoran beton sulit bila dipengaruhi air tanah karena dapat mengurangi mutu beton tersebut

7. Air yang mengalir kelubang bor dapat mengakibatkan gangguan tanah, gangguan pengecoran sehingga mengirangi kapasitas daya dukung tanah terhadap tiang.

8. Pembesaran ujung bawah tiang tidak dapat dilakukan bila tanah berupa pasir.

2.3 Dasar Perencanaan Pondasi Tiang Bor (Strauss)

Pondasi tiang digunakan bilamana lapisan-lapisan bagian atas dari tanah tidak cukup kuat, sehingga tidak cukup kuat untuk memikul bangunan dengan memakai pondasi langsung.

Ada beberapa cara yang dipergunakan untuk memasang tiang, salah satunya dengan membuat lubang terlebih dahulu kemudian dimasukan besi tulangan yang sudah dirangkaikan lalu dicor beton. Tiang semacam ini biasanya disebut tiang strauss.

Cara pengerjaan pondasi tiang strauss adalah sebagai berikut:

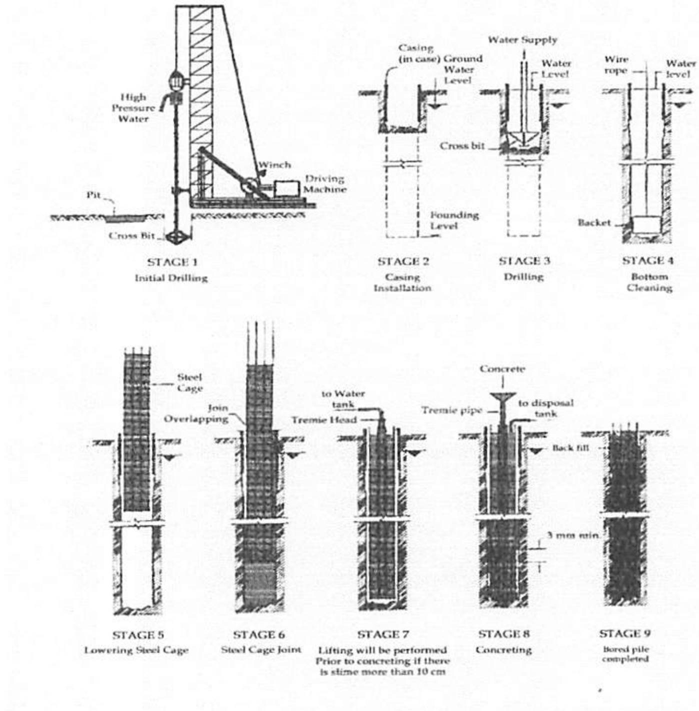
1. Pada tempat tiang strauss yang akan didirikan dibuat lubang vertikal dengan cara mengebor dengan alat bor sampai dengan kedalaman yang direncanakan.

2. Setalah pengeboran selesai, lubang tersebut dimasukan pipa baja. Ujung pipa tersebut dimasukan sampai menempel pada dasar lubang bor.

3. Kemudian campuran beton dimasukan ke dalam pipa.

4. Campuran beton kering pada dasar pipa tersebut ditumbuk beberapa kali sambil pipa tersebut secara pelahan diangkat keatas dengan ketinggian tertentu.Setelah permukaan atas beton kering yang ditumbuk itu mencapai ketinggian yang sama dengan ujung pipa maka penumbukan dihentikan.

5. Rangkaian tulangan bulat dimasukan kedalam pipa dan kemudian dilakukan pengecoran dengan beton cair yang sudah diaduk dalam truck ready mix. Bersamaan dengan pengecoran beton cair tersebut dipadatkan dengan vibrator dan pipa diangkat perlahan sampai seluruh lubang terisi dengan beton.



Gambar 2.3 : 1. Pemasangan pengeboran

2. Pemasangan casing

3. Proses pengeboran

4. Pembersihan dasar pengeboran

5. Menurunkan tulangan

6. Penempatan tulangan

7. Angkat tulangan bila ada lumpur setinggi 10 cm

8. Pengecoran tulangan

Untuk perencanaan *(design)*, tiang dapat dibagi menjadi dua golongan :

1. Tiang yang tertahan pada ujung

Tiang semacam ini dimasukan sampai lapisan yang keras sehingga beban bangunan dipikul pasa lapisan in. Bila lapisan ini merupakan batu keras maka penentuan data dukung tiang tidak menjadi soal. Daya dukung dalam hal ini tergantung pada kekuatan tiang sendiri dan dapat dihitung dari tegangan yang diperbolehkan bahan tiang.

Apabila lapisan keras terdiri dari pasir maka daya dukung tiang tergantung pada sifat-sifat pasir tersebut dan kita harus dapat mengetahui besarnya gaya melawan lapisan tersebut terhadap ujung tiang.

2. Tiang yang tertahan oleh perletakan antara tiang dan tanah.

Bila ujung tiang tidak mencapai tanah keras, maka yang tertahan adalah perletakan antara ting dengan tanah. Tiang semacam ini juga disebut tiang terapung atau *floating pile*. Bila tiang semacam ini tidak dimasukan dalam pasir maka sebagian besar daya dukungnya masih tergantung pada ujungnya dan dapat dihitung dari hasil sondir dan bilamana tiang ini dimasukan dalam lapisan lempung maka perlawanan ujung akan lebih kecil dari perlawanan akibat pelekatan antara tiang dengan tanah, karena itu untuk menghitung daya dukung tiang ini dalam lempung kita harus dapat menentukan besarnya gaya pelekatan antara tiang dengan tanah.

2.4 Daya Dukung Pondasi Tiang Tunggal

Daya dukung (bearing Capacity) adalah kemampuan tanah untuk mendukung beban baik dari segi struktur pondasi maupun bangunan diatasnya tanpa terjadi keruntuhan. Apabila beban yang bekerja pada tanah pondasi telah melampaui batas daya dukung dan tegangan geser maka akan berakibat keruntuhan pada pondasi.

Persamaan daya dukung tiang secara umum dirumuskan sebagai berikut :

$$Q = \frac{Qp}{SF_1} + \frac{Qf}{SF_2}$$

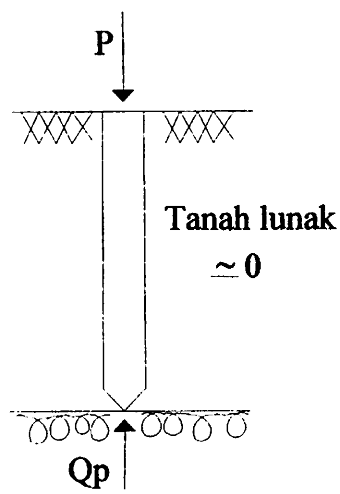
Dimana :

Q	= daya dukung ijin tiang (kg)
Q_p	= daya dukung ujung tiang (kg)
Q_f	= daya dukung friksi (kg)
SF_1	= angka keamanan ujung tiang (2,5)
SF_2	= angka keamana selimut tiang (5)

2.4.1 Daya Dukung Berdasarkan Tahanan Ujung

End bearing tiang pancang yang tertahan ujungnya (*daya dukung ujung*). Tiang ini meneruskan beban melelui tahanan ujung ke lapisan tanah keras yang mampu memikul beban yang diterima oleh tiang tersebut.

Untuk menaksir gaya perlawanan lapisan tanah keras tersebut terhadap ujung tiang digunakan alat sondir.Dengan alat sondir kita dapat menentukan sampai berapa dalam tiang yang harus dipancangkan dan berapa daya dukung lapisan keras tersebut terhadp ujung tiang (Sardjono HS,1998,Hal 32).



Gambar 2.4 : skema end bearing pile

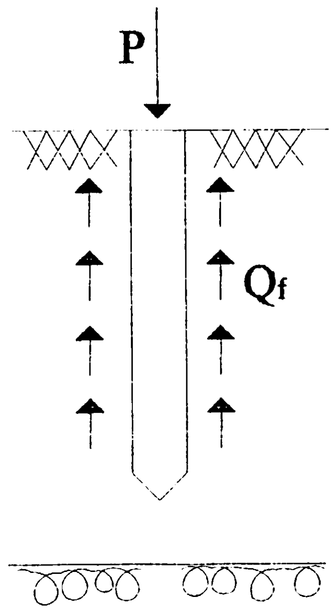
Rumus yang di gunakan :

$Q_p = (A_{tiang} \cdot q_c) / SF_1$

2.4.2 Daya Dukung Berdasarkan Gesekan Tiang Dengan Tanah

Friction pile adalah tiang yang daya dukungnya berdasarkan hambatan lekat antara tiang dengan tanah. Bila dilihat dari cara fungsinya dapat dibedakan menjadi :

1. Tiang gesekan *(friction)* pada tanah berbutir kasar yang sangat permeable. Tiang ini memindahkan sebagian besar bebannya ketanah melalui gesekan antara permukaan keliling tiang dengan tanah. Bila jarak tiang berdekatan antara satu dengan lainnya bisa menyebabakan menurunnya porositas dan menyebabkan pemadaan tanah sekelilibgnya.Pada keadaan ini tiang termasuk kategori "compoction pile''.
2. Tiang gesekan *(friction pile)* pada tanah berbutir sangat halus dengan permeabilitas rendah. Tiang ini juga memindahkan bebannya ke tanah melalui gesekan antara muka keliling tiang dengan tanah, tapi tidak memadatkan tanah ditempat tersebut. Pondasi yang didukung oleh tipe ini biasa disebut tiang terapung *(floating pile foundation)*.



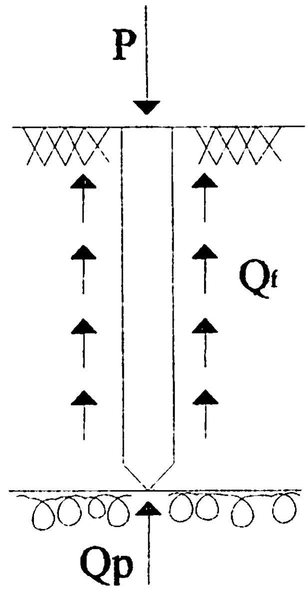
Gambar 2.5 : skema friction pile

Rumus yang digunakan pada kondisi ini yaitu:

$Q_f = (\Theta \,.\, JHL) / SF_2$

2.4.3 Daya Dukung Berdasarkan Kombinasi Ujung Dengan Gesekan

Kombinasi antara daya dukung ujung dan tahanan kulit digunakan apabila tekanan konus dan hambatan lekat pada tanah tidak sama dengan nol. Untuk mengetahui besarnya perlawanan lapisan tanah tersebut digunakan alat sondir.



Gambar 2.6 : Skema combinated bearing pile

- Kemampuan daya dukung kombinasi

Rumus :

$Qu = [(A_p \cdot q_c) / SF_1] + [(\Theta \cdot JHL) / SF_2]$

Dimana :

Q_p = Daya dukung tiang (kg)

Q_f = Daya dukung friksi (kg)

A_p = Luas penampang tiang (cm^2)

Θ = Keliling tiang (cm)

JHL = Jumlah Hambatan Lekat (kg/cm)

SF_1 = Faktor keamanan ujung tiang

SF_2 = Faktor keamanan dinding tiang

2.5 Daya Dukung Pondasi Tiang Bor (Strauss)

Pondasi tiang bor di pasang kedalam tanah dengan cara mengebor terlebih dahulu, oleh karena itu dalam menghitung daya dukung hanya menggunakan daya dukung ujung tiang saja. Tiang dengan tertahan ujung (End Bearing Pile) adalah tiang yang meneruskan beban melalui tahanan ujung ke lapisan tanah keras.

Tetapi perlu diperhatikan juga adanya tekanan tanah lateral pada waktu pemasangan tiang bor, sehingga memberikan konstribusi daya dukung yang berupa lekatan atau daya dukung Adhesi. Penelitian pengaruh pekerjaan pemasangan tiang bor pada adhesi antara dinding tiang dan tanah di sekitarnya menunjukan bahwa adhesi lebih kecil dari pada nilai tak terdrainase tanah sebelum pemasangan tiang. Hal ini akibat dari pelunakan lempung di sekitar lubang dinding. Pelunakan tersebut adalah pengaruh dari bertambahnya kadar air lempung oleh pengaruh-pengaruh air pada pengecoran beton, pangalihan air tanah ke zona yang bertekanan lebih rendah di sekitar lubang bor, dan air yang dipakai untuk pelaksanaan pembuatan lubang bor. Pelunakan pada tanah lempung dapat di kurangi jika pengeboran dan pengecoran di laksakan dalamwaktu 1 atau 2 jam (Palmer Dan Holland,1966).

- **Untuk tiang bor menggunakan rumus sebagai berikut :**

$$Qall = \frac{qc\,.\,Ap}{SF_1} + 0.5\frac{JHL\,.\,O}{SF_2}$$

$$Qu = qc\,.\,Ap + 0.5JHP$$

Dimana :

Q_u = daya dukung ultimit

q_c = nilai konus dari hasil sondir

A_p = luas penampang tiang

JHL = jumlah hambatan lekat

SF_1,SF_2 = angka keamanan

Θ = keliling tiang

Mayerhof (1976) menyarankan bahwa qc adalah rata-rata di hitung dari 8d diatas dasar tiang sampai 4d dibawah dasar tiang.

Untuk diameter tiang (d) lebih dari 2 m. Kapasitas tiang ijin perlu dievaluasi dari pertimbangan penurunan tiang. Selanjutnya, penurunan struktur harus pula dicek terhadap persyaratan besar penurunan toleransi yang masih diijinkan.

Maksud penggunaan faktor-faktor aman adalah untuk menyakinkan keamanan tiang terhadap keruntuhan tiang dengan mempertimbangkan penurunan tiang pada beban kerja yang diterapkan. Untuk menentukan faktor keaman dapat digunakan struktur bangunan menurut Pugsley (1966) sebagai berikut :

Tabel 2.1 : Faktor Keamanan Untuk Pondasi Tiang

Klasifikasi Struktur	Faktor Aman			
	Kontrol Baik	Kontrol Normal	Kontrol Jelek	Kontrol Sangat Jelek
Monumental	2.3	3	3.5	4
Permanen	2	2.5	2.8	3.4
Sementara	1.4	2.0	2.3	2.8

*(Sumber : Reese & O'Neil, 1989; Pugsley, 1966)

1. Bangunan monumental, umumnya memiliki umur rencana melebihi 100 tahun, seperti Tugu Monas, Monumen Garuda Wisnu Kencana, jembatan-jembatan besar, dan lain-lain.

2. Bangunan permanen, umumnya adalah bangunan gedung, jembatan, jalan raya dan jalan kereta api, dan memiliki umur rencana 50 tahun.

3. Bangunan sementara, umur rencana bangunan kurang dari 25 tahun, bahkan mungkin hanya beberapa saat saja selama masa konstruksi.

Faktor-faktor lain kemudian ditentukan berdasarkan tingkat pengendaliannya pada saat konstruksi.

1. Pengendalian Baik : kondisi tanah cukup homogen dan konstruksi di dasarkan pada program penyelidikan geoteknik yang tepat dan profesional, terdapat informasi uji pembebanan di atau dekat proyek dan pengawasan konstruksi di laksanakan secara ketat.

2. Pengendalian Normal : Situasi yang paling umum, hampir serupa dengan kondisi diatas, tetapi kondisi tanah bervariasi dan tidak tersedia data pengujian tiang.

3. Pengendalian Kurang : Tidak ada uji pembebanan, kondisi tanah sulit dan bervariasi, pengawasan pekerjaan kurang, tetapi pengujian geoteknik dilakukan dengan baik.

4. Pengendalian Buruk : Kondisi tanah amat buruk dan sukar ditentukan, penyelidikan geoteknik tidak memadai.

2.6 Daya Dukung Kelompok Tiang

Penentuan daya dukung vertikal sebagai tiang dalam kelompok perlu dihitung dulu efisiensi dari tiang tersebut didalam kelompok, karena daya dukung vertikal sebuah tiang yang berdiri adalah tidak sama besarnya yang berada dalam suatu kelompok.

Efisiensi η adalah perbandingan hambatan kulit pada garis keliling kelompok terhadap jumlah tahanan kulit masing-masing tiang pancang Misalkan banyaknya baris adalah (n) dan banyaknya kolom (m) dan jarak masing-masing tiang (s), maka banyaknya tiang K = m.n.

$$\eta = \frac{\text{Daya dukung kelompok tiang}}{\text{Jumlah tiang x Daya dukung tiang tunggal}} = \frac{Q_{pg}}{nxQ_s}$$

Penentuan daya dukung kelompok tiang dihitung berdasarkan faktor efisiensi seperti rumus dibawah ini :

$$Q_{tiang} = \eta.k.Q1_{tiang}$$

Dimana :

Q_{tiang} = daya dukung yang diijinkan untuk sebuah tiang dalam kelompok

$Q1_{tiang}$ = daya dukung yang diijinkan untuk tiang tunggal

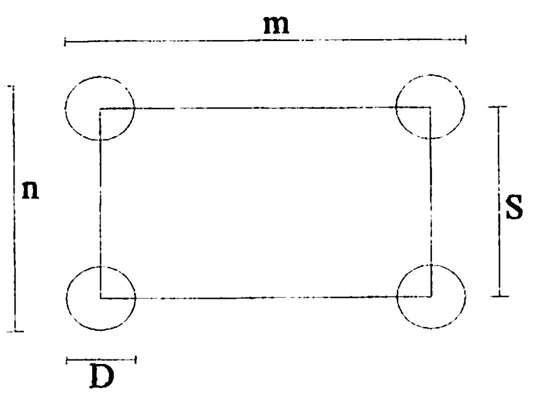
k = jumlah tiang

η = Efisiensi kelompok tiang

Untuk menghitung daya dukung kelompok digunakan perhitungan seperti :

a) Jarak antara tiang dalam kelompok

syarat jarak tiang :



Gambar 2.7 : Skema Jarak Antar Tiang

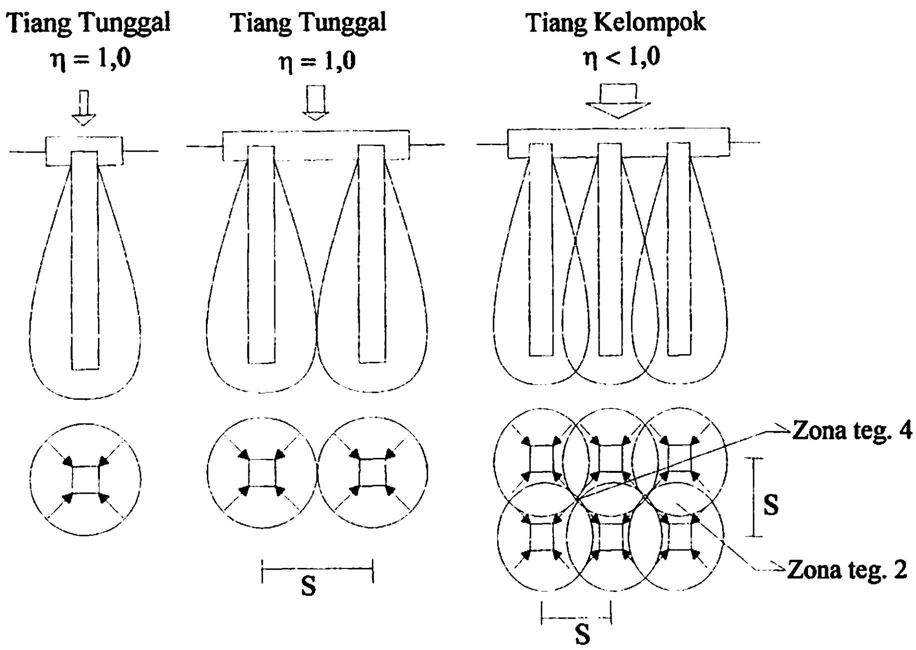
* $S \geq 2{,}5D$ ⟶ Jika terlalu rapat, kemungkinan tiang berdekatan akan terangkat pada saat pemancangan.

* $S \leq \dfrac{1{,}57 \,.\, D \,.\, m \,.\, n - 2D}{(m + n) - 2}$ ⟶ Syarat agar efisiensi, $\eta < 1$ dan konstruksi akan aman.

* $S \leq 2{,}00$ m ⟶ Jika terlalu renggang, konstruksi poer akan mahal.

* $S \leq \dfrac{1{,}57 \,.\, D \,.\, m \,.\, n}{(m + n) - 2}$ ⟶ Konstruksi akan lebih ekonomis tetapi kurang aman.

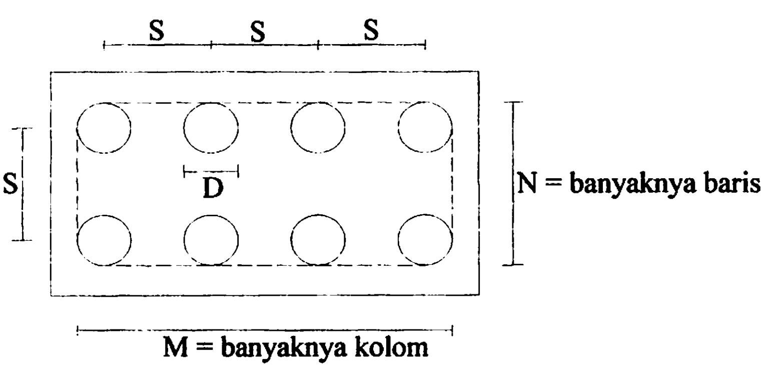
Kontribusi daya dukung tiang yang dihasilkan dari lekatan atau friksi kulit tiang dengan tanah di sekeliling tiang (lihat sketsa).



Gambar 2.8 : Skema Efisiensi Kelompok Tiang

Efisiensi kelompok tiang dengan rumus sederhana:

$$\eta = \frac{2.(m+n-2).S+4.D}{p.m.n}$$



Dimana :

m = jumlah baris tiang

n = jumlah tiang dalam baris

D = diameter tiang (cm)

S = jarak antara as ke as tiang (cm)

p = keliling dari penampang tiang

Rumus efisiensi kelompok banyak sekali ragamnya, di bawah ini disajikan beberapa rumus efisiensi yang lazim digunakan dalam hitungan. Apabila hitungan dilakukan dengan lebih dari satu macam rumus, maka angka efisiensi diambil yang terkecil karena akan diperoleh safety factor yang paling aman.

Adapun rumus-rumus tersebut antara lain :

a. Rumus Converse-labarre

$$\eta = 1 - \frac{\phi}{90}\left[\frac{(n-1).m + (m-1).n}{m.n}\right]$$

Dimana :

$$\phi = \text{arc tg}\,\frac{D}{S}$$

b. Rumus Los Angeles Group

$$\eta = 1 - \frac{D}{\pi.m.S.n}.\left[m.(n-1) + n.(m-1) + ... + (m-1)(n-1).\sqrt{2}\right]$$

c. Rumus Seiler Keeny

$$\eta = \left[1 - \frac{(36.S).(m + n - 2)}{75.(S^2 - 7).(m + n - 1}\right] + \left[\frac{0,3}{(m + n)}\right]$$

Dimana :

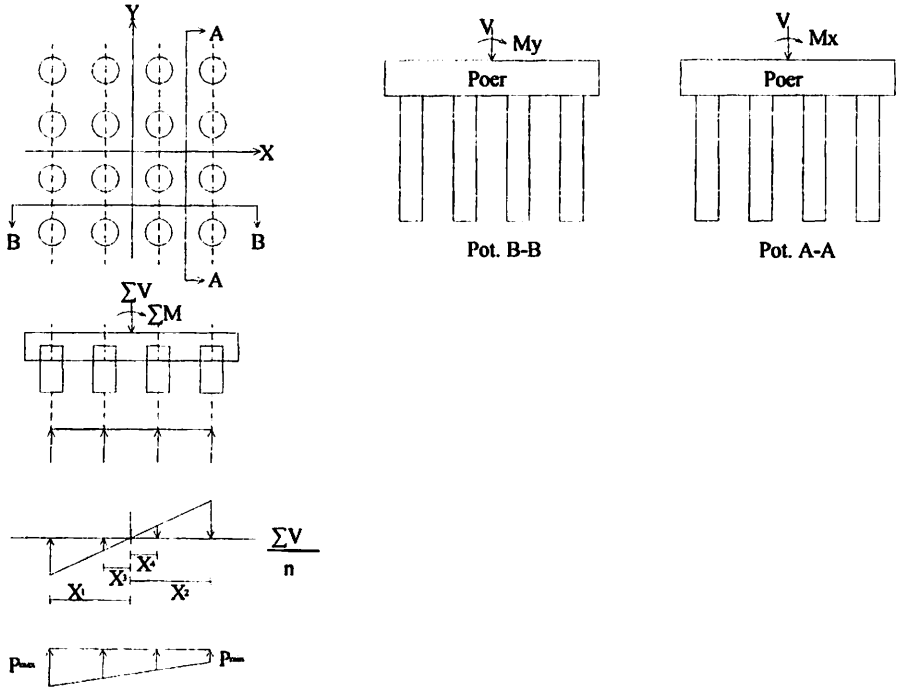
m = jumlah baris tiang

n = jumlah tiang dalam baris

D = diameter tiang

S = jarak antara as ke as tiang

b) Kelompok tiang yang menerima beban normal sentries dan momen yang bekerja pada dua arah.



Gambar 2.9 : Skema Pondasi Tiang Kelompok

Dari gambar diatas dapat dirumuskan :

$$P_{max} = \frac{P_{total}}{n} \pm \frac{My.X_{max}}{ny.\Sigma x^2} \pm \frac{Mx.Y_{max}}{nx.\Sigma y^2}$$

Dimana :

P_{max} = Beban maksimum yang diterima oleh tiang (kg)

P_{total} = Beban vertikal yang diterima oleh kelompok tiang (kg)

n = Banyaknya jumlah tiang (buah)

X_{max} = Jarak terjauh tiang kepusat berat kelompok tiang searah sumbu X (m)

Y_{max} = Jarak terjauh tiang kepusat berat kelompok tiang searah sumbu Y (m)

M_x = Momen yang bekerja pada bidang yang tegak lurus sumbu x (kgm)

M_y = Momen yang bekerja pada bidang yang tegak lurus sumbu y (kgm)

nx = Banyak tiang dalam satu baris searah sumbu x (buah)

ny = Banyak tiang dalam satu baris searah sumbu y (buah)

$\sum X^2$ = Jumlah kuadrat absis tiang (m^2)

$\sum Y^2$ = Jumlah kuadrat ordinat tiang (m^2)

Apabila dalam merencanakan pondasi tiang bor kontrol daya dukung tidak memenuhi, maka dalam perencanaan kita dapat menambah daya dukung dengan cara menyesuaikan kedalaman dan diameter tiang.

BAB III

ANALISA PEMBEBANAN DAN STATIKA

3.1. Data perencanaan

Dalam merencanakan suatu pondasi harus didukung dengan data-data yang dapat dipertanggung jawabkan secara teknis, agar hasil yang di dapatkan sesuai dengan yang di inginkan. Pada perencanaan pondasi strauss data yang di perlukan adalah sebagai berikut :

1. Spesifikasi Umum

a. Fungsi Bangunan = Rusunawa (Rumah Susun Mahasiswa)

b. Jumlah Lantai = 4 Lantai

c. Struktur Lantai = Plat Beton Bertulang

d. Bentang Memanjang = 59.7 m

e. Bentang Melintang = 16.8 m

f. Data Tanah = Uji Sondir

g. Struktur bawah = Pondasi Strauss

h. Zona Gempa = 4 (Malang)

3.2 Pembebanan

3.2.1 Pembebanan Plat Lantai

Lantai 2-4

- Beban Mati (qd)
  - Berat sendiri plat lantai = 0.12 x 2400 kg/m^2 =288 kg/m^2
  - Berat plafon + penggantung = (11 + 7) kg/m^2 = 18 kg/m^2
  - Berat spesi = 2 x 21 kg/m^2 = 42 kg/m^2
  - Berat pasir = 0.03 x 1800 = 54 kg/m^2
  - Berat tegel = 2 x 24 = 48 kg/m^2

qd = 450 kg/m^2

- Beban Hidup (ql)
  - Gedung asrama = 250 kg/m^2

Lantai Atap

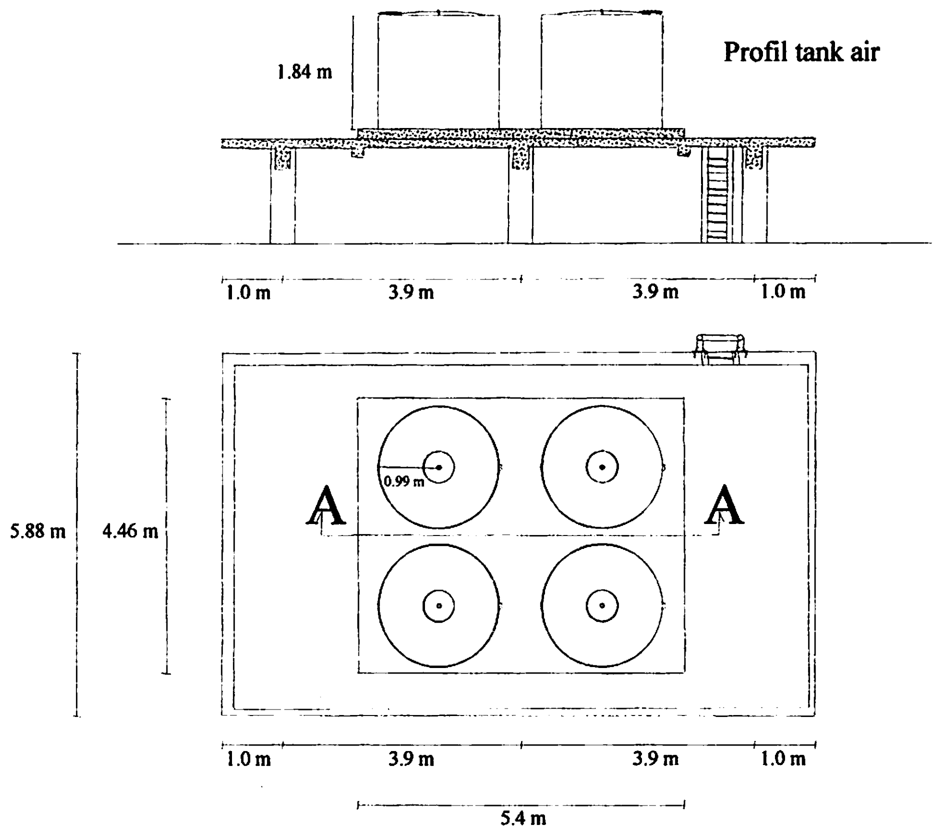
- Beban mati (qd)
  - Berat sendiri plat lantai = 0.12 x 2400 kg/m^2 = 288 kg/m^2
  - Berat plafon + penggantung = (11 + 7) kg/m^2 = 18 kg/m^2
  - Berat pasir = 0.03 x 1800 = 54 kg/m^2
  - Berat spesi = 2 x 21 kg/m^2 = 42 kg/m^2

qd = 438 kg/m^2

- ♦ Beban hidup
  - Beban orang = 100 kg/m^2
  - Beban air hujan = 0.05 x 1000 = 50 kg/m^2

ql = 150 kg/m^2

AIR DALAM TANDON



Gambar 3.1 Detail profil tank air

Diketahui :

$r = 0.99$ m

$t = 1.84$ m

I = L.t

Dimana =

I = Isi tabung

L = luas alas

t = tinggi

$L = \pi.r^2$

$= 3.14.0.99^2$

$= 3.08\ m^2$

$I = L.t$

$= 3.08.1.84$

$= 5.67\ m^3$

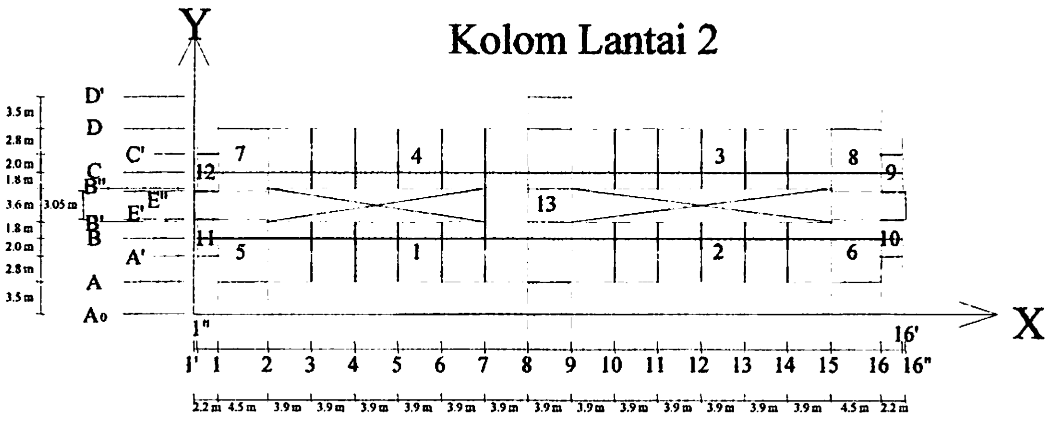
Kapasitas satu buah tendon 5 m^3, jadi untuk 4 tandon 4 x 5 = 20 m^3.

3.2.2 Perhitungan Pusat Massa

Perhitungan Pusat Massa Lantai 2

a). Kolom

Garis patokan arah memanjang (X) adalah line A^0, sedangkang untuk arah melintang (Y) garis patokannya adalah line 0.



Gambar 3.2 : Denah Pusat Massa Kolom Lantai 2

Berat sendiri = luas x ($^1/_2$ x tinggi lantai bawah + $^1/_2$ x lantai atas) x 2400

Jarak = jarak patokan kolom ke garis patokan A^0

➢ Titik A-2

- Berat sendiri = 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400 = 1069.20 Kg.
- Jarak (X) pusat massa element ke pusat sumbu X-Y = 6.70 m.
- Jarak (Y) pusat massa element ke pusat sumbu X-Y = 3.50 m.
- Berat x Jarak (X) = 1069.20 x 6.70 = 7163.64 Kgm.
- Berat x Jarak (Y) = 1069.20 x 3.50 = 3742.20 Kgm.

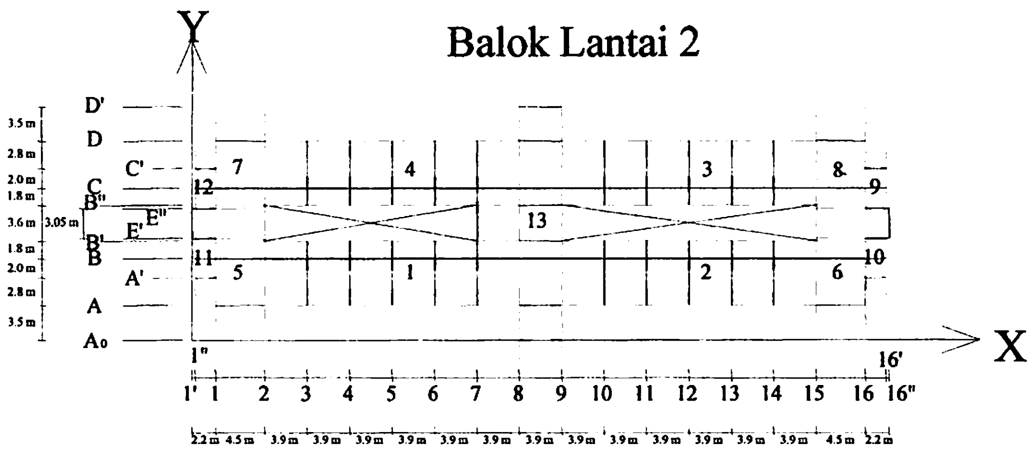
➢ Titik A-3

- Berat sendiri = 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400 = 1069.20 Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 10.60 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 3.50 m.
- Berat x Jarak (X) = 1069.20 x 10.60 = 15503.40 Kgm.
- Berat x Jarak (Y) = 1069.20 x 3.50 = 3742.20 Kgm.

Untuk perhitungan selanjutnya dapat dilihat pada tabel 3.1

b). Balok

Garis patokan arah memanjang (X) adalah line A^0, sedangkang untuk arah melintang (Y) garis patokannya adalah line 0.



Gambar 3.3 : Denah Pusat Massa Balok Lantai 2

Berat sendiri = luas x panjang x 2400

Jarak = jarak patokan kolom ke garis patokan A^0

➤ Balok line A (2-8)

- Berat sendiri = 0.2 x 0.4 x 23.40 x 2400 = 4492.8 Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 18.40 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 3.50 m.
- Berat x Jarak (X) = 4492.8 x 18.40 = 82667.52 Kgm.
- Berat x Jarak (Y) = 4492.8 x 3.50 = 15724.80 Kgm.

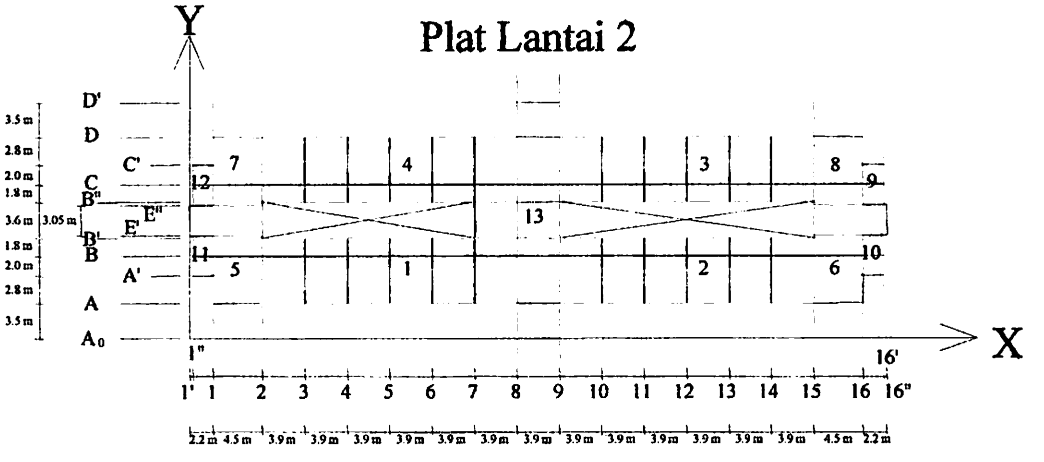
➤ Balok line B' (2-8)

- Berat sendiri = 0.2 x 0.4 x 23.40 x 2400 = 4492.8 Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 18.40 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 10.10 m.
- Berat x Jarak (X) = 4492.8 x 18.40 = 82667.52 Kgm.
- Berat x Jarak (Y) = 4492.8 x 10.10 = 45377.28 Kgm.

Untuk perhitungan selanjutnya dapat dilihat pada tabel 3.2

c). Plat

Garis patokan arah memanjang (X) adalah line A^0, sedangkang untuk arah melintang (Y) garis patokannya adalah line 0.



Gambar 3.4 : Denah Pusat Massa Plat Lantai 2

Berat sendiri = luas x tebal x 2400

Jarak = jarak patokan kolom ke garis patokan A^0

➢ Line A-B' (2-8)

- Berat sendiri = 23.40 x 6.80 x 0.12 x 2400 = 44478.72 Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 18.40 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 6.80 m.
- Berat x Jarak (X) = 44478.72 x 18.40 = 818408.45 Kgm.
- Berat x Jarak (Y) = 44478.72 x 6.80 = 302455.30 Kgm.

➢ Line A-B' (9-15)

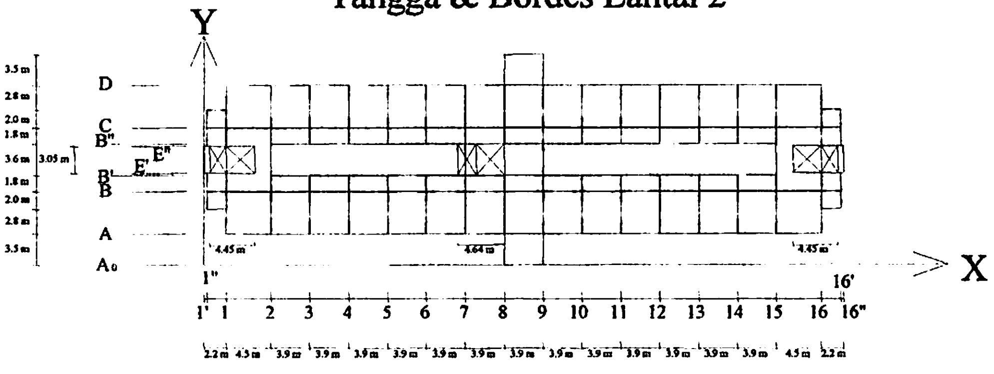
- Berat sendiri = 23.40 x 6.80 x 0.12 x 2400 = 44478.72 Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 45.69 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 6.80 m.
- Berat x Jarak (X) = 44478.72 x 45.69 = 2032232.7 Kgm.
- Berat x Jarak (Y) = 44478.72 x 6.80 = 302455.30 Kgm.

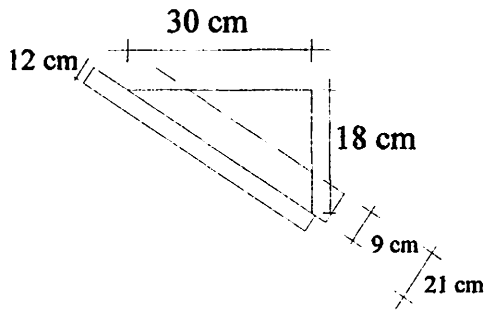
Untuk perhitungan selanjutnya dapat dilihat pada tabel 3.3

Untuk perhitungan pusat massa pada lantai berikutnya dapat dilihat pada lampiran d). Tangga dan Bordes

Garis patokan arah memanjang (X) adalah line A^0, sedangkang untuk arah melintang (Y) garis patokannya adalah line 0.

Tangga & Bordes Lantai 2





Gambar 3.5 : Denah Pusat Massa Tangga dan Detail Lantai 2

Berat sendiri = (Panjang miring x lebar x tebal plat tangga x 2400) + (Jumlah anak tangga x 0.5 x panjang anak tangga x lebar anak tangga x tinggi anak tangga x 2400)

Jarak = jarak patokan kolom ke garis patokan A^0

➤ Tangga Samping Kiri

- Berat sendiri = (2.754 x 1.375 x 0.21 x 2400) + (9 x 0.5 x 1.375 x 0.2 x 2400) = 7578.52 Kg.

- Jarak (X) pusat massa element ke pusat sumbu XY = 3.63 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 11.90 m.
- Berat x jarak (X) = 7578.52 x 3.63 = 27510.03 Kgm.
- Berat x jarak (Y) = 7578.52 x 11.90 = 90184.41 Kgm.

➢ Bordes Samping Kiri

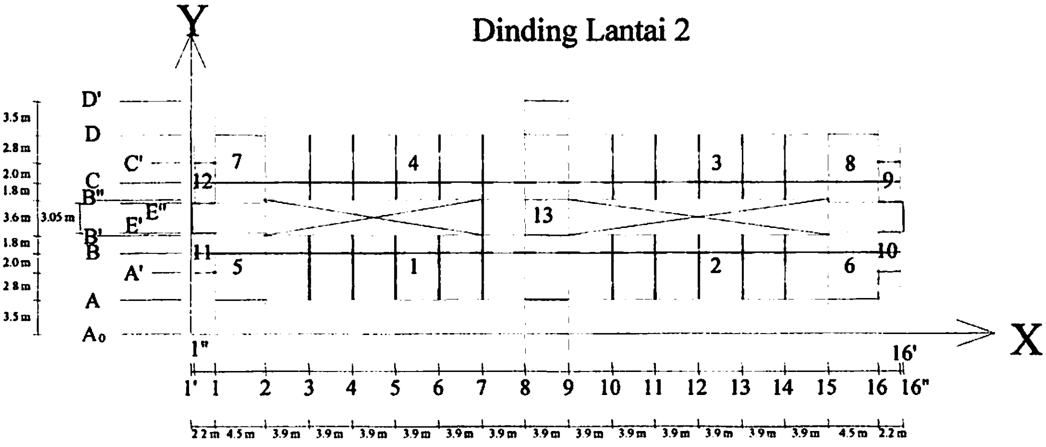
Berat sendiri = (n jumlah balok bordes x lebar balok bordes x tinggi balok bordes x 2400) + (tebal bores x lebar bordes x tinggi bordes x 2400)

- Berat sendiri = 2 x (0.2 x 0.3 x 1.825 x 2400) + (0.12 x 3.05 x 2400) = 1404Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 1.40 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 11.90 m.
- Berat x jarak (X) = 1404 x 1.40 = 1965.60 Kgm.
- Berat x jarak (Y) = 1404 x 11.90 = 16707.60 Kgm.

Untuk perhitungan selanjutnya dapat dilihat pada tabel 3.4

e). Dinding

Garis patokan arah memanjang (X) adalah line A^0, sedangkang untuk arah melintang (Y) garis patokannya adalah line 0.



Gambar 3.6 : Denah Pusat Massa Dinding Lantai 2

Berat sendiri = Panjang x tinggi x 250

Jarak = jarak patokan kolom ke garis patokan A^0

➢ Line A (2-8)

- Berat sendiri = 23.40 x 2.9 x 250 = 16965 Kg.
- Jarak (X) pusat massa element ke pusat sumbu XY = 18.40 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 3.50 m.
- Berat x Jarak (X) = 16965 x 18.40 = 312156.00 Kgm.
- Berat x Jarak (Y) = 16965 x 3.50 = 59377.50 Kgm.

➢ Titik 2 (A-B)

- Berat sendiri = 4.80 x 2.9 x 250 = 3480 Kg.

- Jarak (X) pusat massa element ke pusat sumbu XY = 6.70 m.
- Jarak (Y) pusat massa element ke pusat sumbu XY = 5.90 m.
- Berat x Jarak (X) = 3480 x 6.70 = 23316.00 Kgm.
- Berat x Jarak (Y) = 3480 x 5.90 = 20532.00 Kgm.

Untuk perhitungan selanjutnya dapat dilihat pada tabel 3.5

Σ Berat grafitasi	= 138532.92	Kg
Σ [Berat grafitasi x Jarak (X)]	= 2549005.73	Kgm
Σ [Berat grafitasi x Jarak (Y)]	= 928551.94	Kgm

Pusat massa arah memanjang (X) $= \frac{\Sigma Berat\ gravitasi\ x\ jarak}{\Sigma Berat\ gravitasi}$

$= \frac{2549005.73}{138532.92} = 18.40$ m

Pusat massa arah memanjang (Y) $= \frac{\Sigma Berat\ gravitasi\ x\ jarak}{\Sigma Berat\ gravitasi}$

$= \frac{928551.94}{138532.92} = 6.80$ m

Untuk perhitungan pusat massa selanjutnya dapat dilihat pada tabel 3.6 di lampiran.

3.4 Perhitungan Beban Gempa

3.4.1 Perhitungan Waktu Getar Alami

- $T = C_T.H^{3/4}$

Dimana:

$C_T = 0.1.n$ (Method A dari UBC Section 1630.2.2)

$= 0.1 \times 4 = 0.4$

H = Tinggi Bangunan = 13 m

$= 0,4.(13)^{3/4}$

= 2.74 detik

- $T = \xi.n$

Dimana :

$\xi = 0.17$ (sesuai tabel 3.6)

n = Jumlah tingkat bangunan

Tabel 3.6 : Koefisien ζ yang membatasi waktu getar alami Fundamental struktur gedung

Wilayah Gempa	ζ
1	0,20
2	0,19
3	0,18
4	0,17
5	0,16
6	0,15

$T = \xi.n$

$= 0,17.4 = 0.68$ detik

Maka digunakan T = 0.68 detik

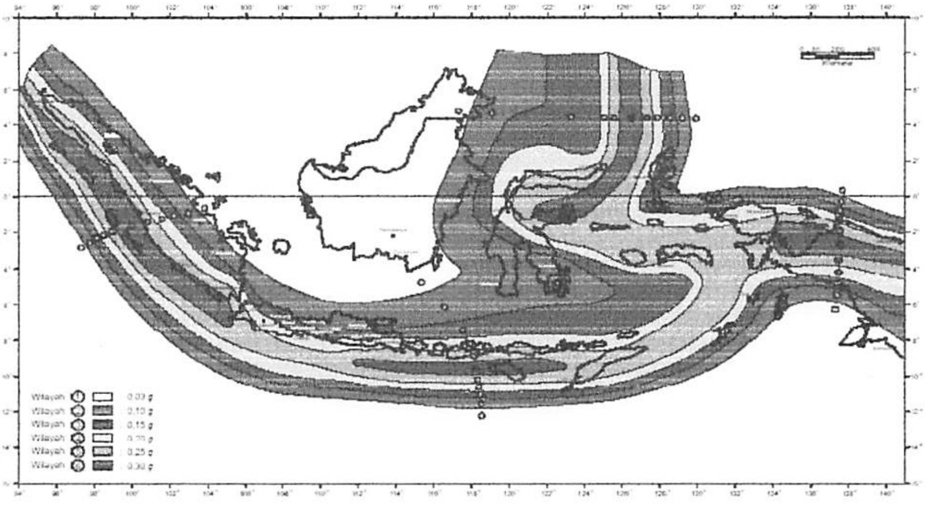
3.4.2 Koefisien Gempa Dasar

Berdasarkan gambar 3.1, wilayah gempa 4 pada tanah sedang di dapat

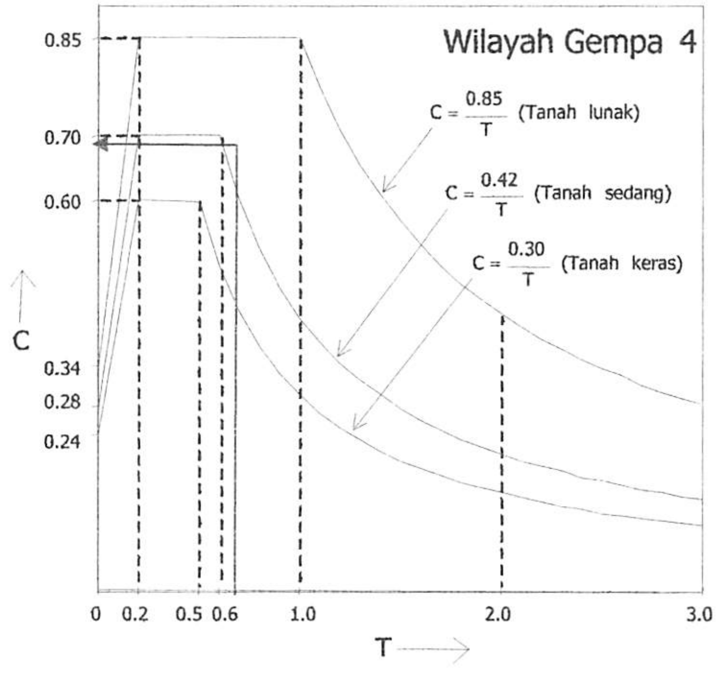
$C = 0.42/T$

$C = 0.42/0.68$

$= 0.61$



Gambar 3.7 : Wilayah Gempa Indonesia Dengan Percepatan Puncak Batuan Dasar Dengan Periode Ulang 500 Tahun



Gambar 3.8 : Respon spectrum gempa rencana

3.4.3 Faktor Keutamaan

Dari Tabel 3.7 didapat I = 1,0 (Gedung umum seperti untuk penghunian, pemiagaan dan perkantoran).

Tabel 3.7 : Faktor Keutamaan I untuk berbagai kategori gedung dan bangunan

Kategori gedung	Faktor Keutamaan		
	I_1	I_2	I
Gedung umum seperti untuk penghunian, perniagaan dan perkantoran	1,0	1,0	1,0
Monumen dan bangunan monumental	1,0	1,6	1,6
Gedung penting pasca gempa seperti rumah sakit, instalasi air bersih, pembangkit tenaga listrik, pusat penyelamatan dalam keadaan darurat, fasilitas radio dan televisi.	1,4	1,0	1,4
Gedung untuk menyimpan bahan berbahaya seperti gas, produk minyak bumi, asam, bahan beracun.	1,6	1,0	1,6
Cerobong, tangki di atas menara	1,5	1,0	1,5

3.4.4 Perhitungan Gaya Geser Dasar Horisontal Total Akibat Gempa

$$V = \frac{C \times I}{R} \times Wt$$

Dimana :

Wt : Berat total Bangunan

R : SRMPK sesuai tabel 3.8 yang besarnya 8.5

Tabel 3.8 : Faktor daktilitas maksimum, faktor reduksi gempa maksimum, faktor tahanan lebih struktur dan faktor tahanan lebih total beberapa jenis sistem dan subsistem struktur gedung

Sistem dan sub sistem struktur gedung	Uraian sistem pemikul beban gempa	μ_m	R_m Pers. (6)	f Pers. (39)
1. Sistem dinding penumpu (Sistem struktur yang tidak memiliki rangka ruang pemikul beban gravitasi secara lengkap. Dinding penumpu atau sistem bresing memikul hampir semua beban gravitasi. Beban lateral dipikul dinding geser atau rangka bresing).	1.Dinding geser beton bertulang	2,7	4,5	2,8
	2.Dinding penumpu dengan rangka baja ringan dan bresing tarik	1,8	2,8	2,2
	3.Rangka bresing di mana bresingnya memikul beban gravitasi			
	a.Baja	2,8	4,4	2,2
	b.Beton bertulang (tidak untuk Wilayah 5 & 6)	1,8	2,8	2,2
2. Sistem rangka gedung (Sistem struktur yang pada dasarnya memiliki rangka ruang pemikul beban gravitasi secara lengkap. Beban lateral dipikul dinding geser atau rangka bresing).	1.Rangka bresing eksentris baja (RBE)	4,3	7,0	2,8
	2.Dinding geser beton bertulang	3,3	5,5	2,8
	3.Rangka bresing biasa			
	a.Baja	3,6	5,6	2,2
	b.Beton bertulang (tidak untuk Wilayah 5 & 6)	3,6	5,6	2,2
	4.Rangka bresing konsentrik khusus			
	a.Baja	4,1	6,4	2,2
	5.Dinding geser beton bertulang berangkai daktail	4,0	6,5	2,8
	6.Dinding geser beton bertulang kantilever daktail penuh	3,6	6,0	2,8
	7.Dinding geser beton bertulang kantilever daktail parsial	3,3	5,5	2,8
3. Sistem rangka pemikul momen (Sistem struktur yang pada dasarnya memiliki rangka ruang pemikul beban gravitasi secara lengkap. Beban lateral dipikul rangka pemikul momen terutama melalui mekanisme lentur)	1.Rangka pemikul momen khusus (SRPMK)			
	a.Baja	5,2	8,5	2,8
	b.Beton bertulang	5,2	**8,5**	2,8
	2.Rangka pemikul momen menengah beton (SRPMM)	3,3	5,5	2,8
	3.Rangka pemikul momen biasa (SRPMB)			
	a.Baja	2,7	4,5	2,8
	b.Beton bertulang	2,1	3,5	2,8
	4.Rangka batang baja pemikul momen khusus (SRBPMK)	4,0	6,5	2,8

4. Sistem ganda (Terdiri dari: 1. rangka ruang yang memikul seluruh beban gravitasi; 2. pemikul beban lateral berupa dinding geser atau rangka bresing dengan rangka pemikul momen. Rangka pemikul momen harus direncanakan secara terpisah mampu memikul sekurang-kurangnya 25% dari seluruh beban lateral; 3. kedua sistem harus direncanakan untuk memikul secara bersama-sama seluruh beban lateral dengan memperhatikan interaksi /sistem ganda)	1.Dinding geser			
	a.Beton bertulang dengan SRPMK beton bertulang	5,2	8,5	2,8
	b.Beton bertulang dengan SRPMB baja	2,6	4,2	2,8
	c.Beton bertulang dengan SRPMM beton bertulang	4,0	6,5	2,8
	2.RBE baja			
	a.Dengan SRPMK baja	5,2	8,5	2,8
	b.Dengan SRPMB baja	2,6	4,2	2,8
	3.Rangka bresing biasa			
	a.Baja dengan SRPMK baja	4,0	6,5	2,8
	b.Baja dengan SRPMB baja	2,6	4,2	2,8
	c.Beton bertulang dengan SRPMK beton bertulang (tidak untuk Wilayah 5 & 6)	4,0	6,5	2,8
	d.Beton bertulang dengan SRPMM beton bertulang (tidak untuk Wilayah 5 & 6)	2,6	4,2	2,8
	4.Rangka bresing konsentrik khusus			
	a.Baja dengan SRPMK baja	4,6	7,5	2,8
	b.Baja dengan SRPMB baja	2,6	4,2	2,8
5. Sistem struktur gedung kolom kantilever: (Sistem struktur yang memanfaatkan kolom kantilever untuk memikul beban lateral)	Sistem struktur kolom kantilever	1,4	2,2	2
6. Sistem interaksi dinding geser dengan rangka	Beton bertulang biasa (tidak untuk Wilayah 3, 4, 5 & 6)	3,4	5,5	2,8
7. Subsistem tunggal (Subsistem struktur bidang yang membentuk struktur gedung secara keseluruhan)	1.Rangka terbuka baja	5,2	8,5	2,8
	2.Rangka terbuka beton bertulang	5,2	8,5	2,8
	3. Rangka terbuka beton bertulang dengan balok beton pratekan (bergantung pada indeks baja total)	3,3	5,5	2,8
	4.Dinding geser beton bertulang berangkai daktail penuh.	4,0	6,5	2,8
	5.Dinding geser beton bertulang kantilever daktail parsial	3,3	5,5	2,8

$$V = \frac{C \times I}{R} \times Wt$$

$$V = \frac{0,62 . 1,0}{8,5} .3332750.96$$

= 243094.78 Kg

3.4.5 Perhitungan Gaya Gempa Tiap Lantai

$$Fi = \frac{Wi \, x \, Hi}{\Sigma(Wi \, x \, Hi)} \, x \, V$$

$$Fi = \frac{(827597.48 \, x \, 13.00)}{27260026.54} \, x \, 234094.78$$

= 95942.68 Kg

Tabel 3.9 : Gaya Gempa Tiap Lantai

Lantai ke -	hi (m)	Wi (Kgm)	Wi x hi (Kgm)	Fi X-Y (Kg)	Vi (Kg)
4	13.00	827597.48	10758767.24	95942.68	95942.68
3	9.80	827597.48	8116629.30	72381.08	168323.76
2	6.60	838463.00	553385.80	49348.87	217672.63
1	3.40	838463.00	2850774.20	25422.14	243094.78
Σ		3332750.96	27260026.54		

3.4.6 Perhitungan Gaya Gempa Tiap Pusat massa

$$Fi\ (Tiap\ pusat\ massa) = \frac{Luas\ tipe\ pusat\ massa}{Luas\ total\ lantai}\ x\ Fi\ (X\text{-}Y)$$

Lantai 1 : Luas total = 1104.62 m^2

Luas tipe pusat massa 1-4 = 154.42 m^2

$$Fi\ (1-4) = \frac{154.42}{1104.62}\ x\ 95942.68$$

= 13412.27 Kg

Tabel 3.10 : Gaya Gempa Tiap Tipe Pusat Massa

Lantai ke-	Tipe pusat massa	(Luas tipe pusat massa) / (Luas total lantai)	Fi X-Y (Kg)	Fi X-Y Tiap pusat massa (Kg)	
				(100%)	(30%)
4	1-4	0.140	95942.68	13412.27	4023.68
	5-8	0.028		2659.17	797.75
	9-12	0.007		673.31	201.24
	13	0.059		5690.78	1707.24
3	1-4	0.140	72381.08	10118.48	3035.55
	5-8	0.028		2006.13	601.84
	9-12	0.007		507.95	152.39
	13	0.059		4293.24	1287.97
2	1-4	0.140	49348.87	6898.71	2069.61
	5-8	0.028		1367.77	401.33
	9-12	0.007		346.32	103.90
	13	0.059		2927.10	878.13
1	1-4	0.140	25422.14	3553.88	1066.16
	5-8	0.028		704.61	211.38
	9-12	0.007		178.41	53.52
	13	0.059		2141.58	642.47

BAB IV

PERENCANAAN PONDASI

4.1 Data Perencanaan

Dalam merencanakan suatu pondasi kita diperlukan suatu data perencanaan agar dalam merencanakannya didapat hasil yang maksimal. Berikut adalah data yang digunakan :

1. Tebal Poer : 60 cm
2. Kedalaman Poer : 1,5 m
3. Pengeboran pada kedalaman : 6,4 m
4. Mutu beton (fc') : 25 Mpa = 250 kg/cm^2
5. Mutu baja (fy) : 400 Mpa

4.2 Perencanaan Pondasi Tiang Bor

4.2.1 Pengelompokan Beban Pada Pondasi

Berdasarkan dari data output analisa pembebanan dengan program Staad Pro diambil tiga contoh tipe sebagai perencanaan pondasi dengan gaya – gaya yang bekerja pada masing – masing tipe dapat dilihat pada table dibawah ini :

Tabel 4.1 : Pengelompokan Beban (Reactiaon)

Reactions	Kolom (Node)	Gaya Vertikal (Kg)	Momen X (Kgm)	Momen Z (Kgm)	Kombinasi
Berat	3752	306000	2040	1970	1.2D + 1.0L + 1.0EX
Sedang	3751	283000	2590	2030	1.2D + 1.0L + 1.0EX
Ringan	3750	57000	23,707	218,719	1.2D + 1.0L + 1.0EX

4.2.2 Perencanaan Pondasi Tiang Bor Tipe 1 pada Join 3752

V : 306 ton ; Mx : 2,04 tm ; Mz : 1,97 tm

Diameter Tiang (D) = 50 cm = 0,50 m

Luas Tiang (Ap) $= {}^1/_4 \cdot \pi \cdot D^2$

$= {}^1/_4 \cdot \pi \cdot 0{,}5^2 = 0{,}196\ m^2$

Keliling Tiang (p) $= 2 \cdot \pi \cdot D$

$= 2 \cdot \pi \cdot 0{,}5 = 3.14$ m

Kedalaman Tiang (D_f) = 4,9 m

Luas Selimut Tiang (As) = p . Kedalaman tiang (D_f)

$= 3.14 \cdot 4.9 = 15{,}386 \text{ m}^2$

Angka Keamanan (SF) $= 3$

Data Sondir = Titik S_2

Nilai N_{SPT} disekitar dasar tiang (Nb) dihitung rata-rata antara 8D di atas dasar tiang dan 4D di bawah dasar tiang. (Rahardjo,P.P,2007, Manual Pondasi Tiang Edisi 3 Hal : 42).

$6{,}4 - 8D = 6{,}4 - (8 \cdot 0{,}5) = 2{,}4 \text{ m}$

Pada kedalaman tersebut didapat nilai qc :

1. 2,4 $\rightarrow qc = 45$ kg/cm^2
2. 3,0 $\rightarrow qc = 65$ kg/cm^2
3. 3,4 $\rightarrow qc = 65$ kg/cm^2
4. 4,0 $\rightarrow qc = 40$ kg/cm^2
5. 4,4 $\rightarrow qc = 35$ kg/cm^2
6. 5,0 $\rightarrow qc = 30$ kg/cm^2
7. 5,4 $\rightarrow qc = 35$ kg/cm^2
8. 6,0 $\rightarrow qc = 90$ kg/cm^2
9. 6,4 $\rightarrow qc = 150$ kg/cm^2 +

$\Sigma qc = 555 \text{ kg/cm}^2$

$$qc_1 = \frac{\Sigma qc1}{9} = \frac{555}{9} = 61{,}67 \text{ kg/cm}^2$$

$6{,}4 + 4D = 6{,}4 + (4 \cdot 0{,}5) = 8{,}4 \text{ m}$

Pada kedalaman tersebut didapat nilai qc :

1. 6,4 → qc = 150 kg/cm^2 → (nilai terakhir dari data sondir)

qc_2 = 150 kg/cm^2 `

$Qc = \frac{qc1+qc2}{2} = \frac{555+150}{2} = 105{,}833$ kg/cm^2

$N_b = \frac{Qc}{4} = \frac{105{,}833}{4} = 26{,}458 \sim 26$ Pukulan/feet

❖ Daya dukung berdasarkan kekuatan tanah

1. Untuk end bearing pile

Qp = 40.Nb.Ap

= 40 . 26 . 0,196

= 204,100 ton

Nilai $qc_{rata\text{-}rata}$ sepanjang tiang bor :

1. 1,5 → qc = 20 kg/cm^2
2. 2,0 → qc = 25 kg/cm^2
3. 2,4 → qc = 45 kg/cm^2
4. 2,8 → qc = 60 kg/cm^2
5. 3,2 → qc = 70 kg/cm^2
6. 3,6 → qc = 50 kg/cm^2
7. 4,0 → qc = 40 kg/cm^2
8. 4,4 → qc = 35 kg/cm^2
9. 4,8 → qc = 25 kg/cm^2

10. 5,2 $\rightarrow qc = 35$ kg/cm^2

11. 5,6 $\rightarrow qc = 50$ kg/cm^2

12. 6,0 $\rightarrow qc = 90$ kg/cm^2

13. 6,4 $\rightarrow qc = 150$ kg/cm^2 +

$\Sigma qc = 695$ kg/cm^2

$qc_{rata\text{-}rata} = \frac{qc}{13} = \frac{695}{13} = 53{,}46\ kg/cm^2$

$N_s = \frac{qc\ rata-rata}{4} = \frac{53{,}46}{4} = 13{,}365 \sim 13$ Pukulan/feet

2. Untuk friction pile

Qs = 0,1 . Ns . As

= 0,1 . 13 . 15,386

= 20,002 ton

- ➢ Untuk kombinasi end bearing pile dan friction pile

Qu = Qp + Qs

= 204,100 + 20,002

= 224,102 ton

- ❖ Daya dukung berdasarkan kekuatan bahan

$Qd = \sigma_{bahan} . A$

Dimana :

σ_{bahan} : Tegangan ijin bahan

A : Luas Penampang

1. Untuk dinding tiang (K-250)

$Qd = (0{,}85 \,.\, fc') \times (^1/_4 \,.\, \pi \,.\, D_{tiang}{}^2)$

$= (0{,}85 \,.\, 250) \times (^1/_4 \,.\, \pi \,.\, 50^2)$

$= 417031{,}25 \text{ kg} = 417{,}031 \text{ ton}$

➢ Daya dukung satu tiang yang diizinkan (Q_{izin})

$Q_{izin} = \frac{Qu}{SF}$

$= \frac{224{,}102}{3} = 74{,}70060 \text{ ton} = 74700{,}60 \text{ kg}$

4.2.2.1 Perencanaan Tiang Bor

Jumlah tiang dalam satu poer (n)

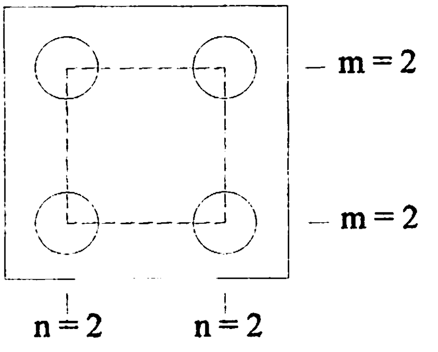
$n = \frac{V}{Qizin\ 1\ tiang}$

$= \frac{306}{74{,}70060} = 4{,}096$

Dicoba 4 buah tiang dengan susunan :

m (jumlah baris tiang) = 2

n (jumlah tiang dalam baris) = 2



Gambar 4.1 : Jumlah Tiang Bor Tipe 1

- Syarat jarak antar tiang

$$S \leq \frac{(1{,}57 \times D \times m \times n) - 2D}{(m+n) - 2}$$

$$S \leq \frac{(1{,}57 \times 0{,}5 \times 2 \times 2) - 2.0{,}5}{(2+2) - 2}$$

$S \leq 1{,}08$

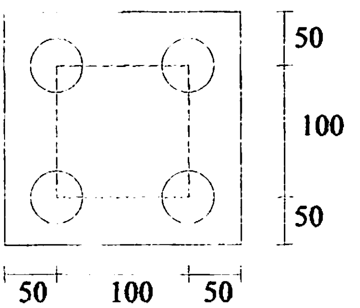
- Kontrol jarak antar tiang

$2{,}5D \leq S \leq 3D$

$2{,}5(0{,}5) \leq S \leq 3(0{,}5)$

$1{,}25 \leq S \leq 1{,}50$

Dipakai jarak antar tiang (s) = 1,00 m



Gambar 4.2 : Jarak Antar Tiang Bor Tipe 1

Dengan demikian perencanaan pondasi tiang bor tipe 1 dapat dihitung dengan efisiensi kelompok tiang.

Efisiensi kelompok tiang

1. Berdasarkan Rumus Los Angles

$$\eta = 1 - \frac{D}{\pi . s . m . n} [(m).(n-1) + (n).(m-1) + (m-1).(n-1).\sqrt{2}]$$

$$= 1 - \frac{0,5}{3,14 . 1 . 2 . 2} [(2).(2-1) + (2).(2-1) + (2-1).(2-1).\sqrt{2}]$$

$= 0,784 < 1$ OK

2. Berdasarkan Rumus Converse - Labarre

$$\eta = 1 - \frac{(n-1).m+(m-1).n}{90 . m . n} \times \theta \qquad \Rightarrow \theta = \arc\tan \frac{D}{S}$$

$$= \arc\tan \frac{0,5}{1,0} = 26,565°$$

$$= 1 - \frac{(2-1).2+(2-1).2}{90 . 2 . 2} \times 26,565°$$

$= 0,705 < 1$ OK

3. Berdasarkan Rumus Seiler – Keeney

$$\eta = 1 - \frac{(36 . s).(m+n-2)}{(75 . s^2 . -7).(m+n-1)} + \frac{0,3}{(m+n)}$$

$$= 1 - \frac{(36 . 1).(2+2-2)}{(75 . 1^2 . -7).(2+2-1)} + \frac{0,3}{(2+2)}$$

$= 0,722 < 1$ OK

Berdasarkan dari perhitungan nilai efisiensi, diambil nilai η yang terkecil yaitu : 0,705 yang digunakan untuk perhitungan selanjutnya.

❖ Daya dukung tiang kelompok

$$Qpg = \eta \times n \times Qizin$$

$$= 0{,}705 \times 4 \times 74{,}70060$$

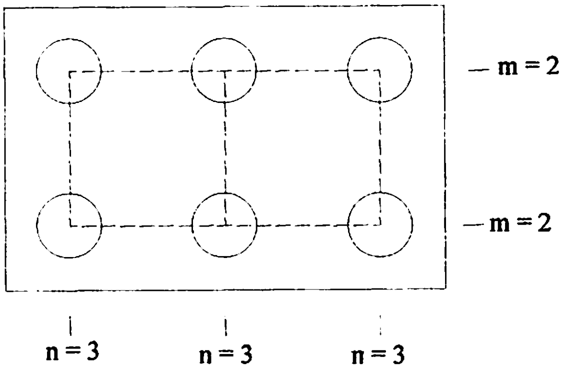
= 210,606 ton < V = 306 ton(**Tidak OK**), **Syarat Qpg > V**

Karena daya dukung tiang kelompok tidak memenuhi dengan susunan m = 2 dan n = 2, maka dicoba lagi dengan susunan tiang m = 2 dan n = 3.

Dicoba 6 buah tiang dengan susunan :

m (jumlah baris tiang) = 2

n (jumlah tiang dalam baris) = 3



Gambar 4.3 : Jumlah Tiang Bor Tipe 1

➢ Syarat jarak antar tiang

$$S \leq \frac{(1{,}57 \times D \times m \times n) - 2D}{(m+n) - 2}$$

$$S \leq \frac{(1{,}57 \times 0{,}5 \times 2 \times 3) - (2.0{,}5)}{(2+3) - 2}$$

$S \leq 1{,}25$

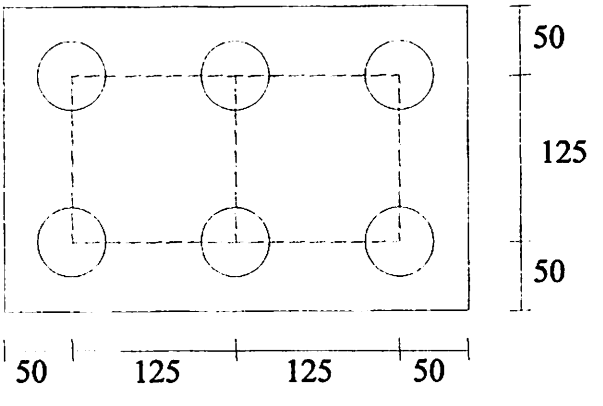
- Kontrol jarak antar tiang

$2{,}5D \leq S \leq 3D$

$2{,}5(0{,}5) \leq S \leq 3(0{,}5)$

$1{,}25 \leq S \leq 1{,}50$

Dipakai jarak antar tiang (s) = 1,25 m



Gambar 4.4 : Jarak Antar Tiang Bor Tipe 1

Dengan demikian perencanaan pondasi tiang bor tipe 1 dapat dihitung dengan efisiensi kelompok tiang.

Efisiensi kelompok tiang

1. Berdasarkan Rumus Los Angles

$$\eta = 1 - \frac{D}{\pi . s . m . n}\left[(m).(n-1) + (n).(m-1) + (m-1).(n-1).\sqrt{2}\right]$$

$$= 1 - \frac{0{,}5}{3{,}14 . 1{,}25 . 2 . 3}\left[(2).(3-1) + (3).(2-1) + (2-1).(3-1).\sqrt{2}\right]$$

$$= 0{,}791 < 1 \quad \text{OK}$$

2. Berdasarkan Rumus Converse - Labarre

$$\eta = 1 - \frac{(n-1).m+(m-1).n}{90.m.n} \times \theta \qquad \Rightarrow \theta = \arctan\frac{D}{S}$$

$$= \arctan\frac{0,5}{1,25} = 21,801°$$

$$= 1 - \frac{(3-1).2+(2-1).3}{90.2.3} \times 21,801°$$

$$= 0,717 < 1 \quad \text{OK}$$

3. Berdasarkan Rumus Seiler – Keeney

$$\eta = 1 - \frac{(36.s).(m+n-2)}{(75.s^2.-7).(m+n-1)} + \frac{0,3}{(m+n)}$$

$$\eta = 1 - \frac{(36.1,25).(2+3-2)}{(75.1,25^2.-7).(2+3-1)} + \frac{0,3}{(2+3)}$$

$$= 0,754 < 1 \quad \text{OK}$$

Berdasarkan dari perhitungan nilai efisiensi, diambil nilai η yang terkecil yaitu : 0,717 yang digunakan untuk perhitungan selanjutnya.

❖ Daya dukung tiang kelompok

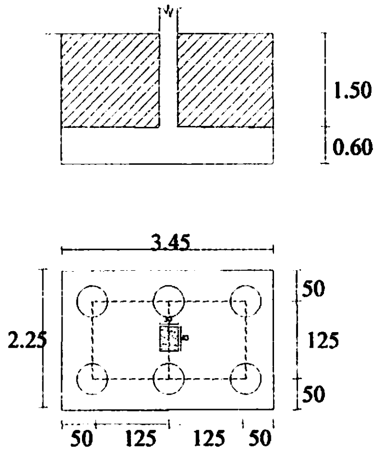
Qpg = η x n x Qizin

= 0,717 x 6 x 74,70060

= 321,539 ton > V = 306 ton **(OK), Syarat Qpg > V**

❖ Kontrol ΣV dimana, ΣV = (V + berat poer) < Qpg

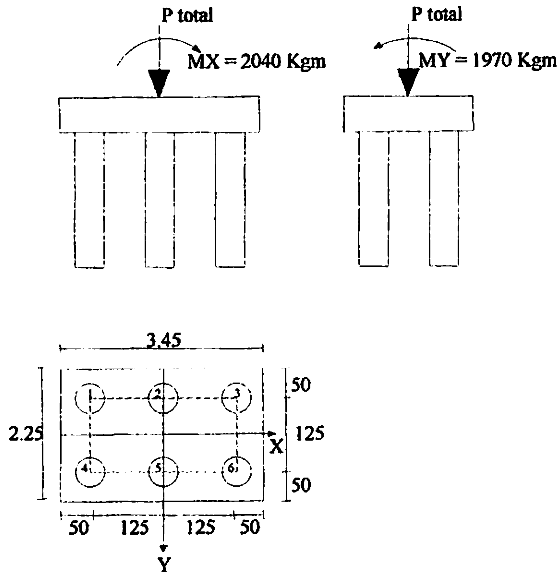
Perhitungan beban poer



Gambar 4.5 : Perencanaan Poer

Poer	= [(3,45 x 2,25) + (0,3 x 0,4 x 1,5)] x 2400
	= 439,763 kg
Tanah urug	= [(3,45 x 2,25 x 0,6) – (0,3 x 0,4 x 1,5)] x 1700
	= 7611,750 kg
V	= 306000 kg
ΣV	= Berat sendiri poer + Berat tanah urug + V
	= 439,763 + 7611,750 + 306000
	= 314051,513 kg
	= 314,052 ton < Qpg = 321,539 ton **(OK)**

4.2.2.2 Perhitungan Beban Yang Diterima Oleh Pondasi Tiang Bor



Gambar 4.6 : Poadasi Tiang Bor yang Menerima Beban V dan M

Mencari beban tiang maximum

$$Pmax = \frac{\Sigma V}{n} \pm \frac{My \,.\, Xmax}{ny \,.\, \Sigma X^2} \pm \frac{Mx \,.\, Ymax}{nx \,.\, \Sigma Y^2}$$

Dimana :

ΣV = 314051,51 kg ; Mx = 2040 kgm

n = 6 tiang ; My = 1970 kgm

ny = 2 tiang

nx = 3 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (-1,25^2) + (0^2) + (1,25^2) = 3,13 \text{ m}^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (-0,625^2) + (0,625^2) = 0,78 \text{ m}^2$

Sehingga :

$(x_1 = -1,25 ; y_1 = 0,625)$

$$P1 = \frac{314051,51}{6} \pm \frac{1970 \times (-1,25)}{2 \times 3,13} \pm \frac{2040 \times (0,625)}{3 \times 0,78}$$

= 52491,92 kg

$(x_2 = 0 ; y_1 = 0,625)$

$$P2 = \frac{314051,51}{6} \pm \frac{1970 \times (0)}{2 \times 3,13} \pm \frac{2040 \times (0,625)}{3 \times 0,78}$$

= 52885,92 kg

$(x_3 = 1,25 ; y_3 = 0,625)$

$$P3 = \frac{314051,51}{6} \pm \frac{1970 \times (1,25)}{2 \times 3,13} \pm \frac{2040 \times (0,625)}{3 \times 0,78}$$

= 53279,92 kg

$(x_4 = -1,25 ; y_1 = -0,625)$

$$P4 = \frac{314051,51}{6} \pm \frac{1970 \times (-1,25)}{2 \times 3,13} \pm \frac{2040 \times (-0,625)}{3 \times 0,78}$$

= 51403,92 kg

$(x_5 = 0 ; y_1 = - 0,625)$

$$P5 = \frac{314051,51}{6} \pm \frac{1970 \times (0)}{2 \times 3,13} \pm \frac{2040 \times (-0,625)}{3 \times 0,78}$$

$= 51797,92$ kg

$(x_6 = 1,25 ; y_6 = - 0,625)$

$$P6 = \frac{314051,51}{6} \pm \frac{1970 \times (1,25)}{2 \times 3,13} \pm \frac{2040 \times (-0,625)}{3 \times 0,78}$$

$= 52191,92$ kg

Pmax = 53279.92 kg < Q1 tiang = 74700,60 kg ……………**(aman)**

Jadi dapat digunakan pondasi tiang bor pada kedalaman 6,4 m dengan diameter 50 cm.

4.2.3 Perencanaan Pondasi Tiang Bor Tipe 2 pada Join 3751

V : 283 ton ; Mx : 2,59 tm ; Mz : 2,03 tm

Diameter Tiang (D) = 50 cm = 0,50 m

Luas Tiang (Ap) $= {}^{1}/_{4} \, . \, \pi \, . \, D^2$

$= {}^{1}/_{4} \, . \, \pi \, . \, 0,5^2 = 0,196 \, m^2$

Keliling Tiang (p) $= 2 \, . \, \pi \, . \, D$

$= 2 \, . \, \pi \, . \, 0,5 = 3.14$ m

Kedalaman Tiang (D_f) = 4,9 m

Luas Selimut Tiang (As) = p . Kedalaman tiang (D_f)

= 3.14 . 4.9 = 15,386 m^2

Angka Keamanan (SF) = 3

Data Sondir = Titik S_2

Nilai N_{SPT} disekitar dasar tiang (Nb) dihitung rata-rata antara 8D di atas dasar tiang dan 4D di bawah dasar tiang. (Rahardjo,P.P,2007, Manual Pondasi Tiang Edisi 3 Hal : 42).

6,4 – 8D = 6,4 – (8 . 0,5) = 2,4 m

Pada kedalaman tersebut didapat nilai qc :

1. 2,4 → qc = 45 kg/cm2
2. 3,0 → qc = 65 kg/cm^2
3. 3,4 → qc = 65 kg/cm^2
4. 4,0 → qc = 40 kg/cm^2
5. 4,4 → qc = 35 kg/cm^2
6. 5,0 → qc = 30 kg/cm^2
7. 5,4 → qc = 35 kg/cm^2
8. 6,0 → qc = 90 kg/cm^2
9. 6,4 → qc = 150 kg/cm^2 +

Σ qc = 555 kg/cm^2

$qc_1 = \frac{\Sigma qc1}{9} = \frac{555}{9} = 61{,}67\ kg/cm^2$

6,4 + 4D = 6,4 + (4 . 0,5) = 8,4 m

Pada kedalaman tersebut didapat nilai qc :

1. 6,4 → qc = 150 kg/cm^2 → (nilai terakhir dari data sondir)

$qc_2 = 150\ kg/cm^2$

$Qc = \frac{qc1+qc2}{2} = \frac{555+150}{2} = 105{,}833\ kg/cm^2$

$N_b = \frac{Qc}{4} = \frac{105{,}833}{4} = 26{,}458 \sim 26$ Pukulan/feet

❖ Daya dukung berdasarkan kekuatan tanah

1. Untuk end bearing pile

   Qp = 40.Nb.Ap

   = 40 . 26 . 0,196

   = 204,100 ton

Nilai $qc_{rata\text{-}rata}$ sepanjang tiang bor :

1. 1,5 → qc = 20 kg/cm^2
2. 2,0 → qc = 25 kg/cm^2
3. 2,4 → qc = 45 kg/cm^2
4. 2,8 → qc = 60 kg/cm^2
5. 3,2 → qc = 70 kg/cm^2
6. 3,6 → qc = 50 kg/cm^2

7. 4,0 $\rightarrow qc = 40$ kg/cm^2

8. 4,4 $\rightarrow qc = 35$ kg/cm^2

9. 4,8 $\rightarrow qc = 25$ kg/cm^2

10. 5,2 $\rightarrow qc = 35$ kg/cm^2

11. 5,6 $\rightarrow qc = 50$ kg/cm^2

12. 6,0 $\rightarrow qc = 90$ kg/cm^2

13. 6,4 $\rightarrow qc = 150$ kg/cm^2 +

$\Sigma\, qc = 695$ kg/cm^2

$$qc_{\text{rata-rata}} = \frac{qc}{13} = \frac{695}{13} = 53{,}46 \text{ kg/cm}^2$$

$$N_s = \frac{qc \text{ rata-rata}}{4} = \frac{53{,}46}{4} = 13{,}365 \sim 13 \frac{\text{Pukulan}}{\text{feet}}$$

2. Untuk end friction pile

Qs = 0,1 . Ns . As

= 0,1 . 13 . 15,386

= 20,002 ton

➤ Untuk kombinasi end bearing pile dan friction pile

Qu = Qp + Qs

= 204,100 + 20,002

= 224,102 ton

❖ Daya dukung berdasarkan kekuatan bahan

$Qd = \sigma_{bahan} \cdot A$

Dimana :

σ_{bahan} : Tegangan ijin bahan

A : Luas Penampang

1. Untuk dinding tiang (K-250)

$Qd = (0{,}85 \,.\, fc') \times (^1/_4 \,.\, \pi \,.\, D_{tiang}{}^2)$

$= (0{,}85 \,.\, 250) \times (^1/_4 \,.\, \pi \,.\, 50^2)$

$= 417031{,}25$ kg $= 417{,}031$ ton

- Daya dukung satu tiang yang diizinkan (Q_{izin})

$Q_{izin} = \frac{Qu}{SF}$

$= \frac{224{,}102}{3} = 74{,}70060$ ton $= 74700{,}60$ kg

4.2.3.1 Perencanaan Tiang Bor

Jumlah tiang dalam satu poer (n)

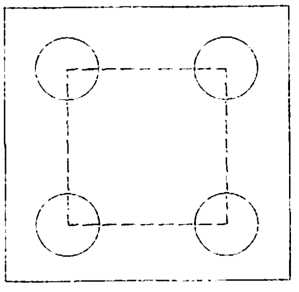
$n = \frac{V}{Qizin\ 1\ tiang}$

$= \frac{283}{74{,}70060} = 3{,}788$

Dicoba 4 buah tiang dengan susunan :

m (jumlah baris tiang) = 2

n (jumlah tiang dalam baris) = 2



Gambar 4.7 : Jumlah Tiang Bor Tipe 2

- Syarat jarak antar tiang

$S \leq \frac{(1{,}57 \times D \times m \times n) - 2D}{(m+n) - 2}$

$S \leq \frac{(1{,}57 \times 0{,}5 \times 2 \times 2) - 2.0{,}5}{(2+2) - 2}$

$S \leq 1{,}08$

- Kontrol jarak antar tiang

$2{,}5D \leq S \leq 3D$

$2{,}5(0{,}5) \leq S \leq 3(0{,}5)$

$1{,}25 \leq S \leq 1{,}50$

Dipakai jarak antar tiang (s) = 1,00 m

Dengan demikian perencanaan pondasi tiang bor tipe 2 dapat dihitung dengan efisiensi kelompok tiang.

Efisiensi kelompok tiang

1. Berdasarkan Rumus Los Angles

$$\eta = 1 - \frac{D}{\pi . s . m . n} \left[(m).(n-1) + (n).(m-1) + (m-1).(n-1).\sqrt{2}\right]$$

$$= 1 - \frac{0{,}5}{3{,}14 \cdot 1 \cdot 2 \cdot 2} [(2).(2-1) + (2).(2-1) + (2-1).(2-1).\sqrt{2}]$$

$= 0{,}784 < 1$ OK

2. Berdasarkan Rumus Converse - Labarre

$$\eta = 1 - \frac{(n-1).m + (m-1).n}{90 \cdot m \cdot n} \times \theta \qquad \Rightarrow \theta = \arc\tan \frac{D}{S}$$

$$= \arc\tan \frac{0{,}5}{1{,}0} = 26{,}565°$$

$$= 1 - \frac{(2-1).2 + (2-1).2}{90 \cdot 2 \cdot 2} \times 26{,}565°$$

$= 0{,}705 < 1$ OK

3. Berdasarkan Rumus Seiler – Keeney

$$\eta = 1 - \frac{(36 \cdot s).(m+n-2)}{(75 \cdot s^2 - 7).(m+n-1)} + \frac{0{,}3}{(m+n)}$$

$$= 1 - \frac{(36 \cdot 1).(2+2-2)}{(75 \cdot 1^2 - 7).(2+2-1)} + \frac{0{,}3}{(2+2)}$$

$= 0{,}722 < 1$ OK

Berdasarkan dari perhitungan nilai efisiensi, diambil nilai η yang terkecil yaitu : 0,705 yang digunakan untuk perhitungan selanjutnya.

❖ Daya dukung tiang kelompok

Qpg = η x n x Qizin

= 0,705 x 4 x 74,70060

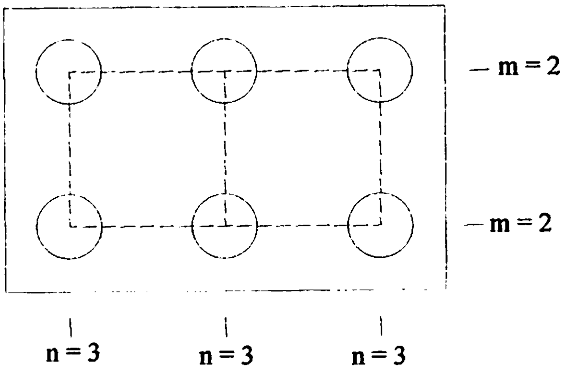
= 210,606 ton < V = 283 ton (**Tidak OK**), **Syarat Qpg > V**

Karena daya dukung tiang kelompok tidak memenuhi dengan susunan m = 2 dan n = 2, maka dicoba lagi dengan susunan tiang m = 2 dan n = 3.

Dicoba 6 buah tiang dengan susunan :

m (jumlah baris tiang) = 2

n (jumlah tiang dalam baris) = 3



Gambar 4.8 : Jumlah Tiang Bor Tipe 2

- Syarat jarak antar tiang

$$S \leq \frac{(1{,}57 \times D \times m \times n) - 2D}{(m+n) - 2}$$

$$S \leq \frac{(1{,}57 \times 0{,}5 \times 2 \times 3) - (2.0{,}5)}{(2+3) - 2}$$

$S \leq 1{,}25$

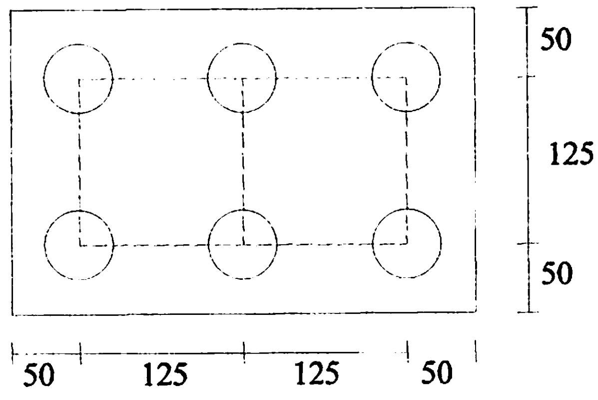
- Kontrol jarak antar tiang

$2{,}5D \leq S \leq 3D$

$2{,}5(0{,}5) \leq S \leq 3(0{,}5)$

$1{,}25 \leq S \leq 1{,}50$

Dipakai jarak antar tiang (s) = 1,25 m



Gambar 4.9 : Jarak Antar Tiang Bor Tipe 2

Dengan demikian perencanaan pondasi tiang bor tipe 2 dapat dihitung dengan efisiensi kelompok tiang.

Efisiensi kelompok tiang

1. Berdasarkan Rumus Los Angles

$$\eta = 1 - \frac{D}{\pi . s . m . n} [(m).(n-1) + (n).(m-1) + (m-1).(n-1).\sqrt{2}]$$

$$= 1 - \frac{0,5}{3,14 . 1,25 . 2 . 3} [(2).(3-1) + (3).(2-1) + (2-1).(3-1).\sqrt{2}]$$

$= 0,791 < 1$ **OK**

2. Berdasarkan Rumus Converse - Labarre

$$\eta = 1 - \frac{(n-1).m+(m-1).n}{90 . m . n} \times \theta \qquad \Rightarrow \theta = \arc\tan \frac{D}{S}$$

$$= \arc\tan \frac{0,5}{1,25} = 21,801°$$

$$= 1 - \frac{(3-1).2+(2-1).3}{90 . 2 . 3} \times 21,801°$$

$= 0{,}717 < 1$ **OK**

3. Berdasarkan Rumus Seiler – Keeney

$$\eta = 1 - \frac{(36\,.s).(m+n-2)}{(75\,.s^2.-7).(m+n-1)} + \frac{0{,}3}{(m+n)}$$

$$\eta = 1 - \frac{(36\,.1{,}25).(2+3-2)}{(75\,.1{,}25^2.-7).(2+3-1)} + \frac{0{,}3}{(2+3)}$$

$= 0{,}754 < 1$ **OK**

Berdasarkan dari perhitungan nilai efisiensi, diambil nilai η yang terkecil yaitu : 0,717 yang digunakan untuk perhitungan selanjutnya.

❖ Daya dukung tiang kelompok

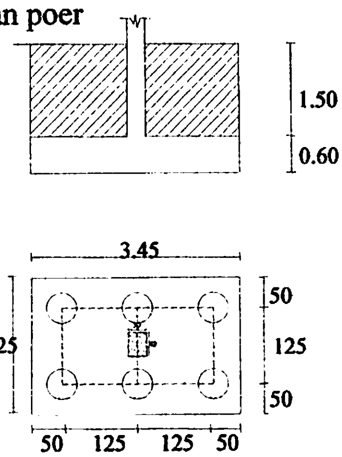
Qpg = η x n x Qizin

= 0,717 x 6 x 74,70060

= 321,539 ton > V = 283 ton (**OK**), **Syarat Qpg > V**

❖ Kontrol ΣV dimana, ΣV = (V + berat poer) < Qpg

Perhitungan beban poer



Gambar 4.10 : Perencanaan Poer

Poer = [(3,45 x 2,25) + (0,3 x 0,4 x 1,5)] x 2400

= 439,763 kg

Tanah urug = [(3,45 x 2,25 x 0,6) – (0,3 x 0,4 x 1,5)] x 1700

= 7611,750 kg

V = 283000 kg

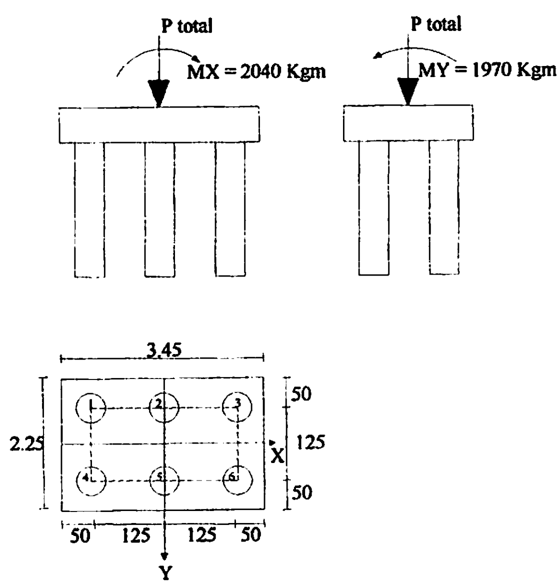
ΣV = Berat sendiri poer + Berat tanah urug + V

= 439,763 + 7611,750 + 283000

= 283873,315 kg

= 283,873 ton < Qpg = 321,539 ton **(OK)**

4.2.3.2 Perhitungan Beban Yang Diterima Oleh Pondasi Tiang Bor



Gambar 4.11 : Pondasi Tiang Bor yang Menerima Beban V dan M

Mencari beban tiang maximum

$$Pmax = \frac{\Sigma V}{n} \pm \frac{My \cdot Xmax}{ny \cdot \Sigma X^2} \pm \frac{Mx \cdot Ymax}{nx \cdot \Sigma Y^2}$$

Dimana :

ΣV	= 283873,315 kg	; Mx = 2590 kgm
n	= 6 tiang	; My = 2030 kgm
ny	= 2 tiang	
nx	= 3 tiang	
ΣX^2	= Jumlah kuadrat absis tiang	
	= $(-1,25^2) + (0^2) + (1,25^2) = 3,13\ m^2$	
ΣY^2	= Jumlah kuadrat ordinat tiang	
	= $(-0,625^2) + (0,625^2) = 0,78\ m^2$	

Sehingga :

(x_1 = - 1,25 ; y_1 = 0,625)

$$P1 = \frac{283873,32}{6} \pm \frac{1970 \times (-1,25)}{2 \times 3,13} \pm \frac{2040 \times (0,625)}{3 \times 0,78}$$

= 47596,866 kg

(x_2 = 0 ; y_1 = 0,625)

$$P2 = \frac{283873,32}{6} \pm \frac{1970 \times (0)}{2 \times 3,13} \pm \frac{2040 \times (0,625)}{3 \times 0,78}$$

= 48319 386 kg

(x_3 = 1,25 ; y_3 = 0,625)

$$P3 = \frac{283873{,}32}{6} \pm \frac{1970 \times (1{,}25)}{2 \times 3{,}13} \pm \frac{2040 \times (0{,}625)}{3 \times 0{,}78}$$

= 48797,219 kg

(x_4 = - 1,25 ; y_1 = - 0,625)

$$P4 = \frac{283873{,}32}{6} \pm \frac{1970 \times (-1{,}25)}{2 \times 3{,}13} \pm \frac{2040 \times (-0{,}625)}{3 \times 0{,}78}$$

= 45875,386 kg

(x_5 = 0 ; y_1 = - 0,625)

$$P5 = \frac{283873{,}32}{6} \pm \frac{1970 \times (0)}{2 \times 3{,}13} \pm \frac{2040 \times (-0{,}625)}{3 \times 0{,}78}$$

= 46233,053 kg

(x_6 = 1,25 ; y_6 = - 0,625)

$$P6 = \frac{283873{,}32}{6} \pm \frac{1970 \times (1{,}25)}{2 \times 3{,}13} \pm \frac{2040 \times (-0{,}625)}{3 \times 0{,}78}$$

= 46639,053 kg

Pmax = 48797,386 kg < Q1 tiang = 74700,60 kg ……………**(aman)**

Jadi dapat digunakan pondasi tiang bor pada kedalaman 6,4 m dengan diameter 50 cm.

4.2.4 Perencanaan Pondasi Tiang Bor Tipe 3 pada Join 3750

V : 57 ton ; Mx : 0,02371 tm ; Mz : 0,21872 tm

Diameter Tiang (D) = 50 cm = 0,50 m

Luas Tiang (Ap) = $^1/_4 . \pi . D^2$

= $^1/_4 . \pi . 0,5^2 = 0,196\ m^2$

Keliling Tiang (p) = $2 . \pi . D$

= $2 . \pi . 0,5 = 3.14$ m

Kedalaman Tiang (D_f) = 4,9 m

Luas Selimut Tiang (As) = p . Kedalaman tiang (D_f)

= $3.14 . 4.9 = 15,386\ m^2$

Angka Keamanan (SF) = 3

Data Sondir = Titik S_2

Nilai N_{SPT} disekitar dasar tiang (Nb) dihitung rata-rata antara 8D di atas dasar tiang dan 4D di bawah dasar tiang. (Rahardjo,P.P,2007, Manual Pondasi Tiang Edisi 3 Hal : 42).

$6,4 - 8D = 6,4 - (8 . 0,5) = 2,4$ m

Pada kedalaman tersebut didapat nilai qc :

1. 2,4 → qc = 45 kg/cm2

2. 3,0 → qc = 65 kg/cm^2

3. 3,4 → qc = 65 kg/cm^2

4. 4,0 → qc = 40 kg/cm^2

5. 4,4 → qc = 35 kg/cm^2

6. 5,0 → qc = 30 kg/cm^2

7. 5,4 → qc = 35 kg/cm^2

8. 6,0 → qc = 90 kg/cm^2

9. 6,4 → qc = 150 kg/cm^2 +

Σ qc = 555 kg/cm^2

$$qc_1 = \frac{\Sigma qc1}{9} = \frac{555}{9} = 61,67 \text{ kg/cm}^2$$

6,4 + 4D = 6,4 + (4 . 0,5) = 8,4 m

Pada kedalaman tersebut didapat nilai qc :

1. 6,4 → qc = 150 kg/cm^2 → (nilai terakhir dari data sondir)

   qc_2 = 150 kg/cm^2 `

   $$Qc = \frac{qc1+qc2}{2} = \frac{555+150}{2} = 105,833 \text{ kg/cm}^2$$

   $$N_b = \frac{Qc}{4} = \frac{105,833}{4} = 26,458 \sim 26 \text{ Pukulan/feet}$$

❖ Daya dukung berdasarkan kekuatan tanah

1. Untuk end bearing pile

   Qp = 40.Nb.Ap

$= 40 . 26 . 0,196$

$= 204,100$ ton

Nilai $qc_{rata\text{-}rata}$ sepanjang tiang bor :

1. 1,5 $\rightarrow qc = 20$ kg/cm^2
2. 2,0 $\rightarrow qc = 25$ kg/cm^2
3. 2,4 $\rightarrow qc = 45$ kg/cm^2
4. 2,8 $\rightarrow qc = 60$ kg/cm^2
5. 3,2 $\rightarrow qc = 70$ kg/cm^2
6. 3,6 $\rightarrow qc = 50$ kg/cm^2
7. 4,0 $\rightarrow qc = 40$ kg/cm^2
8. 4,4 $\rightarrow qc = 35$ kg/cm^2
9. 4,8 $\rightarrow qc = 25$ kg/cm^2
10. 5,2 $\rightarrow qc = 35$ kg/cm^2
11. 5,6 $\rightarrow qc = 50$ kg/cm^2
12. 6,0 $\rightarrow qc = 90$ kg/cm^2
13. 6,4 $\rightarrow qc = 150$ kg/cm^2 +

Σ qc = 695 kg/cm^2

$$qc_{rata\text{-}rata} = \frac{qc}{13} = \frac{695}{13} = 53,46 \text{ kg/cm}^2$$

$$N_s = \frac{qc \text{ rata-rata}}{4} = \frac{53,46}{4} = 13,365 \sim 13 \text{ Pukulan/feet}$$

2. Untuk end friction pile

$Qs = 0,1 . Ns . As$

$= 0,1 . 13 . 15,386$

$= 20,002$ ton

- Untuk kombinasi end bearing pile dan friction pile

$Qu = Qp + Qs$

$= 204,100 + 20,002$

$= 224,102$ ton

- Daya dukung berdasarkan kekuatan bahan

$Qd = \sigma_{bahan} . A$

Dimana :

σ_{bahan} : Tegangan ijin bahan

A : Luas Penampang

1. Untuk dinding tiang (K-250)

$Qd = (0,85 . fc') \times (^1/_4 . \pi . D_{tiang}^2)$

$= (0,85 . 250) \times (^1/_4 . \pi . 50^2)$

$= 417031,25$ kg $= 417,031$ ton

- Daya dukung satu tiang yang diizinkan (Q_{izin})

$Q_{izin} = \frac{Qu}{SF}$

$= \frac{224,102}{3} = 74,70060 \text{ ton} = 74700,60 \text{ kg}$

4.2.4.1 Perencanaan Tiang Bor

Jumlah tiang dalam satu poer (n)

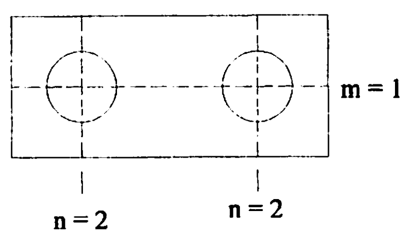
$$n = \frac{V}{Qizin\ 1\ tiang}$$

$$= \frac{57}{74{,}70060} = 0{,}763$$

Dicoba 2 buah tiang dengan susunan :

m (jumlah baris tiang) = 1

n (jumlah tiang dalam baris) = 2



Gambar 4.11 : Jumlah Tiang Bor Tipe 3

- Syarat jarak antar tiang

$$S \leq \frac{(1{,}57 \times D \times m \times n) - 2D}{(m+n) - 2}$$

$$S \leq \frac{(1{,}57 \times 0{,}5 \times 1 \times 2) - 2.0{,}5}{(1+2) - 2}$$

$$S \leq 0{,}57$$

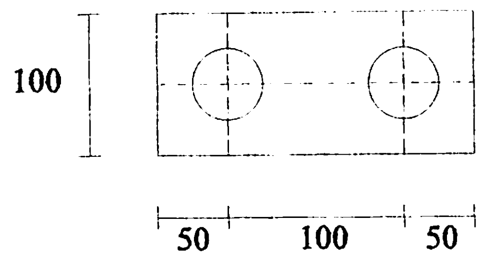
- Kontrol jarak antar tiang

$$2{,}5D \leq S \leq 3D$$

$$2{,}5(0{,}5) \leq S \leq 3(0{,}5)$$

$1,25 \leq S \leq 1,50$

Dipakai jarak antar tiang (s) = 1,00 m



Gambar 4.12 : Jarak Antar Tiang Bor Tipe 3

Dengan demikian perencanaan pondasi tiang bor tipe 3 dapat dihitung dengan efisiensi kelompok tiang.

Efisiensi kelompok tiang

1. Berdasarkan Rumus Los Angles

$$\eta = 1 - \frac{D}{\pi . s . m . n} [(m).(n-1) + (n).(m-1) + (m-1).(n-1).\sqrt{2}]$$

$$= 1 - \frac{0,5}{3,14 . 1 . 1 . 2} [(1).(2-1) + (2).(1-1) + (1-1).(2-1).\sqrt{2}]$$

$= 0,920 < 1$ OK

2. Berdasarkan Rumus Converse - Labarre

$$\eta = 1 - \frac{(n-1).m+(m-1).n}{90 . m . n} \times \theta \qquad \Rightarrow \theta = \arctan\frac{D}{S}$$

$$= \arctan\frac{0,5}{1,0} = 26,565°$$

$$= 1 - \frac{(2-1).1+(1-1).2}{90 . 1 . 2} \times 26,565°$$

$= 0,852 < 1$ OK

3. Berdasarkan Rumus Seiler – Keeney

$$\eta = 1 - \frac{(36.s).(m+n-2)}{(75.s^2.-7).(m+n-1)} + \frac{0,3}{(m+n)}$$

$$\eta = 1 - \frac{(36.1).(1+2-2)}{(75.1^2.-7).(1+2-1)} + \frac{0,3}{(1+2)}$$

= 0,835 < 1   OK

Berdasarkan dari perhitungan nilai efisiensi, diambil nilai η yang terkecil yaitu : 0,835 yang digunakan untuk perhitungan selanjutnya.

❖ Daya dukung tiang kelompok

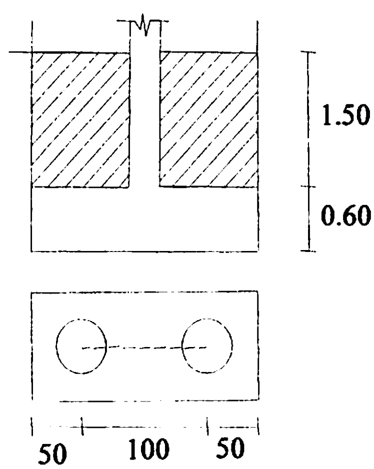
Qpg = η x n x Qizin

= 0,635 x 2 x 74,70060

= 124,794 ton > V = 57 ton   **(OK), Syarat Qpg > V**

❖ Kontrol ΣV dimana, ΣV = (V + berat poer) < Qpg

Perhitungan beban poer



Gambar 4.13 : Perencanaan Poer

Poer = [(2,0 x 1,00) + (0,3 x 0,4 x 1,5)] x 2400

= 433,350 kg

Tanah urug = [(2,0 x 1,00 x 0,6) – (0,3 x 0,4 x 1,5)] x 1700

= 1989 kg

V = 57000 kg

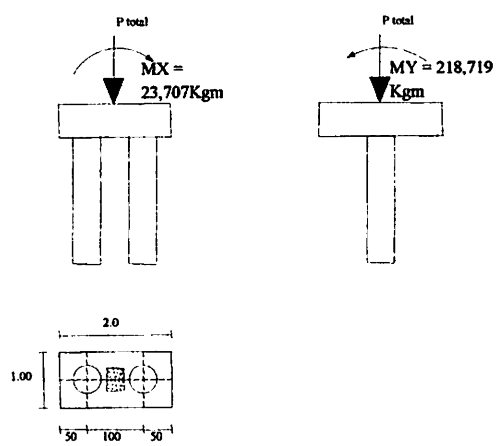
ΣV = Berat sendiri poer + Berat tanah urug + V

= 433,350 + 1989 + 57000

= 59422,350 kg

= 59,9423 ton < Qpg = 124,794 ton **(OK)**

4.2.4.2 Perhitungan Beban Yang Diterima Oleh Pondasi Tiang Bor



Gambar 4.15 : Pondasi Bor yang Menenrima Beban V dan M

Mencari beban tiang maximum

$$Pmax = \frac{\Sigma V}{n} \pm \frac{My \cdot Xmax}{ny \cdot \Sigma X^2} \pm \frac{Mx \cdot Ymax}{nx \cdot \Sigma Y^2}$$

Dimana :

ΣV = 59422,350 kg ; Mx = 23,707 kgm

n = 2 tiang ; My = 218,719 kgm

ny = 1 tiang

nx = 2 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (-1{,}25^2) + (1{,}25^2) = 3{,}13\ m^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (-0^2) + (0^2) = 0\ m^2$

Sehingga :

$(x_1 = -1{,}25 ; y_1 = 0)$

$$P1 = \frac{59422{,}350}{2} \pm \frac{218{,}719 \times (-1{,}25)}{1 \times 3{,}13} \pm \frac{23{,}707 \times (0)}{2 \times 0}$$

= 29623,687 kg

$(x_2 = 1{,}25 ; y_2 = 0)$

$$P2 = \frac{59422{,}350}{2} \pm \frac{218{,}719 \times (1{,}25)}{1 \times 3{,}13} \pm \frac{22{,}707 \times (0)}{2 \times 0}$$

= 30385,523 kg

Pmax = 30385,523 kg < Q1 tiang = 74700,60 kg ....**(aman)**

Jadi dapat digunakan pondasi tiang bor pada kedalaman 6,4 m dengan diameter 50 cm.

4.3 Perencanaan Penulangan Poer Pondasi Strauss

4.3.1 Penulangan Poer Pondasi Strauss Tipe 1

Diketahui :

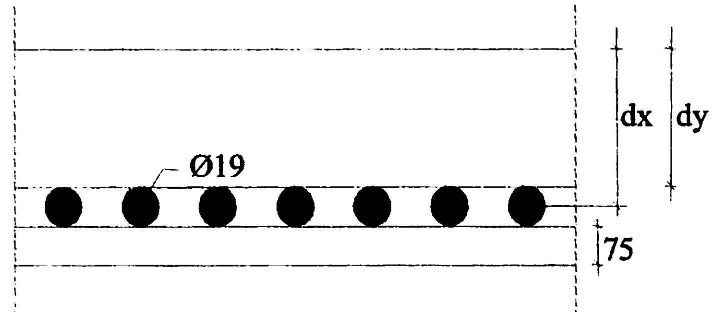
- Pmax = 53279,92 kg = 53,27992 ton
- P = ΣV = 314051,93 kg = 314,05193 ton
- Mx = 2,03 tm
- My = 1,97 tm
- Mutu Beton (fc') = 25 Mpa
- Mutu Baja (fy) = 400 Mpa

Direncanakan :

Tebal Poer (H)= 60 cm = 600 mm

Tebal Selimut = 7,5 cm = 75 mm

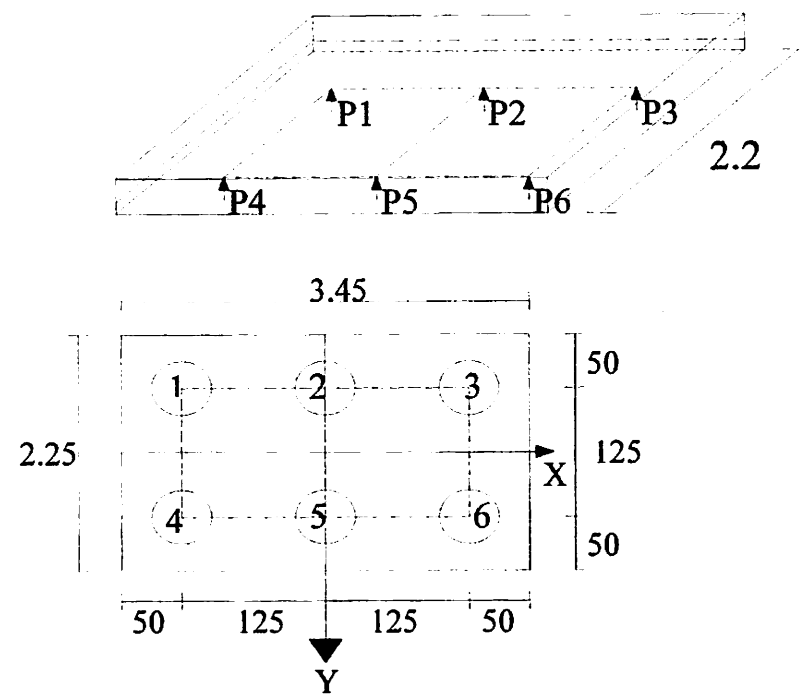
Tul. Pokok (Ø) = 19



$dx \quad = 600 - 75 - (^1/_2 \times 19) = 515{,}5$ mm

$dy \quad = 600 - 75 - 19 - (^1/_2 \times 19) = 496{,}5$ mm

Penulangan Poer



Gambar 4.14 : Arah Pembebanan Pondasi Tiang Bor Pada Poer

Perhitungan Momen

Pada bagian bawah poer diasumsikan sebagai jalur yang dijepit pada bagian sisinya. Dari table : (pelat : Stigle/Wipel : 209) didapat Mye dengan cara interpolasi.

Tabel 4.2 : Pelat Stiglet/Wipel

Y/L	0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Mye	0,32	0,31	0,30	0,28	0,25	0,21	0,18	0,14	0,09	0,05	0

Momen arah x yang terjadi akibat reaksi dari tiang bor :

Mencari beban masing-masing tiang :

$$P = \frac{\Sigma V}{n} \pm \frac{My \cdot Xmax}{ny \cdot \Sigma X^2} \pm \frac{Mx \cdot Ymax}{nx \cdot \Sigma Y^2}$$

Dimana :

ΣV = 314,05193 ton ; Mx = 2,04 tm

n = 6 tiang ; My = 1,97 tm

ny = 2 tiang

nx = 3 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (-1,25^2) + (0^2) + (1,25^2) = 3,13\ m^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (-0,625^2) + (0,625^2) = 0,78\ m^2$

Sehingga :

($x_1 = -1,25$; $y_1 = 0,625$)

$$P1 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \times (-1{,}25)}{2 \times 3{,}13} \pm \frac{2{,}04 \times (0{,}625)}{3 \times 0{,}78}$$

= 52,489 ton

($x_2 = 0$; $y_1 = 0{,}625$)

$$P2 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \times (0)}{2 \times 3{,}13} \pm \frac{2{,}04 \times (0{,}625)}{3 \times 0{,}78}$$

= 52,883 ton

($x_3 = 1{,}25$; $y_3 = 0{,}625$)

$$P3 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \times (1{,}25)}{2 \times 3{,}13} \pm \frac{2{,}04 \times (0{,}625)}{3 \times 0{,}78}$$

= 54,277 ton

$$(Y/L)_1 = \frac{0{,}5}{0{,}625+0{,}625} = 0{,}4$$

= 0,25

$$(Y/L)_2 = \frac{0{,}5}{0{,}625+0{,}625} = 0{,}4$$

= 0,25

$$(Y/L)_3 = \frac{0{,}5}{0{,}625+0{,}625} = 0{,}4$$

= 0,25

Mxe 1 = (P1 x 0,25) + (P2 x 0,25) + (P3 x 0,25)

= (52,482 x 0,25) + (52,883 x 0,25) + (53,277 x 0,25)

$= 39{,}662$ tm

Mxe 2 $= (P1 \times 0{,}25) + (P2 \times 0{,}25) + (P3 \times 0{,}25)$

$= (52{,}482 \times 0{,}25) + (52{,}883 \times 0{,}25) + (53{,}277 \times 0{,}25)$

$= 39{,}662$ tm

Mxe 3 $= (P1 \times 0{,}25) + (P2 \times 0{,}25) + (P3 \times 0{,}25)$

$= (52{,}482 \times 0{,}25) + (52{,}883 \times 0{,}25) + (53{,}277 \times 0{,}25)$

$= 39{,}662$ tm

Momen arah y yang terjadi akibat reaksi dari tiang bor :

Mencari beban masing-masing tiang :

$$P = \frac{\Sigma V}{n} \pm \frac{My \,.\, Xmax}{ny \,.\, \Sigma X^2} \pm \frac{Mx \,.\, Ymax}{nx \,.\, \Sigma Y^2}$$

Sehingga :

$(x_2 = 0 \,;\, y_2 = 0{,}625)$

$$P2 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \times (0)}{2 \times 3{,}13} \pm \frac{2{,}04 \times (0{,}625)}{3 \times 0{,}78}$$

$= 52{,}883$ ton

$(x_3 = 1{,}25 \,;\, y_1 = 0{,}625)$

$$P3 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \times (1{,}25)}{2 \times 3{,}13} \pm \frac{2{,}04 \times (0{,}625)}{3 \times 0{,}78}$$

$= 53{,}277$ ton

($x_5 = 0$; $y_5 = -0{,}625$)

$$P5 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \text{ x } (0)}{2 \text{ x } 3{,}13} \pm \frac{2{,}04 \text{ x } (-0{,}625)}{3 \text{ x } 0{,}78}$$

= 51,801 ton

($x_6 = 1{,}25$; $y_6 = -0{,}625$)

$$P6 = \frac{314{,}05193}{6} \pm \frac{1{,}97 \text{ x } (1{,}25)}{2 \text{ x } 3{,}13} \pm \frac{2{,}04 \text{ x } (-0{,}625)}{3 \text{ x } 0{,}78}$$

= 52,195 ton

Mye 2 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (52,883 x 0,25) + (53,227 x 0,25) + (51,801 x 0,25) +

(52,195 x 0,25) = 52,539 tm

Mye 3 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (52,883 x 0,25) + (53,227 x 0,25) + (51,801 x 0,25) +

(52,195 x 0,25) = 52,539 tm

Mye 5 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (52,883 x 0,25) + (53,227 x 0,25) + (51,801 x 0,25) +

(52,195 x 0,25) = 52,539 tm

Mye 6 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (52,883 x 0,25) + (53,227 x 0,25) + (51,801 x 0,25) +

(52,195 x 0,25) = 52,539 tm

4.3.1.1 Perhitungan penulangan poer arah x

Mu = 39,662 tm = 39662 kgm

Mn $= \frac{Mu}{\emptyset} = \frac{39662}{0,8} = 49578$ kgm = 49578 x 10^4 Nmm

dx = 600 – 75 – ($^1/_2$ x 19) = 515,5 mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{49578 \times 10^4}{1000 \times 515,5^2} = 1,866$ Mpa

m $= \frac{f_y}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18,824$

ρ_b $= \frac{0,85 \times fc'}{fy} \times \beta \times \frac{600}{600+ fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

= 0,0271

ρ_{max} = 0,75 x ρ_b = 0,75 x 0,0271 = 0,0203

ρ_{min} $= \frac{1,4}{fy} = \frac{1,4}{400} = 0,004$

ρ_{perlu} $= \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18,824} \times 1 -$

$\sqrt{1 - \frac{2 \times 1,866 \times 18,824}{400}}$

$= 0,002$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0,004$

As perlu $= \rho_{min} \times b \times dx$

$= 0,004 \times 1000 \times 515,5$

$= 1804,250 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 19

Jumlah tul. (n) $= \frac{\text{As perlu}}{0,25 \times \pi \times d^2} = \frac{1804,250}{0,25 \times \pi \times 19^2} = 6,367 \approx 6$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{6} = 166,667 \approx 150$ mm

As ada $= \frac{1000}{150} \times 0,25 \times \pi \times 19^2$

$= 1889,233 \text{ mm}^2 >$ As perlu $= 1804,250 \text{ mm}^2$ **(OK)**

Jadi digunakan tulangan tarik arah x 6D19-150

Perhitungan tulangan tekan

As tekan $= 20\% \times$ As perlu

$= 20\% \times 1804,250$

$= 360,850 \text{ mm}^2$

Direncanakan menggumakan tul.tekan D16

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{360{,}850}{0{,}25 \times \pi \times 16^2} = 1{,}796 \approx 5$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{5} = 200 \approx 200$ mm

As ada $= \frac{1000}{200} \times 0{,}25 \times \pi \times 16^2$

$= 1004{,}800\ mm^2 >$ As tekan $= 360{,}850\ mm^2$ **(OK)**

Jadi digunakan tulangan tekan arah x 5D16

4.3.1.2 Perhitungan penulangan poer arah y

Mu = 52,539 tm = 52539 kgm

Mn $= \frac{Mu}{\phi} = \frac{52539}{0{,}8} = 65674$ kgm $= 65674 \times 10^4$ Nmm

dy $= 600 - 75 - 19 - (^1/_2 \times 19) = 496{,}5$ mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{65674 \times 10^4}{1000 \times 496{,}5^2} = 2{,}664$ Mpa

m $= \frac{f_y}{0{,}85 \times fc'} = \frac{400}{0{,}85 \times 25} = 18{,}824$

ρ_b $= \frac{0{,}85 \times fc'}{fy} \times \beta \times \frac{600}{600 + fy} = \frac{0{,}85 \times 25}{400} \times 0{,}85 \times \frac{600}{600+400}$

$= 0{,}0271$

ρ_{max} $= 0{,}75 \times \rho_b = 0{,}75 \times 0{,}0271 = 0{,}0203$

$\rho_{min} \quad = \frac{1,4}{fy} = \frac{1,4}{400} = 0,004$

$\rho_{perlu} \quad = \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18,824} \times 1 -$

$\sqrt{1 - \frac{2 \times 1,866 \times 18,824}{400}}$

$= 0,001$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0,004$

As perlu $= \rho_{min} \times b \times dy$

$= 0,004 \times 1000 \times 496,5$

$= 1737,750 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 19

Jumlah tul. (n) $= \frac{\text{As perlu}}{0,25 \times \pi \times d^2} = \frac{1737,750}{0,25 \times \pi \times 19^2} = 6,13 \approx 6$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{6} = 166,667 \approx 160$ mm

As ada $= \frac{1000}{160} \times 0,25 \times \pi \times 19^2$

$= 1771,156 \text{ mm}^2 >$ As perlu $= 1737,750 \text{ mm}^2$ **(OK)**

Jadi digunakan tulangan tarik arah y 6D19-160

Perhitungan tulangan tekan

As tekan = 20% x As perlu

$= 20\% \times 1737{,}750$

$= 347{,}550 \text{ mm}^2$

Direncanakan menggumakan tul.tekan D16

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{347{,}550}{0{,}25 \times \pi \times 16^2} = 1{,}73 \approx 5$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{5} = 200 \approx 200$ mm

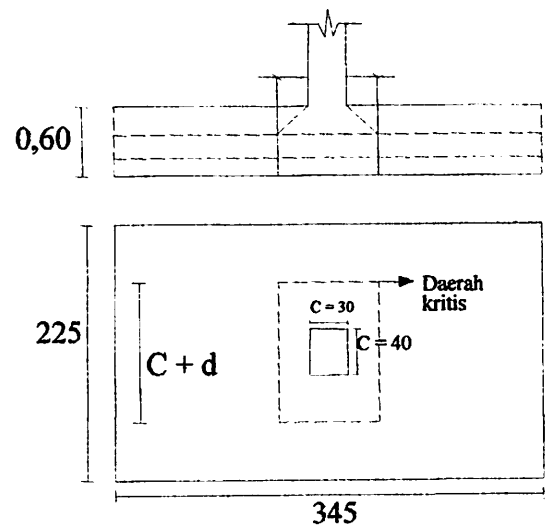
As ada $= \frac{1000}{200} \times 0{,}25 \times \pi \times 16^2$

$= 1004{,}800 \text{ mm}^2 >$ As tekan $= 347{,}550 \text{mm}^2$ **(OK)**

Jadi digunakan tulangan tekan arah x 5D16-200

4.3.1.3 Kontrol Geser Pons (Gaya Geser Dua Arah Sumbu)

- Geser Pons terhadap Kolom



Gambar 4.15 : Skema Geser Pons

Diketahui :

Vu = 306 ton = 306000 kg

Tinggi efektif (d)

d = tebal poer – tebal selimut beton – $^1/_2$ diameter tulangan terluar

= 600 – 75 - $^1/_2$. 19

= 515,5 mm

Dimensi kolom (c) = 30/40

- Keliling bidang kritis geser pons (bo)

bo = 4 . [(c_1 + d) + (c_2 + d)]

= 4 . [(300 + 515,5) + (400 + 515,5)]

= 6924 mm

- Kuat geser beton maksimun

$$Vc = \frac{\sqrt{fc'}}{3} \times bo \times d$$

$$= \frac{\sqrt{25}}{3} \times 6924 \times 515{,}5$$

$$= 5948870 \text{ kg}$$

$$ØVc = 0{,}6 \times Vc$$

$$= 0{,}6 \times 5948870$$

$$= 3569322 \text{ kg}$$

Maka Vu = 306000 kg < ØVc = 3569322 kg...........**(OK)**

Karena Vu < ØVc, maka tidak diperlukan tulangan geser terhadap kolom dan poer aman terhadap geser pons akibat kolom.

4.3.2 Penulangan Poer Pondasi Strauss Tipe 2

Diketahui :

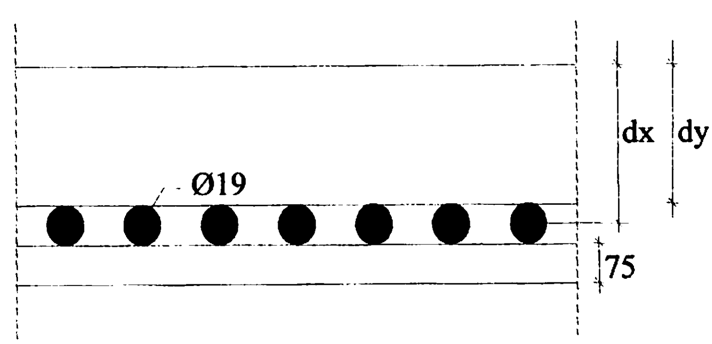
- Pmax = 48797,386 kg = 48,797386 ton
- P = ΣV = 283873,32 kg = 283,87332 ton
- Mx = 2,59 tm
- My = 2,03 tm
- Mutu Beton (fc') = 25 Mpa
- Mutu Baja (fy) = 400 Mpa

Direncanakan :

Tebal Poer (H) = 60 cm = 600 mm

Tebal Selimut = 7,5 cm = 75 mm

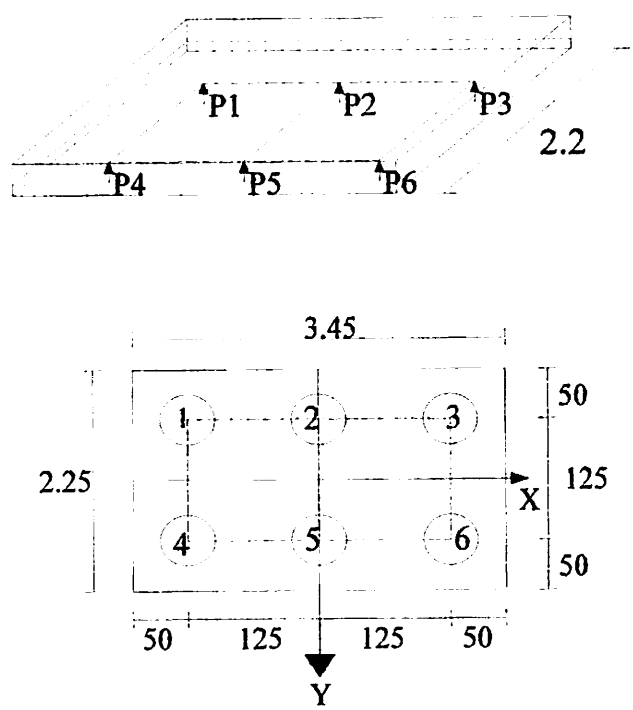
Tul. Pokok (Ø) = 19



dx = 600 – 75 – ($^1/_2$ x 19) = 515,5 mm

dy = 600 – 75 – 19 - ($^1/_2$ x 19) = 496,5 mm

Penulangan Poer



Gambar 4.16 : Arah Pembebanan Pondasi Tiang Bor Pada Poer

Perhitungan Momen

Pada bagian bawah poer diasumsikan sebagai jalur yang dijepit pada bagian sisinya. Dari table : (pelat : Stigle/Wipel : 209) didapat Mye dengan cara interpolasi.

Tabel 4.3 : Pelat Stigle/Wipel

Y/L	0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Mye	0,32	0,31	0,30	0,28	0,25	0,21	0,18	0,14	0,09	0,05	0

Momen arah x yang terjadi akibat reaksi darivtiang bor :

Mencari beban masing-masing tiang :

$$P = \frac{\Sigma V}{n} \pm \frac{My . Xmax}{ny . \Sigma X^2} \pm \frac{Mx . Ymax}{nx . \Sigma Y^2}$$

Dimana :

ΣV = 283,873 ton ; Mx = 2,59 tm

n = 6 tiang ; My = 2,03 tm

ny = 2 tiang

nx = 3 tiang

ΣX^2 = Jumlah kuadrat absis tiang

= $(-1,25^2) + (0^2) + (1,25^2) = 3,13$ m^2

ΣY^2 = Jumlah kuadrat ordinat tiang

= $(-0,625^2) + (0,625^2) = 0,78$ m^2

Sehingga :

($x_1 = -1,25$; $y_1 = 0,625$)

$$P1 = \frac{283,873}{6} \pm \frac{2,03 \times (-1,25)}{2 \times 3,13} \pm \frac{2,59 \times (0,625)}{3 \times 0,78}$$

= 47,597 ton

($x_2 = 0$; $y_2 = 0,625$)

$$P2 = \frac{283,873}{6} \pm \frac{2,03 \times (0)}{2 \times 3,13} \pm \frac{2,59 \times (0,625)}{3 \times 0,78}$$

= 48,003 ton

(x_3 = 1,25 ; y_3 = 0,625)

$$P3 = \frac{283,873}{6} \pm \frac{2,03 \times (1,25)}{2 \times 3,13} \pm \frac{2,59 \times (0,625)}{3 \times 0;78}$$

= 48,409 ton

$$(Y/L)_1 = \frac{0,5}{0,625+0,625} = 0,4$$

= 0,25

$$(Y/L)_2 = \frac{0,5}{0,625+0,625} = 0,4$$

= 0,25

$$(Y/L)_3 = \frac{0,5}{0,625+0,625} = 0,4$$

= 0,25

Mxe 1 = (P1 x 0,25) + (P2 x 0,25) + (P3 x 0,25)

= (47,597 x 0,25) + (48,003 x 0,25) + (48,409 x 0,25)

= 36,002 tm

Mxe 2 = (P1 x 0,25) + (P2 x 0,25) + (P3 x 0,25)

= (47,597 x 0,25) + (48,003 x 0,25) + (48,409 x 0,25)

= 36,002 tm

Mxe 3 = (P1 x 0,25) + (P2 x 0,25) + (P3 x 0,25)

= (47,597 x 0,25) + (48,003 x 0,25) + (48,409 x 0,25)

= 36,002 tm

Momen arah y yang terjadi akibat reaksi dari tiang bor :

Mencari beban masing-masing tiang :

$$P = \frac{\Sigma V}{n} \pm \frac{My\,.\,Xmax}{ny\,.\,\Sigma X^2} \pm \frac{Mx\,.\,Ymax}{nx\,.\,\Sigma Y^2}$$

Sehingga :

($x_2 = 0$; $y_2 = 0,625$)

$$P2 = \frac{283,873}{6} \pm \frac{2,03 \times (0)}{2 \times 3,13} \pm \frac{2,59 \times (0,625)}{3 \times 0,78}$$

= 48,003 ton

($x_3 = 1,25$; $y_1 = 0,625$)

$$P3 = \frac{283,873}{6} \pm \frac{2,03 \times (1,25)}{2 \times 3,13} \pm \frac{2,59 \times (0,625)}{3 \times 0,78}$$

= 48,409 ton

($x_5 = 0$; $y_5 = -0,625$)

$$P5 = \frac{283,873}{6} \pm \frac{2,03 \times (0)}{2 \times 3,13} \pm \frac{2,59 \times (-0,625)}{3 \times 0,78}$$

= 46,622 ton

(x_6 = 1,25 ; y_6 = -0,625)

$$P6 = \frac{283,873}{6} \pm \frac{2,03 \times (1,25)}{2 \times 3,13} \pm \frac{2,59 \times (-0,625)}{3 \times 0,78}$$

= 47,028 ton

Mye 2 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (48,003 x 0,25) + (48,409 x 0,25) + (46,622 x 0,25) + (47,028 x 0,25) = 47,515 tm

Mye 3 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (48,003 x 0,25) + (48,409 x 0,25) + (46,622 x 0,25) + (47,028 x 0,25) = 47,515 tm

Mye 5 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (48,003 x 0,25) + (48,409 x 0,25) + (46,622 x 0,25) + (47,028 x 0,25) = 47,515 tm

Mye 6 = (P2 x 0,25) + (P3 x 0,25) + (P5 x 0,25) + (P6 x 0,25)

= (48,003 x 0,25) + (48,409 x 0,25) + (46,622 x 0,25) + (47,028 x 0,25) = 47,515 tm

4.3.2.1 Perhitungan penulangan poer arah x

Mu = 36,002 tm = 36002 kgm

Mn $= \frac{Mu}{\emptyset} = \frac{36002}{0,8} = 45003$ kgm = 45003 x 10^4 Nmm

dx = 600 – 75 – ($^1/_2$ x 19) = 515,5 mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{45003 \times 10^4}{1000 \times 515,5^2} = 1,693$ Mpa

m $= \frac{f_y}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18,824$

ρ_b $= \frac{0,85 \times fc'}{fy} \times \beta \times \frac{600}{600 + fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

= 0,0271

ρ_{max} = 0,75 x ρ_b = 0,75 x 0,0271 = 0,0203

ρ_{min} $= \frac{1,4}{fy} = \frac{1,4}{400} = 0,004$

ρ_{perlu} $= \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18,824} \times 1 -$

$\sqrt{1 - \frac{2 \times 1,693 \times 18,824}{400}}$

= 0,001

$\rho_{perlu} < \rho_{min}$, maka yang ρ_{min} = 0,004

As perlu $= \rho_{min} \times b \times dx$

$= 0{,}004 \times 1000 \times 515{,}5$

$= 1804{,}250 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 19

Jumlah tul. (n) $= \frac{\text{As perlu}}{0{,}25 \times \pi \times d^2} = \frac{1804{,}250}{0{,}25 \times \pi \times 19^2} = 6{,}367 \approx 6 \text{ tul.}$

Jarak (s) $= \frac{b}{n} = \frac{1000}{6} = 166{,}667 \approx 150 \text{ mm}$

As ada $= \frac{1000}{150} \times 0{,}25 \times \pi \times 19^2$

$= 1889{,}233 \text{ mm}^2 >$ As perlu $= 1804{,}250 \text{ mm}^2$ **(OK)**

Jadi digunakan tulangan tarik arah x 6D19-150

Perhitungan tulangan tekan

As tekan $= 20\% \times$ As perlu

$= 20\% \times 1804{,}250$

$= 360{,}850 \text{ mm}^2$

Direncanakan menggumakan tul.tekan D16

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{360{,}850}{0{,}25 \times \pi \times 16^2} = 1{,}796 \approx 5 \text{ tul.}$

Jarak (s) $= \frac{b}{n} = \frac{1000}{5} = 200 \approx 200$ mm

As ada $= \frac{1000}{200} \times 0{,}25 \times \pi \times 16^2$

$= 1004{,}800\ mm^2 >$ As tekan $= 360{,}850\ mm^2$ **(OK)**

Jadi digunakan tulangan tekan arah x 5D16-200

4.3.2.2 Perhitungan penulangan poer arah y

Mu = 47,515 tm = 47515 kgm

Mn $= \frac{Mu}{\emptyset} = \frac{47515}{0{,}8} = 59394$ kgm $= 59394 \times 10^4$ Nmm

dy $= 600 - 75 - 19 - (^1/_2 \times 19) = 496{,}5$ mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{59394 \times 10^4}{1000 \times 496{,}5^2} = 2{,}409$ Mpa

m $= \frac{f_y}{0{,}85 \times fc'} = \frac{400}{0{,}85 \times 25} = 18{,}824$

ρ_b $= \frac{0{,}85 \times fc'}{fy} \times \beta \times \frac{600}{600 + fy} = \frac{0{,}85 \times 25}{400} \times 0{,}85 \times \frac{600}{600+400}$

$= 0{,}0271$

ρ_{max} $= 0{,}75 \times \rho_b = 0{,}75 \times 0{,}0271 = 0{,}0203$

ρ_{min} $= \frac{1{,}4}{fy} = \frac{1{,}4}{400} = 0{,}004$

ρ_{perlu} $= \frac{1}{m} x 1 - \sqrt{1 - \frac{2 x Rn x m}{fy}} = \frac{1}{18,824} x 1 -$

$\sqrt{1 - \frac{2 x 2,409 x 18,824}{400}}$

= 0,006

$\rho_{perlu} > \rho_{min}$, maka yang ρ_{perlu} = 0,006

As perlu = ρ_{min} x b x dy

= 0,006 x 1000 x 496,5

= 2979 mm^2

Direncanakan menggunakan tulangan pokok D 19

Jumlah tul. (n) $= \frac{As\ perlu}{0,25 x \pi x d^2} = \frac{2979}{0,25 x \pi x 19^2} = 10,51 \approx 11$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{11} = 90,91 \approx 90$ mm

As ada $= \frac{1000}{90} x 0,25 x \pi x 19^2$

= 3148,722 mm^2 > As perlu = 2979 mm^2 **(OK)**

Jadi digunakan tulangan tarik arah y 11D19-90

Perhitungan tulangan tekan

As tekan = 20% x As perlu

= 20% x 2979

= 595,800 mm^2

Direncanakan menggumakan tul.tekan D16

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{595{,}800}{0{,}25 \times \pi \times 16^2} = 2{,}96 \approx 3$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}33 \approx 300$ mm

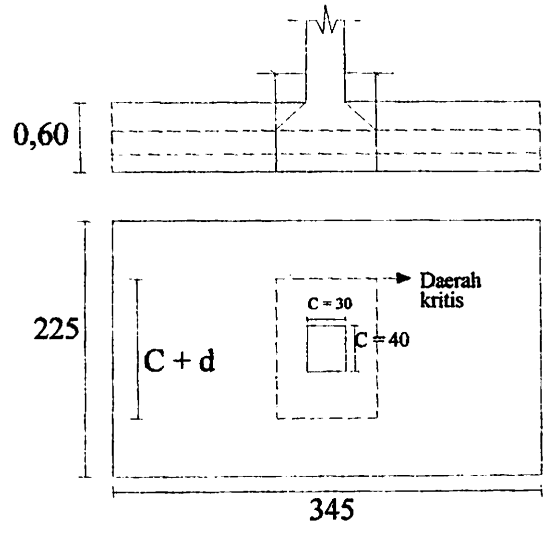
As ada $= \frac{1000}{300} \times 0{,}25 \times \pi \times 16^2$

= 666,867 mm^2 > As tekan = 595,800 mm^2 **(OK)**

Jadi digunakan tulangan tekan arah x 3D16-300

4.3.2.3 Kontrol Geser Pons (Gaya Geser Dua Arah Sumbu)

- **Geser Pons terhadap Kolom**



Gambar 4.17 : Skema Geser Pons

Diketahui :

Vu = 283 ton = 283000 kg

Tinggi efektif (d)

d = tebal poer – tebal selimut beton – $^1/_2$ diameter tulangan terluar

= 600 – 75 - $^1/_2$. 19

= 515,5 mm

Dimensi kolom (c) = 30/40

- Keliling bidang kritis geser pons (bo)

bo = 4 . [(c_1 + d) + (c_2 + d)]

= 4 . [(300 + 515,5) + (400 + 515,5)]

= 6924 mm

- Kuat geser beton maksimun

$$Vc = \frac{\sqrt{fc'}}{3} \text{ x bo x } d$$

$$= \frac{\sqrt{25}}{3} \text{ x } 6924 \text{ x } 515{,}5$$

$$= 5948870 \text{ kg}$$

$$ØVc = 0{,}6 \text{ x Vc}$$

$$= 0{,}6 \text{ x } 5948870$$

$$= 3569322 \text{ kg}$$

Maka Vu = 306000 kg < ØVc = 3569322 kg...........**(OK)**

Karena Vu < ØVc, maka tidak diperlukan tulangan geser terhadap kolom dan poer aman terhadap geser pons akibat kolom.

4.3.3 Penulangan Poer Pondasi Strauss Tipe 3

Diketahui :

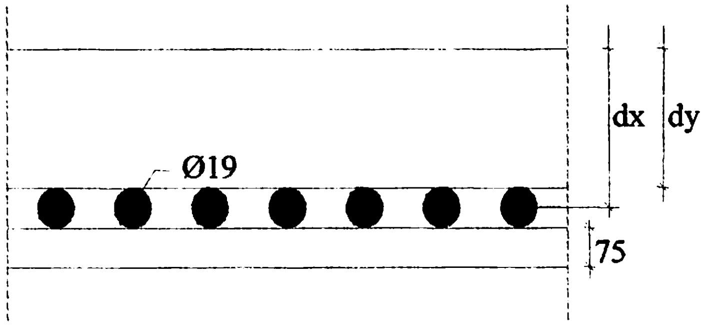
- Pmax = 29798,663 kg = 29,798663 ton
- P = ΣV = 59422,350 kg = 59,422350 ton
- Mx = 0,0237 tm
- My = 0,2187 tm
- Mutu Beton (fc') = 25 Mpa
- Mutu Baja (fy) = 400 Mpa

Direncanakan :

Tebal Poer (H) = 60 cm = 600 mm

Tebal Selimut = 7,5 cm = 75 mm

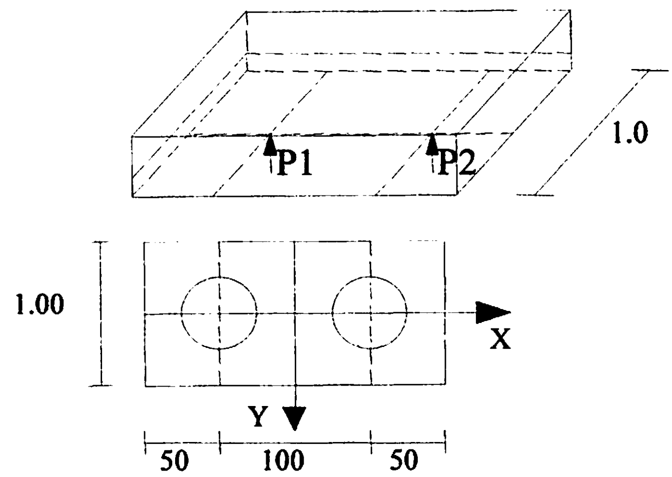
Tul. Pokok (Ø) = 19



dx = 600 – 75 – ($^1/_2$ x 19) = 515,5 mm

dy = 600 – 75 – 19 - ($^1/_2$ x 19) = 496,5 mm

Penulangan Poer



Gambar 4.18 : Arah Pembebanan Pondasi Tiang Bor Pada Poer

Perhitungan Momen

Pada bagian bawah poer diasumsikan sebagai jalur yang dijepit pada bagian sisinya. Dari table : (pelat : Stigle/Wipel : 209) didapat Mye dengan cara interpolasi.

Tabel 4.4 : Tabel pelat Stigle / Wipel

Y/L	0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Mye	0,32	0,31	0,30	0,28	0,25	0,21	0,18	0,14	0,09	0,05	0

Momen arah x yang terjadi akibat reaksi darivtiang bor :

Mencari beban masing-masing tiang :

$$P = \frac{\Sigma V}{n} \pm \frac{My \, . \, Xmax}{ny \, . \, \Sigma X^2} \pm \frac{Mx \, . \, Ymax}{nx \, . \, \Sigma Y^2}$$

Dimana :

ΣV = 59,422 ton ; Mx = 0,0237 tm

n = 2 tiang ; My = 0,2187 tm

ny = 1 tiang

nx = 2 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (-1{,}25^2) + (1{,}25^2) = 3{,}13 \text{ m}^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (-0^2) + (0^2) = 0 \text{ m}^2$

Sehingga :

(x_1 = - 1,25 ; y_1 = 0)

$$P1 = \frac{59{,}422}{2} \pm \frac{0{,}2187 \times (-1{,}25)}{1 \times 3{,}13} \pm \frac{0{,}0237 \times (0)}{2 \times 0}$$

= 29,624 ton

(x_2 = 1,25 ; y_2 = 0)

$$P2 = \frac{59{,}422}{2} \pm \frac{0{,}2187 \times (1{,}25)}{1 \times 3{,}13} \pm \frac{0{,}0237 \times (0)}{2 \times 0}$$

= 29,799 ton

$(Y/L)_1 = \frac{0,5}{0,625+0,625} = 0,4$

$= 0,25$

$(Y/L)_2 = \frac{0,5}{0,625+0,625} = 0,4$

$= 0,25$

Mxe 1 = (P1 x 0,25) + (P2 x 0,25)

= (29,624 x 0,25) + (29,799 x 0,25)

= 14,856 tm

Mxe 2 = (P1 x 0,25) + (P2 x 0,25)

= (29,624 x 0,25) + (29,799 x 0,25)

= 14,856 tm

Momen arah y yang terjadi akibat reaksi dari tiang bor :

Mencari beban masing-masing tiang :

$$P = \frac{\Sigma V}{n} \pm \frac{My.\,Xmax}{ny.\,\Sigma X^2} \pm \frac{Mx.\,Ymax}{nx.\,\Sigma Y^2}$$

Sehingga :

$(x_2 = 1,25 ; y_2 = 0)$

P2 $= \frac{59,422}{2} \pm \frac{0,2187 \times (1,25)}{1 \times 3,13} \pm \frac{0,0237 \times (0)}{2 \times 0}$

= 29,799 ton

Mxe 2 = (P1 x 0,25) + (P2 x 0,25)

= (29,624 x 0,25) + (29,799 x 0,25)

= 14,856 tm

4.3.3.1 Perhitungan penulangan poer arah x

Mu = 14,856 tm = 14856 kgm

Mn $= \frac{Mu}{\emptyset} = \frac{14856}{0,8} = 18569$ kgm = 18569 x 10^4 Nmm

dx = 600 – 75 – ($^1/_2$ x 19) = 515,5 mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{18569 \times 10^4}{1000 \times 515,5^2} = 0,699$ Mpa

m $= \frac{f_y}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18,824$

ρ_b $= \frac{0,85 \times fc'}{fy} \times \beta \times \frac{600}{600+fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

= 0,0271

ρ_{max} = 0,75 x ρ_b = 0,75 x 0,0271 = 0,0203

ρ_{min} $= \frac{1,4}{fy} = \frac{1,4}{400} = 0,004$

ρ_{perlu} $= \frac{1}{m} x 1 - \sqrt{1 - \frac{2 x Rn x m}{fy}} = \frac{1}{18,824} x 1 -$

$\sqrt{1 - \frac{2 x 0,699 x 18,824}{400}}$

$= 0,002$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0,004$

As perlu $= \rho_{min}$ x b x dx

= 0,004 x 1000 x 515,5

= 1804,250 mm^2

Direncanakan menggunakan tulangan pokok D 19

Jumlah tul. (n) $= \frac{As\ perlu}{0,25 x \pi x d^2} = \frac{1804,250}{0,25 x \pi x 19^2} = 6,367 \approx 6$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{6} = 166,667 \approx 150$ mm

As ada $= \frac{1000}{150} x 0,25 x \pi x 19^2$

= 1889,233 mm^2 > As perlu = 1804,250 mm^2 **(OK)**

Jadi digunakan tulangan tarik arah x 6D19-150

Perhitungan tulangan tekan

As tekan = 20% x As perlu

= 20% x 1804,250

= 360,850 mm^2

Direncanakan menggumakan tul.tekan D16

Jumlah tul. (n) $= \frac{\text{As tekan}}{0,25 \times \pi \times d^2} = \frac{360,850}{0,25 \times \pi \times 16^2} = 1,796 \approx 5$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{5} = 200 \approx 200$ mm

As ada $= \frac{1000}{200} \times 0,25 \times \pi \times 16^2$

= 1004,800 mm^2 > As tekan = 360,850 mm^2 **(OK)**

Jadi digunakan tulangan tekan arah x 5D16-200

4.3.3.2 Perhitungan penulangan poer arah y

Mu = 14,856 tm = 14856 kgm

Mn $= \frac{Mu}{\emptyset} = \frac{14856}{0,8} = 18569$ kgm $= 18569 \times 10^4$ Nmm

dy = 600 – 75 – 19 - ($^1/_2$ x 19) = 496,5 mm

b = 1,00 m = 1000 mm

$Rn = \frac{Mn}{b \times dx^2} = \frac{18569 \times 10^4}{1000 \times 496,5^2} = 0,753$ Mpa

$m = \frac{f_y}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18,824$

$\rho_b = \frac{0,85 \times fc'}{fy} x\, \beta\, x \frac{600}{600 + fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

$= 0,0271$

$\rho_{max} = 0,75 \times \rho_b = 0,75 \times 0,0271 = 0,0203$

$\rho_{min} = \frac{1,4}{fy} = \frac{1,4}{400} = 0,004$

$\rho_{perlu} = \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18,824} \times 1 -$

$\sqrt{1 - \frac{2 \times 0,753 \times 18,824}{400}}$

$= 0,001$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0,004$

As perlu $= \rho_{min} \times b \times dy$

$= 0,004 \times 1000 \times 496,5$

$= 1737,750\ mm^2$

Direncanakan menggunakan tulangan pokok D 19

Jumlah tul. (n) $= \frac{As\ perlu}{0,25 \times \pi \times d^2} = \frac{1737,750}{0,25 \times \pi \times 19^2} = 6,13 \approx 6$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{6} = 166{,}667 \approx 160$ mm

As ada $= \frac{1000}{160}$ x 0,25 x π x 19^2

= 1771,156 mm^2 > As perlu = 1737,750 mm^2 **(OK)**

Jadi digunakan tulangan tarik arah y 6D19-160

Perhitungan tulangan tekan

As tekan = 20% x As perlu

= 20% x 1737,750

= 347,550 mm^2

Direncanakan menggumakan tul.tekan D16

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{347{,}550}{0{,}25 \times \pi \times 16^2} = 1{,}73 \approx 5$ tul.

Jarak (s) $= \frac{b}{n} = \frac{1000}{5} = 200 \approx 200$ mm

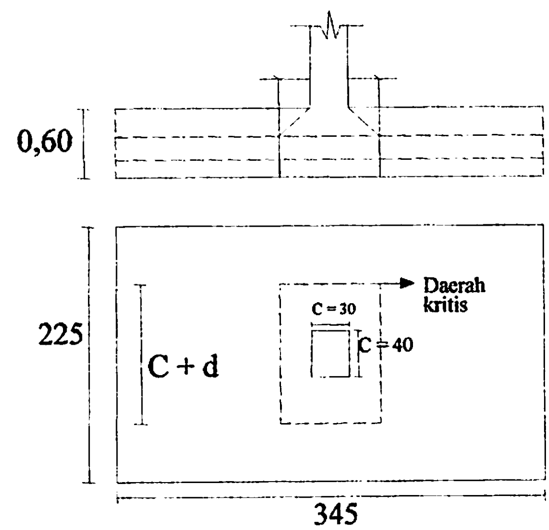
As ada $= \frac{1000}{200}$ x 0,25 x π x 16^2

= 1004,800 mm^2 > As tekan = 347,550mm^2 **(OK)**

Jadi digunakan tulangan tekan arah x 5D16-200

4.3.3.3 Kontrol Geser Pons (Gaya Geser Dua Arah Sumbu)

- **Geser Pons terhadap Kolom**



Gambar 4.19 : Skema Geser Pons

Diketahui :

Vu = 57 ton = 57000 kg

Tinggi efektif (d)

d = tebal poer – tebal selimut beton – $^1/_2$ diameter tulangan terluar

= 600 – 75 - $^1/_2$. 19

= 515,5 mm

Dimensi kolom (c) = 30/40

- Keliling bidang kritis geser pons (bo)

bo = 4 . [(c_1 + d) + (c_2 + d)]

= 4 . [(300 + 515,5) + (400 + 515,5)]

= 6924 mm

- Kuat geser beton maksimun

$$Vc = \frac{\sqrt{fc'}}{3} \text{ x bo x } d$$

$$= \frac{\sqrt{25}}{3} \text{ x } 6924 \text{ x } 515{,}5$$

$$= 5948870 \text{ kg}$$

$$ØVc = 0{,}6 \text{ x } Vc$$

$$= 0{,}6 \text{ x } 5948870$$

$$= 3569322 \text{ kg}$$

Maka Vu = 306000 kg < ØVc = 3569322 kg............**(OK)**

Karena Vu < ØVc, maka tidak diperlukan tulangan geser terhadap kolom dan poer aman terhadap geser pons akibat kolom.

4.4 Perhitungan Tulangan Pondasi Strauss

4.4.1 Penulangan Pondasi Strauss Tipe 1

Perhitungan pondasi strauss diasumsikan seperti perhitungan kolom bulat.

Data Perencanaan :

- P max = 53279,92 kg = 53,27992 ton
- Pu = ΣV = 314051,51 kg = 314,05151 ton
- Mutu beton (fc') = 25 Mpa
- Mutu baja tulangan (fy) = 400 Mpa
- D tulangan pokok = 19 mm
- D_{tiang} = 50 cm = 500 mm
- Tebal selimut = 75 mm

1. Tebal efektif selimut beton terpusat tulangan terluar

   d' = tebal selimut beton + Ø sengkang + ($^1/_2$ $D_{tul.pokok}$)

   = 75 + 12 + ($^1/_2$ 19)

   = 96,50 mm

   $d_{efektif}$ = Dtiang – (2 x d')

   = 500 – (2 x 96,50)

   = 307 mm

2. Luas penampang Strauss (Ag)

   Ag = ($^1/_4$ x π x D_{tiang}^2)

$= (^1/_4 \times \pi \times 500^2)$

$= 196250\ mm^2$

3. Luas penampang baja (Ast)

Rencana penulangan dengan perkiraan luas tulangan pokok adalah 3% dari luas tiang.

- Ast $= 3\% \times Ag$

  $= 3\% \times 196250$

  $= 5887{,}50\ mm^2$

- Jumlah Tulangan (n)

  $n = \frac{Ast}{^1/_4 \times \pi \times Dtul.^2}$

  $= \frac{5887{,}50}{^1/_4 \times \pi \times 19^2}$

  $= 20{,}772 \approx 22$ buah

- As_{ada} $= n \times {^1/_4} \times \pi \times D_{tul}^2$

  $= 22 \times {^1/_4} \times \pi \times 19^2$

  $= 6234{,}27\ mm^2 > Ast = 5887{,}50\ mm^2$ **(OK)**

- As = As' $= 0{,}5 \times Ast$

  $= 0{,}5 \times 5887{,}50$

  $= 2943{,}75\ mm^2$

- Jarak tulangan pokok (s)

  $s = \frac{\pi \times d_{efektif}}{22}$

$= \frac{\pi \times 307}{22} = 43{,}817 \approx 45$ mm

4. Pemeriksaan beban ultimite beton (P_{ub}) dan momen ultimate beton (M_{ub})

- Tebal penampang segi empat ekivalen

$t_{ek} = 0{,}8 \times D_{tiang}$

$= 0{,}8 \times 500$

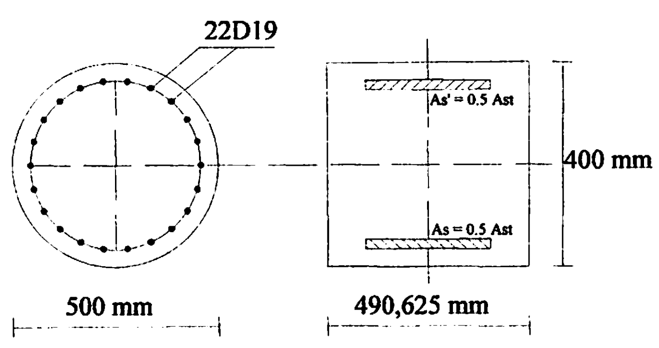
$= 400$ mm

- Lebar penampang segi empat ekivalen

$l_{ek} = \frac{1/4 \times \pi \times Dtiang^2}{t_{ek}}$

$= \frac{1/4 \times \pi \times 500^2}{400}$

$= 490{,}625$ mm



Gambar 4.20 : Ekivalen Penampang Bulat ke Penampang Segi Empat

- Pemeriksaan P terhadap beban seimbang
  - Jarak antar lapis tulangan

$d - d' = {}^2/_3 \times d_{efektif}$

$= {}^2/_3 \times 307$

$= 205,690$ mm

- Jarak tulangan tarik terhadap tepi terluar beton (d_b)

d_b $= t_{ek}$ – tebal selimut efektif

$= 400 - 96,50$

$= 303,50$ mm

- Jarak serat tekan terluar ke garis netral (c_b)

$$c_b = \frac{600 \times d_b}{600 + fy}$$

$$= \frac{600 \times 303,50}{600 + 400}$$

$= 182,10$ mm

- Lebar daerah tekan (a_b)

a_b $= \beta \times c_b$

$= 0,85 \times 182,10$

$= 154,785$ mm

- Tegangan tekan tulangan baja (fs')

$$fs' = \frac{0,003 \times 200000 \times (c_b - d')}{c_b}$$

$$= \frac{0,003 \times 200000 \times (182,10 - 96,50)}{182,10}$$

$= 282$ Mpa $<$ fy $= 400$ Mpa

- Beban ultimate beton (P_{ub})

P_{ub} $= [(0,85 \times fc' \times a_b \times l_{ek}) + (As' \times fs') - (As \times fy)] \times 10^{-3}$

$= [(0,85 \times 25 \times 154,785 \times 490,63) + (2943,75 \times 282) - (2943,75 \times 400)] \times 10^{-3}$

$= 1266,518$ kN

- Momen ultimate beton (M_{ub})

$M_{ub} = [(0,85 \times fc' \times lek \times ab \times \{\frac{t_{ek}}{2} - (^1/_2 \times ab)\}) + (As' \times fs' \times (^1/_2 \times (d - d")) + (As \times fs \times (^1/_2 (d - d"))] \times 10^{-6}$

$= [(0,85 \times 25 \times 154,785 \times 490,63 \times \{\frac{400}{2} - (^1/_2 \times 154,785)\}) + (2943,75 \times 282 \times (^1/_2 \times (205,690)) + (2943,75 \times 400 \times (^1/_2 \times (205,690))] \times 10^{-6}$

$= 404,347$ kNmm

- Eksentrisitas beton (e_b)

$e_b = \frac{M_{ub}}{P_{ub}}$

$= \frac{404,347}{1266,518} = 0,319$ m

- Eksentrisitas beban (e)

$e = \frac{M_y}{P_{max}}$

$= \frac{1970}{53270,93}$

$= 0,037$ m

4.4.1.1 Memeriksa Kekuatan Penampang Pondasi Tiang Bor

- Rasio penulangan memanjang (ρs)

$\rho s = \frac{A_{st}}{A_g}$

$= \frac{5887,50}{196250}$

$= 0,030$

- Lebar efektif (Ds)

$Ds = D_{tiang} - (2 \times d')$

$= 500 - (2 \times 96,50)$

$= 307$ mm

$m = \frac{fy}{0,85 \times fc'}$

$= \frac{400}{0,85 \times 25}$

$= 18,824$

- Beban aksial nominal yang diperlukan (Pn_{perlu})

$Pn_{perlu} = \frac{Pu}{0,7}$

$= \frac{313763,080}{0,7}$

$= 448645,019$ kg

- Persamaan untuk penampang pondasi tiang bor dengan hancur tarik (Pn)

$$Pn = 0,85 \times fc \times h^2 \times \sqrt{\left(\frac{0,85 \times e}{h} - 0,38\right)^2 + \frac{\rho s \times m \times d_s}{2,50 \times h}} -$$

$$\left(\frac{0,85 \times e}{h} - 0,38\right)$$

$= 0,85 \times 25 \times 500^2 \times$

$$\sqrt{\left(\frac{0,85 \times 0,037}{500} - 0,38\right)^2 + \frac{0,03 \times 18,824 \times 307}{2,50 \times 500}} - \left(\frac{0,85 \times 0,37}{500} - 0,38\right)$$

$= 3723033,628$ kg > $Pn_{perlu} = 448645,019$ kg

- Kuat kolom (Ø x Pn)

Ø x Pn $= 0,7 \times 3723033,628$

$= 2606123,539$ kg > $P_{max} = 532270,930$ kg

Dengan demikian perencanaan penampang pondasi tiang bor memenuhi persyaratan sehingga ukuran strauss dan tulangan dapat digunakan.

4.4.1.2 Perencanaan Tulangan Spiral

Direncanakan menggunakan tulangan spiral Ø 12 mm

Ag $= 196250\ mm^2$

As_{spiral} $= \frac{1}{4} \times \pi \times d^2$

$= \frac{1}{4} \times \pi \times 12^2 = 113{,}04\ mm^2$

Dc = Dtiang – (2 x selimut beton)

= 500 – (2 x 75)

= 350 mm

Ac $= \frac{1}{4} \times \pi \times Dc^2$

$= \frac{1}{4} \times \pi \times 350^2$

$= 96162{,}5\ mm^2$

ρ_{perlu} $= 0{,}45 \times \left(\frac{Ag}{Ac} - 1\right) x \left(\frac{fc'}{fy}\right)$

$= 0{,}45 \times \left(\frac{196250}{96162{,}5} - 1\right) x \left(\frac{25}{400}\right)$

$= 0{,}029$

- Jarak antar sengkang spiral

S_{maks} $= \frac{4\ x\ As_{spiral}\ x\ (Dc-d)}{Dc^2 x\ \rho_{perlu}}$

$= \frac{4\ x\ 113{,}04\ x\ (350-12)}{350^2 x\ 0{,}029}$

$= 42{,}619\ mm \approx 40\ mm$

Dari perhitungan penulangan pondasi strauss, maka digunakan tulangan pokok 22D19 dan tulangan spiral Ø12-40.

4.4.2 Penulangan Pondasi Strauss Tipe 2

Perhitungan pondasi strauss diasumsikan seperti perhitungan kolom bulat.

Data Perencanaan :

- P max = 51680,26 kg = 51,68026 ton
- Pu = ΣV = 290760,09 kg = 290,76009 ton
- Mutu beton (fc') = 25 Mpa
- Mutu baja tulangan (fy) = 400 Mpa
- D tulangan pokok = 19 mm
- D_{tiang} = 50 cm = 500 mm
- Tebal selimut = 75 mm

1. Tebal efektif selimut beton terpusat tulangan terluar

d' = tebal selimut beton + Ø sengkang + ($^1/_2$ $D_{tul.pokok}$)

= 75 + 12 + ($^1/_2$ 19)

= 96,50 mm

$d_{efektif}$ = Dtiang – (2 x d')

= 500 – (2 x 96,50)

= 307 mm

2. Luas penampang Strauss (Ag)

Ag = ($^1/_4$ x π x D_{tiang}^2)

= ($^1/_4$ x π x 500^2)

$= 196250 \text{ mm}^2$

3. Luas penampang baja (Ast)

   Rencana penulangan dengan perkiraan luas tulangan pokok adalah 3% dari luas tiang.

   - Ast $= 3\% \times Ag$

     $= 3\% \times 196250$

     $= 5887{,}50 \text{ mm}^2$

   - Jumlah Tulangan (n)

     $$n = \frac{Ast}{\frac{1}{4} \times \pi \times Dtul.^2}$$

     $$= \frac{5887{,}50}{\frac{1}{4} \times \pi \times 19^2}$$

     $= 20{,}772 \approx 22$ buah

   - $As_{ada} = n \times \frac{1}{4} \times \pi \times D_{tul}^2$

     $= 22 \times \frac{1}{4} \times \pi \times 19^2$

     $= 6234{,}27 \text{ mm}^2 > Ast = 5887{,}50 \text{ mm}^2$ **(OK)**

   - $As = As' = 0{,}5 \times Ast$

     $= 0{,}5 \times 5887{,}50$

     $= 2943{,}75 \text{ mm}^2$

   - Jarak tulangan pokok (s)

     $$s = \frac{\pi \times d_{efektif}}{22}$$

     $$= \frac{\pi \times 307}{22} = 43{,}817 \approx 45 \text{ mm}$$

4. Pemeriksaan beban ultimite beton (P_{ub}) dan momen ultimate beton (M_{ub})

- Tebal penampang segi empat ekivalen

$t_{ek} = 0{,}8 \times D_{tiang}$

$= 0{,}8 \times 500$

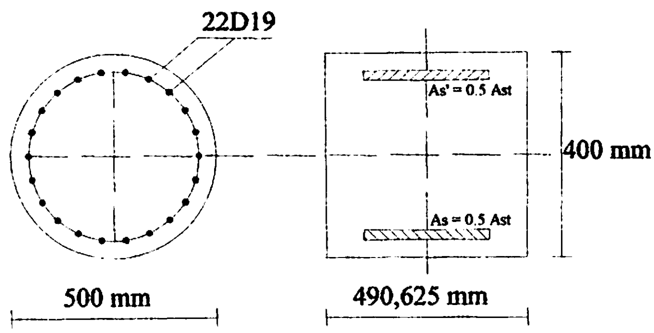
$= 400$ mm

- Lebar penampang segi empat ekivalen

$$l_{ek} = \frac{^1/_4 \times \pi \times Dtiang^2}{t_{ek}}$$

$$= \frac{^1/_4 \times \pi \times 500^2}{400}$$

$= 490{,}625$ mm



Gambar 4.21 : Ekivalen Penampang Bulat ke Penampang Segi Empat

- Pemeriksaan P terhadap beban seimbang
  - Jarak antar lapis tulangan

$d - d' = {}^2/_3 \times d_{efektif}$

$= {}^2/_3 \times 307$

$= 205{,}690$ mm

- ➢ Jarak tulangan tarik terhadap tepi terluar beton (d_b)

d_b = t_{ek} – tebal selimut efektif

= 400 – 96,50

= 303,50 mm

- ➢ Jarak serat tekan terluar ke garis netral (c_b)

$c_b = \frac{600 \times d_b}{600+fy}$

$= \frac{600 \times 303,50}{600+400}$

= 182,10 mm

- ➢ Lebar daerah tekan (a_b)

$a_b = \beta \times c_b$

= 0,85 x 182,10

= 154,785 mm

- Tegangan tekan tulangan baja (fs')

$fs' = \frac{0,003 \times 200000 \times (c_b - d')}{c_b}$

$= \frac{0,003 \times 200000 \times (182,10 - 96,50)}{182,10}$

= 282 Mpa < fy = 400 Mpa

- Beban ultimate beton (P_{ub})

P_{ub} = [(0,85 x fc' x a_b x l_{ek}) + (As' x fs') – (As x fy)] x 10^{-3}

= [(0,85 x 25 x 154,785 x 490,63) + (2943,75 x 282) – (2943,75 x 400)] x 10^{-3}

$= 1266{,}518$ kN

Momen ultimate beton (M_{ub})

M_{ub} $= [(0{,}85 \times fc' \times lek \times ab \times \{\frac{t_{ek}}{2} - (^1/_2 \times ab)\}) + (As' \times fs' \times (^1/_2 \times (d - d'')) + (As \times fs \times (^1/_2 (d - d''))] \times 10^{-6}$

$= [(0{,}85 \times 25 \times 154{,}785 \times 490{,}63 \times \{\frac{400}{2} - (^1/_2 \times 154{,}785)\}) + (2943{,}75 \times 282 \times (^1/_2 \times (205{,}690)) + (2943{,}75 \times 400 \times (^1/_2 \times (205{,}690))] \times 10^{-6}$

$= 404{,}347$ kNmm

- Eksentrisitas beton (e_b)

e_b $= \frac{M_{ub}}{P_{ub}}$

$= \frac{404{,}347}{1266{,}518}$

$= 0{,}319$ m

- Eksentrisitas beban (e)

e $= \frac{M_y}{P_{max}}$

$= \frac{2030}{51680{,}26}$

$= 0{,}039$ m

4.4.2.1 Memeriksa Kekuatan Penampang Pondasi Tiang Bor

- Rasio penulangan memanjang (ρs)

$$\rho s = \frac{A_{st}}{A_g}$$

$$= \frac{5887,50}{196250}$$

$$= 0,030$$

- Lebar efektif (Ds)

$$Ds = D_{tiang} - (2 \times d')$$

$$= 500 - (2 \times 96,50)$$

$$= 307 \text{ mm}$$

$$m = \frac{fy}{0,85 \times fc'}$$

$$= \frac{400}{0,85 \times 25}$$

$$= 18,824$$

- Beban aksial nominal yang diperlukan (Pn_{perlu})

$$Pn_{perlu} = \frac{Pu}{0,7}$$

$$= \frac{290760,088}{0,7}$$

$$= 415371,554 \text{ kg}$$

- Persamaan untuk penampang pondasi tiang bor dengan hancur tarik (Pn)

$$Pn = 0,85 \times fc \times h^2 \times$$

$$\sqrt{\left(\frac{0,85 \times e}{h} - 0,38\right)^2 + \frac{\rho s \times m \times d_s}{2,50 \times h}} -$$

$$\left(\frac{0,85 \, x \, e}{h} - 0,38\right)$$

$$= 0,85 \text{ x } 25 \text{ x } 500^2 \text{ x}$$

$$\sqrt{\left(\frac{0,85 \text{ x } 0,039}{500} - 0,38\right)^2 + \frac{0,03 \text{ x } 18,824 \text{ x } 307}{2,50 \text{ x } 500}} - \left(\frac{0,85 \, x \, 0,39}{500} - 0,38\right)$$

$= 3722841,284 \text{ kg} > Pn_{perlu} = 415371,554 \text{ kg}$

- Kuat kolom (Ø x Pn)

  Ø x Pn = 0,7 x 3722841,284

  = 2605988,889 kg > P_{max} = 51680,260 kg

Dengan demikian perencanaan penampang pondasi tiang bor memenuhi persyaratan sehingga ukuran strauss dan tulangan dapat digunakan.

4.4.2.2 Perencanaan Tulangan Spiral

Direncanakan menggunakan tulangan spiral Ø 12 mm

Ag $= 196250 \text{ mm}^2$

As spiral $= {}^1/_4 \times \pi \times d^2$

$= {}^1/_4 \times \pi \times 12^2 = 113{,}04 \text{ mm}^2$

Dc = Dtiang – (2 x selimut beton)

= 500 – (2 x 75)

= 350 mm

Ac $= {}^1/_4 \times \pi \times Dc^2$

$= {}^1/_4 \times \pi \times 350^2$

$= 96162{,}5 \text{ mm}^2$

ρ_{perlu} $= 0{,}45 \times \left(\frac{Ag}{Ac} - 1\right) \times \left(\frac{fc'}{fy}\right)$

$= 0{,}45 \times \left(\frac{196250}{96162{,}5} - 1\right) \times \left(\frac{25}{400}\right)$

$= 0{,}029$

- Jarak antar sengkang spiral

S_{maks} $= \frac{4 \times As_{spiral} \times (Dc - d)}{Dc^2 \times \rho_{perlu}}$

$= \frac{4 \times 113{,}04 \times (350-12)}{350^2 \times 0{,}029}$

$= 42,619 \text{ mm} \approx 40 \text{ mm}$

Dari perhitungan penulangan pondasi strauss, maka digunakan tulangan pokok 22D19 dan tulangan spiral Ø12-40.

4.4.3 Penulangan Pondasi Strauss Tipe 3

Perhitungan pondasi strauss diasumsikan seperti perhitungan kolom bulat.

Data Perencanaan :

- P max = 29798,663 kg = 29,798663 ton
- Pu = ΣV = 59422,350 kg = 59,422350 ton
- Mutu beton (fc') = 25 Mpa
- Mutu baja tulangan (fy) = 400 Mpa
- D tulangan pokok = 19 mm
- D_{tiang} = 50 cm = 500 mm
- Tebal selimut = 75 mm

1. Tebal efektif selimut beton terpusat tulangan terluar

d' = tebal selimut beton + Ø sengkang + ($^1/_2$ $D_{tul.pokok}$)

= 75 + 12 + ($^1/_2$ 19)

= 96,50 mm

$d_{efektif}$ = Dtiang – (2 x d')

$= 500 - (2 \times 96{,}50)$

$= 307$ mm

2. Luas penampang Strauss (Ag)

Ag $= (^{1}/_{4} \times \pi \times D_{tiang}{}^{2})$

$= (^{1}/_{4} \times \pi \times 500^{2})$

$= 196250$ mm^2

3. Luas penampang baja (Ast)

Rencana penulangan dengan perkiraan luas tulangan pokok adalah 3% dari luas tiang.

- Ast $= 3\% \times Ag$

  $= 3\% \times 196250$

  $= 5887{,}50$ mm^2

- Jumlah Tulangan (n)

  $$n = \frac{Ast}{^{1}/_{4} \times \pi \times Dtul.^{2}}$$

  $$= \frac{5887{,}50}{^{1}/_{4} \times \pi \times 19^{2}}$$

  $= 20{,}772 \approx 22$ buah

- As_{ada} $= n \times {}^{1}/_{4} \times \pi \times D_{tul}{}^{2}$

  $= 22 \times {}^{1}/_{4} \times \pi \times 19^{2}$

  $= 6234{,}27$ mm^2 > Ast $= 5887{,}50$ mm^2 **(OK)**

- As = As' $= 0{,}5 \times Ast$

  $= 0{,}5 \times 5887{,}50$

$= 2943,75\ mm^2$

- Jarak tulangan pokok (s)

$$s = \frac{\pi \times d_{efektif}}{22}$$

$$= \frac{\pi \times 307}{22} = 43,817 \approx 45\ mm$$

4. Pemeriksaan beban ultimite beton (P_{ub}) dan momen ultimate beton (M_{ub})

- Tebal penampang segi empat ekivalen

$$t_{ek} = 0,8 \times D_{tiang}$$

$$= 0,8 \times 500$$

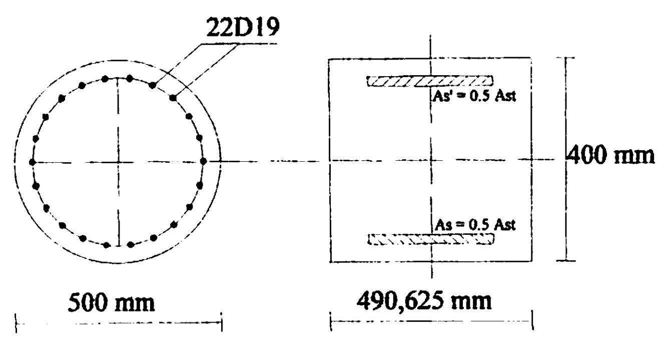
$$= 400\ mm$$

- Lebar penampang segi empat ekivalen

$$l_{ek} = \frac{\frac{1}{4} \times \pi \times Dtiang^2}{t_{ek}}$$

$$= \frac{\frac{1}{4} \times \pi \times 500^2}{400}$$

$$= 490,625\ mm$$



Gambar 4.22 : Ekivalen Penampang Bulat ke Penampang Segi Empat

- Pemeriksaan P terhadap beban seimbang

  ➢ Jarak antar lapis tulangan

  $d - d' = {}^2/_3 \times d_{efektif}$

  $= {}^2/_3 \times 307$

  $= 205{,}690$ mm

  ➢ Jarak tulangan tarik terhadap tepi terluar beton (d_b)

  $d_b = t_{ek}$ – tebal selimut efektif

  $= 400 - 96{,}50$

  $= 303{,}50$ mm

  ➢ Jarak serat tekan terluar ke garis netral (c_b)

  $$c_b = \frac{600 \times d_b}{600 + fy}$$

  $$= \frac{600 \times 303{,}50}{600 + 400}$$

  $= 182{,}10$ mm

  ➢ Lebar daerah tekan (a_b)

  $a_b = \beta \times c_b$

  $= 0{,}85 \times 182{,}10$

  $= 154{,}785$ mm

- Tegangan tekan tulangan baja (fs')

  $$fs' = \frac{0{,}003 \times 200000 \times (c_b - d')}{c_b}$$

  $$= \frac{0{,}003 \times 200000 \times (182{,}10 - 96{,}50)}{182{,}10}$$

= 282 Mpa < fy = 400 Mpa

- Beban ultimate beton (P_{ub})

P_{ub} = [(0,85 x fc' x a_b x l_{ek}) + (As' x fs') – (As x fy)] x 10^{-3}

= [(0,85 x 25 x 154,785 x 490,63) + (2943,75 x 282) – (2943,75 x 400)] x 10^{-3}

= 1266,518 kN

Momen ultimate beton (M_{ub})

M_{ub} = [(0,85 x fc' x lek x ab x{$\frac{t_{ek}}{2}$ - ($^1/_2$ x ab)}) + (As' x fs' x ($^1/_2$ x (d – d")) + (As x fs x ($^1/_2$ (d – d"))] x 10^{-6}

= [(0,85 x 25 x 154,785 x 490,63 x{$\frac{400}{2}$ - ($^1/_2$ x 154,785)}) + (2943,75 x 282 x ($^1/_2$ x (205,690)) + (2943,75 x 400 x ($^1/_2$ x (205,690))] x 10^{-6}

= 404,347 kNmm

- Eksentrisitas beton (e_b)

e_b = $\frac{M_{ub}}{P_{ub}}$

= $\frac{404,347}{1266,518}$

= 0,319 m

- Eksentrisitas beban (e)

$$e = \frac{M_y}{P_{max}}$$

$$= \frac{218{,}719}{29798{,}663}$$

$$= 0{,}007 \text{ m}$$

4.3.3.1 Memeriksa Kekuatan Penampang Pondasi Tiang Bor

- Rasio penulangan memanjang (ρs)

$$\rho s = \frac{A_{st}}{A_g}$$

$$= \frac{5887{,}50}{196250}$$

$$= 0{,}030$$

- Lebar efektif (Ds)

$$Ds = D_{tiang} - (2 \text{ x } d')$$

$$= 500 - (2 \text{ x } 96{,}50)$$

$$= 307 \text{ mm}$$

$$m = \frac{fy}{0{,}85 \text{ x } fc'}$$

$$= \frac{400}{0{,}85 \text{ x } 25}$$

$$= 18{,}824$$

- Beban aksial nominal yang diperlukan (Pn_{perlu})

$$Pn_{perlu} = \frac{Pu}{0{,}7}$$

$$= \frac{59422,350}{0,7}$$

$= 84889,071$ kg

- Persamaan untuk penampang pondasi tiang bor dengan hancur tarik (Pn)

$$Pn = 0,85 \times fc \times h^2 \times \sqrt{\left(\frac{0,85 \times e}{h} - 0,38\right)^2 + \frac{\rho s \times m \times d_s}{2,50 \times h}} - \left(\frac{0,85 \times e}{h} - 0,38\right)$$

$$= 0,85 \times 25 \times 500^2 \times \sqrt{\left(\frac{0,85 \times 0,007}{500} - 0,38\right)^2 + \frac{0,03 \times 18,824 \times 307}{2,50 \times 500}} - \left(\frac{0,85 \times 0,007}{500} - 0,38\right)$$

$= 3722997,684$ kg $> Pn_{perlu} = 84889,663$ kg

- Kuat kolom ($\varnothing$ x Pn)

$\varnothing$ x Pn $= 0,7 \times 3722997,684$

$= 2606098,379$ kg $> P_{max} = 29798,663$ kg

Dengan demikian perencanaan penampang pondasi tiang bor memenuhi persyaratan sehingga ukuran strauss dan tulangan dapat digunakan.

4.4.3.2 Perencanaan Tulangan Spiral

Direncanakan menggunakan tulangan spiral Ø 12 mm

Ag $= 196250\ mm^2$

As_{spiral} $= {}^1/_4 \times \pi \times d^2$

$= {}^1/_4 \times \pi \times 12^2 = 113{,}04\ mm^2$

Dc = Dtiang – (2 x selimut beton)

= 500 – (2 x 75)

= 350 mm

Ac $= {}^1/_4 \times \pi \times Dc^2$

$= {}^1/_4 \times \pi \times 350^2$

$= 96162{,}5\ mm^2$

ρ_{perlu} $= 0{,}45 \times \left(\frac{Ag}{Ac} - 1\right) x \left(\frac{fc'}{fy}\right)$

$= 0{,}45 \times \left(\frac{196250}{96162{,}5} - 1\right) x \left(\frac{25}{400}\right)$

$= 0{,}029$

- Jarak antar sengkang spiral

S_{maks} $= \frac{4\ x\ As_{spiral}\ x\ (Dc-d)}{Dc^2 x\ \rho_{perlu}}$

$= \frac{4\ x\ 113{,}04\ x\ (350-12)}{350^2 x\ 0{,}029}$

$= 42,610 \text{ mm} \approx 40 \text{ mm}$

Dari perhitungan penulangan pondasi strauss, maka digunakan tulangan pokok 22D19 dan tulangan spiral Ø12-40.

4.5 Perencanaan Pondasi Sumuran

4.5.1 Perencanaan Pondasi Sumuran Tipe 1 pada Join 3752

V : 306 ton ; Mx : 2,04 tm ; Mz : 1,97 tm

Diameter Sumuran (D_{luar}) = 100 cm = 1,00 m

Diameter Sumuran (D_{dalam}) = 50 cm = 0,50 m

Luas Penampang (A_{tiang}) $= {}^{1}/_{4} \cdot \pi \cdot D_{luar}^{2} - {}^{1}/_{4} \cdot \pi \cdot D_{dalam}^{2}$

$= {}^{1}/_{4} \cdot \pi \cdot 100^{2} - {}^{1}/_{4} \cdot \pi \cdot 50^{2}$

$= 5887{,}5\ cm^{2} = 5{,}8875\ m^{2}$

Angka Keamanan (SF) = 3

Data Sondir = Titik S_2

Perhitungan Konversi Nilai Qc Kedalam Parmeter Tanah

Konversi nilai sudut geser (Ø), misalkan untuk kedalaman 6,00 meter.

Konversi nilai qc ke N

$$N = \frac{qc}{4}$$

Sehingga :

$$N = \frac{90}{4}$$

= 22,50 = 23 Pukulan/feet

Tabel 4.5 : konversi qc ke N pada S1

N0	Kedalaman	qc	N
	(meter)	Kg/cm^2	(Pukulan)
1	0,00	0	0,00
2	0,40	25	6
3	1,00	10	3
4	1,40	20	5
5	2,00	35	9
6	2,40	45	11
7	3,00	30	8
8	3,40	20	5
9	4,00	25	6
10	4,40	20	5
11	5,00	45	11
12	5,40	50	13
13	6,00	150	38

Tabel 4.6 : konversi qc ke N pada S2

N0	Kedalaman	qc	N
	(meter)	Kg/cm^2	(Pukulan)
1	0,00	0	0,00
2	0,40	10	3
3	1,00	25	6
4	1,40	15	4
5	2,00	25	6
6	2,40	45	11
7	3,00	65	16
8	3,40	65	16
9	4,00	40	10
10	4,40	35	9
11	5,00	30	8
12	5,40	35	9
13	6,00	90	23
14	6,40	150	38

Tabel 4.7 : konversi qc ke N pada S3

NO	Kedalaman (meter)	qc Kg/cm^2	N (Pukulan)
1	0,00	0	0,00
2	0,40	10	3
3	1,00	25	6
4	1,40	15	4
5	2,00	25	6
6	2,40	45	11
7	3,00	65	16
8	3,40	65	16
9	4,00	40	10
10	4,40	35	9
11	5,00	30	8
12	5,40	35	9
13	6,00	90	23
14	6,40	150	38
15	6,60	155	39

Daya Dukung Pondasi Sumuran

1. Ditinjau dari daya dukung bahan

$Qd = \sigma_{bahan} \times A$

Dimana :

σ_{bahan} = Tegangan ijin bahan

A = Luas Penampang

a. Untuk dinding sumuran (K-250)

$Qd_1 = (0,85 \times fc') \times \{(^1/_4 \times \pi \times D_{luar}{}^2) - (^1/_4 \times \pi \times D_{dalam}{}^2)\}$

$= (0,85 \times 250) \times \{(^1/_4 \times \pi \times 100^2) \times (^1/_4 \times \pi \times 50^2)\}$

= 1251093,750 Kg

= 1251,093750 ton

b. Untuk beton cyclop (K-350)

$Qd_2 = (0,85 \times fc') \times (^1/_4 \times \pi \times D_{dalam}{}^2)$

$= (0,85 \times 250) \times (^1/_4 \times \pi \times 50^2)$

= 583843,750 Kg

= 583,843750 ton

Jadi daya dukung berdasarkan kekuatan bahan adalah :

$Qd = Qd_1 + Qd_2$

= 1251,093750 + 583,843750

= 1834,938 ton

2. Ditinjau dari daya dukung berdasarkan data SPT, data yang dipakai adalah data tanah pada S2.

Qu = (40 x Nb x Ap)

Dimana :

Nb = Nilai SPT pada ujung tiang

Ap = Luas dasar tiang

$= \frac{1}{4} \times \pi \times D_{luar}^2$

$= \frac{1}{4} \times \pi \times 1{,}00^2$

$= 0{,}785 \text{ m}^2$

Qu = 40 x 38 x 0,785

= 1177,500 ton

$Qa = \frac{Q1tiang}{3}$

$= \frac{1177{,}500}{3}$

= 392,500 ton

Daya Dukung Pondasi Sumuran Dalam Kelompok

Dari hasil analisa struktur dengan program staad pro diperoleh :

ΣVu = 306000 Kg = 306 ton

n $= \frac{\Sigma Vu}{Qu}$

$= \frac{306}{1177,500}$

= 0,260 ≈ 1 buah

Pu = ΣV + berat sendiri tiang

Berat sendiri tiang :

1. Untuk diding sumuran (K-250)

P1 $= (^1/_4 \times \pi \times D_{luar}{}^2) - (^1/_4 \times \pi \times D_{dalam}{}^2) \times D_f \times \gamma_{beton} \times$ jumlah tiang

$= \{(^1/_4 \times \pi \times 1,0^2) - (^1/_4 \times \pi \times 0,5^2)\} \times 6,0 \times 2,4 \times 1$

= 8,478 ton

2. Untuk beton cyclop (K-350)

P2 $= (^1/_4 \times \pi \times D_{dalam}{}^2) \times D_f \times \gamma_{beton\ cyclop} \times$ jumlah tiang

$= \{(^1/_4 \times \pi \times 1,0^2) - (^1/_4 \times \pi \times 0,5^2)\} \times 6,0 \times 2,2 \times 1$

$= 2{,}591$ ton

Total berat sendiri pondasi sumuran :

P_{tiang} $= P1 + P2$

$= 8{,}478 + 2{,}591$

$= 11{,}069$ ton

Pu $= \Sigma V$ + berat sendiri tiang

$= 306 + 11{,}069$

$= 317{,}069$ ton < Qtotal = 349,500 ton.........**(aman)**

4.5.2 Perencanaan Pondasi Sumuran Tipe 2 pada Join 3751

V : 283 ton ; Mx : 2,59 tm ; Mz : 2,03 tm

Diameter Sumuran (D_{luar}) = 100 cm = 1,00 m

Diameter Sumuran (D_{dalam}) = 50 cm = 0,50 m

Luas Penampang (A_{tiang}) $= {}^1/_4 \cdot \pi \cdot D_{luar}^2 - {}^1/_4 \cdot \pi \cdot D_{dalam}^2$

$= {}^1/_4 \cdot \pi \cdot 100^2 - {}^1/_4 \cdot \pi \cdot 50^2$

$= 5887{,}5\ cm^2 = 5{,}8875\ m^2$

Angka Keamanan (SF) = 3

Data Sondir = Titik S_2

Daya Dukung Pondasi Sumuran

1. Ditinjau dari daya dukung bahan

$Qd = \sigma_{bahan} \times A$

Dimana :

σ_{bahan} = Tegangan ijin bahan

A = Luas Penampang

a. Untuk dinding sumuran (K-250)

$Qd_1 = (0{,}85 \times fc') \times \{(^1/_4 \times \pi \times D_{luar}^2) - (^1/_4 \times \pi \times D_{dalam}^2)\}$

$= (0{,}85 \times 250) \times \{(^1/_4 \times \pi \times 100^2) \times (^1/_4 \times \pi \times 50^2)\}$

= 1251093,750 Kg

= 1251,093750 ton

b. Untuk beton cyclop (K-350)

$Qd_2 = (0{,}85 \times fc') \times (^1/_4 \times \pi \times D_{dalam}^2)$

$= (0{,}85 \times 250) \times (^1/_4 \times \pi \times 50^2)$

= 583843,750 Kg

= 583,843750 ton

Jadi daya dukung berdasarkan kekuatan bahan adalah :

$Qd = Qd_1 + Qd_2$

$= 1251,093750 + 583,843750$

$= 1834,938$ ton

2. Ditinjau dari daya dukung berdasarkan data SPT, data yang dipakai adalah data tanah pada S2.

Qu = (40 x Nb x Ap)

Dimana :

Nb = Nilai SPT pada ujung tiang

Ap = Luas dasar tiang

$= {}^{1}/_{4} \times \pi \times D_{luar}^{2}$

$= {}^{1}/_{4} \times \pi \times 1,00^{2}$

$= 0,785\ m^{2}$

Qu = 40 x 38 x 0,785

= 1177,500 ton

$Qa = \frac{Q1tiang}{3}$

$= \frac{1177,500}{3}$

= 392,500 ton

Daya Dukung Pondasi Sumuran Dalam Kelompok

Dari hasil analisa struktur dengan program staad pro diperoleh :

ΣVu = 283000Kg = 283 ton

$n = \frac{\Sigma Vu}{Qu}$

$= \frac{283}{1177{,}500}$

= 0,240 ≈ 1 buah

Pu = ΣV + berat sendiri tiang

Berat sendiri tiang :

1. Untuk diding sumuran (K-250)

   P1 = $(^1/_4 \times \pi \times D_{luar}^2) - (^1/_4 \times \pi \times D_{dalam}^2) \times D_f \times \gamma_{beton}$ x jumlah tiang

   $= \{(^1/_4 \times \pi \times 1{,}0^2) - (^1/_4 \times \pi \times 0{,}5^2)\} \times 6{,}0 \times 2{,}4 \times 1$

   = 8,478 ton

2. Untuk beton cyclop (K-350)

   P2 = $(^1/_4 \times \pi \times D_{dalam}^2) \times D_f \times \gamma_{beton\ cyclop}$ x jumlah tiang

   $= \{(^1/_4 \times \pi \times 1{,}0^2) - (^1/_4 \times \pi \times 0{,}5^2)\} \times 6{,}0 \times 2{,}2 \times 1$

= 2,591 ton

Total berat sendiri pondasi sumuran :

P_{tiang} = P1 + P2

= 8,478 + 2,591

= 11,069 ton

Pu = ΣV + berat sendiri tiang

= 283+ 11,069

= 294,069 ton < Qtotal = 349,500 ton..........**(aman)**

4.5.3 Perencanaan Pondasi Sumuran Tipe 3 pada Join 3750

V : 57 ton ; Mx : 0,02371 tm ; Mz : 0,21872 tm

Diameter Sumuran (D_{luar}) = 100 cm = 1,00 m

Diameter Sumuran (D_{dalam}) = 50 cm = 0,50 m

Luas Penampang (A_{tiang}) = $^1/_4 . \pi . D_{luar}^2 - {}^1/_4 . \pi . D_{dalam}^2$

= $^1/_4 . \pi . 100^2 - {}^1/_4 . \pi . 50^2$

= 5887,5 cm^2 = 5,8875 m^2

Angka Keamanan (SF) = 3

Data Sondir = Titik S_2

Daya Dukung Pondasi Sumuran

1. Ditinjau dari daya dukung bahan

$Qd = \sigma_{bahan} \times A$

Dimana :

σ_{bahan} = Tegangan ijin bahan

A = Luas Penampang

a. Untuk dinding sumuran (K-250)

$Qd_1 = (0{,}85 \times fc') \times \{(^1/_4 \times \pi \times D_{luar}{}^2) - (^1/_4 \times \pi \times D_{dalam}{}^2)\}$

$= (0{,}85 \times 250) \times \{(^1/_4 \times \pi \times 100^2) \times (^1/_4 \times \pi \times 50^2)\}$

= 1251093,750 Kg

= 1251,093750 ton

b. Untuk beton cyclop (K-350)

$Qd_2 = (0{,}85 \times fc') \times (^1/_4 \times \pi \times D_{dalam}{}^2)$

$= (0{,}85 \times 250) \times (^1/_4 \times \pi \times 50^2)$

= 583843,750 Kg

= 583,843750 ton

Jadi daya dukung berdasarkan kekuatan bahan adalah :

$Qd = Qd_1 + Qd_2$

$= 1251{,}093750 + 583{,}843750$

$= 1834{,}938$ ton

2. Ditinjau dari daya dukung berdasarkan data SPT, data yang dipakai adalah data tanah pada S2.

   Qu = (40 x Nb x Ap)

   Dimana :

   Nb = Nilai SPT pada ujung tiang

   Ap = Luas dasar tiang

   $= \frac{1}{4} \times \pi \times D_{luar}^2$

   $= \frac{1}{4} \times \pi \times 1{,}00^2$

   $= 0{,}785$ m^2

   Qu = 40 x 38 x 0,785

   = 1177,500 ton

   $Qa = \frac{Q1tiang}{3}$

   $= \frac{1177{,}500}{3} = 392{,}500$ ton

Daya Dukung Pondasi Sumuran Dalam Kelompok

Dari hasil analisa struktur dengan program Staad Pro diperoleh :

ΣVu = 57000 Kg = 57 ton

n $= \frac{\Sigma Vu}{Qu}$

$= \frac{57}{1177{,}500}$

= 0,048 ≈ 1 buah

Pu = ΣV + berat sendiri tiang

Berat sendiri tiang :

1. Untuk diding sumuran (K-250)

   P1 $= (^1/_4 \times \pi \times D_{luar}^2) - (^1/_4 \times \pi \times D_{dalam}^2) \times D_f \times \gamma_{beton} \times$ jumlah tiang

   $= \{(^1/_4 \times \pi \times 1{,}0^2) - (^1/_4 \times \pi \times 0{,}5^2)\} \times 6{,}0 \times 2{,}4 \times 1$

   = 8,478 ton

2. Untuk beton cyclop (K-350)

   P2 $= (^1/_4 \times \pi \times D_{dalam}^2) \times D_f \times \gamma_{beton\ cyclop} \times$ jumlah tiang

   $= \{(^1/_4 \times \pi \times 1{,}0^2) - (^1/_4 \times \pi \times 0{,}5^2)\} \times 6{,}0 \times 2{,}2 \times 1$

= 2,591 ton

Total berat sendiri pondasi sumuran :

P_{tiang} = P1 + P2

= 8,478 + 2,591

= 11,069 ton

Pu = ΣV + berat sendiri tiang

= 57 + 11,069

= 68,069 ton < Qtotal = 349,500 ton.........**(aman)**

4.6 Perhitungan Penulangan Pondasi Sumuran

4.6.1 Penulangan Poer Pondasi Sumuran Tipe 1

Mencari beban tiang bor yang menerima beban V dan M

$$Pmax = \frac{Pu}{n} \pm \frac{My . Xmax}{ny . \Sigma X^2} \pm \frac{Mx . Ymax}{nx . \Sigma Y^2}$$

Dimana :

Pu = 317,069 ton ; Mx = 2,04 tm

n = 1 tiang ; My = 1,97 tm

ny = 1 tiang

nx = 1 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (0^2) + (0^2) + \ = 0 \ m^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (0^2) + (0^2) + \ = 0 \ m^2$

Sehingga :

$(x_1 = 0 ; y_1 = 0)$

$$P1 = \frac{317{,}069}{1} \pm \frac{1{,}97 \times (0)}{1 \times 0} \pm \frac{2{,}04 \times (0)}{1 \times 0}$$

= 317,069 ton

Pmax = 317,069 ton < Qa tiang = 994,940 ton .... **(aman)**

Perhitungan Momen

Pada bagian bawah poer diasumsikan sebagai plat jalur jepit pada bagian sisinya. Dari table P2.3 (Pelat : Stiglet/Wipel : 209).

Tabel 4.8 : Pelat Stiglet/Wipel

Y/L	0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Mye	0,32	0,31	0,30	0,28	0,25	0,21	0,18	0,14	0,09	0,05	0

4.6.1.1 Perhitungan penulangan poer arah X

(Y/L) $= \frac{0}{0,75+0,75} = 0$

$= 0,32$

Mu = Mx = P x mye

= 317,069 x 0,32

= 101,462 tm

= 101462 kgm = 101462 x 10^4 Nmm

Mu $= \frac{101462 \times 10^4}{1,5} = 67641,280 \times 10^4$ Nmm

Mn $= \frac{Mu}{\emptyset} = \frac{67641,280 \times 10^4}{0,8} = 84551,600 \times 10^4$ Nmm dx $= 800 - 75 - (^1/_2 \times 22) = 714$ mm

b $= 1{,}00$ m $= 1000$ mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{84551{,}600 \times 10^4}{1000 \times 714^2} = 1{,}659$ Mpa

m $= \frac{f_y}{0{,}85 \times fc'} = \frac{400}{0{,}85 \times 25} = 18{,}824$

ρ_b $= \frac{0{,}85 \times fc'}{fy} \times \beta \times \frac{600}{600 + fy} = \frac{0{,}85 \times 25}{400} \times 0{,}85 \times \frac{600}{600+400}$

$= 0{,}0271$

ρ_{max} $= 0{,}75 \times \rho_b = 0{,}75 \times 0{,}0271 = 0{,}0203$

ρ_{min} $= \frac{1{,}4}{fy} = \frac{1{,}4}{400} = 0{,}004$

ρ_{perlu} $= \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18{,}824} \times 1 -$

$\sqrt{1 - \frac{2 \times 1{,}659 \times 18{,}824}{400}}$

$= 0{,}001$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0{,}004$

As perlu $= \rho_{min} \times b \times dx$

$= 0{,}004 \times 1000 \times 714 = 2499$ mm^2

Direncanakan menggunakan tulangan pokok D 22

Jumlah tul. (n) $= \frac{\text{As perlu}}{0{,}25 \times \pi \times d^2} = \frac{2499}{0{,}25 \times \pi \times 22^2} = 8{,}405 \approx 8$ tul.

As ada $= n \times 0{,}25 \times \pi \times 22^2$

$= 8 \times 0{,}25 \times \pi \times 22^2$

$= 3039{,}520\ mm^2 >$ As perlu $= 2499\ mm^2$.........(OK)

Jarak (s) $= \frac{b}{n} = \frac{1000}{8} = 125{,}000 \approx 125$ mm

Jadi digunakan tulangan tarik arah x 8D22

Perhitungan tulangan tekan

As tekan $= 20\% \times$ As perlu

$= 20\% \times 2499$

$= 499{,}800\ mm^2$

Direncanakan menggunakan tul.tekan D19

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{499{,}800}{0{,}25 \times \pi \times 19^2} = 1{,}764 \approx 3$ tul.

As ada $= n \times 0{,}25 \times \pi \times 19^2$

$= 3 \times 0{,}25 \times \pi \times 19^2$

$= 850{,}155\ mm^2 >$ As tekan $= 499{,}800\ mm^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}33 \approx 250$ mm

Jadi digunakan tulangan tekan arah x 3D19

4.6.1.2 Perhitungan Penulangan Poer Arah Y

Mu = My = P x mye

= 317,069 x 0,32

= 101,462 tm

$= 101462$ kgm $= 101462 \times 10^4$ Nmm

Mu $= \frac{101462 \times 10^4}{1{,}5} = 67641{,}280 \times 10^4$ Nmm

Mn $= \frac{Mu}{\emptyset} = \frac{67641{,}280 \times 10^4}{0{,}8} = 84551{,}600 \times 10^4$ Nmm

dy $= 800 - 75 - 22 - (^1/_2 \times 22) = 692$ mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times d^2} = \frac{84551{,}600 \times 10^4}{1000 \times 692^2} = 1{,}766$ Mpa

$$m = \frac{fy}{0{,}85 \times fc'} = \frac{400}{0{,}85 \times 25} = 18{,}824$$

$$\rho_b = \frac{0{,}85 \times fc'}{fy} \times \beta \times \frac{600}{600 + fy} = \frac{0{,}85 \times 25}{400} \times 0{,}85 \times \frac{600}{600+400}$$

$$= 0{,}0271$$

$$\rho_{max} = 0{,}75 \times \rho_b = 0{,}75 \times 0{,}0271 = 0{,}0203$$

$$\rho_{min} = \frac{1{,}4}{fy} = \frac{1{,}4}{400} = 0{,}004$$

$$\rho_{perlu} = \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18{,}824} \times 1 - \sqrt{1 - \frac{2 \times 1{,}766 \times 18{,}824}{400}}$$

$$= 0{,}005$$

$\rho_{min} < \rho_{perlu}$, maka yang $\rho_{perlu} = 0{,}005$

As perlu $= \rho_{min} \times b \times dy$

$= 0{,}005 \times 1000 \times 692$

$= 3193{,}300\ mm^2$

Direncanakan menggunakan tulangan pokok D-22

Jumlah tul. (n) $= \frac{As\ perlu}{0{,}25 \times \pi \times dy^2} = \frac{3193{,}300}{0{,}25 \times \pi \times 22^2} = 8{,}405 \approx 9$ tul.

As ada $= n \times 0{,}25 \times \pi \times 22^2$

$= 9 \times 0{,}25 \times \pi \times 22^2$

$= 3419{,}460\ mm^2 >$ As perlu $= 3193{,}300\ mm^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{9} = 111{,}111 \approx 120$ mm.

Jadi digunakan tulangan tarik arah y 9D22

Perhitungan tulangan tekan

As tekan $= 20\% \times$ As perlu

$= 20\% \times 3193{,}300$

$= 638{,}660\ mm^2$

Direncanakan menggumakan tul.tekan D19

Jumlah tul. (n) $= \frac{As\ tekan}{0{,}25 \times \pi \times d^2} = \frac{638{,}660}{0{,}25 \times \pi \times 19^2} = 2{,}254 \approx 3$ tul.

As ada $= n \times 0{,}25 \times \pi \times 19^2$

$= 3 \times 0{,}25 \times \pi \times 19^2$

$= 850{,}155\ mm^2 >$ As tekan $= 638{,}660\ mm^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}333 \approx 250$ mm

Jadi digunakan tulangan tekan arah y 3D19

4.6.1.3 Kontrol Geser Pons (Gaya Geser Dua Arah Sumbu)

- **Geser Pons terhadap Kolom**

Diketahui :

Vu = 306 ton = 306000 kg

Tinggi efektif (d)

d = tebal poer – tebal selimut beton – $^1/_2$ diameter tulangan terluar

= 800 – 75 - $^1/_2$. 22

= 714 mm

Dimensi kolom (c) = 30/40

- Keliling bidang kritis geser pons (bo)

bo = 4 . [(c_1 + d) + (c_2 + d)]

= 4 . [(300 + 714) + (400 + 714)]

= 4256 mm

- Kuat geser beton maksimun

Vc $= \frac{\sqrt{fc'}}{3}$ x bo x d

$= \frac{\sqrt{25}}{3} \times 4256 \times 714$

= 5064640 kg

ØVc = 0,6 x Vc

= 0,6 x 5064640

= 3038784 kg

Maka Vu = 306000 kg < ØVc = 3038784 kg............**(OK)**

Karena Vu < ØVc, maka tidak diperlukan tulangan geser terhadap kolom dan poer aman terhadap geser pons akibat kolom.

4.6.2 Penulangan poer Pondasi Sumuran Tipe 2

Mencari beban tiang bor yang menerima beban V dan M

$$Pmax = \frac{Pu}{n} \pm \frac{My \cdot Xmax}{ny \cdot \Sigma X^2} \pm \frac{Mx \cdot Ymax}{nx \cdot \Sigma Y^2}$$

Dimana :

Pu = 294,069 ton ; Mx = 2,59 tm

n = 1 tiang ; My = 2,03 tm

ny = 1 tiang

nx = 1 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (0^2) + (0^2) + \ = 0 \ m^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (0^2) + (0^2) + \ = 0 \ m^2$

Sehingga :

$(x_1 = 0 \ ; y_1 = 0)$

$$P1 = \frac{294{,}069}{1} \pm \frac{2{,}03 \times (0)}{1 \times 0} \pm \frac{2{,}59 \times (0)}{1 \times 0}$$

$= 294{,}069$ ton

Pmax = 317,069 ton < Qa tiang = 994,940 ton ....**(aman)**

Perhitungan Momen

Pada bagian bawah poer diasumsikan sebagai plat jalur jepit pada bagian sisinya. Dari table P2.3 (Pelat : Stiglet/Wipel : 209).

Tabel 4.9 : Pelat Stiglet/Wipel

Y/L	0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Mye	0,32	0,31	0,30	0,28	0,25	0,21	0,18	0,14	0,09	0,05	0

4.6.2.1 Perhitungan penulangan poer arah X

(Y/L) $= \frac{0}{0,75+0,75} = 0$

$= 0,32$

Mu = Mx = P x mye

$= 294,069 \times 0,32$

$= 94,102$ tm

$= 94102$ kgm $= 94102 \times 10^4$ Nmm

Mu $= \frac{94120 \times 10^4}{1,5} = 62734,613 \times 10^4$ Nmm

Mn $= \frac{Mu}{\emptyset} = \frac{62734,613 \times 10^4}{0,8} = 78418,267 \times 10^4$ Nmm

dx $= 800 - 75 - (^1/_2 \times 22) = 714$ mm

b $= 1,00$ m $= 1000$ mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{78418,267 \times 10^4}{1000 \times 714^2} = 1,538$ Mpa

m $= \frac{f_y}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18,824$

ρ_b $= \frac{0,85 \times fc'}{fy} \times \beta \times \frac{600}{600+fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

$= 0{,}0271$

$\rho_{max} = 0{,}75 \times \rho_b = 0{,}75 \times 0{,}0271 = 0{,}0203$

$\rho_{min} = \frac{1{,}4}{fy} = \frac{1{,}4}{400} = 0{,}0035$

$\rho_{perlu} = \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18{,}824} \times 1 -$

$\sqrt{1 - \frac{2 \times 1{,}538 \times 18{,}824}{400}}$

$= 0{,}0040$

$\rho_{min} < \rho_{perlu}$, maka yang $\rho_{perlu} = 0{,}0040$

As perlu $= \rho_{min} \times b \times dx$

$= 0{,}0040 \times 1000 \times 714$

$= 2853{,}034 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 22

Jumlah tul. (n) $= \frac{As\ perlu}{0{,}25 \times \pi \times d^2} = \frac{2853{,}034}{0{,}25 \times \pi \times 22^2} = 7{,}509 \approx 8$ tul.

As ada $= n \times 0{,}25 \times \pi \times 22^2$

$= 8 \times 0{,}25 \times \pi \times 22^2$

$= 3039{,}520\ mm^2 > As\ perlu = 2853{,}034\ mm^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{8} = 125{,}000 \approx 125$ mm

Jadi digunakan tulangan tarik arah x 8D22

Perhitungan tulangan tekan

As tekan = 20% x As perlu

= 20% x 2843,034

$= 570{,}607\ mm^2$

Direncanakan menggunakan tul.tekan D19

Jumlah tul. (n) $= \frac{As\ tekan}{0{,}25 \times \pi \times d^2} = \frac{570{,}607}{0{,}25 \times \pi \times 19^2} = 2{,}083 \approx 3$ tul.

As ada $= n \times 0{,}25 \times \pi \times 19^2$

$= 3 \times 0{,}25 \times \pi \times 19^2$

$= 850{,}155\ mm^2 > As\ tekan = 570{,}607\ mm^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}33 \approx 250$ mm

Jadi digunakan tulangan tekan arah x 3D19

4.6.2.2 Penulangan Poer Arah Y

Mu = My = P x mye

= 294,069 x 0,32

= 94,102 tm

= 94102 kgm = 94102 x 10^4 Nmm

Mu $= \frac{94102 \times 10^4}{1,5} = 62734,613 \times 10^4$ Nmm

Mn $= \frac{Mu}{\phi} = \frac{62734,613 \times 10^4}{0,8} = 78418,267 \times 10^4$ Nmm

dy = 800 – 75 - 22 – ($^1/_2$ x 22) = 692 mm

b = 1,00 m = 1000 mm

Rn $= \frac{Mn}{b \times d^2} = \frac{78418,267 \times 10^4}{1000 \times 692^2} = 1,638$ Mpa

m $= \frac{fy}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18,824$

ρ_b $= \frac{0,85 \times fc'}{fy} \times \beta \times \frac{600}{600+fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

= 0,0271

ρ_{max} = 0,75 x ρ_b = 0,75 x 0,0271 = 0,0203

ρ_{min} $= \frac{1,4}{fy} = \frac{1,4}{400} = 0,0035$

ρ_{perlu} $= \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18,824} \times 1 -$

$\sqrt{1 - \frac{2 \times 1,638 \times 18,824}{400}}$

$= 0,0043$

$\rho_{min} < \rho_{perlu}$, maka yang $\rho_{perlu} = 0,0043$

As perlu $= \rho_{perlu} \times b \times dy$

$= 0,0043 \times 1000 \times 692$

$= 2951,512 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 22

Jumlah tul. (n) $= \frac{\text{As perlu}}{0,25 \times \pi \times dy^2} = \frac{2951,512}{0,25 \times \pi \times 22^2} = 7,768 \approx 8$ tul.

As ada $= n \times 0,25 \times \pi \times 22^2$

$= 8 \times 0,25 \times \pi \times 22^2$

$= 3039,520 \text{ mm}^2 >$ As perlu $= 2951,512 \text{ mm}^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{8} = 125,00 \approx 125$ mm.

Jadi digunakan tulangan tarik arah y 8D22

Perhitungan tulangan tekan

As tekan = 20% x As perlu

= 20% x 2951,512

= 590,302 mm^2

Direncanakan menggumakan tul.tekan D19

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{590{,}302}{0{,}25 \times \pi \times 19^2} = 2{,}083 \approx 3$ tul.

As ada $= n \times 0{,}25 \times \pi \times 19^2$

$= 3 \times 0{,}25 \times \pi \times 19^2$

= 850,155 mm^2 > As tekan = 590,302 mm^2... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}333 \approx 250$ mm

Jadi digunakan tulangan tekan arah y 3D19

4.6.2.3 Kontrol Geser Pons (Gaya Geser Dua Arah Sumbu)

- **Geser Pons terhadap Kolom**

Diketahui :

Vu = 283 ton = 283000 kg

Tinggi efektif (d)

d = tebal poer – tebal selimut beton – $^{1}/_{2}$ diameter tulangan terluar

= 800 – 75 - $^{1}/_{2}$. 22

= 714 mm

Dimensi kolom (c) = 30/40

- Keliling bidang kritis geser pons (bo)

bo = 4 . [(c_1 + d) + (c_2 + d)]

= 4 . [(300 + 714) + (400 + 714)]

= 4256 mm

- Kuat geser beton maksimun

Vc $= \frac{\sqrt{fc'}}{3}$ x bo x d

$= \frac{\sqrt{25}}{3}$ x 4256 x 714

= 5064640 kg

ØVc = 0,6 x Vc

= 0,6 x 5064640

= 3038784 kg

Maka Vu = 283000 kg < ØVc = 3038784 kg...........**(OK)**

Karena Vu < ØVc, maka tidak diperlukan tulangan geser terhadap kolom dan poer aman terhadap geser pons akibat kolom.

4.6.3 Pondasi Sumuran Tipe 3

Mencari beban tiang bor yang menerima beban V dan M

$$Pmax = \frac{Pu}{n} \pm \frac{My \,.\, Xmax}{ny \,.\, \Sigma X^2} \pm \frac{Mx \,.\, Ymax}{nx \,.\, \Sigma Y^2}$$

Dimana :

Pu = 68,069 ton ; Mx = 0,02371 tm

n = 1 tiang ; My = 0,21872 tm

ny = 1 tiang

nx = 1 tiang

ΣX^2 = Jumlah kuadrat absis tiang

$= (0^2) + (0^2) + \ = 0 \ m^2$

ΣY^2 = Jumlah kuadrat ordinat tiang

$= (0^2) + (0^2) + \; = 0 \text{ m}^2$

Sehingga :

$(x_1 = 0 \; ; \; y_1 = 0)$

$$P1 \quad = \frac{68{,}069}{1} \pm \frac{0{,}02371 \times (0)}{1 \times 0} \pm \frac{0{,}21872 \times (0)}{1 \times 0}$$

= 68,069 ton

Pmax = 68,069 ton < Qa tiang = 994,940 ton ……………**(aman)**

Perhitungan Momen

Pada bagian bawah poer diasumsikan sebagai plat jalur jepit pada bagian sisinya. Dari table P2.3 (Pelat : Stiglet/Wipel : 209).

Tabel 4.10 : Pelat Stiglet/Wipel

Y/L	0	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Mye	0,32	0,31	0,30	0,28	0,25	0,21	0,18	0,14	0,09	0,05	0

4.6.3.1 Perhitungan penulangan poer arah X

$$(Y/L) \quad = \frac{0}{0{,}75+0{,}75} = 0$$

= 0,32

Mu = Mx = P x mye

$= 68,069 \times 0,32$

$= 21,782$ tm

$= 21782$ kgm $= 21782 \times 10^4$ Nmm

Mu $= \frac{21782 \times 10^4}{1,5} = 14521,280 \times 10^4$ Nmm

Mn $= \frac{Mu}{\emptyset} = \frac{14521,280 \times 10^4}{0,8} = 18151,600 \times 10^4$ Nmm

dx $= 800 - 75 - (^1/_2 \times 22) = 714$ mm

b $= 1,00$ m $= 1000$ mm

Rn $= \frac{Mn}{b \times dx^2} = \frac{18151,600 \times 10^4}{1000 \times 714^2} = 0,356$ Mpa

m $= \frac{fy}{0,85 \times fc'} = \frac{400}{0,85 \times 25} = 18;824$

ρ_b $= \frac{0,85 \times fc'}{fy} \times \beta \times \frac{600}{600+fy} = \frac{0,85 \times 25}{400} \times 0,85 \times \frac{600}{600+400}$

$= 0,0271$

ρ_{max} $= 0,75 \times \rho_b = 0,75 \times 0,0271 = 0,0203$

ρ_{min} $= \frac{1,4}{fy} = \frac{1,4}{400} = 0,004$

ρ_{perlu} $= \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18,824} \times 1 -$

$$\sqrt{1-\frac{2 \times 0{,}356 \times 18{,}824}{400}}$$

$= 0{,}001$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0{,}004$

As perlu $= \rho_{min} \times b \times dx$

$= 0{,}004 \times 1000 \times 714$

$= 2499 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 22

Jumlah tul. (n) $= \frac{\text{As perlu}}{0{,}25 \times \pi \times d^2} = \frac{2499}{0{,}25 \times \pi \times 22^2} = 6{,}755 \approx 7$ tul.

As ada $= n \times 0{,}25 \times \pi \times 22^2$

$= 7 \times 0{,}25 \times \pi \times 22^2$

$= 2659{,}580 \text{ mm}^2 >$ As perlu $= 2499 \text{ mm}^2$.........(OK)

Jarak (s) $= \frac{b}{n} = \frac{1000}{7} = 142{,}875 \approx 150$ mm

Jadi digunakan tulangan tarik arah x 7D22

Perhitungan tulangan tekan

As tekan $= 20\% \times$ As perlu

$= 20\% \times 2499$

$= 499{,}800\ mm^2$

Direncanakan menggunakan tul.tekan D19

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{499{,}800}{0{,}25 \times \pi \times 19^2} = 1{,}764 \approx 3$ tul.

As ada $= n \times 0{,}25 \times \pi \times 19^2$

$= 3 \times 0{,}25 \times \pi \times 19^2$

$= 850{,}155\ mm^2 >$ As tekan $= 499{,}800\ mm^2$... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}33 \approx 250$ mm

Jadi digunakan tulangan tekan arah x 3D19

4.6.3.2 Penulangan Poer Arah Y

Mu = My $= P \times mye$

$= 68{,}069 \times 0{,}32$

$= 21{,}782$ tm

$= 21782$ kgm $= 21782 \times 10^4$ Nmm

Mu $= \frac{21782 \times 10^4}{1{,}5} = 14521{,}280 \times 10^4$ Nmm

Mn $= \frac{Mu}{\phi} = \frac{14521{,}280 \times 10^4}{0{,}8} = 18151{,}600 \times 10^4$ Nmm

dy $= 800 - 75 - 22 - (^1/_2 \times 22) = 692$ mm

b $= 1{,}00$ m $= 1000$ mm

Rn $= \frac{Mn}{b \times d^2} = \frac{18151{,}600 \times 10^4}{1000 \times 692^2} = 0{,}39$ Mpa

m $= \frac{fy}{0{,}85 \times fc'} = \frac{400}{0{,}85 \times 25} = 18{,}824$

ρ_b $= \frac{0{,}85 \times fc'}{fy} \times \beta \times \frac{600}{600 + fy} = \frac{0{,}85 \times 25}{400} \times 0{,}85 \times \frac{600}{600+400}$

$= 0{,}0271$

ρ_{max} $= 0{,}75 \times \rho_b = 0{,}75 \times 0{,}0271 = 0{,}0203$

ρ_{min} $= \frac{1{,}4}{fy} = \frac{1{,}4}{400} = 0{,}004$

ρ_{perlu} $= \frac{1}{m} \times 1 - \sqrt{1 - \frac{2 \times Rn \times m}{fy}} = \frac{1}{18{,}824} \times$

$$1 - \sqrt{1 - \frac{2 \times 0{,}379 \times 18{,}824}{400}}$$

$= 0{,}001$

$\rho_{perlu} < \rho_{min}$, maka yang $\rho_{min} = 0{,}004$

As perlu $= \rho_{min} \times b \times dy$

$= 0{,}004 \times 1000 \times 692$

$= 2422 \text{ mm}^2$

Direncanakan menggunakan tulangan pokok D 22

Jumlah tul. (n) $= \frac{\text{As perlu}}{0{,}25 \times \pi \times dy^2} = \frac{2422}{0{,}25 \times \pi \times 22^2} = 6{,}375 \approx 7$ tul.

As ada $= n \times 0{,}25 \times \pi \times 22^2$

$= 7 \times 0{,}25 \times \pi \times 22^2$

$= 2659{,}580 \text{ mm}^2 >$ As perlu $= 2422 \text{ mm}^2$.........**(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{7} = 142{,}875 \approx 150$ mm.

Jadi digunakan tulangan tarik arah y 7D22

Perhitungan tulangan tekan

As tekan = 20% x As perlu

= 20% x 2422

= 484,400 mm^2

Direncanakan menggumakan tul.tekan D19

Jumlah tul. (n) $= \frac{\text{As tekan}}{0{,}25 \times \pi \times d^2} = \frac{484{,}400}{0{,}25 \times \pi \times 19^2} = 1{,}709 \approx 3$ tul.

As ada $= n \times 0{,}25 \times \pi \times 19^2$

$= 3 \times 0{,}25 \times \pi \times 19^2$

= 850,155 mm^2 > As tekan = 484,400 mm^2... **(OK)**

Jarak (s) $= \frac{b}{n} = \frac{1000}{3} = 333{,}333 \approx 250$ mm

Jadi digunakan tulangan tekan arah y 3D19

4.6.3.3 Kontrol Geser Pons (Gaya Geser Dua Arah Sumbu)

- **Geser Pons Terhadap Kolom**

Diketahui :

Vu = 57 ton = 57000 kg

Tinggi efektif (d)

d = tebal poer – tebal selimut beton – $^1/_2$ diameter tulangan terluar

= 800 – 75 - $^1/_2$. 22

= 714 mm

Dimensi kolom (c) = 30/40

- Keliling bidang kritis geser pons (bo)

bo = 4 . [(c_1 + d) + (c_2 + d)]

= 4 . [(300 + 714) + (400 + 714)]

= 4256 mm

- Kuat geser beton maksimun

Vc $= \frac{\sqrt{fc'}}{3}$ x bo x d

$= \frac{\sqrt{25}}{3}$ x 4256 x 714

= 5064640 kg

ØVc = 0,6 x Vc

= 0,6 x 5064640

= 3038784 kg

Maka Vu = 57000 kg < ØVc = 3038784 kg...........**(OK)**

Karena Vu < ØVc, maka tidak diperlukan tulangan geser terhadap kolom dan poer aman terhadap geser pons akibat kolom.

4.7 Perhitungan Tulangan Pondasi Sumuran

4.7.1 Perhitungan Tulangan Pondasi Sumuran Tipe 1

Perhitungan pondasi sumuran diasumsikan seperti perhitungan kolom bulat.

Data Perencanaan :

- Pu = 317,069 ton
- M_{maks} (My) = 101,426 ton
- Mutu beton (fc') = 25 Mpa
- Mutu baja tulangan (fy) = 400 Mpa
- Diameter luar sumuran = 100 cm = 1000 mm
- Diameter dalam sumuran = 50 cm = 500 mm
- Tebal selimut = 75 mm

1. Tebal efektif selimut beton terpusat tulangan terluar.

   Dicoba menggunakan tulangan pokok D22 dan tulangan sengkang D19

   d' = tebal selimut beton + Ø sengkang + ($^1/_2$ $D_{tul.pokok}$)

   = 75 + 19 + ($^1/_2$ 22)

   = 105 mm

   $d_{efektif}$ = D_{luar} – (2 x d')

   = 1000 – (2 x 105)

   = 790 mm

2. Luas penampang sumuran (Ag)

   Ag = ($^1/_4$ x π x D_{luar}^2) - ($^1/_4$ x π x D_{dalam}^2)

   = ($^1/_4$ x π x 1000^2) - ($^1/_4$ x π x 500^2)

   = 588750 mm^2

3. Luas tulangan penampang baja (Ast)

   Rencana penulangan dengan perkiraan luas tulangan pokok adalah 3% dari luas tiang.

   - Ast = 3% x Ag

     = 3% x 588750

     = 17662,500 mm^2

- Jumlah Tulangan (n)

$$n = \frac{Ast}{1/4 \times \pi \times Dtul.^2}$$

$$= \frac{17662{,}500}{1/4 \times \pi \times 22^2}$$

$= 46{,}49 \approx 47$ buah

- $As_{ada} = n \times {}^1/_4 \times \pi \times D_{tul}{}^2$

  $= 47 \times {}^1/_4 \times \pi \times 22^2$

  $= 17857{,}180\ mm^2 > Ast = 17662{,}500\ mm^2$**(OK)**

- $As = As' = 0{,}5 \times Ast$

  $= 0{,}5 \times 17662{,}500$

  $= 8831{,}250\ mm^2$

- Jarak tulangan pokok (s)

$$s = \frac{\pi \times d_{efektif}}{n}$$

$$= \frac{\pi \times 790}{47} = 52{,}779 \approx 55\ mm$$

4. Pemeriksaan beban ultimite beton (P_{ub}) dan momen ultimate beton (M_{ub})

   - Tebal penampang segi empat ekivalen

     $t_{ek1} = 0{,}8 \times D_{luar}$

     $= 0{,}8 \times 1000$

     $= 800\ mm$

t_{ek2} $= 0,8 \times D_{dalam}$

$= 0,8 \times 500$

$= 400$ mm

- Lebar penampang segi empat ekivalen

$$l_{ek1} = \frac{\frac{1}{4} \times \pi \times Dluar^2}{t_{ek1}}$$

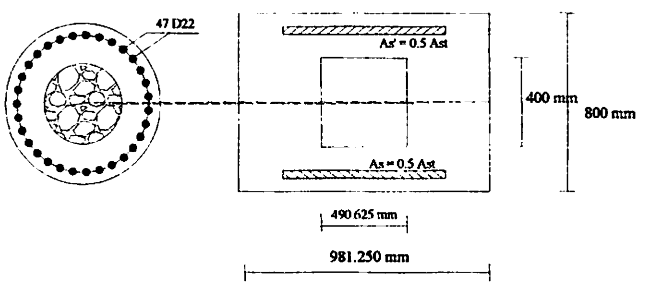
$$= \frac{\frac{1}{4} \times \pi \times 1000^2}{800}$$

$= 981,250$ mm

$$l_{ek2} = \frac{\frac{1}{4} \times \pi \times Ddalam^2}{t_{ek2}}$$

$$= \frac{\frac{1}{4} \times \pi \times 500^2}{400}$$

$= 490,625$ mm



Gambar 4.23 : Ekivalen Penampang Bulat ke Segi Empat

- Pemeriksaan P terhadap beban seimbang

  - Jarak tulangan tarik terhadap tepi terluar beton (d_b)

    d_b = t_{ek1} – tebal selimut efektif (d')

    = 800 – 105

    = 695 mm

  - Jarak serat tekan terluar ke garis netral (c_b)

    $c_b = \frac{600 \times d_b}{600 + fy}$

    $= \frac{600 \times 695}{600 + 400}$

    = 417 mm

  - Lebar daerah tekan (a_b)

    $a_b = \beta \times c_b$

    = 0,85 x 417

    = 354,450 mm

- Tegangan tekan tulangan baja (fs')

  $fs' = \frac{600 \times (c_b - d')}{c_b}$

  $= \frac{600 \times (417 - 105)}{417}$

  = 448,921 Mpa > fy = 400 Mpa

- Beban ultimate beton (P_{ub})

P_{ub} = [(0,85 x fc' x a_b x l_{ek1}) + (As' x fs') – (As x fy)] x 10^{-3}

= [(0,85 x 25 x 354,450 x 981,250) + (8831,250 x 448,921) - (8831,250 x 400)] x 10^{-3}

= 14887,869 kN

Momen ultimate beton (M_{ub})

M_{ub} = [(0,85 x fc' x l_{ek1} x ab x{$\frac{t_{ek1}}{2}$ - ($^1/_2$ x ab)}) + (As' x fs' x ($^1/_2$ x (d_{eff} – d")) + (As x fs x ($^1/_2$ (d_{eff} – d"))] x 10^{-6}

= [(0,85 x 25 x 918,250 x 354,450 x{$\frac{800}{2}$ - ($^1/_2$ x 354,450)}) + (8831,250 x 400 x ($^1/_2$ x (790 - 105)) + (8831,250 x 400 x ($^1/_2$ x (790 - 105))] x 10^{-6}

= 4066,256 kNm

- Eksentrisitas beton (e_b)

e_b = $\frac{M_{ub}}{P_{ub}}$

= $\frac{4066,256}{14887,869}$

= 0,273m

- Eksentrisitas beban (e)

$$e = \frac{M}{P_{max}}$$

$$= \frac{101,462}{317,069}$$

$$= 0,320 \text{ m}$$

4.7.1.1 Memeriksa Kekuatan Penampang Pondasi Sumuran

- Rasio penulangan memanjang (ρs)

$$\rho s = \frac{A_{st}}{A_g}$$

$$= \frac{17662,500}{588750} = 0,03$$

- Lebar sumuran efektif (Ds)

$$Ds = D_{luar} - (2 \times d')$$

$$= 1000 - (2 \times 105)$$

$$= 790 \text{ mm}$$

$$m = \frac{fy}{0,85 \times fc'}$$

$$= \frac{400}{0,85 \times 25}$$

$$= 18,824$$

- Persamaan untuk penampang pondasi tiang bor dengan hancur tarik (Pn)

$$Pn = 0,85 \times fc \times h^2 \times \sqrt{\left(\frac{0,85 \times e}{h} - 0,38\right)^2 + \frac{\rho s \times m \times D_S}{2,50 \times h}} - \left(\frac{0,85 \times e}{h} - 0,38\right)$$

$$= 0,85 \times 25 \times 1000^2 \times \sqrt{\left(\frac{0,85 \times 0,320}{1000} - 0,38\right)^2 + \frac{0,03 \times 18,824 \times 790}{2,50 \times 1000}} - \left(\frac{0,85 \times 0,320}{1000} - 0,38\right)$$

$$= 9143184 \text{ kg} = 91431,84 \text{ ton}$$

- Kekuatan sumuran

$$\varnothing Pn = 0,7 \times Pn$$

$$= 0,7 \times 91431,84$$

$$= 6400,229 \text{ ton} > P_u = 317,069 \text{ ton}$$

Dengan demikian perencanaan penampang pondasi sumuran memenuhi persyaratan sehingga ukuran dan tulangan dapat digunakan.

4.7.1.2 Perencanaan Tulangan Spiral

Data perencanaan :

fc' = 35 Mpa

fy = 400 Mpa

$D_{tul.}$ = 12 mm

Luas penampang kotor sumuran (Ag)

$$Ag = (^1/_4 \times \pi \times d_{luar}{}^2) - (^1/_4 \times \pi \times d_{dalam}{}^2)$$

$$= (^1/_4 \times \pi \times 1000^2) - (^1/_4 \times \pi \times 500^2)$$

$$= 588750 \text{ mm}^2$$

$$As_{spiral} = {}^1/_4 \times \pi \times D_{tul}{}^2$$

$$= {}^1/_4 \times \pi \times 12^2 = 113{,}04 \text{ mm}^2$$

Diameter inti sumuran (Dc)

$$Dc = D_{tiang} - (2 \times \text{selimut beton})$$

$$= 1000 - (2 \times 75)$$

$$= 850 \text{ mm}$$

Luas penampang inti sumuran (Ac)

$$Ac = (\tfrac{1}{4} \times \pi \times Dc^2) - (\tfrac{1}{4} \times \pi \times D_{dalam}^2)$$

$$= (\tfrac{1}{4} \times \pi \times 850^2) - (\tfrac{1}{4} \times \pi \times 500^2)$$

$$= 370913 \text{ mm}^2$$

$$\rho_s = 0{,}45 \times \left(\frac{Ag}{Ac} - 1\right) x \left(\frac{fc'}{fy}\right)$$

$$= 0{,}45 \times \left(\frac{588750}{370913} - 1\right) x \left(\frac{35}{400}\right)$$

$$= 0{,}023$$

- Jarak antar sengkang spiral

$$S_{maks} = \frac{4\, x\, As_{spiral}\, x\, (Dc - Dtul)}{Dc^2 x\, \rho_s}$$

$$= \frac{4\, x\, 283{,}385\, x\, (850-12)}{850^2 x\, 0{,}023}$$

$$= 40{,}13 \text{ mm} \approx 40 \text{ mm}$$

Dari perhitungan penulangan pondasi sumuran, maka digunakan tulangan pokok 47D22 dan tulangan spiral Ø12-40.

4.7.2 Perhitungan Tulangan Pondasi Sumuran Tipe 2

Perhitungan pondasi sumuran diasumsikan seperti perhitungan kolom bulat.

Data Perencanaan :

- Pu = 294,069 ton
- M_{maks} (My) = 94,102 ton
- Mutu beton (fc') = 25 Mpa
- Mutu baja tulangan (fy) = 400 Mpa
- Diameter luar sumuran = 100 cm = 1000 mm
- Diameter dalam sumuran = 50 cm = 500 mm
- Tebal selimut = 75 mm

1. Tebal efektif selimut beton terpusat tulangan terluar.

   Dicoba menggunakan tulangan pokok D22 dan tulangan sengkang D19

   d' = tebal selimut beton + Ø sengkang + ($^1/_2$ $D_{tul.pokok}$)

   = 75 + 19 + ($^1/_2$ 22)

   = 105 mm

   $d_{efektif}$ = D_{luar} – (2 x d')

   = 1000 – (2 x 105)

$= 790$ mm

2. Luas penampang sumuran (Ag)

   Ag $= (^1/_4 \times \pi \times D_{luar}^2) - (^1/_4 \times \pi \times D_{dalam}^2)$

   $= (^1/_4 \times \pi \times 1000^2) - (^1/_4 \times \pi \times 500^2)$

   $= 588750$ mm^2

3. Luas tulangan penampang baja (Ast)

   Rencana penulangan dengan perkiraan luas tulangan pokok adalah 3% dari luas tiang.

   - Ast $= 3\% \times Ag$

     $= 3\% \times 588750$

     $= 17662{,}500$ mm^2

   - Jumlah Tulangan (n)

     $$n = \frac{Ast}{^1/_4 \times \pi \times Dtul.^2}$$

     $$= \frac{17662{,}500}{^1/_4 \times \pi \times 22^2}$$

     $= 46{,}49 \approx 47$ buah

   - As_{ada} $= n \times {}^1/_4 \times \pi \times D_{tul}^2$

     $= 47 \times {}^1/_4 \times \pi \times 22^2$

     $= 17857{,}180$ mm^2 > Ast = 17662,500 mm^2**(OK)**

- $As = As' = 0,5 \times Ast$

  $= 0,5 \times 17662,500$

  $= 8831,250 \text{ mm}^2$

- Jarak tulangan pokok (s)

  $s = \frac{\pi \times d_{efektif}}{n}$

  $= \frac{\pi \times 790}{47} = 52,779 \approx 55 \text{ mm}$

4. Pemeriksaan beban ultimite beton (P_{ub}) dan momen ultimate beton (M_{ub})

- Tebal penampang segi empat ekivalen

  $t_{ek1} = 0,8 \times D_{luar}$

  $= 0,8 \times 1000$

  $= 800 \text{ mm}$

  $t_{ek2} = 0,8 \times D_{dalam}$

  $= 0,8 \times 500$

  $= 400 \text{ mm}$

- Lebar penampang segi empat ekivalen

  $l_{ek1} = \frac{1/4 \times \pi \times Dluar^2}{t_{ek1}}$

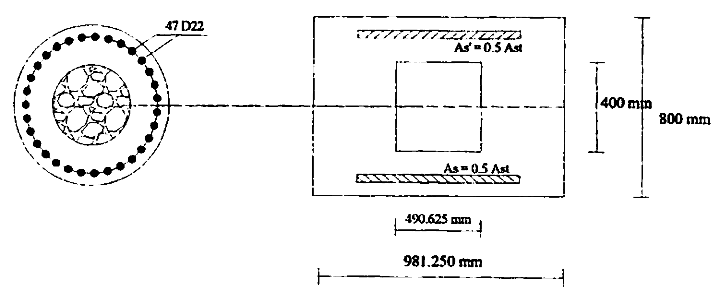
  $= \frac{1/4 \times \pi \times 1000^2}{800}$

  $= 981,250 \text{ mm}$

$$l_{ek2} = \frac{1/4 \times \pi \times Ddalam^2}{t_{ek2}}$$

$$= \frac{1/4 \times \pi \times 500^2}{400}$$

$= 490,625$ mm



Gambar 4.24 : Ekivalen Penampang Bulat ke Segi Empat

- pemeriksaan P terhadap beban seimbang
  - ➢ Jarak tulangan tarik terhadap tepi terluar beton (d_b)

    d_b = t_{ek1} – tebal selimut efektif (d')

    = 800 – 105

    = 695 mm

  - ➢ Jarak serat tekan terluar ke garis netral (c_b)

    $$c_b = \frac{600 \times d_b}{600+fy}$$

    $$= \frac{600 \times 695}{600+400}$$

    = 417 mm

➢ Lebar daerah tekan (a_b)

$a_b = \beta \times c_b$

$= 0{,}85 \times 417$

$= 354{,}450$ mm

- Tegangan tekan tulangan baja (fs')

$fs' = \frac{600 \times (c_b - d')}{c_b}$

$= \frac{600 \times (417 - 105)}{417}$

$= 448{,}921$ Mpa > fy = 400 Mpa

- Beban ultimate beton (P_{ub})

$P_{ub} = [(0{,}85 \times fc' \times a_b \times l_{ekl}) + (As' \times fs') - (As \times fy)] \times 10^{-3}$

$= [(0{,}85 \times 25 \times 354{,}450 \times 981{,}250) + (8831{,}250 \times 448{,}921) - (8831{,}250 \times 400)] \times 10^{-3}$

$= 14887{,}869$ kN

Momen ultimate beton (M_{ub})

$M_{ub} = [(0{,}85 \times fc' \times l_{ekl} \times ab \times \{\frac{t_{ek1}}{2} - (^1/_2 \times ab)\}) + (As' \times fs' \times (^1/_2 \times (d_{eff} - d'')) + (As \times fs \times (^1/_2 (d_{eff} - d''))] \times 10^{-6}$

$= [(0{,}85 \times 25 \times 918{,}250 \times 354{,}450 \times \{\frac{800}{2} - (^1/_2 \times 354{,}450)\}) + (8831{,}250 \times 400 \times (^1/_2 \times (790 -$

105)) + (8831,250 x 400 x (1/2 x (790 - 105))] x 10^{-6}

= 4066,256 kNm

- Eksentrisitas beton (e_b)

$e_b = \frac{M_{ub}}{P_{ub}}$

$= \frac{4066,256}{14887,869}$

= 0,273m

- Eksentrisitas beban (e)

$e = \frac{M}{P_{max}}$

$= \frac{94,102}{294,069}$

= 0,320 m

4.7.2.1 Memeriksa Kekuatan Penampang Pondasi Sumuran

- Rasio penulangan memanjang (ρs)

$\rho s = \frac{A_{st}}{A_g}$

$= \frac{17662,500}{588750}$

= 0,03

- Lebar sumuran efektif (Ds)

Ds = D_{luar} – (2 x d')

$= 1000 - (2 \times 105)$

$= 790$ mm

$m = \frac{fy}{0,85 \times fc'}$

$= \frac{400}{0,85 \times 25}$

$= 18,824$

- Persamaan untuk penampang pondasi tiang bor dengan hancur tarik (Pn)

$$Pn = 0,85 \times fc \times h^2 \times \sqrt{\left(\frac{0,85 \times e}{h} - 0,38\right)^2 + \frac{\rho s \times m \times D_s}{2,50 \times h}} - \left(\frac{0,85 \times e}{h} - 0,38\right)$$

$$= 0,85 \times 25 \times 1000^2 \times \sqrt{\left(\frac{0,85 \times 0,320}{1000} - 0,38\right)^2 + \frac{0,03 \times 18,824 \times 790}{2,50 \times 1000}} - \left(\frac{0,85 \times 0,320}{1000} - 0,38\right)$$

$= 9143184$ kg $= 91431,84$ ton

- Kekuatan sumuran

$\emptyset Pn = 0,7 \times Pn$

$= 0,7 \times 91431,84$

$= 6400,229$ ton $> P_u = 294,069$ ton

Dengan demikian perencanaan penampang pondasi sumuran memenuhi persyaratan sehingga ukuran dan tulangan dapat digunakan.

4.7.2.2 Perencanaan Tulangan Spiral

Data perencanaan :

fc' = 35 Mpa

fy = 400 Mpa

$D_{tul.}$ = 16 mm

Luas penampang kotor sumuran (Ag)

$$Ag = (1/4 \times \pi \times d_{luar}^2) - (1/4 \times \pi \times d_{dalam}^2)$$

$$= (1/4 \times \pi \times 1000^2) - (1/4 \times \pi \times 500^2)$$

$$= 588750 \text{ mm}^2$$

$$As_{spiral} = 1/4 \times \pi \times D_{tul}^2$$

$$= 1/4 \times \pi \times 12^2 = 113{,}04 \text{ mm}^2$$

Diameter inti sumuran (Dc)

$Dc = D_{tiang} - (2 \times \text{selimut beton})$

$= 1000 - (2 \times 75)$

$= 850$ mm

Luas penampang inti sumuran (Ac)

$Ac = (^1/_4 \times \pi \times Dc^2) - (^1/_4 \times \pi \times D_{dalam}^2)$

$= (^1/_4 \times \pi \times 850^2) - (^1/_4 \times \pi \times 500^2)$

$= 370913 \text{ mm}^2$

$\rho_s = 0{,}45 \times \left(\frac{Ag}{Ac} - 1\right) \times \left(\frac{fc'}{fy}\right)$

$= 0{,}45 \times \left(\frac{588750}{370913} - 1\right) \times \left(\frac{35}{400}\right)$

$= 0{,}023$

- Jarak antar sengkang spiral

$S_{maks} = \frac{4 \times As_{spiral} \times (Dc - Dtul)}{Dc^2 \times \rho_s}$

$= \frac{4 \times 283{,}385 \times (850-12)}{850^2 \times 0{,}023}$

$= 40{,}13 \text{ mm} \approx 40 \text{ mm}$

Dari perhitungan penulangan pondasi sumuran, maka digunakan tulangan pokok 47D22 dan tulangan spiral Ø12-40.

4.7.3 Penulangan Pondasi Sumuran Tipe 3

Perhitungan pondasi sumuran diasumsikan seperti perhitungan kolom bulat.

Data Perencanaan :

- Pu = 68,069 ton
- M_{maks} (My) = 21,782 ton
- Mutu beton (fc') = 25 Mpa
- Mutu baja tulangan (fy) = 400 Mpa
- Diameter luar sumuran = 100 cm = 1000 mm
- Diameter dalam sumuran = 50 cm = 500 mm
- Tebal selimut = 75 mm

1. Tebal efektif selimut beton terpusat tulangan terluar.

   Dicoba menggunakan tulangan pokok D22 dan tulangan sengkang D19

   d' = tebal selimut beton + Ø sengkang + ($^1/_2$ $D_{tul.pokok}$)

   = 75 + 19 + ($^1/_2$ 22)

$= 105$ mm

$d_{efektif} = D_{luar} - (2 \times d')$

$= 1000 - (2 \times 105)$

$= 790$ mm

2. Luas penampang sumuran (Ag)

$Ag = (^1/_4 \times \pi \times D_{luar}^2) - (^1/_4 \times \pi \times D_{dalam}^2)$

$= (^1/_4 \times \pi \times 1000^2) - (^1/_4 \times \pi \times 500^2)$

$= 588750 \text{ mm}^2$

3. Luas tulangan penampang baja (Ast)

Rencana penulangan dengan perkiraan luas tulangan pokok adalah 3% dari luas tiang.

- Ast $= 3\% \times Ag$

  $= 3\% \times 588750$

  $= 17662{,}500 \text{ mm}^2$

- Jumlah Tulangan (n)

  $$n = \frac{Ast}{^1/_4 \times \pi \times Dtul.^2}$$

  $$= \frac{17662{,}500}{^1/_4 \times \pi \times 22^2}$$

  $= 46{,}49 \approx 47$ buah

- $As_{ada} = n \times {^1/_4} \times \pi \times D_{tul}^2$

  $= 47 \times {^1/_4} \times \pi \times 22^2$

$= 17857,180\ mm^2 > Ast = 17662,500\ mm^2$ **(OK)**

- As = As' $= 0,5 \times Ast$

  $= 0,5 \times 17662,500$

  $= 8831,250\ mm^2$

- Jarak tulangan pokok (s)

  $s = \frac{\pi \times d_{efektif}}{n}$

  $= \frac{\pi \times 790}{47} = 52,779 \approx 55\ mm$

4. Pemeriksaan beban ultimite beton (P_{ub}) dan momen ultimate beton (M_{ub})

- Tebal penampang segi empat ekivalen

  $t_{ek1} = 0,8 \times D_{luar}$

  $= 0,8 \times 1000$

  $= 800\ mm$

  $t_{ek2} = 0,8 \times D_{dalam}$

  $= 0,8 \times 500$

  $= 400\ mm$

- Lebar penampang segi empat ekivalen

  $l_{ek1} = \frac{1/4 \times \pi \times Dluar^2}{t_{ek1}}$

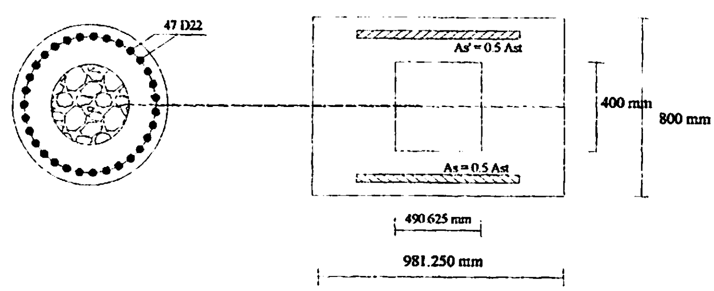
  $= \frac{1/4 \times \pi \times 1000^2}{800}$

  $= 981,250\ mm$

$$l_{ek2} = \frac{1/4 \times \pi \times Ddalam^2}{t_{ek2}}$$

$$= \frac{1/4 \times \pi \times 500^2}{400}$$

= 490,625 mm



Gambar 4.25 : Ekivalen Penampang Bulat ke Segi Empat

- Pemeriksaan P terhadap beban seimbang
  - ➢ Jarak tulangan tarik terhadap tepi terluar beton (d_b)

    d_b = t_{ek1} – tebal selimut efektif (d')

    = 800 – 105

    = 695 mm

  - ➢ Jarak serat tekan terluar ke garis netral (c_b)

$$c_b = \frac{600 \times d_b}{600+fy}$$

$$= \frac{600 \times 695}{600+400}$$

= 417 mm

- Lebar daerah tekan (a_b)

a_b $= \beta \times c_b$

$= 0,85 \times 417$

$= 354,450$ mm

- Tegangan tekan tulangan baja (fs')

$fs' = \frac{600 \times (c_b - d')}{c_b}$

$= \frac{600 \times (417 - 105)}{417}$

$= 448,921$ Mpa > fy = 400 Mpa

- Beban ultimate beton (P_{ub})

P_{ub} = [(0,85 x fc' x a_b x l_{ek1}) + (As' x fs') – (As x fy)] x 10^{-3}

= [(0,85 x 25 x 354,450 x 981,250) + (8831,250 x 448,921) - (8831,250 x 400)] x 10^{-3}

= 14887,869 kN

Momen ultimate beton (M_{ub})

M_{ub} = [(0,85 x fc' x l_{ek1} x ab x{$\frac{t_{ek1}}{2}$ - ($^1/_2$ x ab)}) + (As' x fs' x ($^1/_2$ x (d_{eff} – d")) + (As x fs x ($^1/_2$ (d_{eff} – d"))] x 10^{-6}

= [(0,85 x 25 x 918,250 x 354,450 x{$\frac{800}{2}$ - ($^1/_2$ x 354,450)}) + (8831,250 x 400 x ($^1/_2$ x (790 -

105)) + (8831,250 x 400 x ($^1/_2$ x (790 - 105))] x 10^{-6}

= 4066,256 kNm

- Eksentrisitas beton (e_b)

e_b $= \frac{M_{ub}}{P_{ub}}$

$= \frac{4066,256}{14887,869}$

= 0,273m

- Eksentrisitas beban (e)

e $= \frac{M}{P_{max}}$

$= \frac{21,872}{68,069}$

= 0,320 m

4.7.3.1 Memeriksa Kekuatan Penampang Pondasi Sumuran

- Rasio penulangan memanjang (ρs)

ρs $= \frac{A_{st}}{A_g}$

$= \frac{17662,500}{588750}$

= 0,03

- Lebar sumuran efektif (Ds)

Ds $= D_{luar} - (2 \times d')$

$= 1000 - (2 \times 105)$

$= 790$ mm

m $= \frac{fy}{0,85 \times fc'}$

$= \frac{400}{0,85 \times 25}$

$= 18,824$

- Persamaan untuk penampang pondasi tiang bor dengan hancur tarik (Pn)

$$Pn = 0,85 \times fc \times h^2 \times \sqrt{\left(\frac{0,85 \times e}{h} - 0,38\right)^2 + \frac{\rho s \times m \times D_s}{2,50 \times h}} - \left(\frac{0,85 \times e}{h} - 0,38\right)$$

$$= 0,85 \times 25 \times 1000^2 \times \sqrt{\left(\frac{0,85 \times 0,320}{1000} - 0,38\right)^2 + \frac{0,03 \times 18,824 \times 790}{2,50 \times 1000}} - \left(\frac{0,85 \times 0,320}{1000} - 0,38\right)$$

$= 9143184$ kg $= 91431,84$ ton

- Kekuatan sumuran

$\varnothing$ Pn $= 0,7 \times$ Pn

$= 0,7 \times 91431,84$

$= 6400,229$ ton $> P_u = 68,069$ ton

Dengan demikian perencanaan penampang pondasi sumuran memenuhi persyaratan sehingga ukuran dan tulangan dapat digunakan.

4.7.3.2 Perencanaan Tulangan Spiral

Data perencanaan :

fc' = 35 Mpa

fy = 400 Mpa

$D_{tul.}$ = 16 mm

Luas penampang kotor sumuran (Ag)

$Ag = (^1/_4 \times \pi \times d_{luar}^2) - (^1/_4 \times \pi \times d_{dalam}^2)$

$= (^1/_4 \times \pi \times 1000^2) - (^1/_4 \times \pi \times 500^2)$

$= 588750 \text{ mm}^2$

$As_{spiral} = {}^1/_4 \times \pi \times D_{tul}^2$

$= {}^1/_4 \times \pi \times 12^2 = 113{,}04 \text{ mm}^2$

Diameter inti sumuran (Dc)

$Dc = D_{tiang} - (2 \times \text{selimut beton})$

$= 1000 - (2 \times 75)$

$= 850$ mm

Luas penampang inti sumuran (Ac)

Ac $= (^1/_4 \times \pi \times Dc^2) - (^1/_4 \times \pi \times D_{dalam}{}^2)$

$= (^1/_4 \times \pi \times 850^2) - (^1/_4 \times \pi \times 500^2)$

$= 370913$ mm^2

ρ_s $= 0{,}45 \times \left(\frac{Ag}{Ac} - 1\right) x \left(\frac{fc'}{fy}\right)$

$= 0{,}45 \times \left(\frac{588750}{370913} - 1\right) x \left(\frac{35}{400}\right)$

$= 0{,}023$

- Jarak antar sengkang spiral

S_{maks} $= \frac{4 \; x \; As_{spiral} \; x \; (Dc - Dtul)}{Dc^2 x \; \rho_s}$

$= \frac{4 \; x \; 283{,}385 \; x \; (850 - 12)}{850^2 x \; 0{,}023}$

$= 40{,}13$ mm ≈ 40 mm

Dari perhitungan penulangan pondasi sumuran, maka digunakan tulangan pokok 47D22 dan tulangan spiral Ø12-40.

Tabel 4.11 : Hasil Analisa Perhitungan Perencanaan Pondasi Strauss

No	PERHITUNGAN	SAT	PONDASI STRAUSS		
			TIPE I	TIPE II	TIPE III
1	Ukuran diameter (D)	cm	50	50	50
2	Kedalaman pondasi	m	6,4	6,4	6,4
3	Jumlah tiang	buah	6	6	2
4	Jarak antar tiang (s)	cm	125	125	100
5	Efisiensi kelompok (η)	-	0,717	0,717	0,835
6	Daya dukung 1 tiang (Q_{izin})	Kg	74700,60	74700,60	74700,60
7	Daya dukung tiang kelompok (Q_{pg})	Kg	321539	321539	124794
8	Tulangan tarik poer arah x	-	6D19-150	6D19-150	6D19-150
9	Tulangan tarik poer arah y	-	6D19-160	11D19-90	6D19-160
10	Tulangan tekan poer arah x	-	5D16-200	5D16-200	5D16-200
11	Tulangan tekan poer arah y	-	5D16-200	3D16-300	5D16-200
12	Tulangan pokok tiang	-	22D19-45	22D19-45	22D19-45
13	Tulangan spiral tiang	-	Ø12-40	Ø12-40	Ø12-40

Tabel 4.12 : Hasil Analisa Perhitungan Perencanaan Pondasi Sumuran

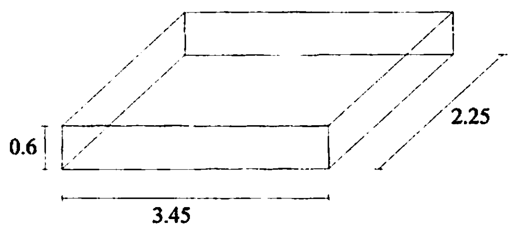
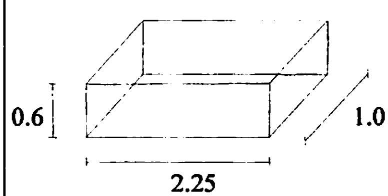
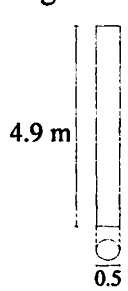
No.	PERHITUNGAN	SAT	PONDASI SUMURAN		
			TIPE I	TIPE II	TIPE III
1	Ukuran diameter luar (D_{luar})	cm	100	100	100
2	Ukuran diameter dalam (D_{dalam})	cm	50	50	50
3	Kedalaman pondasi	m	6,4	6,4	6,4
4	Jumlah tiang	buah	1	1	1
5	Daya dukung 1 tiang (Q_{izin})	ton	392,500	392,500	392,500
6	Tulangan tarik poer arah x	-	8D22-125	8D22-125	7D22-150
7	Tulangan tarik poer arah y	-	9D22-120	8D22-125	7D22-150
8	Tulangan tekan poer arah x	-	3D19-250	3D19-250	3D19-250
9	Tulangan tekan poer arah y	-	3D19-250	3D19-250	3D19-250
10	Tulangan pokok tiang	-	47D22-55	47D22-55	47D22-55
11	Tulangan spiral tiang	-	Ø12-40	Ø12-40	Ø12-40

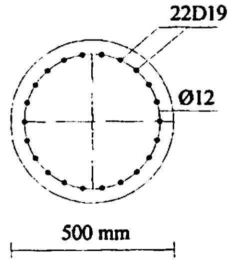
4.8 Perhitungan Volume Pondasi Dan Biaya Pengerjaan Pondasi

4.8.1 Perhitungan Volume Pondasi

4.8.1.1 Pondasi Tiang Bor (Strauss)

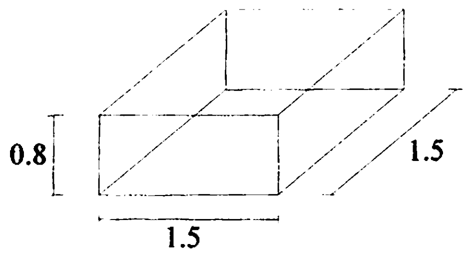
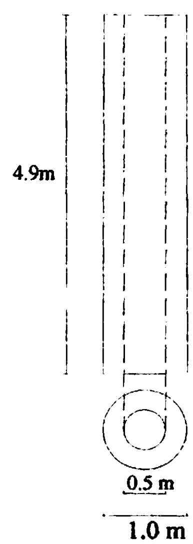
Tabel 4.13 : Perhitungan Volume Pondasi Tiang Bor (Strauss)

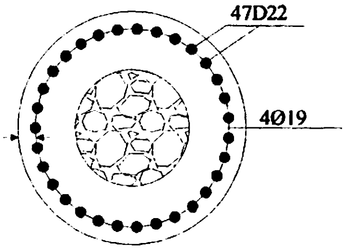
No	Uraian	Satuan	Volume
1	Pondasi Tiang Bor		
	- Poer Pondasi 1 dan 2  Vol : 3,45 x 2,25 x 0,6	m^3	4,658
	- Poer Pondasi 3  Vol : 2,25 x 1,00 x 0,6	m^3	1,350
	- Tiang Pondasi Strauss  		

	Vol : $\frac{1}{4} \times \pi \times (0{,}5^2) \times 4{,}9$	m^3	0,926
2	Pembesian		
	- Tulangan Pondasi		
			
	- Tulangan Pokok (ulir) : 22D19	Kg	240,394
	- Tulangan Spiral (polos) : 4Ø12	Kg	13,054
	- Kawat bendrat	Kg	1,200
	- Tulangan Pondasi		
	- Tulangan Pokok (ulir)		
	Tulangan arah x :	Kg	126,980
	Tekan 5D16		
	Tarik 6D19		
	Tulangan arah y :	Kg	108,840
	Tekan 5D16		
	Tarik 6D19		
	Jumlah volume tul. pokok	Kg	235,820
	- Kawat bendrat	Kg	1,200

4.8.1.2 Pondasi Sumuran (Caisson)

Tabel 4.14 : Perhitungan Volume Pondasi Sumuran

No	Uraian	Satuan	Volume
1	Poer Pondasi Sumuran		
	- Poer Pondasi Tipe 1, 2 dan 3		
			
	Vol : 1,5 x 1,5 x 0,8	m^3	1,800
	- Tiang Pondasi Sumuran		
			
	Vol : $^1/_4 \times \pi \times (1{,}0^2) \times 4{,}9$	m^3	3,847
	Vol : $^1/_4 \times \pi \times (0{,}5^2) \times 4{,}9$	m^3	0,962

2	Pembesian		
	- Tulangan Pondasi		
			
	- Tulangan Pokok (ulir) : 47D22	Kg	220,77
	- Tulangan Spiral (polos) : 4Ø19	Kg	19,980
	- Kawat bendrat	Kg	1,200
	- Tulangan Pondasi		
	- Tulangan Pokok (ulir)		
	Tulangan arah x :	Kg	61,060
	Tekan 3D19		
	Tarik 8D22		
	Tulangan arah y :	Kg	67,020
	Tekan 3D19		
	Tarik 9D22		
	Jumlah volume tul. Pokok		128,080
	- Kawat bendrat	Kg	1,200

4.8.2 Perhitungan Biaya Pengerjaan Pondasi

4.8.2.1 Pondasi Tiang Bor (Strauss)

Untuk Satu Tiang Pondasi Strauss Tipe 1 dan 2

No	Uraian	Sat	Koef *	Vol	Harga Satuan (Rp)	Jumlah (Rp)
1	Pengerjaan Bored Pile					
	a. Alat Bantu :					
	Crawer Crane	Jam	1.000	0.962	667,500	641,885
	Mesin Bor Pondasi	Jam	1.000	0.962	150,000	144,224
	b. Mobilisasi dan Demobilisasi				3,000,000	3,000,000
	c. Upah Pasang :	hari	1.500	0.962	39,500	56,976
	Pekerja	hari	0.750	0.962	48,500	34,979
	Tukang	hari	0.075	0.962	55,500	4,003
	Operator				a + b + c =	**3,882,087**
2	Pembesian Bored Pile / Kg					
	a. Bahan :					
	Tulangan Ulir fy = 400 Mpa	Kg	1.100	240.394	17,700	4,680,471
	Tulangan Polos fy = 240 Mpa	Kg	1.100	13.054	15,600	224,000
	Kawat Beton / Bendrat	Kg	1.100	1.200	20,000	26,400
	b. Upah Pasang :					
	Pekerja Pembesian	hari	1.500	2.546	39,500	150,879
	Tukang Besi	hari	0.750	2.546	48,500	92,628
	Mandor Besi	hari	0.075	2.546	70,000	13,396

	c. Lain-lain					
	Alat Bantu :					
	Tang Pemotong Kawat Beton	buah	0.500	2.546	20,000	25,465
	Alat Pemotong Tulangan	buah	0.500	2.546	81,000	103,132
	Alat Pembekok Tulangan	buah	0.500	2.546	27,500	35,014
					a + b + c =	**5,351,358**
3	Pengecoran Bored Pile					
	a. Bahan :					
	Beton Ready Mix K-250	m^3	1.100	0.962	1,142,150	1,208,150
	b. Upah Pasang :					
	- Pekerja	hari	1.500	0.962	39,500	56,976
	- Tukang	hari	0.750	0.962	48,500	34,979
	- Mandor	hari	0.075	0.962	70,000	5,049
	c. Lain-lain					
	Alat Bantu :					
	- Pipa Tremi dan Cassing Pelindung	unit	0.500	0.962	12,500	6,010
	- Concrate Vibrator	unit	0.500	0.962	50,000	24,041
	- Concrate Pump	unit	0.500	0.962	100,000	48,081
					a + b + c =	**1,383,288**

Biaya pengerjaan bored pile 1 + 2 + 3 = **Rp 10,616,732**

*SNI 03-2836-2002 Analisa Biaya Konstruksi Bangunan Gedung

Pengerjaan Pilecap Pondasi Strauss Tipe 1 dan 2 Per m^3

No	Uraian		Koef*	Vol	Harga Satuan (Rp)	Jumlah (Rp)
1	Pengerjaan Pilecap					
	a. Pekerjaan Galian dan Timbunan					
	Pekerja	hari	1.500	6.986	39,500	413,935
	Tukang	hari	0.750	6.986	48,500	254,125
	Mandor	hari	0.075	6.986	70,000	36,678
						704,738
2	Pembesian Pilecap / Kg					
	a. Bahan :					
	Tulangan Ulir fy = 400 Mpa	Kg	1.100	235.820	17,700	4,591,415
	Kawat Beton / Bendrat	Kg	1.100	1.200	20,000	26,400
	b. Upah Pasang :					
	Pekerja Pembesian	hari	1.500	2.370	39,500	140,434
	Tukang Besi	hari	0.750	2.370	48,500	86,216
	Mandor Besi	hari	0.075	2.370	70,000	12,444
	c. Lain-lain					
	Alat Bantu :					
	Tang Pemotong Kawat Beton	buah	0.500	2.370	20,000	23,702
	Alat Pemotong Tulangan	buah	0.500	2.370	81,000	95,993
	Alat Pembekok Tulangan	buah	0.500	2.370	27,500	32,590
					a + b + c =	**5,009,195**

3	Pengecoran Pilecap				
	a. Bahan :				
	Beton Ready Mix K-250	m^3	1.100	4.658	1,142,150	5,851,520
	b. Upah Pasang :					
	- Pekerja	hari	1.500	4.658	39,500	275,957
	- Tukang	hari	0.750	4.658	48,500	169,417
	- Mandor	hari	0.075	4.658	70,000	24,452
	c. Lain-lain					
	Alat Bantu :					
	- Concrate Vibrator	unit	0.500	4.658	50,000	116,438
	- Concrate Pump	unit	0.500	4.658	100,000	232,875
					a + b + c =	**6,670,658**

Biaya pengerjaan pilecap 1 + 2 + 3 = **Rp 12,232,305**

Biaya Pengerjaan Pondasi Strauss Tipe 1 dan 2 :

6 Buah Tiang @ Rp 10,616,732 = Rp 63,700,394

Pilecap = Rp 12,232,305 +

= Rp 75,932,699

Jumlah Total Biaya Pengerjaan Pondasi Strauss Tipe 1 dan 2 :

Rp 75,932,699 x 64 = Rp 4,859,692,746

Untuk Satu Tiang Pondasi Strauss Tipe 3

No	Uraian	Sat	Koef *	Vol	Harga Satuan (Rp)	Jumlah (Rp)
1	Pengerjaan Bored Pile					
	a. Alat Bantu :					
	Crawer Crane	Jam	1.000	0.962	667,500	641,885
	Mesin Bor Pondasi	Jam	1.000	0.962	150,000	144,224
	b. Mobilisasi dan Demobilisasi				3,000,000	3,000,000
	c. Upah Pasang :					
	Pekerja	hari	1.500	0.962	39,500	56,976
	Tukang	hari	0.750	0.962	48,500	34,979
	Operator	hari	0.075	0.962	55,500	4,003
					a + b + c =	**3,882,087**
2	Pembesian Bored Pile / Kg					
	a. Bahan :					
	Tulangan Ulir fy = 400 Mpa	Kg	1.100	240.394	17,700	4,680,471
	Tulangan Polos fy = 240 Mpa	Kg	1.100	13.054	15,600	224,000
	Kawat Beton / Bendrat	Kg	1.100	1.200	20,000	26,400
	b. Upah Pasang :					
	Pekerja Pembesian	hari	1.500	2.546	39,500	150,879
	Tukang Besi	hari	0.750	2.546	48,500	92,628
	Mandor Besi	hari	0.075	2.546	70,000	13,396
	c. Lain-lain					
	Alat Bantu :					
	Tang Pemotong Kawat Beton	buah	0.500	2.546	20,000	25,465
	Alat Pemotong	buah	0.500	2.546	81,000	103,132

	Tulangan Alat Pembekok Tulangan	buah	0.500	2.546	27,500	35,014
					a + b + c =	**5,351,358**
3	Pengecoran Bored Pile					
	a. Bahan :					
	Beton Ready Mix K-250	m^3	1.100	0.962	1,142,150	1,208,150
	b. Upah Pasang :					
	- Pekerja	hari	1.500	0.962	39,500	56,976
	- Tukang	hari	0.750	0.962	48,500	34,979
	- Mandor	hari	0.075	0.962	70,000	5,049
	c. Lain-lain					
	Alat Bantu :					
	- Pipa Tremi dan Cassing Pelindung	unit	0.500	0.962	12,500	6,010
	- Concrate Vibrator	unit	0.500	0.962	50,000	24,041
	- Concrate Pump	unit	0.500	0.962	100,000	48,081
					a + b + c =	**1,383,288**

Biaya Pengerjaan Bored Pile 1 +2 + 3 = **Rp 10,616,732**

Pengerjaan Pilecap Pondasi Strauss Tipe 3 Per m^3

No	Uraian	Sat	Koef *	Vol	Harga Satuan (Rp)	Jumlah (Rp)
1	Pengerjaan Pilecap					
	a. Pekerjaan Galian dan Timbunan					
	Pekerja	hari	1.500	2.025	39,500	119,981
	Tukang	hari	0.750	2.025	48,500	73,659
	Mandor	hari	0.075	2.025	70,000	10,631
						204,272
2	Pembesian Pilecap / Kg					
	a. Bahan :					
	Tulangan Ulir fy = 400 Mpa	Kg	1.100	235.820	17,700	4,680,415
	Kawat Beton / Bendrat	Kg	1.100	1.200	20,000	26,400
	b. Upah Pasang :					
	Pekerja Pembesian	hari	1.500	2.370	39,500	140,434
	Tukang Besi	hari	0.750	2.370	48,500	86,216
	Mandor Besi	hari	0.075	2.370	70,000	12,444
	c. Lain-lain					
	Alat Bantu :					
	Tang Pemotong Kawat Beton	buah	0.500	2.370	20,000	23,702
	Alat Pemotong Tulangan	buah	0.500	2.370	81,000	95,993
	Alat Pembekok Tulangan	buah	0.500	2.370	27,500	32,590
						5,009,195

3	Pengecoran Pilecap					
	a. Bahan :					
	Beton Ready Mix K-250	m^3	1.100	1.350	1,142,150	1,696,093
	b. Upah Pasang :					
	- Pekerja	hari	1.500	1.350	39,500	79,988
	- Tukang	hari	0.750	1.350	48,500	49,106
	- Mandor	hari	0.075	1.350	70,000	7,088
	c. Lain-lain					
	Alat Bantu :					
	- Concrate Vibrator	unit	0.500	1.350	50,000	33,750
	- Concrate Pump	unit	0.500	1.350	100,000	67,500
					a + b +c =	**1,933,524**

Biaya Pengerjaan Pilecap 1 + 2 + 3 = **Rp 7,146,991**

*SNI 03-2836-2002 Analisa Biaya Konstruksi Bangunana Gedung

➢ Biaya Pengerjaan Pondasi Strauss Tipe 3 :

2 Buah Tiang @ Rp 10,616,732 = Rp 21,233,465

Pilecap = Rp 7,146,991 +

= Rp 28,380,455

➢ Jumlah Total Biaya Pengerjaan Pondasi Strauss Tipe 3 :

Rp 28,380,455 x 22 = Rp 624,370,015

4.8.2.2 Pondasi Sumuran (Caisson)

Untuk Satu Tiang Pondasi Sumuran Tipe 1, 2 dan 3

No	Uraian	Sat	Koef *	Vol	Harga Satuan (Rp)	Jumlah (Rp)
1	Pengerjaan Pondasi Sumuran					
	a. Alat Bantu :					
	Crawer Crane	Jam	1.000	3.847	667,500	2,567,873
	Mesin Bor Pondasi	Jam	1.000	3.847	150,000	577,050
	b. Mobilisasi dan Demobilisasi				3,000,000	3,000,000
	c. Upah Pasang :					
	Pekerja	hari	1.500	3.847	39,500	227,935
	Tukang	hari	0.750	3.847	48,500	139,935
	Operator	hari	0.075	3.847	55,500	16,013
					a + b + c =	**6,528,805**
2	Pembesian Pondasi Sumuran / Kg					
	a. Bahan :					
	Tulangan Ulir fy = 400 Mpa	Kg	1.100	471.645	17,700	9,182,928
	Tulangan Polos fy = 240 Mpa	Kg	1.100	19.980	15,600	342,875
	Kawat Beton / Bendrat	Kg	1.100	1.200	20,000	26,400
	b. Upah Pasang :					
	Pekerja Pembesian	hari	1.500	4.928	39,500	291,999
	Tukang Besi	hari	0.750	4.928	48,500	179,265
	Mandor Besi	hari	0.075	4.928	70,000	25,873

	c. Lain-lain					
	Alat Bantu :					
	Tang Pemotong Kawat Beton	buah	0.500	4.928	20,000	49,283
	Alat Pemotong Tulangan	buah	0.500	4.928	81,000	199,594
	Alat Pembekok Tulangan	buah	0.500	4.928	27,500	67,763
					a + b + c =	**10,365,962**
3	Pengecoran Pondasi Sumuran					
	a. Bahan :					
	Beton Ready Mix K-250	m^3	1.100	3.847	1,142,150	4,833,236
	b. Upah Pasang :					
	- Pekerja	hari	1.500	3.847	39,500	364,696
	- Tukang	hari	0.750	3.847	48,500	149,264
	- Mandor	hari	0.075	3.847	70,000	32,046
	c. Lain-lain					
	Alat Bantu :					
	- Pipa Tremi dan Cassing Pelindung	unit	0.500	3.847	12,500	24,044
	- Concrate Vibrator	unit	0.500	3.847	50,000	96,175
	- Concrate Pump	unit	0.500	3.847	100,000	192,350
					a + b + c =	**5,691,810**
4	Beton Siklop D50 cm					
	a. Bahan :					
	Batu Belah 15 cm / 20 cm	m^3	0.962	0.480	138,400	63,908
	Semen	Kg	0.962	194.000	1,475	275,276
	Pasir Beton	m^3	0.962	0.312	119,175	35,770

	Kerikil	m^3	0.962	0.468	137,400	61,860
	b. Upah Pasang :					
	- Pekerja	hari	0.962	3.400	39,500	129,197
	- Tukang Batu	hari	0.962	0.850	48,500	39,658
	- Kepala Tukang	hari	0.962	0.085	52,500	4,293
	- Mandor	hari	0.962	0.170	70,000	11,448
	c. Lain-lain					
	Alat Bantu :					
	- Pipa Tremi dan Cassing	unit	0.962	0.500	12,500	6,013
	Pelindung					
	- Concrate Vibrator	unit	0.962	0.500	50,000	24,050
	- Concrate Pump	unit	0.962	0.500	100,000	48,100
					a + b + c =	**699,571**

Pengerjaan Pilecap Pondasi Sumuran Tipe 1, 2 dan 3 Per m^3

No	Uraian	Sat	Koef*	Vol	Harga Satuan (Rp)	Jumlah (Rp)
1	Pengerjaan Pilecap					
	a. Pekerjaan Galian dan Timbunan					
	Pekerja	hari	1.500	1.800	39,500	106,650
	Tukang	hari	0.750	1.800	48,500	65,475
	Mandor	hari	0.075	1.800	70,000	9,450
						181,575
2	Pembesian Pilecap / Kg					
	a. Bahan :					
	Tulangan Ulir fy =	Kg	1.100	128.080	17,700	2,493,718

	400 Mpa					
	Kawat Beton / Bendrat	Kg	1.100	1.200	20,000	26,400
	b. Upah Pasang :					
	Pekerja Pembesian	hari	1.500	1.293	39,500	76,598
	Tukang Besi	hari	0.750	1.293	48,500	47,026
	Mandor Besi	hari	0.075	1.293	70,000	6,787
	c. Lain-lain					
	Alat Bantu :					
	Tang Pemotong Kawat Beton	buah	0.500	1.293	20,000	12,928
	Alat Pemotong Tulangan	buah	0.500	1.293	81,000	52,358
	Alat Pembekok Tulangan	buah	0.500	1.293	27,500	17,776
					a + b + c =	**2,650,529**
3	Pengecoran Pilecap					
	a. Bahan :					
	Beton Ready Mix K-250	m^3	1.100	1.800	1,142,150	2,261,457
	b. Upah Pasang :					
	- Pekerja	hari	1.500	1.800	39,500	106,650
	- Tukang	hari	0.750	1.800	48,500	65,475
	- Mandor	hari	0.075	1.800	70,000	9,450
	c. Lain-lain					
	Alat Bantu :					
	- Concrate Vibrator	unit	0.500	1.800	50,000	45,000
	- Concrate Pump	unit	0.500	1.800	100,000	90,000
					a + b + c =	**2,578,032**

Biaya Pengerjaan Pilecap 1 + 2 + 3 = **Rp 5,410,136**

*SNI 03-2836-2002 Analisa Biaya Konstruksi Bangunana Gedung

- Biaya Pengerjaan Pondasi Sumuran Tipe 1, 2 dan 3 :

1 Buah Tiang	@ Rp 18,421,520	= Rp 18,421,520
Pilecap		= Rp 5,410,136 +
		= Rp 23,831,656

- Jumlah Total Biaya Pengerjaan Pondasi Sumuran Tipe 1, 2 dan 3 :

Rp 23,831,656 x 86	= Rp 2,049,522,395

BAB V

KESIMPULAN

5.1 Kesimpulan

Dari hasil analisa perhitungan perencanaan pondasi tiang bor dan pondasi sumuran, perbandingan volume dan biaya pada pembangunan RUSUNAWA di Universitas Negeri Malang, dapat di simpulkan sebagai berikut :

1. Kondisi tanah pada kedalaman 6,40 m cukup keras, sehingga pondasi strauss aman untuk digunakan.
2. Pada perencanaan pondasi strauss ini penurunan tidak diperhitungkan karena ujung bawah tiang pondasi strauss sudah berada pada lapisan tanah keras.
3. Perbandingan biaya pengerjaan pondasi strauss dan pondasi sumuran adalah sebagai berikut :

    - Untuk biaya pengerjaan pondasi tiang bor :

Tipe pondasi 1 dan 2	: Rp 75,932,699 x 64	= Rp 4,859,692,746
Tipe pondasi 3	: Rp 28,380,455 x 22	= Rp 624,370,015 +
Biaya Total Pengerjaan Pondasi Strauss		= **Rp 5,484,062,761**

❖ Untuk biaya pengerjaan pondasi sumuran :

Tipe pondasi 1,2 dan 3	: Rp 23,831,656 x 86	= Rp 2,049,522,395
Biaya Total Pengerjaan Pondasi Sumuran		= **Rp 2,049,522,395**

4. Dari perhitungan biaya antara pekerjaan Pondasi Tiang Bor (Strauss) dan Pondasi Sumuran (Caisson) dapat disimpulkan bahwa pekerjaan pondasi tiang bor lebih mahal dari pada pondasi sumuran, tapi dilihat dari segi pelaksanaan dilapangan lebih mudah menggunakan pondasi strauss karena dimensi yang digunakan tidak terlalu besar dan bahan isiannya terbuat dari cor beton saja, sedangkan pondasi sumuran dimensinya relatif besar-besar dan isiannya pun terdiri dari dua jenis yaitu : cor beton dan beton cyclop.

5.2 Saran

Adapun saran-saran yang dapat diuraikan sebagai dasar pertimbangan dalam merencanakan struktur pondasi dan biaya pengerjaannya antara lain sebagai berikut :

1. Dalam suatu perencanaan pondasi, akan lebih baik dan teliti hasilnya jika parameter tanah yang digunakan adalah dari hasil penyelidikan lapangan dan hasil dari laboratorium bukan hasil dari konversi.
2. Untuk merencanakan pondasi tiang, jarak antar tiang sangat memepengaruhi besarnya daya dukung tiang kelompok. Oleh karena itu perencana harus pandai-pandai memodifikasi posisi tiang tersebut, agar didapat daya dukung yang aman dan efisien.
3. Dalam merencanakan pondasi tiang juga harus diperhitungkan menggunakan jenis pondasi yang digunakan, karena akan mempengaruhi jumlah biaya yang diperlukan, waktu pengerjaan dan cara pengerjaannya. Sehingga biaya yang digunakan tidak terlalu mahal dan durasi pelaksaan tidak terlalu lama.

DAFTAR PUSTAKA

Anonim, 1989. **Peraturan pembebanan Indonesia Untuk Gedung (PPUIG).**

Anonim, SNI 03-2847-2002 **tentang Tata Cara Perhitungan Struktur Beton Untuk Bangunan Gedung**, Dinas Pekerjaan Umum.

Anonim, SNI 03-1726-2002 tentang **Tata Cara Perencanaan Ketahanan Gempa Untuk Struktur Bangunan Gedung**, Dinas Pekerjaan Umum.

Bowles, JE, 1992. **Analisa dan Desain Pondasi Jilid 1**, PT Erlangga Jakarta.

Bowles, JE, 1992. **Analisa dan Desain Pondasi Edisi ke-3 Jilid 2**, PT Erlangga Jakarta.

Geotecnical Engineering Center Universitas Katolik Parahyangan. **Manual Pondasi Tiang Edisi 3**, Bandung, Indonesia.

Hardiyatmo,H.C, 2002. **Teknik Pondasi 1**, Beta Offset, Yogjakarta.

Hardiyatmo,H.C, 2002. **Teknik Pondasi 2**, Beta Offset, Yogjakarta.

Sardjono. H.S, 1984, **Pondasi Tiang Pancang Jilid 1**, Sinar Wijaya, Surabaya.

Sardjono. H.S, 1984, **Pondasi Tiang Pancang Jilid 2**, Sinar Wijaya, Surabaya.

Sosrodarsono,S dan Nakazawa,K, Penerjemah, Taulu,L dan kawan-kawan, 1994. **Mekanika Tanah dan Teknik Pondasi**, PT Pradnya Paramita, Jakarta.


INSTITUT TEKNOLOGI NASIONAL MALANG
27.08.2011

```
STAAD SPACE DXF IMPORT OF ENDHIK17.DXF
START JOB INFORMATION
ENGINEER DATE 06-Oct-10
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
1 -27.897 -36.1534 22.7335; 2 -27.897 -31.7534 22.7335;
3 31.803 -36.1534 22.7335; 4 31.803 -31.7534 22.7335;
5 31.803 -36.1534 29.6085; 6 31.803 -33.4534 29.6085;
7 31.803 -36.1534 32.6585; 8 31.803 -33.4534 32.6585;
9 31.803 -36.1534 39.5335; 10 31.803 -31.7534 39.5335;
11 -27.897 -36.1534 39.5335; 12 -27.897 -31.7534 39.5335;
13 -27.897 -36.1534 32.6585; 14 -27.897 -33.4534 32.6585;
15 -27.897 -36.1534 29.6085; 16 -27.897 -33.4534 29.6085;
17 -23.3971 -36.1534 22.7335; 18 -23.3971 -31.7534 22.7335;
19 -23.3971 -36.1534 39.5335; 20 -23.3971 -31.7534 39.5335;
21 -19.4971 -36.1534 22.7335; 22 -19.4971 -31.7534 22.7335;
23 -19.4971 -36.1534 39.5335; 24 -19.4971 -31.7534 39.5335;
25 27.303 -36.1534 22.7335; 26 27.303 -31.7534 22.7335;
27 27.303 -36.1534 39.5335; 28 27.303 -31.7534 39.5335;
29 -15.5977 -36.1534 22.7335; 30 -15.5977 -31.7534 22.7335;
31 -15.5977 -36.1534 39.5335; 32 -15.5977 -31.7534 39.5335;
33 -11.6983 -36.1534 22.7335; 34 -11.6983 -31.7534 22.7335;
35 -11.6983 -36.1534 39.5335; 36 -11.6983 -31.7534 39.5335;
37 -7.7989 -36.1534 22.7335; 38 -7.7989 -31.7534 22.7335;
39 -7.7989 -36.1534 39.5335; 40 -7.7989 -31.7534 39.5335;
41 -3.8995 -36.1534 22.7335; 42 -3.8995 -31.7534 22.7335;
43 -3.8995 -36.1534 39.5335; 44 -3.8995 -31.7534 39.5335;
45 0 -36.1534 22.7335; 46 0 -31.7534 22.7335; 47 0 -36.1534 39.5335;
48 0 -31.7534 39.5335; 49 3.8994 -36.1534 22.7335; 50 3.8994 -31.7534 22.7335;
51 3.8994 -36.1534 39.5335; 52 3.8994 -31.7534 39.5335;
53 7.7988 -36.1534 22.7335; 54 7.7988 -31.7534 22.7335;
55 7.7988 -36.1534 39.5335; 56 7.7988 -31.7534 39.5335;
57 11.6982 -36.1534 22.7335; 58 11.6982 -31.7534 22.7335;
59 11.6982 -36.1534 39.5335; 60 11.6982 -31.7534 39.5335;
61 15.5976 -36.1534 22.7335; 62 15.5976 -31.7534 22.7335;
63 15.5976 -36.1534 39.5335; 64 15.5976 -31.7534 39.5335;
65 19.497 -36.1534 22.7335; 66 19.497 -31.7534 22.7335;
67 19.497 -36.1534 39.5335; 68 19.497 -31.7534 39.5335;
69 23.3964 -36.1534 22.7335; 70 23.3964 -31.7534 22.7335;
71 23.3964 -36.1534 39.5335; 72 23.3964 -31.7534 39.5335;
73 -27.897 -36.1534 27.5335; 74 -27.897 -31.7534 27.5335;
75 31.803 -36.1534 27.5335; 76 31.803 -31.7534 27.5335;
77 -27.897 -36.1534 34.7335; 78 -27.897 -31.7534 34.7335;
79 -23.3971 -36.1534 29.6085; 80 -23.3971 -31.7534 29.6085;
81 -30.097 -36.1534 29.6085; 82 -30.097 -33.4534 29.6085;
83 -23.3971 -36.1534 32.6585; 84 -23.3971 -31.7534 32.6585;
85 -30.097 -36.1534 32.6585; 86 -30.097 -33.4534 32.6585;
87 -29.797 -36.1534 25.5335; 88 -29.797 -31.7534 25.5335;
89 -29.797 -36.1534 36.7335; 90 -29.797 -31.7534 36.7335;
91 34.0029 -36.1534 29.6085; 92 34.0029 -33.4534 29.6085;
93 27.303 -36.1534 29.6085; 94 27.303 -31.7534 29.6085;
95 34.0029 -36.1534 32.6585; 96 34.0029 -33.4534 32.6585;
97 27.303 -36.1534 32.6585; 98 27.303 -31.7534 32.6585;
99 33.703 -36.1534 25.5335; 100 33.703 -31.7534 25.5335;
101 33.703 -36.1534 36.7335; 102 33.703 -31.7534 36.7335;
103 0 -36.1534 43.0335; 104 0 -31.7534 43.0335; 105 3.8994 -36.1534 43.0335;
106 3.8994 -31.7534 43.0335; 107 3.8994 -36.1534 19.2335;
108 3.8994 -31.7534 19.2335; 109 0 -36.1534 19.2335; 110 0 -31.7534 19.2335;
111 -23.3971 -36.1534 34.7335; 112 -23.3971 -31.7534 34.7335;
113 -23.3971 -36.1534 27.5335; 114 -23.3971 -31.7534 27.5335;
115 -19.4971 -36.1534 27.5335; 116 -19.4971 -31.7534 27.5335;
117 -15.5977 -36.1534 27.5335; 118 -15.5977 -31.7534 27.5335;
119 -11.6983 -36.1534 27.5335; 120 -11.6983 -31.7534 27.5335;
121 -7.7989 -36.1534 27.5335; 122 -7.7989 -31.7534 27.5335;
123 -3.8995 -36.1534 27.5335; 124 -3.8995 -31.7534 27.5335;
125 0 -36.1534 27.5335; 126 0 -31.7534 27.5335; 127 3.8994 -36.1534 27.5335;
128 3.8994 -31.7534 27.5335; 129 7.7988 -36.1534 27.5335;
130 7.7988 -31.7534 27.5335; 131 11.6982 -36.1534 27.5335;
132 11.6982 -31.7534 27.5335; 133 15.5976 -36.1534 27.5335;
134 15.5976 -31.7534 27.5335; 135 19.497 -36.1534 27.5335;
136 19.497 -31.7534 27.5335; 137 23.3964 -36.1534 27.5335;
138 23.3964 -31.7534 27.5335; 139 27.303 -36.1534 27.5335;
140 27.303 -31.7534 27.5335; 141 27.303 -36.1534 34.7335;
142 27.303 -31.7534 34.7335; 143 23.3964 -36.1534 34.7335;
144 23.3964 -31.7534 34.7335; 145 19.497 -36.1534 34.7335;
146 19.497 -31.7534 34.7335; 147 15.5976 -36.1534 34.7335;
148 15.5976 -31.7534 34.7335; 149 11.6982 -36.1534 34.7335;
150 11.6982 -31.7534 34.7335; 151 7.7988 -36.1534 34.7335;
152 7.7988 -31.7534 34.7335; 153 3.8994 -36.1534 34.7335;
154 3.8994 -31.7534 34.7335; 155 0 -36.1534 34.7335; 156 0 -31.7534 34.7335;
```

157 -3.8995 -36.1534 34.7335; 158 -3.8995 -31.7534 34.7335;
159 -7.7989 -36.1534 34.7335; 160 -7.7989 -31.7534 34.7335;
161 -11.6983 -36.1534 34.7335; 162 -11.6983 -31.7534 34.7335;
163 -15.5977 -36.1534 34.7335; 164 -15.5977 -31.7534 34.7335;
165 -19.4971 -36.1534 34.7335; 166 -19.4971 -31.7534 34.7335;
167 -26.772 -31.7534 22.7335; 168 31.803 -31.7534 23.9335;
169 31.803 -31.7534 32.6585; 170 31.803 -31.7534 33.696;
171 30.678 -31.7534 39.5335; 172 -27.897 -31.7534 38.3335;
173 -27.897 -31.7534 29.6085; 174 -27.897 -31.7534 28.571;
175 -23.3971 -31.7534 23.9335; 176 -19.4971 -31.7534 23.9335;
177 -19.4971 -31.7534 32.9335; 178 -19.4971 -31.7534 33.8335;
179 27.303 -31.7534 23.9335; 180 27.303 -31.7534 32.9335;
181 27.303 -31.7534 33.696; 182 -15.5977 -31.7534 23.9335;
183 -15.5977 -31.7534 32.9335; 184 -15.5977 -31.7534 33.8335;
185 -11.6983 -31.7534 32.9335; 186 -7.7989 -31.7534 32.9335;
187 -3.8995 -31.7534 32.9335; 188 0 -31.7534 32.9335;
189 3.8994 -31.7534 32.9335; 190 7.7988 -31.7534 32.9335;
191 11.6982 -31.7534 32.9335; 192 15.5976 -31.7534 32.9335;
193 19.497 -31.7534 32.9335; 194 23.3964 -31.7534 32.9335;
195 -26.772 -31.7534 27.5335; 196 31.803 -31.7534 34.7335;
197 30.678 -31.7534 34.7335; 198 -23.3971 -31.7534 29.3335;
199 -22.4221 -31.7534 29.3335; 200 26.3279 -31.7534 32.9335;
201 -24.222 -31.7534 29.6085; 202 -23.3971 -31.7534 32.9335;
203 -24.222 -31.7534 32.6585; 204 -28.847 -31.7534 27.5335;
205 -28.847 -31.7534 34.7335; 206 -27.897 -31.7534 25.5335;
207 -28.847 -31.7534 25.5335; 208 -27.897 -31.7534 36.7335;
209 -28.847 -31.7534 36.7335; 210 -30.097 -31.7534 29.6085;
211 -30.097 -31.7534 32.6585; 212 -29.797 -31.7534 26.5335;
213 -29.797 -31.7534 32.6585; 214 -29.797 -31.7534 33.696;
215 34.0029 -31.7534 29.6085; 216 33.703 -31.7534 29.6085;
217 34.0029 -31.7534 32.6585; 218 33.703 -31.7534 32.6585;
219 33.703 -31.7534 27.5335; 220 32.753 -31.7534 27.5335;
221 33.703 -31.7534 34.7335; 222 32.753 -31.7534 34.7335;
223 32.753 -31.7534 25.5335; 224 32.753 -31.7534 36.7335;
225 33.703 -31.7534 26.5335; 226 33.703 -31.7534 33.696;
227 -27.897 -31.7534 26.3335; 228 -28.847 -31.7534 29.6085;
229 -29.797 -31.7534 29.6085; 230 -29.797 -31.7534 28.571;
231 -29.497 -31.7534 32.6585; 232 -27.897 -31.7534 32.6585;
233 -27.897 -31.7534 33.696; 234 -27.897 -31.7534 35.7335;
235 -29.797 -31.7534 35.7335; 236 -26.772 -31.7534 34.7335;
237 -23.3971 -31.7534 35.9335; 238 -24.5221 -31.7534 39.5335;
239 -23.3971 -31.7534 28.4335; 240 -22.0971 -31.7534 22.7335;
241 -20.4721 -31.7534 27.5335; 242 -19.4971 -31.7534 28.4335;
243 -18.5221 -31.7534 27.5335; 244 -15.5977 -31.7534 28.4335;
245 -15.5977 -31.7534 29.3335; 246 -16.5721 -31.7534 29.3335;
247 -18.1971 -31.7534 22.7335; 248 -12.6721 -31.7534 27.5335;
249 -14.2971 -31.7534 22.7335; 250 -11.6983 -31.7534 29.3335;
251 -12.6721 -31.7534 29.3335; 252 -7.7989 -31.7534 29.3335;
253 -8.7721 -31.7534 29.3335; 254 -4.8721 -31.7534 27.5335;
255 -3.8995 -31.7534 29.3335; 256 -4.8721 -31.7534 29.3335;
257 -0.9721 -31.7534 27.5335; 258 0 -31.7534 29.3335;
259 -0.9721 -31.7534 29.3335; 260 2.9279 -31.7534 27.5335;
261 3.8994 -31.7534 29.3335; 262 2.9279 -31.7534 29.3335;
263 6.8279 -31.7534 27.5335; 264 7.7988 -31.7534 29.3335;
265 6.8279 -31.7534 29.3335; 266 11.6982 -31.7534 29.3335;
267 10.7279 -31.7534 29.3335; 268 14.6279 -31.7534 27.5335;
269 18.5279 -31.7534 27.5335; 270 15.5976 -31.7534 29.3335;
271 14.6279 -31.7534 29.3335; 272 19.497 -31.7534 29.3335;
273 18.5279 -31.7534 29.3335; 274 22.4279 -31.7534 27.5335;
275 23.3964 -31.7534 29.3335; 276 22.4279 -31.7534 29.3335;
277 26.3279 -31.7534 27.5335; 278 27.303 -31.7534 28.4335;
279 27.303 -31.7534 29.3335; 280 26.3279 -31.7534 29.3335;
281 28.428 -31.7534 22.7335; 282 30.678 -31.7534 27.5335;
283 31.803 -31.7534 28.571; 284 31.803 -31.7534 29.6085;
285 30.678 -31.7534 29.6085; 286 31.803 -31.7534 26.5335;
287 33.703 -31.7534 28.571; 288 33.4029 -31.7534 29.6085;
289 32.753 -31.7534 32.6585; 290 33.703 -31.7534 35.7335;
291 31.803 -31.7534 36.7335; 292 31.803 -31.7534 35.9335;
293 28.128 -31.7534 32.6585; 294 27.303 -31.7534 38.3335;
295 26.3279 -31.7534 34.7335; 296 26.0029 -31.7534 39.5335;
297 22.4279 -31.7534 34.7335; 298 22.1029 -31.7534 39.5335;
299 18.5279 -31.7534 34.7335; 300 18.2029 -31.7534 39.5335;
301 14.6279 -31.7534 34.7335; 302 14.3029 -31.7534 39.5335;
303 10.7279 -31.7534 34.7335; 304 3.8994 -31.7534 31.7335;
305 10.4029 -31.7534 39.5335; 306 6.8279 -31.7534 34.7335;
307 6.5029 -31.7534 39.5335; 308 2.9279 -31.7534 34.7335;
309 2.6029 -31.7534 39.5335; 310 -0.9721 -31.7534 34.7335;
311 -1.2971 -31.7534 39.5335; 312 -3.8995 -31.7534 32.0335;
313 -4.8721 -31.7534 34.7335; 314 -8.7721 -31.7534 34.7335;
315 -14.6221 -31.7534 32.9335; 316 -12.6721 -31.7534 34.7335;
317 -18.5221 -31.7534 32.9335; 318 -16.5721 -31.7534 34.7335;
319 -22.4221 -31.7534 32.9335; 320 -20.4721 -31.7534 34.7335;

321 -23.3971 -31.7534 33.8335; 322 -19.4971 -31.7534 35,9335;
323 -20.7971 -31.7534 39.5335; 324 -15.5977 -31.7534 35.9335;
325 -16.8971 -31.7534 39.5335; 326 -12.9971 -31.7534 39.5335;
327 -5.1971 -31.7534 39.5335; 328 -9.0971 -31.7534 39.5335;
329 -23.3971 -31.7534 30.371; 330 27.303 -31.7534 31.896;
331 31.803 -31.7534 37.1335; 332 -27.897 -31.7534 25.1335;
333 31.803 -36.1534 34.7385; 334 -27.897 -28.5534 22.7335;
335 31.803 -28.5534 22.7335; 336 31.803 -30.1534 29.6085;
337 31.803 -30.1534 32.6585; 338 31.803 -28.5534 39.5335;
339 -27.897 -28.5534 39.5335; 340 -27.897 -30.1534 32.6585;
341 -27.897 -30.1534 29.6085; 342 -23.3971 -28.5534 22.7335;
343 -23.3971 -28.5534 39.5335; 344 -19.4971 -28.5534 22.7335;
345 -19.4971 -28.5534 39.5335; 346 27.303 -28.5534 22.7335;
347 27.303 -28.5534 39.5335; 348 -15.5977 -28.5534 22.7335;
349 -15.5977 -28.5534 39.5335; 350 -11.6983 -28.5534 22.7335;
351 -11.6983 -28.5534 39.5335; 352 -7.7989 -28.5534 22.7335;
353 -7.7989 -28.5534 39.5335; 354 -3.8995 -28.5534 22.7335;
355 -3.8995 -28.5534 39.5335; 356 0 -28.5534 22.7335; 357 0 -28.5534 39.5335;
358 3.8994 -28.5534 22.7335; 359 3.8994 -28.5534 39.5335;
360 7.7988 -28.5534 22.7335; 361 7.7988 -28.5534 39.5335;
362 11.6982 -28.5534 22.7335; 363 11.6982 -28.5534 39.5335;
364 15.5976 -28.5534 22.7335; 365 15.5976 -28.5534 39.5335;
366 19.497 -28.5534 22.7335; 367 19.497 -28.5534 39.5335;
368 23.3964 -28.5534 22.7335; 369 23.3964 -28.5534 39.5335;
370 -27.897 -28.5534 27.5335; 371 31.803 -28.5534 27.5335;
372 31.803 -28.5534 34.7335; 373 -27.897 -28.5534 34.7335;
374 -23.3971 -28.5534 29.6085; 375 -30.097 -30.1534 29.6085;
376 -23.3971 -28.5534 32.6585; 377 -30.097 -30.1534 32.6585;
378 -29.797 -28.5534 25.5335; 379 -29.797 -28.5534 36.7335;
380 34.0029 -30.1534 29.6085; 381 27.303 -28.5534 29.6085;
382 34.0029 -30.1534 32.6585; 383 27.303 -28.5534 32.6585;
384 33.703 -28.5534 25.5335; 385 33.703 -28.5534 36.7335;
386 -23.3971 -28.5534 34.7335; 387 -23.3971 -28.5534 27.5335;
388 -19.4971 -28.5534 27.5335; 389 -15.5977 -28.5534 27.5335;
390 -11.6983 -28.5534 27.5335; 391 -7.7989 -28.5534 27.5335;
392 -3.8995 -28.5534 27.5335; 393 0 -28.5534 27.5335;
394 3.8994 -28.5534 27.5335; 395 7.7988 -28.5534 27.5335;
396 11.6982 -28.5534 27.5335; 397 15.5976 -28.5534 27.5335;
398 19.497 -28.5534 27.5335; 399 23.3964 -28.5534 27.5335;
400 27.303 -28.5534 27.5335; 401 27.303 -28.5534 34.7335;
402 23.3964 -28.5534 34.7335; 403 19.497 -28.5534 34.7335;
404 15.5976 -28.5534 34.7335; 405 11.6982 -28.5534 34.7335;
406 7.7988 -28.5534 34.7335; 407 3.8994 -28.5534 34.7335;
408 0 -28.5534 34.7335; 409 -3.8995 -28.5534 34.7335;
410 -7.7989 -28.5534 34.7335; 411 -11.6983 -28.5534 34.7335;
412 -15.5977 -28.5534 34.7335; 413 -19.4971 -28.5534 34.7335;
414 -26.772 -28.5534 22.7335; 415 31.803 -28.5534 23.9335;
416 31.803 -28.5534 32.6585; 417 31.803 -28.5534 33.696;
418 30.678 -28.5534 39.5335; 419 -27.897 -28.5534 38.3335;
420 -27.897 -28.5534 29.6085; 421 -27.897 -28.5534 28.571;
422 -23.3971 -28.5534 23.9335; 423 -19.4971 -28.5534 23.9335;
424 -19.4971 -28.5534 32.9335; 425 -19.4971 -28.5534 33.8335;
426 27.303 -28.5534 23.9335; 427 27.303 -28.5534 32.9335;
428 27.303 -28.5534 33.696; 429 -15.5977 -28.5534 23.9335;
430 -15.5977 -28.5534 32.9335; 431 -15.5977 -28.5534 33.8335;
432 -11.6983 -28.5534 32.9335; 433 -7.7989 -28.5534 32.9335;
434 -3.8995 -28.5534 32.9335; 435 0 -28.5534 32.9335;
436 3.8994 -28.5534 32.9335; 437 7.7988 -28.5534 32.9335;
438 11.6982 -28.5534 32.9335; 439 15.5976 -28.5534 32.9335;
440 19.497 -28.5534 32.9335; 441 23.3964 -28.5534 32.9335;
442 -26.772 -28.5534 27.5335; 443 30.678 -28.5534 34.7335;
444 -23.3971 -28.5534 29.3335; 445 -22.4221 -28.5534 29.3335;
446 26.3279 -28.5534 32.9335; 447 -24.222 -28.5534 29.6085;
448 -23.3971 -28.5534 32.9335; 449 -24.222 -28.5534 32.6585;
450 -28.847 -28.5534 27.5335; 451 -28.847 -28.5534 34.7335;
452 -27.897 -28.5534 25.5335; 453 -28.847 -28.5534 25.5335;
454 -27.897 -28.5534 36.7335; 455 -28.847 -28.5534 36.7335;
456 -30.097 -28.5534 29.6085; 457 -30.097 -28.5534 32.6585;
458 -29.797 -28.5534 26.5335; 459 -29.797 -28.5534 32.6585;
460 -29.797 -28.5534 33.696; 461 34.0029 -28.5534 29.6085;
462 33.703 -28.5534 29.6085; 463 34.0029 -28.5534 32.6585;
464 33.703 -28.5534 32.6585; 465 33.703 -28.5534 27.5335;
466 32.753 -28.5534 27.5335; 467 33.703 -28.5534 34.7335;
468 32.753 -28.5534 34.7335; 469 32.753 -28.5534 25.5335;
470 32.753 -28.5534 36.7335; 471 33.703 -28.5534 26.5335;
472 33.703 -28.5534 33.696; 473 -27.897 -28.5534 26.3335;
474 -28.847 -28.5534 29.6085; 475 -29.797 -28.5534 29.6085;
476 -29.797 -28.5534 28.571; 477 -29.497 -28.5534 32.6585;
478 -27.897 -28.5534 32.6585; 479 -27.897 -28.5534 33.696;
480 -27.897 -28.5534 35.7335; 481 -29.797 -28.5534 35.7335;
482 -26.772 -28.5534 34.7335; 483 -23.3971 -28.5534 35.9335;
484 -24.5221 -28.5534 39.5335; 485 -23.3971 -28.5534 28.4335;

```
486 -22.0971 -28.5534 22.7335; 487 -20.4721 -28.5534 27.5335;
488 -19.4971 -28.5534 28.4335; 489 -18.5221 -28.5534 27.5335;
490 -15.5977 -28.5534 28.4335; 491 -15.5977 -28.5534 29.3335;
492 -16.5721 -28.5534 29.3335; 493 -18.1971 -28.5534 22.7335;
494 -12.6721 -28.5534 27.5335; 495 -14.2971 -28.5534 22.7335;
496 -11.6983 -28.5534 29.3335; 497 -12.6721 -28.5534 29.3335;
498 -7.7989 -28.5534 29.3335; 499 -8.7721 -28.5534 29.3335;
500 -4.8721 -28.5534 27.5335; 501 -3.8995 -28.5534 29.3335;
502 -4.8721 -28.5534 29.3335; 503 -0.9721 -28.5534 27.5335;
504 0 -28.5534 29.3335; 505 -0.9721 -28.5534 29.3335;
506 2.9279 -28.5534 27.5335; 507 3.8994 -28.5534 29.3335;
508 2.9279 -28.5534 29.3335; 509 6.8279 -28.5534 27.5335;
510 7.7988 -28.5534 29.3335; 511 6.8279 -28.5534 29.3335;
512 11.6982 -28.5534 29.3335; 513 10.7279 -28.5534 29.3335;
514 14.6279 -28.5534 27.5335; 515 18.5279 -28.5534 27.5335;
516 15.5976 -28.5534 29.3335; 517 14.6279 -28.5534 29.3335;
518 19.497 -28.5534 29.3335; 519 18.5279 -28.5534 29.3335;
520 22.4279 -28.5534 27.5335; 521 23.3964 -28.5534 29.3335;
522 22.4279 -28.5534 29.3335; 523 26.3279 -28.5534 27.5335;
524 27.303 -28.5534 28.4335; 525 27.303 -28.5534 29.3335;
526 26.3279 -28.5534 29.3335; 527 28.428 -28.5534 22.7335;
528 30.678 -28.5534 27.5335; 529 31.803 -28.5534 28.571;
530 31.803 -28.5534 29.6085; 531 30.678 -28.5534 29.6085;
532 31.803 -28.5534 26.5335; 533 33.703 -28.5534 28.571;
534 33.4029 -28.5534 29.6085; 535 32.753 -28.5534 32.6585;
536 33.703 -28.5534 35.7335; 537 31.803 -28.5534 36.7335;
538 31.803 -28.5534 35.9335; 539 28.128 -28.5534 32.6585;
540 27.303 -28.5534 38.3335; 541 26.3279 -28.5534 34.7335;
542 26.0029 -28.5534 39.5335; 543 22.4279 -28.5534 34.7335;
544 22.1029 -28.5534 39.5335; 545 18.5279 -28.5534 34.7335;
546 18.2029 -28.5534 39.5335; 547 14.6279 -28.5534 34.7335;
548 14.3029 -28.5534 39.5335; 549 10.7279 -28.5534 34.7335;
550 3.8994 -28.5534 31.7335; 551 10.4029 -28.5534 39.5335;
552 6.8279 -28.5534 34.7335; 553 6.5029 -28.5534 39.5335;
554 2.9279 -28.5534 34.7335; 555 2.6029 -28.5534 39.5335;
556 -0.9721 -28.5534 34.7335; 557 -1.2971 -28.5534 39.5335;
558 -4.8721 -28.5534 34.7335; 559 -8.7721 -28.5534 34.7335;
560 -14.6221 -28.5534 32.9335; 561 -12.6721 -28.5534 34.7335;
562 -18.5221 -28.5534 32.9335; 563 -16.5721 -28.5534 34.7335;
564 -22.4221 -28.5534 32.9335; 565 -20.4721 -28.5534 34.7335;
566 -23.3971 -28.5534 33.8335; 567 -19.4971 -28.5534 35.9335;
568 -20.7971 -28.5534 39.5335; 569 -15.5977 -28.5534 35.9335;
570 -16.8971 -28.5534 39.5335; 571 -12.9971 -28.5534 39.5335;
572 -5.1971 -28.5534 39.5335; 573 -9.0971 -28.5534 39.5335;
574 -23.3971 -28.5534 30.371; 575 27.303 -28.5534 31.896;
576 31.803 -28.5534 37.1335; 577 -27.897 -28.5534 25.1335;
578 -27.897 -25.3534 22.7335; 579 31.803 -25.3534 22.7335;
580 31.803 -26.9534 29.6085; 581 31.803 -26.9534 32.6585;
582 31.803 -25.3534 39.5335; 583 -27.897 -25.3534 39.5335;
584 -27.897 -26.9534 32.6585; 585 -27.897 -26.9534 29.6085;
586 -23.3971 -25.3534 22.7335; 587 -23.3971 -25.3534 39.5335;
588 -19.4971 -25.3534 22.7335; 589 -19.4971 -25.3534 39.5335;
590 27.303 -25.3534 22.7335; 591 27.303 -25.3534 39.5335;
592 -15.5977 -25.3534 22.7335; 593 -15.5977 -25.3534 39.5335;
594 -11.6983 -25.3534 22.7335; 595 -11.6983 -25.3534 39.5335;
596 -7.7989 -25.3534 22.7335; 597 -7.7989 -25.3534 39.5335;
598 -3.8995 -25.3534 22.7335; 599 -3.8995 -25.3534 39.5335;
600 0 -25.3534 22.7335; 601 0 -25.3534 39.5335; 602 3.8994 -25.3534 22.7335;
603 3.8994 -25.3534 39.5335; 604 7.7988 -25.3534 22.7335;
605 7.7988 -25.3534 39.5335; 606 11.6982 -25.3534 22.7335;
607 11.6982 -25.3534 39.5335; 608 15.5976 -25.3534 22.7335;
609 15.5976 -25.3534 39.5335; 610 19.497 -25.3534 22.7335;
611 19.497 -25.3534 39.5335; 612 23.3964 -25.3534 22.7335;
613 23.3964 -25.3534 39.5335; 614 -27.897 -25.3534 27.5335;
615 31.803 -25.3534 27.5335; 616 31.803 -25.3534 34.7335;
617 -27.897 -25.3534 34.7335; 618 -23.3971 -25.3534 29.6085;
619 -30.097 -26.9534 29.6085; 620 -23.3971 -25.3534 32.6585;
621 -30.097 -26.9534 32.6585; 622 -29.797 -25.3534 25.5335;
623 -29.797 -25.3534 36.7335; 624 34.0029 -26.9534 29.6085;
625 27.303 -25.3534 29.6085; 626 34.0029 -26.9534 32.6585;
627 27.303 -25.3534 32.6585; 628 33.703 -25.3534 25.5335;
629 33.703 -25.3534 36.7335; 630 -23.3971 -25.3534 34.7335;
631 -23.3971 -25.3534 27.5335; 632 -19.4971 -25.3534 27.5335;
633 -15.5977 -25.3534 27.5335; 634 -11.6983 -25.3534 27.5335;
635 -7.7989 -25.3534 27.5335; 636 -3.8995 -25.3534 27.5335;
637 0 -25.3534 27.5335; 638 3.8994 -25.3534 27.5335;
639 7.7988 -25.3534 27.5335; 640 11.6982 -25.3534 27.5335;
641 15.5976 -25.3534 27.5335; 642 19.497 -25.3534 27.5335;
643 23.3964 -25.3534 27.5335; 644 27.303 -25.3534 27.5335;
645 27.303 -25.3534 34.7335; 646 23.3964 -25.3534 34.7335;
647 19.497 -25.3534 34.7335; 648 15.5976 -25.3534 34.7335;
649 11.6982 -25.3534 34.7335; 650 7.7988 -25.3534 34.7335;
```

651 3.8994 -25.3534 34.7335; 652 0 -25.3534 34.7335;
653 -3.8995 -25.3534 34.7335; 654 -7.7989 -25.3534 34.7335;
655 -11.6983 -25.3534 34.7335; 656 -15.5977 -25.3534 34.7335;
657 -19.4971 -25.3534 34.7335; 658 -26.772 -25.3534 22.7335;
659 31.803 -25.3534 23.9335; 660 31.803 -25.3534 32.6585;
661 31.803 -25.3534 33.696; 662 30.678 -25.3534 39.5335;
663 -27.897 -25.3534 38.3335; 664 -27.897 -25.3534 29.6085;
665 -27.897 -25.3534 28.571; 666 -23.3971 -25.3534 23.9335;
667 -19.4971 -25.3534 23.9335; 668 -19.4971 -25.3534 32.9335;
669 -19.4971 -25.3534 33.8335; 670 27.303 -25.3534 23.9335;
671 27.303 -25.3534 32.9335; 672 27.303 -25.3534 33.696;
673 -15.5977 -25.3534 23.9335; 674 -15.5977 -25.3534 32.9335;
675 -15.5977 -25.3534 33.8335; 676 -11.6983 -25.3534 32.9335;
677 -7.7989 -25.3534 32.9335; 678 -3.8995 -25.3534 32.9335;
679 0 -25.3534 32.9335; 680 3.8994 -25.3534 32.9335;
681 7.7988 -25.3534 32.9335; 682 11.6982 -25.3534 32.9335;
683 15.5976 -25.3534 32.9335; 684 19.497 -25.3534 32.9335;
685 23.3964 -25.3534 32.9335; 686 -26.772 -25.3534 27.5335;
687 30.678 -25.3534 34.7335; 688 -23.3971 -25.3534 29.3335;
689 -22.4221 -25.3534 29.3335; 690 26.3279 -25.3534 32.9335;
691 -24.222 -25.3534 29.6085; 692 -23.3971 -25.3534 32.9335;
693 -24.222 -25.3534 32.6585; 694 -28.847 -25.3534 27.5335;
695 -28.847 -25.3534 34.7335; 696 -27.897 -25.3534 25.5335;
697 -28.847 -25.3534 25.5335; 698 -27.897 -25.3534 36.7335;
699 -28.847 -25.3534 36.7335; 700 -30.097 -25.3534 29.6085;
701 -30.097 -25.3534 32.6585; 702 -29.797 -25.3534 26.5335;
703 -29.797 -25.3534 32.6585; 704 -29.797 -25.3534 33.696;
705 34.0029 -25.3534 29.6085; 706 33.703 -25.3534 29.6085;
707 34.0029 -25.3534 32.6585; 708 33.703 -25.3534 32.6585;
709 33.703 -25.3534 27.5335; 710 32.753 -25.3534 27.5335;
711 33.703 -25.3534 34.7335; 712 32.753 -25.3534 34.7335;
713 32.753 -25.3534 25.5335; 714 32.753 -25.3534 36.7335;
715 33.703 -25.3534 26.5335; 716 33.703 -25.3534 33.696;
717 -27.897 -25.3534 26.3335; 718 -28.847 -25.3534 29.6085;
719 -29.797 -25.3534 29.6085; 720 -29.797 -25.3534 28.571;
721 -29.497 -25.3534 32.6585; 722 -27.897 -25.3534 32.6585;
723 -27.897 -25.3534 33.696; 724 -27.897 -25.3534 35.7335;
725 -29.797 -25.3534 35.7335; 726 -26.772 -25.3534 34.7335;
727 -23.3971 -25.3534 35.9335; 728 -24.5221 -25.3534 39.5335;
729 -23.3971 -25.3534 28.4335; 730 -22.0971 -25.3534 22.7335;
731 -20.4721 -25.3534 27.5335; 732 -19.4971 -25.3534 28.4335;
733 -18.5221 -25.3534 27.5335; 734 -15.5977 -25.3534 28.4335;
735 -15.5977 -25.3534 29.3335; 736 -16.5721 -25.3534 29.3335;
737 -18.1971 -25.3534 22.7335; 738 -12.6721 -25.3534 27.5335;
739 -14.2971 -25.3534 22.7335; 740 -11.6983 -25.3534 29.3335;
741 -12.6721 -25.3534 29.3335; 742 -7.7989 -25.3534 29.3335;
743 -8.7721 -25.3534 29.3335; 744 -4.8721 -25.3534 27.5335;
745 -3.8995 -25.3534 29.3335; 746 -4.8721 -25.3534 29.3335;
747 -0.9721 -25.3534 27.5335; 748 0 -25.3534 29.3335;
749 -0.9721 -25.3534 29.3335; 750 2.9279 -25.3534 27.5335;
751 3.8994 -25.3534 29.3335; 752 2.9279 -25.3534 29.3335;
753 6.8279 -25.3534 27.5335; 754 7.7988 -25.3534 29.3335;
755 6.8279 -25.3534 29.3335; 756 11.6982 -25.3534 29.3335;
757 10.7279 -25.3534 29.3335; 758 14.6279 -25.3534 27.5335;
759 18.5279 -25.3534 27.5335; 760 15.5976 -25.3534 29.3335;
761 14.6279 -25.3534 29.3335; 762 19.497 -25.3534 29.3335;
763 18.5279 -25.3534 29.3335; 764 22.4279 -25.3534 27.5335;
765 23.3964 -25.3534 29.3335; 766 22.4279 -25.3534 29.3335;
767 26.3279 -25.3534 27.5335; 768 27.303 -25.3534 28.4335;
769 27.303 -25.3534 29.3335; 770 26.3279 -25.3534 29.3335;
771 28.428 -25.3534 22.7335; 772 30.678 -25.3534 27.5335;
773 31.803 -25.3534 28.571; 774 31.803 -25.3534 29.6085;
775 30.678 -25.3534 29.6085; 776 31.803 -25.3534 26.5335;
777 33.703 -25.3534 28.571; 778 33.4029 -25.3534 29.6085;
779 32.753 -25.3534 32.6585; 780 33.703 -25.3534 35.7335;
781 31.803 -25.3534 36.7335; 782 31.803 -25.3534 35.9335;
783 28.128 -25.3534 32.6585; 784 27.303 -25.3534 38.3335;
785 26.3279 -25.3534 34.7335; 786 26.0029 -25.3534 39.5335;
787 22.4279 -25.3534 34.7335; 788 22.1029 -25.3534 39.5335;
789 18.5279 -25.3534 34.7335; 790 18.2029 -25.3534 39.5335;
791 14.6279 -25.3534 34.7335; 792 14.3029 -25.3534 39.5335;
793 10.7279 -25.3534 34.7335; 794 3.8994 -25.3534 31.7335;
795 10.4029 -25.3534 39.5335; 796 6.8279 -25.3534 34.7335;
797 6.5029 -25.3534 39.5335; 798 2.9279 -25.3534 34.7335;
799 2.6029 -25.3534 39.5335; 800 -0.9721 -25.3534 34.7335;
801 -1.2971 -25.3534 39.5335; 802 -4.8721 -25.3534 34.7335;
803 -8.7721 -25.3534 34.7335; 804 -14.6221 -25.3534 32.9335;
805 -12.6721 -25.3534 34.7335; 806 -18.5221 -25.3534 32.9335;
807 -16.5721 -25.3534 34.7335; 808 -22.4221 -25.3534 32.9335;
809 -20.4721 -25.3534 34.7335; 810 -23.3971 -25.3534 33.8335;
811 -19.4971 -25.3534 35.9335; 812 -20.7971 -25.3534 39.5335;
813 -15.5977 -25.3534 35.9335; 814 -16.8971 -25.3534 39.5335;

815 -12.9971 -25.3534 39.5335; 816 -5.1971 -25.3534 39.5335;
817 -9.0971 -25.3534 39.5335; 818 -23.3971 -25.3534 30.371;
819 27.303 -25.3534 31.896; 820 31.803 -25.3534 37.1335;
821 -27.897 -25.3534 25.1335; 822 -29.497 -31.7534 29.6085;
823 -28.847 -31.7534 32.6585; 824 -29.497 -31.7534 30.371;
825 -25.047 -31.7534 29.6085; 826 -25.647 -31.7534 29.6085;
827 -25.047 -31.7534 32.6585; 828 -25.647 -31.7534 32.6585;
829 -25.047 -31.7534 30.371; 830 -25.047 -31.7534 31.1285;
831 -29.497 -31.7534 31.1285; 832 -29.497 -33.4534 32.6585;
833 -29.497 -33.4534 31.896; 834 -29.497 -33.4534 29.6085;
835 -28.697 -33.4534 32.6585; 836 -28.697 -33.4534 29.6085;
837 -27.897 -33.4534 31.8935; 838 -27.897 -33.4534 31.1285;
839 -27.897 -33.4534 30.3685; 840 -29.497 -33.4534 31.1285;
841 -27.5407 -33.6659 31.1285; 842 -27.5407 -33.6659 29.6085;
843 -27.5407 -33.2409 32.6585; 844 -27.5407 -33.2409 31.1285;
845 -27.897 -22.1534 22.7335; 846 31.803 -22.1534 22.7335;
847 31.803 -22.1534 29.6085; 848 31.803 -22.1534 32.6585;
849 31.803 -22.1534 39.5335; 850 -27.897 -22.1534 39.5335;
851 -27.897 -22.1534 32.6585; 852 -27.897 -22.1534 29.6085;
853 -23.3971 -22.1534 22.7335; 854 -23.3971 -22.1534 39.5335;
855 -19.4971 -22.1534 22.7335; 856 -19.4971 -22.1534 39.5335;
857 27.303 -22.1534 22.7335; 858 27.303 -22.1534 39.5335;
859 -15.5977 -22.1534 22.7335; 860 -15.5977 -22.1534 39.5335;
861 -11.6983 -22.1534 22.7335; 862 -11.6983 -22.1534 39.5335;
863 -7.7989 -22.1534 22.7335; 864 -7.7989 -22.1534 39.5335;
865 -3.8995 -22.1534 22.7335; 866 -3.8995 -22.1534 39.5335;
867 0 -22.1534 22.7335; 868 0 -22.1534 39.5335; 869 3.8994 -22.1534 22.7335;
870 3.8994 -22.1534 39.5335; 871 7.7988 -22.1534 22.7335;
872 7.7988 -22.1534 39.5335; 873 11.6982 -22.1534 22.7335;
874 11.6982 -22.1534 39.5335; 875 15.5976 -22.1534 22.7335;
876 15.5976 -22.1534 39.5335; 877 19.497 -22.1534 22.7335;
878 19.497 -22.1534 39.5335; 879 23.3964 -22.1534 22.7335;
880 23.3964 -22.1534 39.5335; 881 -27.897 -22.1534 27.5335;
882 31.803 -22.1534 27.5335; 883 31.803 -22.1534 34.7335;
884 -27.897 -22.1534 34.7335; 885 -23.3971 -22.1534 29.6085;
886 -30.097 -22.1534 29.6085; 887 -23.3971 -22.1534 32.6585;
888 -30.097 -22.1534 32.6585; 889 -29.797 -22.1534 25.5335;
890 -29.797 -22.1534 36.7335; 891 34.0029 -22.1534 29.6085;
892 27.303 -22.1534 29.6085; 893 34.0029 -22.1534 32.6585;
894 27.303 -22.1534 32.6585; 895 33.703 -22.1534 25.5335;
896 33.703 -22.1534 36.7335; 897 -23.3971 -22.1534 34.7335;
898 -23.3971 -22.1534 27.5335; 899 -19.4971 -22.1534 27.5335;
900 -15.5977 -22.1534 27.5335; 901 -11.6983 -22.1534 27.5335;
902 -7.7989 -22.1534 27.5335; 903 -3.8995 -22.1534 27.5335;
904 0 -22.1534 27.5335; 905 3.8994 -22.1534 27.5335;
906 7.7988 -22.1534 27.5335; 907 11.6982 -22.1534 27.5335;
908 15.5976 -22.1534 27.5335; 909 19.497 -22.1534 27.5335;
910 23.3964 -22.1534 27.5335; 911 27.303 -22.1534 27.5335;
912 27.303 -22.1534 34.7335; 913 23.3964 -22.1534 34.7335;
914 19.497 -22.1534 34.7335; 915 15.5976 -22.1534 34.7335;
916 11.6982 -22.1534 34.7335; 917 7.7988 -22.1534 34.7335;
918 3.8994 -22.1534 34.7335; 919 0 -22.1534 34.7335;
920 -3.8995 -22.1534 34.7335; 921 -7.7989 -22.1534 34.7335;
922 -11.6983 -22.1534 34.7335; 923 -15.5977 -22.1534 34.7335;
924 -19.4971 -22.1534 34.7335; 925 -25.047 -35.1534 31.1285;
926 -25.047 -35.1534 30.3685; 927 -29.497 -32.6034 29.6085;
928 -29.497 -32.6034 32.6585; 929 -28.847 -28.5534 32.6585;
930 -29.497 -30.1534 32.6585; 931 -29.497 -28.5534 29.6085;
932 -29.497 -30.1534 29.6085; 933 -29.497 -28.5534 31.896;
934 -29.497 -29.3534 32.6585; 935 -29.497 -29.3534 29.6085;
936 -29.497 -30.1534 31.896; 937 -29.497 -30.1534 31.1335;
938 -29.497 -30.1534 30.371; 939 -28.697 -30.1534 32.6585;
940 -28.697 -30.1534 29.6085; 941 -27.897 -30.1534 31.896;
942 -27.897 -30.1534 31.1335; 943 -27.897 -30.1534 30.371;
944 -29.497 -28.5534 31.1335; 945 -29.497 -28.5534 30.371;
946 -25.047 -28.5534 29.6085; 947 -25.647 -28.5534 29.6085;
948 -25.047 -28.5534 32.6585; 949 -25.647 -28.5534 32.6585;
950 -27.5408 -30.3534 31.1329; 951 -25.4033 -31.5534 29.6085;
952 -25.047 -28.5534 31.896; 953 -25.047 -28.5534 31.1335;
954 -25.047 -28.5534 30.371; 955 -27.5407 -29.9534 32.6585;
956 -27.5407 -29.9534 31.1335; 957 -29.497 -25.3534 29.6085;
958 -29.497 -26.9534 29.6085; 959 -28.847 -25.3534 32.6585;
960 -29.497 -26.9534 32.6585; 961 -29.497 -25.3534 30.371;
962 -29.497 -26.1534 29.6085; 963 -29.497 -26.1534 32.6585;
964 -29.497 -26.9534 30.371; 965 -29.097 -26.9534 32.6585;
966 -29.097 -26.9534 29.6085; 967 -27.897 -26.9534 31.896;
968 -29.497 -25.3534 31.1335; 969 -29.497 -25.3534 31.896;
970 -29.497 -26.9534 31.1335; 971 -29.497 -26.9534 31.896;
972 -27.897 -26.9534 31.1335; 973 -27.897 -26.9534 30.371;
974 -25.047 -25.3534 32.6585; 975 -25.647 -25.3534 32.6585;
976 -25.047 -25.3534 31.896; 977 -25.047 -25.3534 29.6085;
978 -25.647 -25.3534 29.6085; 979 -25.047 -25.3534 31.1335;

980 -25.047 -25.3534 30.371; 981 -27.5407 -27.1534 31.1335;
982 -27.5407 -26.7534 32.6585; 983 -27.5407 -26.7534 31.1335;
984 33.4029 -31.7534 32.6585; 985 32.753 -31.7534 29.6085;
986 33.4029 -33.4534 32.6585; 987 32.6029 -33.4534 32.6585;
988 33.4029 -32.6034 32.6585; 989 33.4029 -33.4534 29.6085;
990 32.6029 -33.4534 29.6085; 991 33.4029 -33.4534 31.896;
992 33.4029 -32.6034 29.6085; 993 33.4029 -33.4534 31.1335;
994 33.4029 -33.4534 30.371; 995 31.803 -33.4534 31.896;
996 31.803 -33.4534 31.1335; 997 31.803 -33.4534 30.371;
998 28.953 -31.7534 29.6085; 999 28.428 -31.7534 29.6085;
1000 28.953 -31.7534 32.6585; 1001 29.553 -31.7534 32.6585;
1002 28.953 -31.7534 30.371; 1003 28.953 -31.7534 31.1335;
1004 28.953 -31.7534 31.896; 1005 29.3092 -31.9659 32.6585;
1006 29.3092 -31.9659 31.1335; 1007 28.953 -35.1534 29.6085;
1008 29.3092 -34.9409 29.6085; 1009 28.953 -35.1534 31.1335;
1010 29.3092 -34.9409 31.1335; 1011 28.953 -35.1534 30.371;
1012 33.4029 -28.5534 32.6585; 1013 33.4029 -30.1534 32.6585;
1014 32.753 -28.5534 29.6085; 1015 33.4029 -30.1534 29.6085;
1016 33.4029 -30.1534 31.1335; 1017 31.803 -30.1534 31.1335;
1018 28.953 -28.5534 32.6585; 1019 29.553 -28.5534 32.6585;
1020 28.953 -28.5534 29.6085; 1021 28.428 -28.5534 29.6085;
1022 28.953 -28.5534 31.896; 1023 28.953 -28.5534 31.1335;
1024 28.953 -28.5534 30.371; 1025 33.4029 -25.3534 32.6585;
1026 33.4029 -26.9534 32.6585; 1027 32.753 -25.3534 29.6085;
1028 33.4029 -26.9534 29.6085; 1029 33.4029 -26.9534 31.1335;
1030 31.803 -26.9534 31.1335; 1031 28.953 -25.3534 32.6585;
1032 29.553 -25.3534 32.6585; 1033 28.953 -25.3534 29.6085;
1034 28.428 -25.3534 29.6085; 1035 28.953 -25.3534 31.896;
1036 28.953 -25.3534 31.1335; 1037 28.953 -25.3534 30.371;
1038 33.4029 -31.7534 31.896; 1039 -3.8995 -33.4534 32.9335;
1040 -3.8995 -36.1534 32.9335; 1041 -3.8995 -33.4534 29.3335;
1042 -3.8995 -36.1534 29.3335; 1043 -3.8995 -33.4534 32.0335;
1044 -3.3595 -33.4534 29.3335; 1045 -2.8195 -33.4534 29.3335;
1046 -2.8195 -33.4534 30.2335; 1047 -2.8195 -33.4534 32.9335;
1048 -3.3595 -33.4534 32.9335; 1049 -2.8195 -33.4534 31.1335;
1050 -2.8195 -33.4534 32.0335; 1051 0 -31.7534 30.2335;
1052 -2.4671 -33.2409 29.3335; 1053 0 -31.7534 31.1335;
1054 0 -31.7534 31.7335; 1055 -2.4671 -33.2409 31.1335;
1056 -2.4671 -33.6659 32.9335; 1057 -2.4671 -33.6659 31.1335;
1058 0 -35.1534 31.1335; 1059 0 -35.1534 32.0335;
1060 -3.8995 -30.1534 29.3335; 1061 -3.8995 -30.1534 32.9335;
1062 -2.8195 -30.1534 29.3335; 1063 -2.8195 -30.1534 31.1335;
1064 -2.8195 -30.1534 32.9335; 1065 0 -28.5534 31.1335;
1066 0 -28.5534 31.7335; 1067 -3.8995 -26.9534 29.3335;
1068 -3.8995 -26.9534 32.9335; 1069 -2.8195 -26.9534 29.3335;
1070 -2.8195 -26.9534 31.1335; 1071 -2.8195 -26.9534 32.9335;
1072 0 -25.3534 31.1335; 1073 0 -25.3534 31.7335;
1074 -25.047 -35.1534 29.6085; 1075 -25.047 -35.6234 29.6085;
1076 -25.047 -35.6234 30.3685; 1077 -25.047 -35.6234 31.1285;
1078 0 -35.6234 31.1335; 1079 0 -35.6234 32.0335; 1080 0 -35.6234 32.9335;
1081 0 -35.1534 32.9335; 1082 28.953 -35.6234 29.6085;
1083 28.953 -35.6234 30.371; 1084 28.953 -35.6234 31.1335;
1085 -27.897 -31.7534 23.9335; 1086 -25.647 -31.7534 22.7335;
1087 -27.897 -31.7534 26.5335; 1088 -25.647 -31.7534 27.5335;
1089 -24.5221 -31.7534 22.7335; 1090 -24.5221 -31.7534 27.5335;
1091 -23.3971 -31.7534 25.1335; 1092 -23.3971 -31.7534 26.3335;
1093 -20.7971 -31.7534 22.7335; 1094 -22.0971 -31.7534 27.5335;
1095 -22.4221 -31.7534 27.5335; 1096 -20.7971 -31.7534 27.5335;
1097 -21.4471 -31.7534 27.5335; 1098 -19.4971 -31.7534 25.1335;
1099 -19.4971 -31.7534 26.3335; 1100 -16.8971 -31.7534 22.7335;
1101 -18.1971 -31.7534 27.5335; 1102 -17.5471 -31.7534 27.5335;
1103 -16.8971 -31.7534 27.5335; 1104 -16.5721 -31.7534 27.5335;
1105 -15.5977 -31.7534 25.1335; 1106 -15.5977 -31.7534 26.3335;
1107 -10.3971 -31.7534 22.7335; 1108 -10.7221 -31.7534 27.5335;
1109 -12.9971 -31.7534 22.7335; 1110 -14.2971 -31.7534 27.5335;
1111 -14.6221 -31.7534 27.5335; 1112 -12.9971 -31.7534 27.5335;
1113 -13.6471 -31.7534 27.5335; 1114 -6.4971 -31.7534 22.7335;
1115 -9.0971 -31.7534 22.7335; 1116 -10.3971 -31.7534 27.5335;
1117 -9.7471 -31.7534 27.5335; 1118 -9.0971 -31.7534 27.5335;
1119 -8.7721 -31.7534 27.5335; 1120 -2.5971 -31.7534 22.7335;
1121 -5.1971 -31.7534 22.7335; 1122 -6.4971 -31.7534 27.5335;
1123 -6.8221 -31.7534 27.5335; 1124 -5.1971 -31.7534 27.5335;
1125 -5.8471 -31.7534 27.5335; 1126 1.3029 -31.7534 22.7335;
1127 -1.2971 -31.7534 22.7335; 1128 -2.5971 -31.7534 27.5335;
1129 -2.9221 -31.7534 27.5335; 1130 -1.2971 -31.7534 27.5335;
1131 -1.9471 -31.7534 27.5335; 1132 5.2029 -31.7534 22.7335;
1133 2.6029 -31.7534 22.7335; 1134 1.3029 -31.7534 27.5335;
1135 0.9779 -31.7534 27.5335; 1136 2.6029 -31.7534 27.5335;
1137 1.9529 -31.7534 27.5335; 1138 9.1029 -31.7534 22.7335;
1139 8.7779 -31.7534 27.5335; 1140 6.5029 -31.7534 22.7335;
1141 5.2029 -31.7534 27.5335; 1142 4.8779 -31.7534 27.5335;
1143 6.5029 -31.7534 27.5335; 1144 5.8529 -31.7534 27.5335;

1145 13.0029 -31.7534 22.7335; 1146 10.4029 -31.7534 22.7335;
1147 9.1029 -31.7534 27.5335; 1148 9.7529 -31.7534 27.5335;
1149 10.4029 -31.7534 27.5335; 1150 10.7279 -31.7534 27.5335;
1151 16.9029 -31.7534 22.7335; 1152 14.3029 -31.7534 22.7335;
1153 13.0029 -31.7534 27.5335; 1154 12.6779 -31.7534 27.5335;
1155 14.3029 -31.7534 27.5335; 1156 13.6529 -31.7534 27.5335;
1157 20.8029 -31.7534 22.7335; 1158 18.2029 -31.7534 22.7335;
1159 16.9029 -31.7534 27.5335; 1160 16.5779 -31.7534 27.5335;
1161 18.2029 -31.7534 27.5335; 1162 17.5529 -31.7534 27.5335;
1163 24.7029 -31.7534 22.7335; 1164 22.1029 -31.7534 22.7335;
1165 20.8029 -31.7534 27.5335; 1166 20.4779 -31.7534 27.5335;
1167 22.1029 -31.7534 27.5335; 1168 21.4529 -31.7534 27.5335;
1169 26.0029 -31.7534 22.7335; 1170 24.7029 -31.7534 27.5335;
1171 24.3779 -31.7534 27.5335; 1172 26.0029 -31.7534 27.5335;
1173 25.3529 -31.7534 27.5335; 1174 27.303 -31.7534 25.1335;
1175 27.303 -31.7534 26.3335; 1176 29.553 -31.7534 22.7335;
1177 28.428 -31.7534 27.5335; 1178 30.678 -31.7534 22.7335;
1179 29.553 -31.7534 27.5335; 1180 31.803 -31.7534 25.1335;
1181 31.803 -31.7534 25.5335; 1182 31.803 -31.7534 26.3335;
1183 -26.772 -31.7534 29.6085; 1184 -24.5221 -31.7534 29.6085;
1185 -23.3971 -31.7534 28.571; 1186 -21.4471 -31.7534 29.3335;
1187 -20.4721 -31.7534 29.3335; 1188 -19.4971 -31.7534 29.3335;
1189 -18.5221 -31.7534 29.3335; 1190 -17.5471 -31.7534 29.3335;
1191 -14.6221 -31.7534 29.3335; 1192 -13.6471 -31.7534 29.3335;
1193 -10.7221 -31.7534 29.3335; 1194 -9.7471 -31.7534 29.3335;
1195 -6.8221 -31.7534 29.3335; 1196 -5.8471 -31.7534 29.3335;
1197 -2.9221 -31.7534 29.3335; 1198 -1.9471 -31.7534 29.3335;
1199 -2.8195 -31.7534 29.3335; 1200 0.9779 -31.7534 29.3335;
1201 1.9529 -31.7534 29.3335; 1202 4.8779 -31.7534 29.3335;
1203 5.8529 -31.7534 29.3335; 1204 8.7779 -31.7534 29.3335;
1205 9.7529 -31.7534 29.3335; 1206 12.6779 -31.7534 29.3335;
1207 13.6529 -31.7534 29.3335; 1208 16.5779 -31.7534 29.3335;
1209 17.5529 -31.7534 29.3335; 1210 20.4779 -31.7534 29.3335;
1211 21.4529 -31.7534 29.3335; 1212 24.3779 -31.7534 29.3335;
1213 25.3529 -31.7534 29.3335; 1214 27.303 -31.7534 28.571;
1215 28.128 -31.7534 29.6085; 1216 29.553 -31.7534 29.6085;
1217 -29.797 -31.7534 27.5335; 1218 -29.497 -33.4534 30.3685;
1219 -24.5221 -31.7534 32.6585; 1220 -25.4033 -34.9409 29.6085;
1221 -25.4033 -34.9409 31.1285; 1222 -25.7595 -34.7284 29.6085;
1223 -25.7595 -34.7284 31.1285; 1224 -26.1158 -34.5159 29.6085;
1225 -26.1158 -34.5159 31.1285; 1226 -26.472 -34.3034 29.6085;
1227 -26.472 -34.3034 31.1285; 1228 -26.8282 -34.0909 29.6085;
1229 -26.8282 -34.0909 31.1285; 1230 -27.1845 -33.8784 29.6085;
1231 -27.1845 -33.8784 31.1285; 1232 -25.047 -31.7534 31.8935;
1233 -25.4033 -31.9659 31.1285; 1234 -25.4033 -31.9659 32.6585;
1235 -25.7595 -32.1784 31.1285; 1236 -25.7595 -32.1784 32.6585;
1237 -26.1158 -32.3909 31.1285; 1238 -26.1158 -32.3909 32.6585;
1239 -26.472 -32.6034 31.1285; 1240 -26.472 -32.6034 32.6585;
1241 -26.8282 -32.8159 31.1285; 1242 -26.8282 -32.8159 32.6585;
1243 -27.1845 -33.0284 31.1285; 1244 -27.1845 -33.0284 32.6585;
1245 -3.8995 -33.4534 31.1335; 1246 -3.8995 -33.4534 30.2335;
1247 -0.3524 -31.9659 31.1335; 1248 -0.7049 -32.1784 31.1335;
1249 -1.0573 -32.3909 31.1335; 1250 -1.4097 -32.6034 31.1335;
1251 -1.7622 -32.8159 31.1335; 1252 -2.1146 -33.0284 31.1335;
1253 -0.3524 -31.9659 29.3335; 1254 -0.7049 -32.1784 29.3335;
1255 -1.0573 -32.3909 29.3335; 1256 -1.4097 -32.6034 29.3335;
1257 -1.7622 -32.8159 29.3335; 1258 -2.1146 -33.0284 29.3335;
1259 -0.3524 -34.9409 32.9335; 1260 -0.7049 -34.7284 32.9335;
1261 -1.0573 -34.5159 32.9335; 1262 -1.4097 -34.3034 32.9335;
1263 -1.7622 -34.0909 32.9335; 1264 -2.1146 -33.8784 32.9335;
1265 -0.3524 -34.9409 31.1335; 1266 -0.7049 -34.7284 31.1335;
1267 -1.0573 -34.5159 31.1335; 1268 -1.4097 -34.3034 31.1335;
1269 -1.7622 -34.0909 31.1335; 1270 -2.1146 -33.8784 31.1335;
1271 -3.8995 -31.7534 31.1335; 1272 -3.8995 -31.7534 30.2335;
1273 3.8994 -31.7534 30.5335; 1274 2.9245 -31.7534 32.9335;
1275 1.9497 -31.7534 32.9335; 1276 0.9749 -31.7534 32.9335;
1277 33.4029 -31.7534 31.1335; 1278 33.4029 -31.7534 30.371;
1279 31.4468 -33.2409 31.1335; 1280 31.4468 -33.2409 32.6585;
1281 31.0905 -33.0284 31.1335; 1282 31.0905 -33.0284 32.6585;
1283 30.7343 -32.8159 31.1335; 1284 30.7343 -32.8159 32.6585;
1285 30.378 -32.6034 31.1335; 1286 30.378 -32.6034 32.6585;
1287 30.0217 -32.3909 31.1335; 1288 30.0217 -32.3909 32.6585;
1289 29.6655 -32.1784 31.1335; 1290 29.6655 -32.1784 32.6585;
1291 31.4468 -33.6659 29.6085; 1292 31.4468 -33.6659 31.1335;
1293 31.0905 -33.8784 29.6085; 1294 31.0905 -33.8784 31.1335;
1295 30.7343 -34.0909 29.6085; 1296 30.7343 -34.0909 31.1335;
1297 30.378 -34.3034 29.6085; 1298 30.378 -34.3034 31.1335;
1299 30.0217 -34.5159 29.6085; 1300 30.0217 -34.5159 31.1335;
1301 29.6655 -34.7284 29.6085; 1302 29.6655 -34.7284 31.1335;
1303 -29.497 -31.7534 31.896; 1304 28.428 -31.7534 32.6585;
1305 27.303 -31.7534 31.1335; 1306 27.303 -31.7534 30.371;
1307 31.803 -31.7534 35.7335; 1308 -27.897 -31.7534 37.1335;

1309 -26.772 -31.7534 39.5335; 1310 -27.897 -31.7534 35.9335;
1311 -25.647 -31.7534 34.7335; 1312 -25.647 -31.7534 39.5335;
1313 -24.5221 -31.7534 34.7335; 1314 -23.3971 -31.7534 38.3335;
1315 -23.3971 -31.7534 37.1335; 1316 -22.0971 -31.7534 39.5335;
1317 -22.0971 -31.7534 34.7335; 1318 -22.4221 -31.7534 34.7335;
1319 -20.7971 -31.7534 34.7335; 1320 -21.4471 -31.7534 34.7335;
1321 -19.4971 -31.7534 38.3335; 1322 -19.4971 -31.7534 37.1335;
1323 -18.1971 -31.7534 39.5335; 1324 -18.1971 -31.7534 34.7335;
1325 -18.5221 -31.7534 34.7335; 1326 -16.8971 -31.7534 34.7335;
1327 -17.5471 -31.7534 34.7335; 1328 -15.5977 -31.7534 38.3335;
1329 -15.5977 -31.7534 37.1335; 1330 -14.2971 -31.7534 39.5335;
1331 -14.2971 -31.7534 34.7335; 1332 -14.6221 -31.7534 34.7335;
1333 -12.9971 -31.7534 34.7335; 1334 -13.6471 -31.7534 34.7335;
1335 -10.3971 -31.7534 39.5335; 1336 -10.3971 -31.7534 34.7335;
1337 -10.7221 -31.7534 34.7335; 1338 -9.0971 -31.7534 34.7335;
1339 -9.7471 -31.7534 34.7335; 1340 -6.4971 -31.7534 39.5335;
1341 -6.4971 -31.7534 34.7335; 1342 -6.8221 -31.7534 34.7335;
1343 -5.1971 -31.7534 34.7335; 1344 -5.8471 -31.7534 34.7335;
1345 -2.5971 -31.7534 39.5335; 1346 -2.5971 -31.7534 34.7335;
1347 -2.9221 -31.7534 34.7335; 1348 -1.2971 -31.7534 34.7335;
1349 -1.9471 -31.7534 34.7335; 1350 1.3029 -31.7534 39.5335;
1351 1.3029 -31.7534 34.7335; 1352 0.9779 -31.7534 34.7335;
1353 2.6029 -31.7534 34.7335; 1354 1.9529 -31.7534 34.7335;
1355 5.2029 -31.7534 39.5335; 1356 5.2029 -31.7534 34.7335;
1357 4.8779 -31.7534 34.7335; 1358 6.5029 -31.7534 34.7335;
1359 5.8529 -31.7534 34.7335; 1360 9.1029 -31.7534 39.5335;
1361 9.1029 -31.7534 34.7335; 1362 8.7779 -31.7534 34.7335;
1363 10.4029 -31.7534 34.7335; 1364 9.7529 -31.7534 34.7335;
1365 13.0029 -31.7534 39.5335; 1366 13.0029 -31.7534 34.7335;
1367 12.6779 -31.7534 34.7335; 1368 14.3029 -31.7534 34.7335;
1369 13.6529 -31.7534 34.7335; 1370 16.9029 -31.7534 39.5335;
1371 16.9029 -31.7534 34.7335; 1372 16.5779 -31.7534 34.7335;
1373 18.2029 -31.7534 34.7335; 1374 17.5529 -31.7534 34.7335;
1375 20.8029 -31.7534 39.5335; 1376 20.8029 -31.7534 34.7335;
1377 20.4779 -31.7534 34.7335; 1378 22.1029 -31.7534 34.7335;
1379 21.4529 -31.7534 34.7335; 1380 24.7029 -31.7534 39.5335;
1381 24.7029 -31.7534 34.7335; 1382 24.3779 -31.7534 34.7335;
1383 26.0029 -31.7534 34.7335; 1384 25.3529 -31.7534 34.7335;
1385 27.303 -31.7534 37.1335; 1386 27.303 -31.7534 35.9335;
1387 28.428 -31.7534 39.5335; 1388 28.428 -31.7534 34.7335;
1389 29.553 -31.7534 39.5335; 1390 29.553 -31.7534 34.7335;
1391 31.803 -31.7534 38.3335; 1392 -26.772 -31.7534 32.6585;
1393 -23.3971 -31.7534 33.696; 1394 -21.4471 -31.7534 32.9335;
1395 -20.4721 -31.7534 32.9335; 1396 -17.5471 -31.7534 32.9335;
1397 -16.5721 -31.7534 32.9335; 1398 -10.7221 -31.7534 32.9335;
1399 -13.6471 -31.7534 32.9335; 1400 -12.6721 -31.7534 32.9335;
1401 -6.8221 -31.7534 32.9335; 1402 -9.7471 -31.7534 32,9335;
1403 -8.7721 -31.7534 32.9335; 1404 -2.9221 -31.7534 32.9335;
1405 -5.8471 -31.7534 32.9335; 1406 -4.8721 -31.7534 32.9335;
1407 -2.8195 -31.7534 32.9335; 1408 -1.9471 -31.7534 32.9335;
1409 -0.9721 -31.7534 32.9335; 1410 4.8779 -31.7534 32.9335;
1411 8.7779 -31.7534 32.9335; 1412 5.8529 -31.7534 32.9335;
1413 6.8279 -31.7534 32.9335; 1414 12.6779 -31.7534 32.9335;
1415 9.7529 -31.7534 32.9335; 1416 10.7279 -31.7534 32.9335;
1417 16.5779 -31.7534 32.9335; 1418 13.6529 -31.7534 32.9335;
1419 14.6279 -31.7534 32.9335; 1420 20.4779 -31.7534 32.9335;
1421 17.5529 -31.7534 32.9335; 1422 18.5279 -31.7534 32.9335;
1423 21.4529 -31.7534 32.9335; 1424 22.4279 -31.7534 32.9335;
1425 24.3779 -31.7534 32.9335; 1426 25.3529 -31.7534 32.9335;
1427 27.303 -31.7534 33.8335; 1428 30.678 -31.7534 32.6585;
1429 -29.797 -31.7534 34.7335; 1430 -23.3971 -31.7534 31.896;
1431 -23.3971 -31.7534 31.1335; 1432 -27.897 -28.5534 23.9335;
1433 -25.647 -28.5534 22.7335; 1434 -27.897 -28.5534 26.5335;
1435 -25.647 -28.5534 27.5335; 1436 -24.5221 -28.5534 22.7335;
1437 -24.5221 -28.5534 27.5335; 1438 -23.3971 -28.5534 25.1335;
1439 -23.3971 -28.5534 26.3335; 1440 -20.7971 -28.5534 22.7335;
1441 -22.0971 -28.5534 27.5335; 1442 -22.4221 -28.5534 27.5335;
1443 -20.7971 -28.5534 27.5335; 1444 -21.4471 -28.5534 27.5335;
1445 -19.4971 -28.5534 25.1335; 1446 -19.4971 -28.5534 26.3335;
1447 -16.8971 -28.5534 22.7335; 1448 -18.1971 -28.5534 27.5335;
1449 -17.5471 -28.5534 27.5335; 1450 -16.8971 -28.5534 27.5335;
1451 -16.5721 -28.5534 27.5335; 1452 -15.5977 -28.5534 25.1335;
1453 -15.5977 -28.5534 26.3335; 1454 -10.3971 -28.5534 22.7335;
1455 -10.7221 -28.5534 27.5335; 1456 -12.9971 -28.5534 22.7335;
1457 -14.2971 -28.5534 27.5335; 1458 -14.6221 -28.5534 27.5335;
1459 -12.9971 -28.5534 27.5335; 1460 -13.6471 -28.5534 27.5335;
1461 -6.4971 -28.5534 22.7335; 1462 -9.0971 -28.5534 22.7335;
1463 -10.3971 -28.5534 27.5335; 1464 -9.7471 -28.5534 27.5335;
1465 -9.0971 -28.5534 27.5335; 1466 -8.7721 -28.5534 27.5335;
1467 -2.5971 -28.5534 22.7335; 1468 -5.1971 -28.5534 22.7335;
1469 -6.4971 -28.5534 27.5335; 1470 -6.8221 -28.5534 27.5335;
1471 -5.1971 -28.5534 27.5335; 1472 -5.8471 -28.5534 27.5335;

1473 1.3029 -28.5534 22.7335; 1474 -1.2971 -28.5534 22.7335;
1475 -2.5971 -28.5534 27.5335; 1476 -2.9221 -28.5534 27.5335;
1477 -1.2971 -28.5534 27.5335; 1478 -1.9471 -28.5534 27.5335;
1479 5.2029 -28.5534 22.7335; 1480 2.6029 -28.5534 22.7335;
1481 1.3029 -28.5534 27.5335; 1482 0.9779 -28.5534 27.5335;
1483 2.6029 -28.5534 27.5335; 1484 1.9529 -28.5534 27.5335;
1485 9.1029 -28.5534 22.7335; 1486 8.7779 -28.5534 27.5335;
1487 6.5029 -28.5534 22.7335; 1488 5.2029 -28.5534 27.5335;
1489 4.8779 -28.5534 27.5335; 1490 6.5029 -28.5534 27.5335;
1491 5.8529 -28.5534 27.5335; 1492 13.0029 -28.5534 22.7335;
1493 10.4029 -28.5534 22.7335; 1494 9.1029 -28.5534 27.5335;
1495 9.7529 -28.5534 27.5335; 1496 10.4029 -28.5534 27.5335;
1497 10.7279 -28.5534 27.5335; 1498 16.9029 -28.5534 22.7335;
1499 14.3029 -28.5534 22.7335; 1500 13.0029 -28.5534 27.5335;
1501 12.6779 -28.5534 27.5335; 1502 14.3029 -28.5534 27.5335;
1503 13.6529 -28.5534 27.5335; 1504 20.8029 -28.5534 22.7335;
1505 18.2029 -28.5534 22.7335; 1506 16.9029 -28.5534 27.5335;
1507 16.5779 -28.5534 27.5335; 1508 18.2029 -28.5534 27.5335;
1509 17.5529 -28.5534 27.5335; 1510 24.7029 -28.5534 22.7335;
1511 22.1029 -28.5534 22.7335; 1512 20.8029 -28.5534 27.5335;
1513 20.4779 -28.5534 27.5335; 1514 22.1029 -28.5534 27.5335;
1515 21.4529 -28.5534 27.5335; 1516 26.0029 -28.5534 22.7335;
1517 24.7029 -28.5534 27.5335; 1518 24.3779 -28.5534 27.5335;
1519 26.0029 -28.5534 27.5335; 1520 25.3529 -28.5534 27.5335;
1521 27.303 -28.5534 25.1335; 1522 27.303 -28.5534 26.3335;
1523 29.553 -28.5534 22.7335; 1524 28.428 -28.5534 27.5335;
1525 30.678 -28.5534 22.7335; 1526 29.553 -28.5534 27.5335;
1527 31.803 -28.5534 25.1335; 1528 31.803 -28.5534 25.5335;
1529 31.803 -28.5534 26.3335; 1530 -26.772 -28.5534 29.6085;
1531 -24.5221 -28.5534 29.6085; 1532 -23.3971 -28.5534 28.571;
1533 -21.4471 -28.5534 29.3335; 1534 -20.4721 -28.5534 29.3335;
1535 -19.4971 -28.5534 29.3335; 1536 -18.5221 -28.5534 29.3335;
1537 -17.5471 -28.5534 29.3335; 1538 -14.6221 -28.5534 29.3335;
1539 -13.6471 -28.5534 29.3335; 1540 -10.7221 -28.5534 29.3335;
1541 -9.7471 -28.5534 29.3335; 1542 -6.8221 -28.5534 29.3335;
1543 -5.8471 -28.5534 29.3335; 1544 -2.9221 -28.5534 29.3335;
1545 -1.9471 -28.5534 29.3335; 1546 -2.8195 -28.5534 29.3335;
1547 0.9779 -28.5534 29.3335; 1548 1.9529 -28.5534 29.3335;
1549 4.8779 -28.5534 29.3335; 1550 5.8529 -28.5534 29.3335;
1551 8.7779 -28.5534 29.3335; 1552 9.7529 -28.5534 29.3335;
1553 12.6779 -28.5534 29.3335; 1554 13.6529 -28.5534 29.3335;
1555 16.5779 -28.5534 29.3335; 1556 17.5529 -28.5534 29.3335;
1557 20.4779 -28.5534 29.3335; 1558 21.4529 -28.5534 29.3335;
1559 24.3779 -28.5534 29.3335; 1560 25.3529 -28.5534 29.3335;
1561 27.303 -28.5534 28.571; 1562 28.128 -28.5534 29.6085;
1563 29.553 -28.5534 29.6085; 1564 -29.797 -28.5534 27.5335;
1565 -24.5221 -28.5534 32.6585; 1566 3.8994 -28.5534 30.5335;
1567 2.9245 -28.5534 32.9335; 1568 1.9497 -28.5534 32.9335;
1569 0.9749 -28.5534 32.9335; 1570 28.428 -28.5534 32.6585;
1571 27.303 -28.5534 31.1335; 1572 27.303 -28.5534 30.371;
1573 31.803 -28.5534 35.7335; 1574 -27.897 -28.5534 37.1335;
1575 -26.772 -28.5534 39.5335; 1576 -27.897 -28.5534 35.9335;
1577 -25.647 -28.5534 34.7335; 1578 -25.647 -28.5534 39.5335;
1579 -24.5221 -28.5534 34.7335; 1580 -23.3971 -28.5534 38.3335;
1581 -23.3971 -28.5534 37.1335; 1582 -22.0971 -28.5534 39.5335;
1583 -22.0971 -28.5534 34.7335; 1584 -22.4221 -28.5534 34.7335;
1585 -20.7971 -28.5534 34.7335; 1586 -21.4471 -28.5534 34.7335;
1587 -19.4971 -28.5534 38.3335; 1588 -19.4971 -28.5534 37.1335;
1589 -18.1971 -28.5534 39.5335; 1590 -18.1971 -28.5534 34.7335;
1591 -18.5221 -28.5534 34.7335; 1592 -16.8971 -28.5534 34.7335;
1593 -17.5471 -28.5534 34.7335; 1594 -15.5977 -28.5534 38.3335;
1595 -15.5977 -28.5534 37.1335; 1596 -14.2971 -28.5534 39.5335;
1597 -14.2971 -28.5534 34.7335; 1598 -14.6221 -28.5534 34.7335;
1599 -12.9971 -28.5534 34.7335; 1600 -13.6471 -28.5534 34.7335;
1601 -10.3971 -28.5534 39.5335; 1602 -10.3971 -28.5534 34.7335;
1603 -10.7221 -28.5534 34.7335; 1604 -9.0971 -28.5534 34.7335;
1605 -9.7471 -28.5534 34.7335; 1606 -6.4971 -28.5534 39.5335;
1607 -6.4971 -28.5534 34.7335; 1608 -6.8221 -28.5534 34.7335;
1609 -5.1971 -28.5534 34.7335; 1610 -5.8471 -28.5534 34.7335;
1611 -2.5971 -28.5534 39.5335; 1612 -2.5971 -28.5534 34.7335;
1613 -2.9221 -28.5534 34.7335; 1614 -1.2971 -28.5534 34.7335;
1615 -1.9471 -28.5534 34.7335; 1616 1.3029 -28.5534 39.5335;
1617 1.3029 -28.5534 34.7335; 1618 0.9779 -28.5534 34.7335;
1619 2.6029 -28.5534 34.7335; 1620 1.9529 -28.5534 34.7335;
1621 5.2029 -28.5534 39.5335; 1622 5.2029 -28.5534 34.7335;
1623 4.8779 -28.5534 34.7335; 1624 6.5029 -28.5534 34.7335;
1625 5.8529 -28.5534 34.7335; 1626 9.1029 -28.5534 39.5335;
1627 9.1029 -28.5534 34.7335; 1628 8.7779 -28.5534 34.7335;
1629 10.4029 -28.5534 34.7335; 1630 9.7529 -28.5534 34.7335;
1631 13.0029 -28.5534 39.5335; 1632 13.0029 -28.5534 34.7335;
1633 12.6779 -28.5534 34.7335; 1634 14.3029 -28.5534 34.7335;
1635 13.6529 -28.5534 34.7335; 1636 16.9029 -28.5534 39.5335;

1637 16.9029 -28.5534 34.7335; 1638 16.5779 -28.5534 34.7335;
1639 18.2029 -28.5534 34.7335; 1640 17.5529 -28.5534 34.7335;
1641 20.8029 -28.5534 39.5335; 1642 20.8029 -28.5534 34.7335;
1643 20.4779 -28.5534 34.7335; 1644 22.1029 -28.5534 34.7335;
1645 21.4529 -28.5534 34.7335; 1646 24.7029 -28.5534 39.5335;
1647 24.7029 -28.5534 34.7335; 1648 24.3779 -28.5534 34.7335;
1649 26.0029 -28.5534 34.7335; 1650 25.3529 -28.5534 34.7335;
1651 27.303 -28.5534 37.1335; 1652 27.303 -28.5534 35.9335;
1653 28.428 -28.5534 39.5335; 1654 28.428 -28.5534 34.7335;
1655 29.553 -28.5534 39.5335; 1656 29.553 -28.5534 34.7335;
1657 31.803 -28.5534 38.3335; 1658 -26.772 -28.5534 32.6585;
1659 -23.3971 -28.5534 33.696; 1660 -21.4471 -28.5534 32.9335;
1661 -20.4721 -28.5534 32.9335; 1662 -17.5471 -28.5534 32.9335;
1663 -16.5721 -28.5534 32.9335; 1664 -10.7221 -28.5534 32.9335;
1665 -13.6471 -28.5534 32.9335; 1666 -12.6721 -28.5534 32.9335;
1667 -6.8221 -28.5534 32.9335; 1668 -9.7471 -28.5534 32.9335;
1669 -8.7721 -28.5534 32.9335; 1670 -2.9221 -28.5534 32.9335;
1671 -5.8471 -28.5534 32.9335; 1672 -4.8721 -28.5534 32.9335;
1673 -2.8195 -28.5534 32.9335; 1674 -1.9471 -28.5534 32.9335;
1675 -0.9721 -28.5534 32.9335; 1676 4.8779 -28.5534 32.9335;
1677 8.7779 -28.5534 32.9335; 1678 5.8529 -28.5534 32.9335;
1679 6.8279 -28.5534 32.9335; 1680 12.6779 -28.5534 32.9335;
1681 9.7529 -28.5534 32.9335; 1682 10.7279 -28.5534 32.9335;
1683 16.5779 -28.5534 32.9335; 1684 13.6529 -28.5534 32.9335;
1685 14.6279 -28.5534 32.9335; 1686 20.4779 -28.5534 32.9335;
1687 17.5529 -28.5534 32.9335; 1688 18.5279 -28.5534 32.9335;
1689 21.4529 -28.5534 32.9335; 1690 22.4279 -28.5534 32.9335;
1691 24.3779 -28.5534 32.9335; 1692 25.3529 -28.5534 32.9335;
1693 27.303 -28.5534 33.8335; 1694 30.678 -28.5534 32.6585;
1695 -29.797 -28.5534 34.7335; 1696 -23.3971 -28.5534 31.896;
1697 -23.3971 -28.5534 31.1335; 1698 -27.897 -25.3534 23.9335;
1699 -25.647 -25.3534 22.7335; 1700 -27.897 -25.3534 26.5335;
1701 -25.647 -25.3534 27.5335; 1702 -24.5221 -25.3534 22.7335;
1703 -24.5221 -25.3534 27.5335; 1704 -23.3971 -25.3534 25.1335;
1705 -23.3971 -25.3534 26.3335; 1706 -20.7971 -25.3534 22.7335;
1707 -22.0971 -25.3534 27.5335; 1708 -22.4221 -25.3534 27.5335;
1709 -20.7971 -25.3534 27.5335; 1710 -21.4471 -25.3534 27.5335;
1711 -19.4971 -25.3534 25.1335; 1712 -19.4971 -25.3534 26.3335;
1713 -16.8971 -25.3534 22.7335; 1714 -18.1971 -25.3534 27.5335;
1715 -17.5471 -25.3534 27.5335; 1716 -16.8971 -25.3534 27.5335;
1717 -16.5721 -25.3534 27.5335; 1718 -15.5977 -25.3534 25.1335;
1719 -15.5977 -25.3534 26.3335; 1720 -10.3971 -25.3534 22.7335;
1721 -10.7221 -25.3534 27.5335; 1722 -12.9971 -25.3534 22.7335;
1723 -14.2971 -25.3534 27.5335; 1724 -14.6221 -25.3534 27.5335;
1725 -12.9971 -25.3534 27.5335; 1726 -13.6471 -25.3534 27.5335;
1727 -6.4971 -25.3534 22.7335; 1728 -9.0971 -25.3534 22.7335;
1729 -10.3971 -25.3534 27.5335; 1730 -9.7471 -25.3534 27.5335;
1731 -9.0971 -25.3534 27.5335; 1732 -8.7721 -25.3534 27.5335;
1733 -2.5971 -25.3534 22.7335; 1734 -5.1971 -25.3534 22.7335;
1735 -6.4971 -25.3534 27.5335; 1736 -6.8221 -25.3534 27.5335;
1737 -5.1971 -25.3534 27.5335; 1738 -5.8471 -25.3534 27.5335;
1739 1.3029 -25.3534 22.7335; 1740 -1.2971 -25.3534 22.7335;
1741 -2.5971 -25.3534 27.5335; 1742 -2.9221 -25.3534 27.5335;
1743 -1.2971 -25.3534 27.5335; 1744 -1.9471 -25.3534 27.5335;
1745 5.2029 -25.3534 22.7335; 1746 2.6029 -25.3534 22.7335;
1747 1.3029 -25.3534 27.5335; 1748 0.9779 -25.3534 27.5335;
1749 2.6029 -25.3534 27.5335; 1750 1.9529 -25.3534 27.5335;
1751 9.1029 -25.3534 22.7335; 1752 8.7779 -25.3534 27.5335;
1753 6.5029 -25.3534 22.7335; 1754 5.2029 -25.3534 27.5335;
1755 4.8779 -25.3534 27.5335; 1756 6.5029 -25.3534 27.5335;
1757 5.8529 -25.3534 27.5335; 1758 13.0029 -25.3534 22.7335;
1759 10.4029 -25.3534 22.7335; 1760 9.1029 -25.3534 27.5335;
1761 9.7529 -25.3534 27.5335; 1762 10.4029 -25.3534 27.5335;
1763 10.7279 -25.3534 27.5335; 1764 16.9029 -25.3534 22.7335;
1765 14.3029 -25.3534 22.7335; 1766 13.0029 -25.3534 27.5335;
1767 12.6779 -25.3534 27.5335; 1768 14.3029 -25.3534 27.5335;
1769 13.6529 -25.3534 27.5335; 1770 20.8029 -25.3534 22.7335;
1771 18.2029 -25.3534 22.7335; 1772 16.9029 -25.3534 27.5335;
1773 16.5779 -25.3534 27.5335; 1774 18.2029 -25.3534 27.5335;
1775 17.5529 -25.3534 27.5335; 1776 24.7029 -25.3534 22.7335;
1777 22.1029 -25.3534 22.7335; 1778 20.8029 -25.3534 27.5335;
1779 20.4779 -25.3534 27.5335; 1780 22.1029 -25.3534 27.5335;
1781 21.4529 -25.3534 27.5335; 1782 26.0029 -25.3534 22.7335;
1783 24.7029 -25.3534 27.5335; 1784 24.3779 -25.3534 27.5335;
1785 26.0029 -25.3534 27.5335; 1786 25.3529 -25.3534 27.5335;
1787 27.303 -25.3534 25.1335; 1788 27.303 -25.3534 26.3335;
1789 29.553 -25.3534 22.7335; 1790 28.428 -25.3534 27.5335;
1791 30.678 -25.3534 22.7335; 1792 29.553 -25.3534 27.5335;
1793 31.803 -25.3534 25.1335; 1794 31.803 -25.3534 25.5335;
1795 31.803 -25.3534 26.3335; 1796 -26.772 -25.3534 29.6085;
1797 -24.5221 -25.3534 29.6085; 1798 -23.3971 -25.3534 28.571;
1799 -21.4471 -25.3534 29.3335; 1800 -20.4721 -25.3534 29.3335;

1801 -19.4971 -25.3534 29.3335; 1802 -18.5221 -25.3534 29.3335;
1803 -17.5471 -25.3534 29.3335; 1804 -14.6221 -25.3534 29.3335;
1805 -13.6471 -25.3534 29.3335; 1806 -10.7221 -25.3534 29.3335;
1807 -9.7471 -25.3534 29.3335; 1808 -6.8221 -25.3534 29.3335;
1809 -5.8471 -25.3534 29.3335; 1810 -2.9221 -25.3534 29.3335;
1811 -1.9471 -25.3534 29.3335; 1812 -2.8183 -25.3534 29.3335;
1813 0.9779 -25.3534 29.3335; 1814 1.9529 -25.3534 29.3335;
1815 4.8779 -25.3534 29.3335; 1816 5.8529 -25.3534 29.3335;
1817 8.7779 -25.3534 29.3335; 1818 9.7529 -25.3534 29.3335;
1819 12.6779 -25.3534 29.3335; 1820 13.6529 -25.3534 29.3335;
1821 16.5779 -25.3534 29.3335; 1822 17.5529 -25.3534 29.3335;
1823 20.4779 -25.3534 29.3335; 1824 21.4529 -25.3534 29.3335;
1825 24.3779 -25.3534 29.3335; 1826 25.3529 -25.3534 29.3335;
1827 27.303 -25.3534 28.571; 1828 28.128 -25.3534 29.6085;
1829 29.553 -25.3534 29.6085; 1830 -29.797 -25.3534 27.5335;
1831 -24.5221 -25.3534 32.6585; 1832 3.8994 -25.3534 30.5335;
1833 2.9245 -25.3534 32.9335; 1834 1.9497 -25.3534 32.9335;
1835 0.9749 -25.3534 32.9335; 1836 28.428 -25.3534 32.6585;
1837 27.303 -25.3534 31.1335; 1838 27.303 -25.3534 30.371;
1839 31.803 -25.3534 35.7335; 1840 -27.897 -25.3534 37.1335;
1841 -26.772 -25.3534 39.5335; 1842 -27.897 -25.3534 35.9335;
1843 -25.647 -25.3534 34.7335; 1844 -25.647 -25.3534 39.5335;
1845 -24.5221 -25.3534 34.7335; 1846 -23.3971 -25.3534 38.3335;
1847 -23.3971 -25.3534 37.1335; 1848 -22.0971 -25.3534 39.5335;
1849 -22.0971 -25.3534 34.7335; 1850 -22.4221 -25.3534 34.7335;
1851 -20.7971 -25.3534 34.7335; 1852 -21.4471 -25.3534 34.7335;
1853 -19.4971 -25.3534 38.3335; 1854 -19.4971 -25.3534 37.1335;
1855 -18.1971 -25.3534 39.5335; 1856 -18.1971 -25.3534 34.7335;
1857 -18.5221 -25.3534 34.7335; 1858 -16.8971 -25.3534 34.7335;
1859 -17.5471 -25.3534 34.7335; 1860 -15.5977 -25.3534 38.3335;
1861 -15.5977 -25.3534 37.1335; 1862 -14.2971 -25.3534 39.5335;
1863 -14.2971 -25.3534 34.7335; 1864 -14.6221 -25.3534 34.7335;
1865 -12.9971 -25.3534 34.7335; 1866 -13.6471 -25.3534 34.7335;
1867 -10.3971 -25.3534 39.5335; 1868 -10.3971 -25.3534 34.7335;
1869 -10.7221 -25.3534 34.7335; 1870 -9.0971 -25.3534 34.7335;
1871 -9.7471 -25.3534 34.7335; 1872 -6.4971 -25.3534 39.5335;
1873 -6.4971 -25.3534 34.7335; 1874 -6.8221 -25.3534 34.7335;
1875 -5.1971 -25.3534 34.7335; 1876 -5.8471 -25.3534 34.7335;
1877 -2.5971 -25.3534 39.5335; 1878 -2.5971 -25.3534 34.7335;
1879 -2.9221 -25.3534 34.7335; 1880 -1.2971 -25.3534 34.7335;
1881 -1.9471 -25.3534 34.7335; 1882 1.3029 -25.3534 39.5335;
1883 1.3029 -25.3534 34.7335; 1884 0.9779 -25.3534 34.7335;
1885 2.6029 -25.3534 34.7335; 1886 1.9529 -25.3534 34.7335;
1887 5.2029 -25.3534 39.5335; 1888 5.2029 -25.3534 34.7335;
1889 4.8779 -25.3534 34.7335; 1890 6.5029 -25.3534 34.7335;
1891 5.8529 -25.3534 34.7335; 1892 9.1029 -25.3534 39.5335;
1893 9.1029 -25.3534 34.7335; 1894 8.7779 -25.3534 34.7335;
1895 10.4029 -25.3534 34.7335; 1896 9.7529 -25.3534 34.7335;
1897 13.0029 -25.3534 39.5335; 1898 13.0029 -25.3534 34.7335;
1899 12.6779 -25.3534 34.7335; 1900 14.3029 -25.3534 34.7335;
1901 13.6529 -25.3534 34.7335; 1902 16.9029 -25.3534 39.5335;
1903 16.9029 -25.3534 34.7335; 1904 16.5779 -25.3534 34.7335;
1905 18.2029 -25.3534 34.7335; 1906 17.5529 -25.3534 34.7335;
1907 20.8029 -25.3534 39.5335; 1908 20.8029 -25.3534 34.7335;
1909 20.4779 -25.3534 34.7335; 1910 22.1029 -25.3534 34.7335;
1911 21.4529 -25.3534 34.7335; 1912 24.7029 -25.3534 39.5335;
1913 24.7029 -25.3534 34.7335; 1914 24.3779 -25.3534 34.7335;
1915 26.0029 -25.3534 34.7335; 1916 25.3529 -25.3534 34.7335;
1917 27.303 -25.3534 37.1335; 1918 27.303 -25.3534 35.9335;
1919 28.428 -25.3534 39.5335; 1920 28.428 -25.3534 34.7335;
1921 29.553 -25.3534 39.5335; 1922 29.553 -25.3534 34.7335;
1923 31.803 -25.3534 38.3335; 1924 -26.772 -25.3534 32.6585;
1925 -23.3971 -25.3534 33.696; 1926 -21.4471 -25.3534 32.9335;
1927 -20.4721 -25.3534 32.9335; 1928 -17.5471 -25.3534 32.9335;
1929 -16.5721 -25.3534 32.9335; 1930 -10.7221 -25.3534 32.9335;
1931 -13.6471 -25.3534 32.9335; 1932 -12.6721 -25.3534 32.9335;
1933 -6.8221 -25.3534 32.9335; 1934 -9.7471 -25.3534 32.9335;
1935 -8.7721 -25.3534 32.9335; 1936 -2.9221 -25.3534 32.9335;
1937 -5.8471 -25.3534 32.9335; 1938 -4.8721 -25.3534 32.9335;
1939 -2.8183 -25.3534 32.9335; 1940 -1.9471 -25.3534 32.9335;
1941 -0.9721 -25.3534 32.9335; 1942 4.8779 -25.3534 32.9335;
1943 8.7779 -25.3534 32.9335; 1944 5.8529 -25.3534 32.9335;
1945 6.8279 -25.3534 32.9335; 1946 12.6779 -25.3534 32.9335;
1947 9.7529 -25.3534 32.9335; 1948 10.7279 -25.3534 32.9335;
1949 16.5779 -25.3534 32.9335; 1950 13.6529 -25.3534 32.9335;
1951 14.6279 -25.3534 32.9335; 1952 20.4779 -25.3534 32.9335;
1953 17.5529 -25.3534 32.9335; 1954 18.5279 -25.3534 32.9335;
1955 21.4529 -25.3534 32.9335; 1956 22.4279 -25.3534 32.9335;
1957 24.3779 -25.3534 32.9335; 1958 25.3529 -25.3534 32.9335;
1959 27.303 -25.3534 33.8335; 1960 30.678 -25.3534 32.6585;
1961 -29.797 -25.3534 34.7335; 1962 -23.3971 -25.3534 31.896;
1963 -23.3971 -25.3534 31.1335; 1964 -25.4033 -28.7534 31.1335;

1965 -25.7595 -28.9534 31.1335; 1966 -25.7595 -28.9534 32.6585;
1967 -26.1158 -29.1534 31.1335; 1968 -26.1158 -29.1534 32.6585;
1969 -26.472 -29.3534 31.1335; 1970 -26.472 -29.3534 32.6585;
1971 -26.8282 -29.5534 31.1335; 1972 -26.8282 -29.5534 32.6585;
1973 -27.1845 -29.7534 31.1335; 1974 -27.1845 -29.7534 32.6585;
1975 -25.7595 -31.3534 29.6085; 1976 -26.1158 -31.1534 29.6085;
1977 -26.472 -30.9534 29.6085; 1978 -26.8282 -30.7534 29.6085;
1979 -27.1845 -30.5534 29.6085; 1980 -27.5407 -30.3534 29.6085;
1981 -25.4033 -25.5534 31.1335; 1982 -25.4033 -25.5534 32.6585;
1983 -25.7595 -25.7534 31.1335; 1984 -25.7595 -25.7534 32.6585;
1985 -26.1158 -25.9534 31.1335; 1986 -26.1158 -25.9534 32.6585;
1987 -26.472 -26.1534 31.1335; 1988 -26.472 -26.1534 32.6585;
1989 -26.8282 -26.3534 31.1335; 1990 -26.8282 -26.3534 32.6585;
1991 -27.1845 -26.5534 31.1335; 1992 -27.1845 -26.5534 32.6585;
1993 -25.7595 -28.1534 29.6085; 1994 -25.4033 -28.3534 31.1335;
1995 -26.1158 -27.9534 29.6085; 1996 -25.7595 -28.1534 31.1335;
1997 -26.472 -27.7534 29.6085; 1998 -26.1158 -27.9534 31.1335;
1999 -26.8282 -27.5534 29.6085; 2000 -26.472 -27.7534 31.1335;
2001 -27.1845 -27.3534 29.6085; 2002 -26.8282 -27.5534 31.1335;
2003 -27.5407 -27.1534 29.6085; 2004 -27.1845 -27.3534 31.1335;
2005 -28.297 -26.9534 29.6085; 2006 -28.297 -26.9534 32.6585;
2007 -28.697 -26.9534 29.6085; 2008 -28.697 -26.9534 32.6585;
2009 -3.8995 -22.1534 29.3335; 2010 -3.8983 -23.7534 29.3335;
2011 -3.8995 -22.1534 32.9335; 2012 -3.8983 -23.7534 32.9335;
2013 -2.8183 -23.7534 32.9335; 2014 -2.8183 -23.7534 29.3335;
2015 -2.8183 -23.7534 31.1335; 2016 0.0015 -22.1534 31.1335;
2017 0.0029 -22.1534 29.3335; 2018 -2.8195 -36.1534 32.9335;
2019 -2.8195 -36.1534 29.3335; 2020 -26.772 -22.1534 22.7335;
2021 31.803 -22.1534 23.9335; 2022 31.803 -22.1534 33.696;
2023 30.678 -22.1534 39.5335; 2024 -27.897 -22.1534 38.3335;
2025 -27.897 -22.1534 28.571; 2026 -23.3971 -22.1534 23.9335;
2027 -19.4971 -22.1534 23.9335; 2028 -19.4971 -22.1534 32.9335;
2029 -19.4971 -22.1534 33.8335; 2030 27.303 -22.1534 23.9335;
2031 27.303 -22.1534 32.9335; 2032 27.303 -22.1534 33.696;
2033 -15.5977 -22.1534 23.9335; 2034 -15.5977 -22.1534 32.9335;
2035 -15.5977 -22.1534 33.8335; 2036 -11.6983 -22.1534 32.9335;
2037 -7.7989 -22.1534 32.9335; 2038 0 -22.1534 32.9335;
2039 3.8994 -22.1534 32.9335; 2040 7.7988 -22.1534 32.9335;
2041 11.6982 -22.1534 32.9335; 2042 15.5976 -22.1534 32.9335;
2043 19.497 -22.1534 32.9335; 2044 23.3964 -22.1534 32.9335;
2045 -26.772 -22.1534 27.5335; 2046 30.678 -22.1534 34.7335;
2047 -23.3971 -22.1534 29.3335; 2048 -22.4221 -22.1534 29.3335;
2049 26.3279 -22.1534 32.9335; 2050 -23.3971 -22.1534 32.9335;
2051 -28.847 -22.1534 27.5335; 2052 -28.847 -22.1534 34.7335;
2053 -27.897 -22.1534 25.5335; 2054 -28.847 -22.1534 25.5335;
2055 -27.897 -22.1534 36.7335; 2056 -28.847 -22.1534 36.7335;
2057 -29.797 -22.1534 26.5335; 2058 -29.797 -22.1534 32.6585;
2059 -29.797 -22.1534 33.696; 2060 33.703 -22.1534 29.6085;
2061 33.703 -22.1534 32.6585; 2062 33.703 -22.1534 27.5335;
2063 32.753 -22.1534 27.5335; 2064 33.703 -22.1534 34.7335;
2065 32.753 -22.1534 34.7335; 2066 32.753 -22.1534 25.5335;
2067 32.753 -22.1534 36.7335; 2068 33.703 -22.1534 26.5335;
2069 33.703 -22.1534 33.696; 2070 -27.897 -22.1534 26.3335;
2071 -28.7304 -22.1534 29.6085; 2072 -29.797 -22.1534 29.6085;
2073 -29.797 -22.1534 28.571; 2074 -28.847 -22.1534 32.6585;
2075 -27.897 -22.1534 33.696; 2076 -27.897 -22.1534 35.7335;
2077 -29.797 -22.1534 35.7335; 2078 -26.772 -22.1534 34.7335;
2079 -23.3971 -22.1534 35.9335; 2080 -24.5221 -22.1534 39.5335;
2081 -23.3971 -22.1534 28.4335; 2082 -22.0971 -22.1534 22.7335;
2083 -20.4721 -22.1534 27.5335; 2084 -19.4971 -22.1534 28.4335;
2085 -18.5221 -22.1534 27.5335; 2086 -15.5977 -22.1534 28.4335;
2087 -15.5977 -22.1534 29.3335; 2088 -16.5721 -22.1534 29.3335;
2089 -18.1971 -22.1534 22.7335; 2090 -12.6721 -22.1534 27.5335;
2091 -14.2971 -22.1534 22.7335; 2092 -11.6983 -22.1534 29.3335;
2093 -12.6721 -22.1534 29.3335; 2094 -7.7989 -22.1534 29.3335;
2095 -8.7721 -22.1534 29.3335; 2096 -4.8721 -22.1534 27.5335;
2097 -4.8721 -22.1534 29.3335; 2098 -0.9721 -22.1534 27.5335;
2099 -0.9721 -22.1534 29.3335; 2100 2.9279 -22.1534 27.5335;
2101 3.8994 -22.1534 29.3335; 2102 2.9279 -22.1534 29.3335;
2103 6.8279 -22.1534 27.5335; 2104 7.7988 -22.1534 29.3335;
2105 6.8279 -22.1534 29.3335; 2106 11.6982 -22.1534 29.3335;
2107 10.7279 -22.1534 29.3335; 2108 14.6279 -22.1534 27.5335;
2109 18.5279 -22.1534 27.5335; 2110 15.5976 -22.1534 29.3335;
2111 14.6279 -22.1534 29.3335; 2112 19.497 -22.1534 29.3335;
2113 18.5279 -22.1534 29.3335; 2114 22.4279 -22.1534 27.5335;
2115 23.3964 -22.1534 29.3335; 2116 22.4279 -22.1534 29.3335;
2117 26.3279 -22.1534 27.5335; 2118 27.303 -22.1534 28.4335;
2119 27.303 -22.1534 29.3335; 2120 26.3279 -22.1534 29.3335;
2121 28.428 -22.1534 22.7335; 2122 30.678 -22.1534 27.5335;
2123 31.803 -22.1534 28.571; 2124 31.5697 -22.1534 29.6085;
2125 31.803 -22.1534 26.5335; 2126 33.703 -22.1534 28.571;
2127 32.753 -22.1534 29.6085; 2128 32.6363 -22.1534 32.6585;

2129 33.703 -22.1534 35.7335; 2130 31.803 -22.1534 36.7335;
2131 31.803 -22.1534 35.9335; 2132 27.303 -22.1534 38.3335;
2133 26.3279 -22.1534 34.7335; 2134 26.0029 -22.1534 39.5335;
2135 22.4279 -22.1534 34.7335; 2136 22.1029 -22.1534 39.5335;
2137 18.5279 -22.1534 34.7335; 2138 18.2029 -22.1534 39.5335;
2139 14.6279 -22.1534 34.7335; 2140 14.3029 -22.1534 39.5335;
2141 10.7279 -22.1534 34.7335; 2142 3.8994 -22.1534 31.7335;
2143 10.4029 -22.1534 39.5335; 2144 6.8279 -22.1534 34.7335;
2145 6.5029 -22.1534 39.5335; 2146 2.9279 -22.1534 34.7335;
2147 2.6029 -22.1534 39.5335; 2148 -0.9721 -22.1534 34.7335;
2149 -1.2971 -22.1534 39.5335; 2150 -4.8721 -22.1534 34.7335;
2151 -8.7721 -22.1534 34.7335; 2152 -14.6221 -22.1534 32.9335;
2153 -12.6721 -22.1534 34.7335; 2154 -18.5221 -22.1534 32.9335;
2155 -16.5721 -22.1534 34.7335; 2156 -22.4221 -22.1534 32.9335;
2157 -20.4721 -22.1534 34.7335; 2158 -23.3971 -22.1534 33.8335;
2159 -19.4971 -22.1534 35.9335; 2160 -20.7971 -22.1534 39.5335;
2161 -15.5977 -22.1534 35.9335; 2162 -16.8971 -22.1534 39.5335;
2163 -12.9971 -22.1534 39.5335; 2164 -5.1971 -22.1534 39.5335;
2165 -9.0971 -22.1534 39.5335; 2166 -23.3971 -22.1534 30.371;
2167 31.803 -22.1534 37.1335; 2168 -27.897 -22.1534 25.1335;
2169 -27.897 -22.1534 23.9335; 2170 -25.647 -22.1534 22.7335;
2171 -27.897 -22.1534 26.5335; 2172 -25.647 -22.1534 27.5335;
2173 -24.5221 -22.1534 22.7335; 2174 -24.5221 -22.1534 27.5335;
2175 -23.3971 -22.1534 25.1335; 2176 -23.3971 -22.1534 26.3335;
2177 -20.7971 -22.1534 22.7335; 2178 -22.0971 -22.1534 27.5335;
2179 -22.4221 -22.1534 27.5335; 2180 -20.7971 -22.1534 27.5335;
2181 -21.4471 -22.1534 27.5335; 2182 -19.4971 -22.1534 25.1335;
2183 -19.4971 -22.1534 26.3335; 2184 -16.8971 -22.1534 22.7335;
2185 -18.1971 -22.1534 27.5335; 2186 -17.5471 -22.1534 27.5335;
2187 -16.8971 -22.1534 27.5335; 2188 -16.5721 -22.1534 27.5335;
2189 -15.5977 -22.1534 25.1335; 2190 -15.5977 -22.1534 26.3335;
2191 -10.3971 -22.1534 22.7335; 2192 -10.7221 -22.1534 27.5335;
2193 -12.9971 -22.1534 22.7335; 2194 -14.2971 -22.1534 27.5335;
2195 -14.6221 -22.1534 27.5335; 2196 -12.9971 -22.1534 27.5335;
2197 -13.6471 -22.1534 27.5335; 2198 -6.4971 -22.1534 22.7335;
2199 -9.0971 -22.1534 22.7335; 2200 -10.3971 -22.1534 27.5335;
2201 -9.7471 -22.1534 27.5335; 2202 -9.0971 -22.1534 27.5335;
2203 -8.7721 -22.1534 27.5335; 2204 -2.5971 -22.1534 22.7335;
2205 -5.1971 -22.1534 22.7335; 2206 -6.4971 -22.1534 27.5335;
2207 -6.8221 -22.1534 27.5335; 2208 -5.1971 -22.1534 27.5335;
2209 -5.8471 -22.1534 27.5335; 2210 1.3029 -22.1534 22.7335;
2211 -1.2971 -22.1534 22.7335; 2212 -2.5971 -22.1534 27.5335;
2213 -2.9221 -22.1534 27.5335; 2214 -1.2971 -22.1534 27.5335;
2215 -1.9471 -22.1534 27.5335; 2216 5.2029 -22.1534 22.7335;
2217 2.6029 -22.1534 22.7335; 2218 1.3029 -22.1534 27.5335;
2219 0.9779 -22.1534 27.5335; 2220 2.6029 -22.1534 27.5335;
2221 1.9529 -22.1534 27.5335; 2222 9.1029 -22.1534 22.7335;
2223 8.7779 -22.1534 27.5335; 2224 6.5029 -22.1534 22.7335;
2225 5.2029 -22.1534 27.5335; 2226 4.8779 -22.1534 27.5335;
2227 6.5029 -22.1534 27.5335; 2228 5.8529 -22.1534 27.5335;
2229 13.0029 -22.1534 22.7335; 2230 10.4029 -22.1534 22.7335;
2231 9.1029 -22.1534 27.5335; 2232 9.7529 -22.1534 27.5335;
2233 10.4029 -22.1534 27.5335; 2234 10.7279 -22.1534 27.5335;
2235 16.9029 -22.1534 22.7335; 2236 14.3029 -22.1534 22.7335;
2237 13.0029 -22.1534 27.5335; 2238 12.6779 -22.1534 27.5335;
2239 14.3029 -22.1534 27.5335; 2240 13.6529 -22.1534 27.5335;
2241 20.8029 -22.1534 22.7335; 2242 18.2029 -22.1534 22.7335;
2243 16.9029 -22.1534 27.5335; 2244 16.5779 -22.1534 27.5335;
2245 18.2029 -22.1534 27.5335; 2246 17.5529 -22.1534 27.5335;
2247 24.7029 -22.1534 22.7335; 2248 22.1029 -22.1534 22.7335;
2249 20.8029 -22.1534 27.5335; 2250 20.4779 -22.1534 27.5335;
2251 22.1029 -22.1534 27.5335; 2252 21.4529 -22.1534 27.5335;
2253 26.0029 -22.1534 22.7335; 2254 24.7029 -22.1534 27.5335;
2255 24.3779 -22.1534 27.5335; 2256 26.0029 -22.1534 27.5335;
2257 25.3529 -22.1534 27.5335; 2258 27.303 -22.1534 25.1335;
2259 27.303 -22.1534 26.3335; 2260 29.553 -22.1534 22.7335;
2261 28.428 -22.1534 27.5335; 2262 30.678 -22.1534 22.7335;
2263 29.553 -22.1534 27.5335; 2264 31.803 -22.1534 25.1335;
2265 31.803 -22.1534 25.5335; 2266 31.803 -22.1534 26.3335;
2267 -26.772 -22.1534 29.6085; 2268 -27.6637 -22.1534 29.6085;
2269 -25.647 -22.1534 29.6085; 2270 -26.597 -22.1534 29.6085;
2271 -23.3971 -22.1534 28.571; 2272 -21.4471 -22.1534 29.3335;
2273 -20.4721 -22.1534 29.3335; 2274 -19.4971 -22.1534 29.3335;
2275 -18.5221 -22.1534 29.3335; 2276 -17.5471 -22.1534 29.3335;
2277 -14.6221 -22.1534 29.3335; 2278 -13.6471 -22.1534 29.3335;
2279 -10.7221 -22.1534 29.3335; 2280 -9.7471 -22.1534 29.3335;
2281 -6.8221 -22.1534 29.3335; 2282 -5.8471 -22.1534 29.3335;
2283 -2.9221 -22.1534 29.3335; 2284 -1.9471 -22.1534 29.3335;
2285 0.9779 -22.1534 29.3335; 2286 1.9529 -22.1534 29.3335;
2287 4.8779 -22.1534 29.3335; 2288 5.8529 -22.1534 29.3335;
2289 8.7779 -22.1534 29.3335; 2290 9.7529 -22.1534 29.3335;
2291 12.6779 -22.1534 29.3335; 2292 13.6529 -22.1534 29.3335;

2293 16.5779 -22.1534 29.3335; 2294 17.5529 -22.1534 29.3335;
2295 20.4779 -22.1534 29.3335; 2296 21.4529 -22.1534 29.3335;
2297 24.3779 -22.1534 29.3335; 2298 25.3529 -22.1534 29.3335;
2299 27.303 -22.1534 28.571; 2300 30.678 -22.1534 29.6085;
2301 30.503 -22.1534 29.6085; 2302 -29.797 -22.1534 27.5335;
2303 -28.847 -22.1534 29.6085; 2304 32.6363 -22.1534 29.6085;
2305 3.8994 -22.1534 30.5335; 2306 2.9245 -22.1534 32.9335;
2307 1.9497 -22.1534 32.9335; 2308 0.9749 -22.1534 32.9335;
2309 31.803 -22.1534 35.7335; 2310 32.753 -22.1534 32.6585;
2311 -27.897 -22.1534 37.1335; 2312 -26.772 -22.1534 39.5335;
2313 -27.897 -22.1534 35.9335; 2314 -25.647 -22.1534 34.7335;
2315 -25.647 -22.1534 39.5335; 2316 -24.5221 -22.1534 34.7335;
2317 -23.3971 -22.1534 38.3335; 2318 -23.3971 -22.1534 37.1335;
2319 -22.0971 -22.1534 39.5335; 2320 -22.0971 -22.1534 34.7335;
2321 -22.4221 -22.1534 34.7335; 2322 -20.7971 -22.1534 34.7335;
2323 -21.4471 -22.1534 34.7335; 2324 -19.4971 -22.1534 38.3335;
2325 -19.4971 -22.1534 37.1335; 2326 -18.1971 -22.1534 39.5335;
2327 -18.1971 -22.1534 34.7335; 2328 -18.5221 -22.1534 34.7335;
2329 -16.8971 -22.1534 34.7335; 2330 -17.5471 -22.1534 34.7335;
2331 -15.5977 -22.1534 38.3335; 2332 -15.5977 -22.1534 37.1335;
2333 -14.2971 -22.1534 39.5335; 2334 -14.2971 -22.1534 34.7335;
2335 -14.6221 -22.1534 34.7335; 2336 -12.9971 -22.1534 34.7335;
2337 -13.6471 -22.1534 34.7335; 2338 -10.3971 -22.1534 39.5335;
2339 -10.3971 -22.1534 34.7335; 2340 -10.7221 -22.1534 34.7335;
2341 -9.0971 -22.1534 34.7335; 2342 -9.7471 -22.1534 34.7335;
2343 -6.4971 -22.1534 39.5335; 2344 -6.4971 -22.1534 34.7335;
2345 -6.8221 -22.1534 34.7335; 2346 -5.1971 -22.1534 34.7335;
2347 -5.8471 -22.1534 34.7335; 2348 -2.5971 -22.1534 39.5335;
2349 -2.5971 -22.1534 34.7335; 2350 -2.9221 -22.1534 34.7335;
2351 -1.2971 -22.1534 34.7335; 2352 -1.9471 -22.1534 34.7335;
2353 1.3029 -22.1534 39.5335; 2354 1.3029 -22.1534 34.7335;
2355 0.9779 -22.1534 34.7335; 2356 2.6029 -22.1534 34.7335;
2357 1.9529 -22.1534 34.7335; 2358 5.2029 -22.1534 39.5335;
2359 5.2029 -22.1534 34.7335; 2360 4.8779 -22.1534 34.7335;
2361 6.5029 -22.1534 34.7335; 2362 5.8529 -22.1534 34.7335;
2363 9.1029 -22.1534 39.5335; 2364 9.1029 -22.1534 34.7335;
2365 8.7779 -22.1534 34.7335; 2366 10.4029 -22.1534 34.7335;
2367 9.7529 -22.1534 34.7335; 2368 13.0029 -22.1534 39.5335;
2369 13.0029 -22.1534 34.7335; 2370 12.6779 -22.1534 34.7335;
2371 14.3029 -22.1534 34.7335; 2372 13.6529 -22.1534 34.7335;
2373 16.9029 -22.1534 39.5335; 2374 16.9029 -22.1534 34.7335;
2375 16.5779 -22.1534 34.7335; 2376 18.2029 -22.1534 34.7335;
2377 17.5529 -22.1534 34.7335; 2378 20.8029 -22.1534 39.5335;
2379 20.8029 -22.1534 34.7335; 2380 20.4779 -22.1534 34.7335;
2381 22.1029 -22.1534 34.7335; 2382 21.4529 -22.1534 34.7335;
2383 24.7029 -22.1534 39.5335; 2384 24.7029 -22.1534 34.7335;
2385 24.3779 -22.1534 34.7335; 2386 26.0029 -22.1534 34.7335;
2387 25.3529 -22.1534 34.7335; 2388 27.303 -22.1534 37.1335;
2389 27.303 -22.1534 35.9335; 2390 28.428 -22.1534 39.5335;
2391 28.428 -22.1534 34.7335; 2392 29.553 -22.1534 39.5335;
2393 29.553 -22.1534 34.7335; 2394 31.803 -22.1534 38.3335;
2395 -26.772 -22.1534 32.6585; 2396 -27.6637 -22.1534 32.6585;
2397 -25.647 -22.1534 32.6585; 2398 -26.597 -22.1534 32.6585;
2399 -23.3971 -22.1534 33.696; 2400 -21.4471 -22.1534 32.9335;
2401 -20.4721 -22.1534 32.9335; 2402 -17.5471 -22.1534 32.9335;
2403 -16.5721 -22.1534 32.9335; 2404 -10.7221 -22.1534 32.9335;
2405 -13.6471 -22.1534 32.9335; 2406 -12.6721 -22.1534 32.9335;
2407 -6.8221 -22.1534 32.9335; 2408 -9.7471 -22.1534 32.9335;
2409 -8.7721 -22.1534 32.9335; 2410 -2.9221 -22.1534 32.9335;
2411 -5.8471 -22.1534 32.9335; 2412 -4.8721 -22.1534 32.9335;
2413 -1.9471 -22.1534 32.9335; 2414 -0.9721 -22.1534 32.9335;
2415 4.8779 -22.1534 32.9335; 2416 8.7779 -22.1534 32.9335;
2417 5.8529 -22.1534 32.9335; 2418 6.8279 -22.1534 32.9335;
2419 12.6779 -22.1534 32.9335; 2420 9.7529 -22.1534 32.9335;
2421 10.7279 -22.1534 32.9335; 2422 16.5779 -22.1534 32.9335;
2423 13.6529 -22.1534 32.9335; 2424 14.6279 -22.1534 32.9335;
2425 20.4779 -22.1534 32.9335; 2426 17.5529 -22.1534 32.9335;
2427 18.5279 -22.1534 32.9335; 2428 21.4529 -22.1534 32.9335;
2429 22.4279 -22.1534 32.9335; 2430 24.3779 -22.1534 32.9335;
2431 25.3529 -22.1534 32.9335; 2432 27.303 -22.1534 33.8335;
2433 29.553 -22.1534 32.6585; 2434 30.503 -22.1534 32.6585;
2435 30.678 -22.1534 32.6585; 2436 31.5697 -22.1534 32.6585;
2437 -29.797 -22.1534 34.7335; 2438 -28.7304 -22.1534 32.6585;
2439 -23.3971 -22.1534 31.896; 2440 -23.3971 -22.1534 31.1335;
2441 -24.4637 -22.1534 29.6085; 2442 -24.5221 -22.1534 29.6085;
2443 -25.5304 -22.1534 29.6085; 2444 -24.4637 -22.1534 32.6585;
2445 -24.5221 -22.1534 32.6585; 2446 -25.5304 -22.1534 32.6585;
2447 27.303 -22.1534 30.371; 2448 28.3697 -22.1534 29.6085;
2449 28.428 -22.1534 29.6085; 2450 29.4363 -22.1534 29.6085;
2451 28.3697 -22.1534 32.6585; 2452 28.428 -22.1534 32.6585;
2453 29.4363 -22.1534 32.6585; 2454 29.553 -22.1534 29.6085;
2455 27.303 -22.1534 31.1335; 2456 27.303 -22.1534 31.896;

2457 -27.6831 -22.1534 37.1335; 2458 -27.6831 -21.9534 37.1335;
2459 -27.6831 -20.1534 37.1335; 2460 -27.6831 -21.9534 39.5335;
2461 -27.6831 -21.9534 36.4657; 2462 -27.6831 -21.9534 35.4013;
2463 -27.6831 -21.9534 34.7335; 2464 -27.6831 -22.1534 39.5335;
2465 -27.6831 -22.1534 34.7335; 2466 -27.6831 -21.9534 37.8013;
2467 -27.6831 -21.0534 38.3335; 2468 -27.6831 -21.0534 35.9335;
2469 -27.6831 -21.9534 38.8657; 2470 -27.6831 -21.6065 39.0709;
2471 -27.6831 -21.6065 35.1961; 2472 31.5891 -20.1534 37.1335;
2473 31.5891 -21.9534 39.5335; 2474 31.5891 -21.9534 34.7335;
2475 31.5891 -22.1534 39.5335; 2476 31.5891 -22.1534 34.7335;
2477 31.5891 -21.9534 37.8013; 2478 31.5891 -21.0534 38.3335;
2479 31.5891 -21.9534 36.4657; 2480 31.5891 -21.0534 35.9335;
2481 31.5891 -21.9534 38.8657; 2482 31.5891 -21.9534 35.4013;
2483 31.5891 -21.6065 39.0709; 2484 31.5891 -21.6065 35.1961;
2485 -25.5401 -22.1534 37.1335; 2486 -25.5401 -21.9534 37.1335;
2487 -25.5401 -20.1534 37.1335; 2488 -25.5401 -21.9534 39.5335;
2489 -25.5401 -21.9534 34.7335; 2490 -25.5401 -22.1534 39.5335;
2491 -25.5401 -22.1534 34.7335; 2492 -25.5401 -21.9534 37.8013;
2493 -25.5401 -21.0534 38.3335; 2494 -25.5401 -21.9534 36.4657;
2495 -25.5401 -21.0534 35.9335; 2496 -25.5401 -21.9534 38.8657;
2497 -25.5401 -21.9534 35.4013; 2498 -25.5401 -21.6065 39.0709;
2499 -25.5401 -21.6065 35.1961; 2500 23.3964 -22.1534 37.1335;
2501 23.3964 -21.9534 37.1335; 2502 23.3964 -20.1534 37.1335;
2503 23.3964 -21.9534 39.5335; 2504 23.3964 -21.9534 34.7335;
2505 23.3964 -21.9534 37.8013; 2506 23.3964 -21.0534 38.3335;
2507 23.3964 -21.9534 36.4657; 2508 23.3964 -21.0534 35.9335;
2509 23.3964 -21.9534 38.8657; 2510 23.3964 -21.9534 35.4013;
2511 23.3964 -21.6065 39.0709; 2512 23.3964 -21.6065 35.1961;
2513 1.95285 -22.1534 37.1335; 2514 1.9529 -21.9534 37.1335;
2515 1.95285 -20.1534 37.1335; 2516 1.9529 -21.9534 39.5335;
2517 1.9529 -21.9534 34.7335; 2518 1.9529 -22.1534 39.5335;
2519 1.9529 -21.9534 37.8013; 2520 1.95288 -21.0534 38.3335;
2521 1.9529 -21.9534 36.4657; 2522 1.95288 -21.0534 35.9335;
2523 1.9529 -21.9534 38.8657; 2524 1.9529 -21.9534 35.4013;
2525 1.95289 -21.6065 39.0709; 2526 1.95289 -21.6065 35.1961;
2527 -23.3971 -21.9534 37.1335; 2528 -23.3972 -20.1534 37.1335;
2529 -23.3971 -21.9534 39.5335; 2530 -23.3971 -21.9534 34.7335;
2531 -23.3971 -21.9534 37.8013; 2532 -23.3971 -21.0534 38.3335;
2533 -23.3971 -21.9534 36.4657; 2534 -23.3971 -21.0534 35.9335;
2535 -23.3971 -21.9534 38.8657; 2536 -23.3971 -21.9534 35.4013;
2537 -23.3971 -21.6065 39.0709; 2538 -23.3971 -21.6065 35.1961;
2539 -22.5401 -22.1534 37.1335; 2540 -22.54 -21.9534 37.1335;
2541 -22.5401 -20.1534 37.1335; 2542 -22.54 -21.9534 39.5335;
2543 -22.54 -21.9534 34.7335; 2544 -22.54 -22.1534 39.5335;
2545 -22.54 -22.1534 34.7335; 2546 -22.54 -21.9534 37.8013;
2547 -22.54 -21.0534 38.3335; 2548 -22.54 -21.9534 36.4657;
2549 -22.54 -21.0534 35.9335; 2550 -22.54 -21.9534 38.8657;
2551 -22.54 -21.9534 35.4013; 2552 -22.54 -21.6065 39.0709;
2553 -22.54 -21.6065 35.1961; 2554 -21.0401 -22.1534 37.1335;
2555 -21.04 -21.9534 37.1335; 2556 -21.0401 -20.1534 37.1335;
2557 -21.04 -21.9534 39.5335; 2558 -21.04 -21.9534 34.7335;
2559 -21.04 -22.1534 39.5335; 2560 -21.04 -22.1534 34.7335;
2561 -21.04 -21.9534 37.8013; 2562 -21.04 -21.0534 38.3335;
2563 -21.04 -21.9534 36.4657; 2564 -21.04 -21.0534 35.9335;
2565 -21.04 -21.9534 38.8657; 2566 -21.04 -21.9534 35.4013;
2567 -21.04 -21.6065 39.0709; 2568 -21.04 -21.6065 35.1961;
2569 -19.5401 -22.1534 37.1335; 2570 -19.54 -21.9534 37.1335;
2571 -19.5401 -20.1534 37.1335; 2572 -19.54 -21.9534 39.5335;
2573 -19.54 -21.9534 34.7335; 2574 -19.54 -22.1534 39.5335;
2575 -19.54 -22.1534 34.7335; 2576 -19.54 -21.9534 37.8013;
2577 -19.54 -21.0534 38.3335; 2578 -19.54 -21.9534 36.4657;
2579 -19.54 -21.0534 35.9335; 2580 -19.54 -21.9534 38.8657;
2581 -19.54 -21.9534 35.4013; 2582 -19.54 -21.6065 39.0709;
2583 -19.54 -21.6065 35.1961; 2584 -18.0401 -22.1534 37.1335;
2585 -18.04 -21.9534 37.1335; 2586 -18.0401 -20.1534 37.1335;
2587 -18.04 -21.9534 39.5335; 2588 -18.04 -21.9534 34.7335;
2589 -18.04 -22.1534 39.5335; 2590 -18.04 -22.1534 34.7335;
2591 -18.04 -21.9534 37.8013; 2592 -18.04 -21.0534 38.3335;
2593 -18.04 -21.9534 36.4657; 2594 -18.04 -21.0534 35.9335;
2595 -18.04 -21.9534 38.8657; 2596 -18.04 -21.9534 35.4013;
2597 -18.04 -21.6065 39.0709; 2598 -18.04 -21.6065 35.1961;
2599 -16.5401 -22.1534 37.1335; 2600 -16.54 -21.9534 37.1335;
2601 -16.5401 -20.1534 37.1335; 2602 -16.54 -21.9534 39.5335;
2603 -16.54 -21.9534 34.7335; 2604 -16.54 -22.1534 39.5335;
2605 -16.54 -22.1534 34.7335; 2606 -16.54 -21.9534 37.8013;
2607 -16.54 -21.0534 38.3335; 2608 -16.54 -21.9534 36.4657;
2609 -16.54 -21.0534 35.9335; 2610 -16.54 -21.9534 38.8657;
2611 -16.54 -21.9534 35.4013; 2612 -16.54 -21.6065 39.0709;
2613 -16.54 -21.6065 35.1961; 2614 -15.04 -22.1534 37.1335;
2615 -15.04 -21.9534 37.1335; 2616 -15.04 -20.1534 37.1335;
2617 -15.04 -21.9534 39.5335; 2618 -15.04 -21.9534 34.7335;
2619 -15.04 -22.1534 39.5335; 2620 -15.04 -22.1534 34.7335;

2621 -15.04 -21.9534 37.8013; 2622 -15.04 -21.0534 38.3335;
2623 -15.04 -21.9534 36.4657; 2624 -15.04 -21.0534 35.9335;
2625 -15.04 -21.9534 38.8657; 2626 -15.04 -21.9534 35.4013;
2627 -15.04 -21.6065 39.0709; 2628 -15.04 -21.6065 35.1961;
2629 -13.54 -22.1534 37.1335; 2630 -13.54 -21.9534 37.1335;
2631 -13.54 -20.1534 37.1335; 2632 -13.54 -21.9534 39.5335;
2633 -13.54 -21.9534 34.7335; 2634 -13.54 -22.1534 39.5335;
2635 -13.54 -22.1534 34.7335; 2636 -13.54 -21.9534 37.8013;
2637 -13.54 -21.0534 38.3335; 2638 -13.54 -21.9534 36.4657;
2639 -13.54 -21.0534 35.9335; 2640 -13.54 -21.9534 38.8657;
2641 -13.54 -21.9534 35.4013; 2642 -13.54 -21.6065 39.0709;
2643 -13.54 -21.6065 35.1961; 2644 -12.04 -22.1534 37.1335;
2645 -12.04 -21.9534 37.1335; 2646 -12.04 -20.1534 37.1335;
2647 -12.04 -21.9534 39.5335; 2648 -12.04 -21.9534 34.7335;
2649 -12.04 -22.1534 39.5335; 2650 -12.04 -22.1534 34.7335;
2651 -12.04 -21.9534 37.8013; 2652 -12.04 -21.0534 38.3335;
2653 -12.04 -21.9534 36.4657; 2654 -12.04 -21.0534 35.9335;
2655 -12.04 -21.9534 38.8657; 2656 -12.04 -21.9534 35.4013;
2657 -12.04 -21.6065 39.0709; 2658 -12.04 -21.6065 35.1961;
2659 -10.54 -22.1534 37.1335; 2660 -10.54 -21.9534 37.1335;
2661 -10.54 -20.1534 37.1335; 2662 -10.54 -21.9534 39.5335;
2663 -10.54 -21.9534 34.7335; 2664 -10.54 -22.1534 39.5335;
2665 -10.54 -22.1534 34.7335; 2666 -10.54 -21.9534 37.8013;
2667 -10.54 -21.0534 38.3335; 2668 -10.54 -21.9534 36.4657;
2669 -10.54 -21.0534 35.9335; 2670 -10.54 -21.9534 38.8657;
2671 -10.54 -21.9534 35.4013; 2672 -10.54 -21.6065 39.0709;
2673 -10.54 -21.6065 35.1961; 2674 -9.04005 -22.1534 37.1335;
2675 -9.04 -21.9534 37.1335; 2676 -9.04005 -20.1534 37.1335;
2677 -9.04 -21.9534 39.5335; 2678 -9.04 -21.9534 34.7335;
2679 -9.04 -22.1534 39.5335; 2680 -9.04 -22.1534 34.7335;
2681 -9.04 -21.9534 37.8013; 2682 -9.04002 -21.0534 38.3335;
2683 -9.04 -21.9534 36.4657; 2684 -9.04002 -21.0534 35.9335;
2685 -9.04 -21.9534 38.8657; 2686 -9.04 -21.9534 35.4013;
2687 -9.04001 -21.6065 39.0709; 2688 -9.04001 -21.6065 35.1961;
2689 -7.54005 -22.1534 37.1335; 2690 -7.54 -21.9534 37.1335;
2691 -7.54005 -20.1534 37.1335; 2692 -7.54 -21.9534 39.5335;
2693 -7.54 -21.9534 34.7335; 2694 -7.54 -22.1534 39.5335;
2695 -7.54 -22.1534 34.7335; 2696 -7.54 -21.9534 37.8013;
2697 -7.54003 -21.0534 38.3335; 2698 -7.54 -21.9534 36.4657;
2699 -7.54003 -21.0534 35.9335; 2700 -7.54 -21.9534 38.8657;
2701 -7.54 -21.9534 35.4013; 2702 -7.54001 -21.6065 39.0709;
2703 -7.54001 -21.6065 35.1961; 2704 -6.04005 -22.1534 37.1335;
2705 -6.04 -21.9534 37.1335; 2706 -6.04005 -20.1534 37.1335;
2707 -6.04 -21.9534 39.5335; 2708 -6.04 -21.9534 34.7335;
2709 -6.04 -22.1534 39.5335; 2710 -6.04 -22.1534 34.7335;
2711 -6.04 -21.9534 37.8013; 2712 -6.04003 -21.0534 38.3335;
2713 -6.04 -21.9534 36.4657; 2714 -6.04003 -21.0534 35.9335;
2715 -6.04 -21.9534 38.8657; 2716 -6.04 -21.9534 35.4013;
2717 -6.04001 -21.6065 39.0709; 2718 -6.04001 -21.6065 35.1961;
2719 -4.54835 -22.1534 37.1335; 2720 -4.5483 -21.9534 37.1335;
2721 -4.54835 -20.1534 37.1335; 2722 -4.5483 -21.9534 39.5335;
2723 -4.5483 -21.9534 34.7335; 2724 -4.5483 -22.1534 39.5335;
2725 -4.5483 -22.1534 34.7335; 2726 -4.5483 -21.9534 37.8013;
2727 -4.54833 -21.0534 38.3335; 2728 -4.5483 -21.9534 36.4657;
2729 -4.54833 -21.0534 35.9335; 2730 -4.5483 -21.9534 38.8657;
2731 -4.5483 -21.9534 35.4013; 2732 -4.54831 -21.6065 39.0709;
2733 -4.54831 -21.6065 35.1961; 2734 -3.04005 -22.1534 37.1335;
2735 -3.04 -21.9534 37.1335; 2736 -3.04005 -20.1534 37.1335;
2737 -3.04 -21.9534 39.5335; 2738 -3.04 -21.9534 34.7335;
2739 -3.04 -22.1534 39.5335; 2740 -3.04 -22.1534 34.7335;
2741 -3.04 -21.9534 37.8013; 2742 -3.04002 -21.0534 38.3335;
2743 -3.04 -21.9534 36.4657; 2744 -3.04002 -21.0534 35.9335;
2745 -3.04 -21.9534 38.8657; 2746 -3.04 -21.9534 35.4013;
2747 -3.04001 -21.6065 39.0709; 2748 -3.04001 -21.6065 35.1961;
2749 -1.54005 -22.1534 37.1335; 2750 -1.54 -21.9534 37.1335;
2751 -1.54005 -20.1534 37.1335; 2752 -1.54 -21.9534 39.5335;
2753 -1.54 -21.9534 34.7335; 2754 -1.54 -22.1534 39.5335;
2755 -1.54 -22.1534 34.7335; 2756 -1.54 -21.9534 37.8013;
2757 -1.54002 -21.0534 38.3335; 2758 -1.54 -21.9534 36.4657;
2759 -1.54002 -21.0534 35.9335; 2760 -1.54 -21.9534 38.8657;
2761 -1.54 -21.9534 35.4013; 2762 -1.54001 -21.6065 39.0709;
2763 -1.54001 -21.6065 35.1961; 2764 -0.04005 -22.1534 37.1335;
2765 -0.04 -21.9534 37.1335; 2766 -0.04005 -20.1534 37.1335;
2767 -0.04 -21.9534 39.5335; 2768 -0.04 -21.9534 34.7335;
2769 -0.04 -22.1534 39.5335; 2770 -0.04 -22.1534 34.7335;
2771 -0.04 -21.9534 37.8013; 2772 -0.040025 -21.0534 38.3335;
2773 -0.04 -21.9534 36.4657; 2774 -0.040025 -21.0534 35.9335;
2775 -0.04 -21.9534 38.8657; 2776 -0.04 -21.9534 35.4013;
2777 -0.0400096 -21.6065 39.0709; 2778 -0.0400096 -21.6065 35.1961;
2779 1.45995 -22.1534 37.1335; 2780 1.46 -21.9534 37.1335;
2781 1.45995 -20.1534 37.1335; 2782 1.46 -21.9534 39.5335;
2783 1.46 -21.9534 34.7335; 2784 1.46 -22.1534 39.5335;

2785 1.46 -22.1534 34.7335; 2786 1.46 -21.9534 37.8013;
2787 1.45998 -21.0534 38.3335; 2788 1.46 -21.9534 36.4657;
2789 1.45998 -21.0534 35.9335; 2790 1.46 -21.9534 38.8657;
2791 1.46 -21.9534 35.4013; 2792 1.45999 -21.6065 39.0709;
2793 1.45999 -21.6065 35.1961; 2794 2.44595 -22.1534 37.1335;
2795 2.446 -21.9534 37.1335; 2796 2.44595 -20.1534 37.1335;
2797 2.446 -21.9534 39.5335; 2798 2.446 -21.9534 34.7335;
2799 2.446 -22.1534 39.5335; 2800 2.446 -22.1534 34.7335;
2801 2.446 -21.9534 37.8013; 2802 2.44598 -21.0534 38.3335;
2803 2.446 -21.9534 36.4657; 2804 2.44598 -21.0534 35.9335;
2805 2.446 -21.9534 38.8657; 2806 2.446 -21.9534 35.4013;
2807 2.44599 -21.6065 39.0709; 2808 2.44599 -21.6065 35.1961;
2809 3.94595 -22.1534 37.1335; 2810 3.946 -21.9534 37.1335;
2811 3.94595 -20.1534 37.1335; 2812 3.946 -21.9534 39.5335;
2813 3.946 -21.9534 34.7335; 2814 3.946 -22.1534 39.5335;
2815 3.946 -22.1534 34.7335; 2816 3.946 -21.9534 37.8013;
2817 3.94598 -21.0534 38.3335; 2818 3.946 -21.9534 36.4657;
2819 3.94598 -21.0534 35.9335; 2820 3.946 -21.9534 38.8657;
2821 3.946 -21.9534 35.4013; 2822 3.94599 -21.6065 39.0709;
2823 3.94599 -21.6065 35.1961; 2824 5.44595 -22.1534 37.1335;
2825 5.446 -21.9534 37.1335; 2826 5.44595 -20.1534 37.1335;
2827 5.446 -21.9534 39.5335; 2828 5.446 -21.9534 34.7335;
2829 5.446 -22.1534 39.5335; 2830 5.446 -22.1534 34.7335;
2831 5.446 -21.9534 37.8013; 2832 5.44597 -21.0534 38.3335;
2833 5.446 -21.9534 36.4657; 2834 5.44597 -21.0534 35.9335;
2835 5.446 -21.9534 38.8657; 2836 5.446 -21.9534 35.4013;
2837 5.44599 -21.6065 39.0709; 2838 5.44599 -21.6065 35.1961;
2839 6.94595 -22.1534 37.1335; 2840 6.946 -21.9534 37.1335;
2841 6.94595 -20.1534 37.1335; 2842 6.946 -21.9534 39.5335;
2843 6.946 -21.9534 34.7335; 2844 6.946 -22.1534 39.5335;
2845 6.946 -22.1534 34.7335; 2846 6.946 -21.9534 37.8013;
2847 6.94597 -21.0534 38.3335; 2848 6.946 -21.9534 36.4657;
2849 6.94597 -21.0534 35.9335; 2850 6.946 -21.9534 38.8657;
2851 6.946 -21.9534 35.4013; 2852 6.94599 -21.6065 39.0709;
2853 6.94599 -21.6065 35.1961; 2854 8.44595 -22.1534 37.1335;
2855 8.446 -21.9534 37.1335; 2856 8.44595 -20.1534 37.1335;
2857 8.446 -21.9534 39.5335; 2858 8.446 -21.9534 34.7335;
2859 8.446 -22.1534 39.5335; 2860 8.446 -22.1534 34.7335;
2861 8.446 -21.9534 37.8013; 2862 8.44598 -21.0534 38.3335;
2863 8.446 -21.9534 36.4657; 2864 8.44598 -21.0534 35.9335;
2865 8.446 -21.9534 38.8657; 2866 8.446 -21.9534 35.4013;
2867 8.44599 -21.6065 39.0709; 2868 8.44599 -21.6065 35.1961;
2869 9.94595 -22.1534 37.1335; 2870 9.946 -21.9534 37.1335;
2871 9.94595 -20.1534 37.1335; 2872 9.946 -21.9534 39.5335;
2873 9.946 -21.9534 34.7335; 2874 9.946 -22.1534 39.5335;
2875 9.946 -22.1534 34.7335; 2876 9.946 -21.9534 37.8013;
2877 9.94598 -21.0534 38.3335; 2878 9.946 -21.9534 36.4657;
2879 9.94598 -21.0534 35.9335; 2880 9.946 -21.9534 38.8657;
2881 9.946 -21.9534 35.4013; 2882 9.94599 -21.6065 39.0709;
2883 9.94599 -21.6065 35.1961; 2884 11.4459 -22.1534 37.1335;
2885 11.446 -21.9534 37.1335; 2886 11.4459 -20.1534 37.1335;
2887 11.446 -21.9534 39.5335; 2888 11.446 -21.9534 34.7335;
2889 11.446 -22.1534 39.5335; 2890 11.446 -22.1534 34.7335;
2891 11.446 -21.9534 37.8013; 2892 11.446 -21.0534 38.3335;
2893 11.446 -21.9534 36.4657; 2894 11.446 -21.0534 35.9335;
2895 11.446 -21.9534 38.8657; 2896 11.446 -21.9534 35.4013;
2897 11.446 -21.6065 39.0709; 2898 11.446 -21.6065 35.1961;
2899 12.9459 -22.1534 37.1335; 2900 12.946 -21.9534 37.1335;
2901 12.9459 -20.1534 37.1335; 2902 12.946 -21.9534 39.5335;
2903 12.946 -21.9534 34.7335; 2904 12.946 -22.1534 39.5335;
2905 12.946 -22.1534 34.7335; 2906 12.946 -21.9534 37.8013;
2907 12.946 -21.0534 38.3335; 2908 12.946 -21.9534 36.4657;
2909 12.946 -21.0534 35.9335; 2910 12.946 -21.9534 38.8657;
2911 12.946 -21.9534 35.4013; 2912 12.946 -21.6065 39.0709;
2913 12.946 -21.6065 35.1961; 2914 14.4459 -22.1534 37.1335;
2915 14.446 -21.9534 37.1335; 2916 14.4459 -20.1534 37.1335;
2917 14.446 -21.9534 39.5335; 2918 14.446 -21.9534 34.7335;
2919 14.446 -22.1534 39.5335; 2920 14.446 -22.1534 34.7335;
2921 14.446 -21.9534 37.8013; 2922 14.446 -21.0534 38.3335;
2923 14.446 -21.9534 36.4657; 2924 14.446 -21.0534 35.9335;
2925 14.446 -21.9534 38.8657; 2926 14.446 -21.9534 35.4013;
2927 14.446 -21.6065 39.0709; 2928 14.446 -21.6065 35.1961;
2929 15.9459 -22.1534 37.1335; 2930 15.946 -21.9534 37.1335;
2931 15.9459 -20.1534 37.1335; 2932 15.946 -21.9534 39.5335;
2933 15.946 -21.9534 34.7335; 2934 15.946 -22.1534 39.5335;
2935 15.946 -22.1534 34.7335; 2936 15.946 -21.9534 37.8013;
2937 15.946 -21.0534 38.3335; 2938 15.946 -21.9534 36.4657;
2939 15.946 -21.0534 35.9335; 2940 15.946 -21.9534 38.8657;
2941 15.946 -21.9534 35.4013; 2942 15.946 -21.6065 39.0709;
2943 15.946 -21.6065 35.1961; 2944 17.4459 -22.1534 37.1335;
2945 17.446 -21.9534 37.1335; 2946 17.4459 -20.1534 37.1335;
2947 17.446 -21.9534 39.5335; 2948 17.446 -21.9534 34.7335;

2949 17.446 -22.1534 39.5335; 2950 17.446 -22.1534 34.7335;
2951 17.446 -21.9534 37.8013; 2952 17.446 -21.0534 38.3335;
2953 17.446 -21.9534 36.4657; 2954 17.446 -21.0534 35.9335;
2955 17.446 -21.9534 38.8657; 2956 17.446 -21.9534 35.4013;
2957 17.446 -21.6065 39.0709; 2958 17.446 -21.6065 35.1961;
2959 18.9459 -22.1534 37.1335; 2960 18.946 -21.9534 37.1335;
2961 18.9459 -20.1534 37.1335; 2962 18.946 -21.9534 39.5335;
2963 18.946 -21.9534 34.7335; 2964 18.946 -22.1534 39.5335;
2965 18.946 -22.1534 34.7335; 2966 18.946 -21.9534 37.8013;
2967 18.946 -21.0534 38.3335; 2968 18.946 -21.9534 36.4657;
2969 18.946 -21.0534 35.9335; 2970 18.946 -21.9534 38.8657;
2971 18.946 -21.9534 35.4013; 2972 18.946 -21.6065 39.0709;
2973 18.946 -21.6065 35.1961; 2974 20.4459 -22.1534 37.1335;
2975 20.446 -21.9534 37.1335; 2976 20.4459 -20.1534 37.1335;
2977 20.446 -21.9534 39.5335; 2978 20.446 -21.9534 34.7335;
2979 20.446 -22.1534 39.5335; 2980 20.446 -22.1534 34.7335;
2981 20.446 -21.9534 37.8013; 2982 20.446 -21.0534 38.3335;
2983 20.446 -21.9534 36.4657; 2984 20.446 -21.0534 35.9335;
2985 20.446 -21.9534 38.8657; 2986 20.446 -21.9534 35.4013;
2987 20.446 -21.6065 39.0709; 2988 20.446 -21.6065 35.1961;
2989 21.9459 -22.1534 37.1335; 2990 21.946 -21.9534 37.1335;
2991 21.9459 -20.1534 37.1335; 2992 21.946 -21.9534 39.5335;
2993 21.946 -21.9534 34.7335; 2994 21.946 -22.1534 39.5335;
2995 21.946 -22.1534 34.7335; 2996 21.946 -21.9534 37.8013;
2997 21.946 -21.0534 38.3335; 2998 21.946 -21.9534 36.4657;
2999 21.946 -21.0534 35.9335; 3000 21.946 -21.9534 38.8657;
3001 21.946 -21.9534 35.4013; 3002 21.946 -21.6065 39.0709;
3003 21.946 -21.6065 35.1961; 3004 24.9459 -22.1534 37.1335;
3005 24.946 -21.9534 37.1335; 3006 24.9459 -20.1534 37.1335;
3007 24.946 -21.9534 39.5335; 3008 24.946 -21.9534 34.7335;
3009 24.946 -22.1534 39.5335; 3010 24.946 -22.1534 34.7335;
3011 24.946 -21.9534 37.8013; 3012 24.946 -21.0534 38.3335;
3013 24.946 -21.9534 36.4657; 3014 24.946 -21.0534 35.9335;
3015 24.946 -21.9534 38.8657; 3016 24.946 -21.9534 35.4013;
3017 24.946 -21.6065 39.0709; 3018 24.946 -21.6065 35.1961;
3019 26.4459 -22.1534 37.1335; 3020 26.446 -21.9534 37.1335;
3021 26.4459 -20.1534 37.1335; 3022 26.446 -21.9534 39.5335;
3023 26.446 -21.9534 34.7335; 3024 26.446 -22.1534 39.5335;
3025 26.446 -22.1534 34.7335; 3026 26.446 -21.9534 37.8013;
3027 26.446 -21.0534 38.3335; 3028 26.446 -21.9534 36.4657;
3029 26.446 -21.0534 35.9335; 3030 26.446 -21.9534 38.8657;
3031 26.446 -21.9534 35.4013; 3032 26.446 -21.6065 39.0709;
3033 26.446 -21.6065 35.1961; 3034 29.4461 -20.1534 37.1335;
3035 29.4461 -21.9534 39.5335; 3036 29.4461 -21.9534 34.7335;
3037 29.4461 -22.1534 39.5335; 3038 29.4461 -22.1534 34.7335;
3039 29.4461 -21.9534 37.8013; 3040 29.4461 -21.0534 38.3335;
3041 29.4461 -21.9534 36.4657; 3042 29.4461 -21.0534 35.9335;
3043 29.4461 -21.9534 38.8657; 3044 29.4461 -21.9534 35.4013;
3045 29.4461 -21.6065 39.0709; 3046 29.4461 -21.6065 35.1961;
3047 27.303 -20.1534 37.1335; 3048 27.3031 -21.9534 39.5335;
3049 27.3031 -21.9534 34.7335; 3050 27.3031 -21.9534 37.8013;
3051 27.3031 -21.0534 38.3335; 3052 27.3031 -21.9534 36.4657;
3053 27.3031 -21.0534 35.9335; 3054 27.3031 -21.9534 38.8657;
3055 27.3031 -21.9534 35.4013; 3056 27.3031 -21.6065 39.0709;
3057 27.3031 -21.6065 35.1961; 3058 3.8994 -20.1534 37.1335;
3059 31.5891 -22.1534 37.1335; 3060 31.5891 -21.9534 37.1335;
3061 -29.497 -22.1534 29.6085; 3062 -29.497 -22.1534 32.6585;
3063 -29.497 -22.1534 31.6335; 3064 -26.089 -22.1534 31.6335;
3065 -29.497 -22.1534 30.6335; 3066 -26.089 -22.1534 30.6335;
3067 -27.793 -22.1534 32.6585; 3068 -27.793 -22.1534 29.6085;
3069 -26.089 -22.1534 29.6085; 3070 -26.089 -22.1534 32.6585;
3071 -29.497 -20.8084 30.6335; 3072 -27.793 -22.1534 30.6335;
3073 -27.793 -19.1834 30.6335; 3074 -26.089 -20.8084 30.6335;
3075 -26.941 -19.9959 30.6335; 3076 -28.9006 -20.2397 30.6335;
3077 -29.497 -20.8084 31.6335; 3078 -27.793 -22.1534 31.6335;
3079 -27.793 -19.1834 31.6335; 3080 -26.089 -20.8084 31.6335;
3081 -26.941 -19.9959 31.6335; 3082 -28.9006 -20.2397 31.6335;
3083 29.9949 -22.1534 29.6085; 3084 29.9949 -22.1534 32.6585;
3085 29.9949 -22.1534 31.6335; 3086 33.4029 -22.1534 31.6335;
3087 29.9949 -22.1534 30.6335; 3088 33.4029 -22.1534 30.6335;
3089 31.6989 -22.1534 32.6585; 3090 31.6989 -22.1534 29.6085;
3091 33.4029 -22.1534 29.6085; 3092 33.4029 -22.1534 32.6585;
3093 29.9949 -20.8084 30.6335; 3094 31.6989 -22.1534 30.6335;
3095 31.6989 -19.1834 30.6335; 3096 33.4029 -20.8084 30.6335;
3097 32.5509 -19.9959 30.6335; 3098 30.5913 -20.2397 30.6335;
3099 29.9949 -20.8084 31.6335; 3100 31.6989 -22.1534 31.6335;
3101 31.6989 -19.1834 31.6335; 3102 33.4029 -20.8084 31.6335;
3103 32.5509 -19.9959 31.6335; 3104 30.5913 -20.2397 31.6335;
3105 -27.6831 -22.1534 25.1335; 3106 29.4461 -22.1534 37.1335;
3107 29.4461 -21.9534 37.1335; 3108 27.3031 -21.9534 37.1335;
3109 -27.6831 -22.1534 22.7335; 3110 -27.6831 -22.1534 27.5335;
3111 31.5891 -22.1534 22.7335; 3112 31.5891 -22.1534 27.5335;

3113 -25.5401 -22.1534 25.1335; 3114 -25.5401 -22.1534 22.7335;
3115 -25.5401 -22.1534 27.5335; 3116 23.3964 -22.1534 25.1335;
3117 1.95285 -22.1534 25.1335; 3118 1.9529 -22.1534 22.7335;
3119 -22.5401 -22.1534 25.1335; 3120 -22.54 -22.1534 22.7335;
3121 -22.54 -22.1534 27.5335; 3122 -21.0401 -22.1534 25.1335;
3123 -21.04 -22.1534 22.7335; 3124 -21.04 -22.1534 27.5335;
3125 -19.5401 -22.1534 25.1335; 3126 -19.54 -22.1534 22.7335;
3127 -19.54 -22.1534 27.5335; 3128 -18.0401 -22.1534 25.1335;
3129 -18.04 -22.1534 22.7335; 3130 -18.04 -22.1534 27.5335;
3131 -16.5401 -22.1534 25.1335; 3132 -16.54 -22.1534 22.7335;
3133 -16.54 -22.1534 27.5335; 3134 -15.04 -22.1534 25.1335;
3135 -15.04 -22.1534 22.7335; 3136 -15.04 -22.1534 27.5335;
3137 -13.54 -22.1534 25.1335; 3138 -13.54 -22.1534 22.7335;
3139 -13.54 -22.1534 27.5335; 3140 -12.04 -22.1534 25.1335;
3141 -12.04 -22.1534 22.7335; 3142 -12.04 -22.1534 27.5335;
3143 -10.54 -22.1534 25.1335; 3144 -10.54 -22.1534 22.7335;
3145 -10.54 -22.1534 27.5335; 3146 -9.04005 -22.1534 25.1335;
3147 -9.04 -22.1534 22.7335; 3148 -9.04 -22.1534 27.5335;
3149 -7.54005 -22.1534 25.1335; 3150 -7.54 -22.1534 22.7335;
3151 -7.54 -22.1534 27.5335; 3152 -6.04005 -22.1534 25.1335;
3153 -6.04 -22.1534 22.7335; 3154 -6.04 -22.1534 27.5335;
3155 -4.54835 -22.1534 25.1335; 3156 -4.5483 -22.1534 22.7335;
3157 -4.5483 -22.1534 27.5335; 3158 -3.04005 -22.1534 25.1335;
3159 -3.04 -22.1534 22.7335; 3160 -3.04 -22.1534 27.5335;
3161 -1.54005 -22.1534 25.1335; 3162 -1.54 -22.1534 22.7335;
3163 -1.54 -22.1534 27.5335; 3164 -0.04005 -22.1534 25.1335;
3165 -0.04 -22.1534 22.7335; 3166 -0.04 -22.1534 27.5335;
3167 1.45995 -22.1534 25.1335; 3168 1.46 -22.1534 22.7335;
3169 1.46 -22.1534 27.5335; 3170 2.44595 -22.1534 25.1335;
3171 2.446 -22.1534 22.7335; 3172 2.446 -22.1534 27.5335;
3173 3.94595 -22.1534 25.1335; 3174 3.946 -22.1534 22.7335;
3175 3.946 -22.1534 27.5335; 3176 5.44595 -22.1534 25.1335;
3177 5.446 -22.1534 22.7335; 3178 5.446 -22.1534 27.5335;
3179 6.94595 -22.1534 25.1335; 3180 6.946 -22.1534 22.7335;
3181 6.946 -22.1534 27.5335; 3182 8.44595 -22.1534 25.1335;
3183 8.446 -22.1534 22.7335; 3184 8.446 -22.1534 27.5335;
3185 9.94595 -22.1534 25.1335; 3186 9.946 -22.1534 22.7335;
3187 9.946 -22.1534 27.5335; 3188 11.4459 -22.1534 25.1335;
3189 11.446 -22.1534 22.7335; 3190 11.446 -22.1534 27.5335;
3191 12.9459 -22.1534 25.1335; 3192 12.946 -22.1534 22.7335;
3193 12.946 -22.1534 27.5335; 3194 14.4459 -22.1534 25.1335;
3195 14.446 -22.1534 22.7335; 3196 14.446 -22.1534 27.5335;
3197 15.9459 -22.1534 25.1335; 3198 15.946 -22.1534 22.7335;
3199 15.946 -22.1534 27.5335; 3200 17.4459 -22.1534 25.1335;
3201 17.446 -22.1534 22.7335; 3202 17.446 -22.1534 27.5335;
3203 18.9459 -22.1534 25.1335; 3204 18.946 -22.1534 22.7335;
3205 18.946 -22.1534 27.5335; 3206 20.4459 -22.1534 25.1335;
3207 20.446 -22.1534 22.7335; 3208 20.446 -22.1534 27.5335;
3209 21.9459 -22.1534 25.1335; 3210 21.946 -22.1534 22.7335;
3211 21.946 -22.1534 27.5335; 3212 24.9459 -22.1534 25.1335;
3213 24.946 -22.1534 22.7335; 3214 24.946 -22.1534 27.5335;
3215 26.4459 -22.1534 25.1335; 3216 26.446 -22.1534 22.7335;
3217 26.446 -22.1534 27.5335; 3218 29.4461 -22.1534 22.7335;
3219 29.4461 -22.1534 27.5335; 3220 31.5891 -22.1534 25.1335;
3221 29.4461 -22.1534 25.1335; 3222 -27.6831 -21.9534 25.1335;
3223 -27.6831 -20.1534 25.1335; 3224 -27.6831 -21.9534 22.7335;
3225 -27.6831 -21.9534 25.8013; 3226 -27.6831 -21.9534 26.8657;
3227 -27.6831 -21.9534 27.5335; 3228 -27.6831 -21.9534 24.4657;
3229 -27.6831 -21.0534 23.9335; 3230 -27.6831 -21.0534 26.3335;
3231 -27.6831 -21.9534 23.4013; 3232 -27.6831 -21.6065 23.1961;
3233 -27.6831 -21.6065 27.0709; 3234 31.5891 -20.1534 25.1335;
3235 31.5891 -21.9534 22.7335; 3236 31.5891 -21.9534 27.5335;
3237 31.5891 -21.9534 24.4657; 3238 31.5891 -21.0534 23.9335;
3239 31.5891 -21.9534 25.8013; 3240 31.5891 -21.0534 26.3335;
3241 31.5891 -21.9534 23.4013; 3242 31.5891 -21.9534 26.8657;
3243 31.5891 -21.6065 23.1961; 3244 31.5891 -21.6065 27.0709;
3245 -25.5401 -21.9534 25.1335; 3246 -25.5401 -20.1534 25.1335;
3247 -25.5401 -21.9534 22.7335; 3248 -25.5401 -21.9534 27.5335;
3249 -25.5401 -21.9534 24.4657; 3250 -25.5401 -21.0534 23.9335;
3251 -25.5401 -21.9534 25.8013; 3252 -25.5401 -21.0534 26.3335;
3253 -25.5401 -21.9534 23.4013; 3254 -25.5401 -21.9534 26.8657;
3255 -25.5401 -21.6065 23.1961; 3256 -25.5401 -21.6065 27.0709;
3257 23.3964 -21.9534 25.1335; 3258 23.3964 -20.1534 25.1335;
3259 23.3964 -21.9534 22.7335; 3260 23.3964 -21.9534 27.5335;
3261 23.3964 -21.9534 24.4657; 3262 23.3964 -21.0534 23.9335;
3263 23.3964 -21.9534 25.8013; 3264 23.3964 -21.0534 26.3335;
3265 23.3964 -21.9534 23.4013; 3266 23.3964 -21.9534 26.8657;
3267 23.3964 -21.6065 23.1961; 3268 23.3964 -21.6065 27.0709;
3269 1.9529 -21.9534 25.1335; 3270 1.95285 -20.1534 25.1335;
3271 1.9529 -21.9534 22.7335; 3272 1.9529 -21.9534 27.5335;
3273 1.9529 -21.9534 24.4657; 3274 1.95288 -21.0534 23.9335;
3275 1.9529 -21.9534 25.8013; 3276 1.95288 -21.0534 26.3335;

3277 1.9529 -21.9534 23.4013; 3278 1.9529 -21.9534 26.8657;
3279 1.95289 -21.6065 23.1961; 3280 1.95289 -21.6065 27.0709;
3281 -23.3971 -21.9534 25.1335; 3282 -23.3972 -20.1534 25.1335;
3283 -23.3971 -21.9534 22.7335; 3284 -23.3971 -21.9534 27.5335;
3285 -23.3971 -21.9534 24.4657; 3286 -23.3971 -21.0534 23.9335;
3287 -23.3971 -21.9534 25.8013; 3288 -23.3971 -21.0534 26.3335;
3289 -23.3971 -21.9534 23.4013; 3290 -23.3971 -21.9534 26.8657;
3291 -23.3971 -21.6065 23.1961; 3292 -23.3971 -21.6065 27.0709;
3293 -22.54 -21.9534 25.1335; 3294 -22.5401 -20.1534 25.1335;
3295 -22.54 -21.9534 22.7335; 3296 -22.54 -21.9534 27.5335;
3297 -22.54 -21.9534 24.4657; 3298 -22.54 -21.0534 23.9335;
3299 -22.54 -21.9534 25.8013; 3300 -22.54 -21.0534 26.3335;
3301 -22.54 -21.9534 23.4013; 3302 -22.54 -21.9534 26.8657;
3303 -22.54 -21.6065 23.1961; 3304 -22.54 -21.6065 27.0709;
3305 -21.04 -21.9534 25.1335; 3306 -21.0401 -20.1534 25.1335;
3307 -21.04 -21.9534 22.7335; 3308 -21.04 -21.9534 27.5335;
3309 -21.04 -21.9534 24.4657; 3310 -21.04 -21.0534 23.9335;
3311 -21.04 -21.9534 25.8013; 3312 -21.04 -21.0534 26.3335;
3313 -21.04 -21.9534 23.4013; 3314 -21.04 -21.9534 26.8657;
3315 -21.04 -21.6065 23.1961; 3316 -21.04 -21.6065 27.0709;
3317 -19.54 -21.9534 25.1335; 3318 -19.5401 -20.1534 25.1335;
3319 -19.54 -21.9534 22.7335; 3320 -19.54 -21.9534 27.5335;
3321 -19.54 -21.9534 24.4657; 3322 -19.54 -21.0534 23.9335;
3323 -19.54 -21.9534 25.8013; 3324 -19.54 -21.0534 26.3335;
3325 -19.54 -21.9534 23.4013; 3326 -19.54 -21.9534 26.8657;
3327 -19.54 -21.6065 23.1961; 3328 -19.54 -21.6065 27.0709;
3329 -18.04 -21.9534 25.1335; 3330 -18.0401 -20.1534 25.1335;
3331 -18.04 -21.9534 22.7335; 3332 -18.04 -21.9534 27.5335;
3333 -18.04 -21.9534 24.4657; 3334 -18.04 -21.0534 23.9335;
3335 -18.04 -21.9534 25.8013; 3336 -18.04 -21.0534 26.3335;
3337 -18.04 -21.9534 23.4013; 3338 -18.04 -21.9534 26.8657;
3339 -18.04 -21.6065 23.1961; 3340 -18.04 -21.6065 27.0709;
3341 -16.54 -21.9534 25.1335; 3342 -16.5401 -20.1534 25.1335;
3343 -16.54 -21.9534 22.7335; 3344 -16.54 -21.9534 27.5335;
3345 -16.54 -21.9534 24.4657; 3346 -16.54 -21.0534 23.9335;
3347 -16.54 -21.9534 25.8013; 3348 -16.54 -21.0534 26.3335;
3349 -16.54 -21.9534 23.4013; 3350 -16.54 -21.9534 26.8657;
3351 -16.54 -21.6065 23.1961; 3352 -16.54 -21.6065 27.0709;
3353 -15.04 -21.9534 25.1335; 3354 -15.04 -20.1534 25.1335;
3355 -15.04 -21.9534 22.7335; 3356 -15.04 -21.9534 27.5335;
3357 -15.04 -21.9534 24.4657; 3358 -15.04 -21.0534 23.9335;
3359 -15.04 -21.9534 25.8013; 3360 -15.04 -21.0534 26.3335;
3361 -15.04 -21.9534 23.4013; 3362 -15.04 -21.9534 26.8657;
3363 -15.04 -21.6065 23.1961; 3364 -15.04 -21.6065 27.0709;
3365 -13.54 -21.9534 25.1335; 3366 -13.54 -20.1534 25.1335;
3367 -13.54 -21.9534 22.7335; 3368 -13.54 -21.9534 27.5335;
3369 -13.54 -21.9534 24.4657; 3370 -13.54 -21.0534 23.9335;
3371 -13.54 -21.9534 25.8013; 3372 -13.54 -21.0534 26.3335;
3373 -13.54 -21.9534 23.4013; 3374 -13.54 -21.9534 26.8657;
3375 -13.54 -21.6065 23.1961; 3376 -13.54 -21.6065 27.0709;
3377 -12.04 -21.9534 25.1335; 3378 -12.04 -20.1534 25.1335;
3379 -12.04 -21.9534 22.7335; 3380 -12.04 -21.9534 27.5335;
3381 -12.04 -21.9534 24.4657; 3382 -12.04 -21.0534 23.9335;
3383 -12.04 -21.9534 25.8013; 3384 -12.04 -21.0534 26.3335;
3385 -12.04 -21.9534 23.4013; 3386 -12.04 -21.9534 26.8657;
3387 -12.04 -21.6065 23.1961; 3388 -12.04 -21.6065 27.0709;
3389 -10.54 -21.9534 25.1335; 3390 -10.54 -20.1534 25.1335;
3391 -10.54 -21.9534 22.7335; 3392 -10.54 -21.9534 27.5335;
3393 -10.54 -21.9534 24.4657; 3394 -10.54 -21.0534 23.9335;
3395 -10.54 -21.9534 25.8013; 3396 -10.54 -21.0534 26.3335;
3397 -10.54 -21.9534 23.4013; 3398 -10.54 -21.9534 26.8657;
3399 -10.54 -21.6065 23.1961; 3400 -10.54 -21.6065 27.0709;
3401 -9.04 -21.9534 25.1335; 3402 -9.04005 -20.1534 25.1335;
3403 -9.04 -21.9534 22.7335; 3404 -9.04 -21.9534 27.5335;
3405 -9.04 -21.9534 24.4657; 3406 -9.04002 -21.0534 23.9335;
3407 -9.04 -21.9534 25.8013; 3408 -9.04002 -21.0534 26.3335;
3409 -9.04 -21.9534 23.4013; 3410 -9.04 -21.9534 26.8657;
3411 -9.04001 -21.6065 23.1961; 3412 -9.04001 -21.6065 27.0709;
3413 -7.54 -21.9534 25.1335; 3414 -7.54005 -20.1534 25.1335;
3415 -7.54 -21.9534 22.7335; 3416 -7.54 -21.9534 27.5335;
3417 -7.54 -21.9534 24.4657; 3418 -7.54003 -21.0534 23.9335;
3419 -7.54 -21.9534 25.8013; 3420 -7.54003 -21.0534 26.3335;
3421 -7.54 -21.9534 23.4013; 3422 -7.54 -21.9534 26.8657;
3423 -7.54001 -21.6065 23.1961; 3424 -7.54001 -21.6065 27.0709;
3425 -6.04 -21.9534 25.1335; 3426 -6.04005 -20.1534 25.1335;
3427 -6.04 -21.9534 22.7335; 3428 -6.04 -21.9534 27.5335;
3429 -6.04 -21.9534 24.4657; 3430 -6.04003 -21.0534 23.9335;
3431 -6.04 -21.9534 25.8013; 3432 -6.04003 -21.0534 26.3335;
3433 -6.04 -21.9534 23.4013; 3434 -6.04 -21.9534 26.8657;
3435 -6.04001 -21.6065 23.1961; 3436 -6.04001 -21.6065 27.0709;
3437 -4.5483 -21.9534 25.1335; 3438 -4.54835 -20.1534 25.1335;
3439 -4.5483 -21.9534 22.7335; 3440 -4.5483 -21.9534 27.5335;

3441 -4.5483 -21.9534 24.4657; 3442 -4.54833 -21.0534 23.9335;
3443 -4.5483 -21.9534 25.8013; 3444 -4.54833 -21.0534 26.3335;
3445 -4.5483 -21.9534 23.4013; 3446 -4.5483 -21.9534 26.8657;
3447 -4.54831 -21.6065 23.1961; 3448 -4.54831 -21.6065 27.0709;
3449 -3.04 -21.9534 25.1335; 3450 -3.04005 -20.1534 25.1335;
3451 -3.04 -21.9534 22.7335; 3452 -3.04 -21.9534 27.5335;
3453 -3.04 -21.9534 24.4657; 3454 -3.04002 -21.0534 23.9335;
3455 -3.04 -21.9534 25.8013; 3456 -3.04002 -21.0534 26.3335;
3457 -3.04 -21.9534 23.4013; 3458 -3.04 -21.9534 26.8657;
3459 -3.04001 -21.6065 23.1961; 3460 -3.04001 -21.6065 27.0709;
3461 -1.54 -21.9534 25.1335; 3462 -1.54005 -20.1534 25.1335;
3463 -1.54 -21.9534 22.7335; 3464 -1.54 -21.9534 27.5335;
3465 -1.54 -21.9534 24.4657; 3466 -1.54002 -21.0534 23.9335;
3467 -1.54 -21.9534 25.8013; 3468 -1.54002 -21.0534 26.3335;
3469 -1.54 -21.9534 23.4013; 3470 -1.54 -21.9534 26.8657;
3471 -1.54001 -21.6065 23.1961; 3472 -1.54001 -21.6065 27.0709;
3473 -0.04 -21.9534 25.1335; 3474 -0.04005 -20.1534 25.1335;
3475 -0.04 -21.9534 22.7335; 3476 -0.04 -21.9534 27.5335;
3477 -0.04 -21.9534 24.4657; 3478 -0.040025 -21.0534 23.9335;
3479 -0.04 -21.9534 25.8013; 3480 -0.040025 -21.0534 26.3335;
3481 -0.04 -21.9534 23.4013; 3482 -0.04 -21.9534 26.8657;
3483 -0.0400096 -21.6065 23.1961; 3484 -0.0400096 -21.6065 27.0709;
3485 1.46 -21.9534 25.1335; 3486 1.45995 -20.1534 25.1335;
3487 1.46 -21.9534 22.7335; 3488 1.46 -21.9534 27.5335;
3489 1.46 -21.9534 24.4657; 3490 1.45998 -21.0534 23.9335;
3491 1.46 -21.9534 25.8013; 3492 1.45998 -21.0534 26.3335;
3493 1.46 -21.9534 23.4013; 3494 1.46 -21.9534 26.8657;
3495 1.45999 -21.6065 23.1961; 3496 1.45999 -21.6065 27.0709;
3497 2.446 -21.9534 25.1335; 3498 2.44595 -20.1534 25.1335;
3499 2.446 -21.9534 22.7335; 3500 2.446 -21.9534 27.5335;
3501 2.446 -21.9534 24.4657; 3502 2.44598 -21.0534 23.9335;
3503 2.446 -21.9534 25.8013; 3504 2.44598 -21.0534 26.3335;
3505 2.446 -21.9534 23.4013; 3506 2.446 -21.9534 26.8657;
3507 2.44599 -21.6065 23.1961; 3508 2.44599 -21.6065 27.0709;
3509 3.946 -21.9534 25.1335; 3510 3.94595 -20.1534 25.1335;
3511 3.946 -21.9534 22.7335; 3512 3.946 -21.9534 27.5335;
3513 3.946 -21.9534 24.4657; 3514 3.94598 -21.0534 23.9335;
3515 3.946 -21.9534 25.8013; 3516 3.94598 -21.0534 26.3335;
3517 3.946 -21.9534 23.4013; 3518 3.946 -21.9534 26.8657;
3519 3.94599 -21.6065 23.1961; 3520 3.94599 -21.6065 27.0709;
3521 5.446 -21.9534 25.1335; 3522 5.44595 -20.1534 25.1335;
3523 5.446 -21.9534 22.7335; 3524 5.446 -21.9534 27.5335;
3525 5.446 -21.9534 24.4657; 3526 5.44597 -21.0534 23.9335;
3527 5.446 -21.9534 25.8013; 3528 5.44597 -21.0534 26.3335;
3529 5.446 -21.9534 23.4013; 3530 5.446 -21.9534 26.8657;
3531 5.44599 -21.6065 23.1961; 3532 5.44599 -21.6065 27.0709;
3533 6.946 -21.9534 25.1335; 3534 6.94595 -20.1534 25.1335;
3535 6.946 -21.9534 22.7335; 3536 6.946 -21.9534 27.5335;
3537 6.946 -21.9534 24.4657; 3538 6.94597 -21.0534 23.9335;
3539 6.946 -21.9534 25.8013; 3540 6.94597 -21.0534 26.3335;
3541 6.946 -21.9534 23.4013; 3542 6.946 -21.9534 26.8657;
3543 6.94599 -21.6065 23.1961; 3544 6.94599 -21.6065 27.0709;
3545 8.446 -21.9534 25.1335; 3546 8.44595 -20.1534 25.1335;
3547 8.446 -21.9534 22.7335; 3548 8.446 -21.9534 27.5335;
3549 8.446 -21.9534 24.4657; 3550 8.44598 -21.0534 23.9335;
3551 8.446 -21.9534 25.8013; 3552 8.44598 -21.0534 26.3335;
3553 8.446 -21.9534 23.4013; 3554 8.446 -21.9534 26.8657;
3555 8.44599 -21.6065 23.1961; 3556 8.44599 -21.6065 27.0709;
3557 9.946 -21.9534 25.1335; 3558 9.94595 -20.1534 25.1335;
3559 9.946 -21.9534 22.7335; 3560 9.946 -21.9534 27.5335;
3561 9.946 -21.9534 24.4657; 3562 9.94598 -21.0534 23.9335;
3563 9.946 -21.9534 25.8013; 3564 9.94598 -21.0534 26.3335;
3565 9.946 -21.9534 23.4013; 3566 9.946 -21.9534 26.8657;
3567 9.94599 -21.6065 23.1961; 3568 9.94599 -21.6065 27.0709;
3569 11.446 -21.9534 25.1335; 3570 11.4459 -20.1534 25.1335;
3571 11.446 -21.9534 22.7335; 3572 11.446 -21.9534 27.5335;
3573 11.446 -21.9534 24.4657; 3574 11.446 -21.0534 23.9335;
3575 11.446 -21.9534 25.8013; 3576 11.446 -21.0534 26.3335;
3577 11.446 -21.9534 23.4013; 3578 11.446 -21.9534 26.8657;
3579 11.446 -21.6065 23.1961; 3580 11.446 -21.6065 27.0709;
3581 12.946 -21.9534 25.1335; 3582 12.9459 -20.1534 25.1335;
3583 12.946 -21.9534 22.7335; 3584 12.946 -21.9534 27.5335;
3585 12.946 -21.9534 24.4657; 3586 12.946 -21.0534 23.9335;
3587 12.946 -21.9534 25.8013; 3588 12.946 -21.0534 26.3335;
3589 12.946 -21.9534 23.4013; 3590 12.946 -21.9534 26.8657;
3591 12.946 -21.6065 23.1961; 3592 12.946 -21.6065 27.0709;
3593 14.446 -21.9534 25.1335; 3594 14.4459 -20.1534 25.1335;
3595 14.446 -21.9534 22.7335; 3596 14.446 -21.9534 27.5335;
3597 14.446 -21.9534 24.4657; 3598 14.446 -21.0534 23.9335;
3599 14.446 -21.9534 25.8013; 3600 14.446 -21.0534 26.3335;
3601 14.446 -21.9534 23.4013; 3602 14.446 -21.9534 26.8657;
3603 14.446 -21.6065 23.1961; 3604 14.446 -21.6065 27.0709;

3605 15.946 -21.9534 25.1335; 3606 15.9459 -20.1534 25.1335;
3607 15.946 -21.9534 22.7335; 3608 15.946 -21.9534 27.5335;
3609 15.946 -21.9534 24.4657; 3610 15.946 -21.0534 23.9335;
3611 15.946 -21.9534 25.8013; 3612 15.946 -21.0534 26.3335;
3613 15.946 -21.9534 23.4013; 3614 15.946 -21.9534 26.8657;
3615 15.946 -21.6065 23.1961; 3616 15.946 -21.6065 27.0709;
3617 17.446 -21.9534 25.1335; 3618 17.4459 -20.1534 25.1335;
3619 17.446 -21.9534 22.7335; 3620 17.446 -21.9534 27.5335;
3621 17.446 -21.9534 24.4657; 3622 17.446 -21.0534 23.9335;
3623 17.446 -21.9534 25.8013; 3624 17.446 -21.0534 26.3335;
3625 17.446 -21.9534 23.4013; 3626 17.446 -21.9534 26.8657;
3627 17.446 -21.6065 23.1961; 3628 17.446 -21.6065 27.0709;
3629 18.946 -21.9534 25.1335; 3630 18.9459 -20.1534 25.1335;
3631 18.946 -21.9534 22.7335; 3632 18.946 -21.9534 27.5335;
3633 18.946 -21.9534 24.4657; 3634 18.946 -21.0534 23.9335;
3635 18.946 -21.9534 25.8013; 3636 18.946 -21.0534 26.3335;
3637 18.946 -21.9534 23.4013; 3638 18.946 -21.9534 26.8657;
3639 18.946 -21.6065 23.1961; 3640 18.946 -21.6065 27.0709;
3641 20.446 -21.9534 25.1335; 3642 20.4459 -20.1534 25.1335;
3643 20.446 -21.9534 22.7335; 3644 20.446 -21.9534 27.5335;
3645 20.446 -21.9534 24.4657; 3646 20.446 -21.0534 23.9335;
3647 20.446 -21.9534 25.8013; 3648 20.446 -21.0534 26.3335;
3649 20.446 -21.9534 23.4013; 3650 20.446 -21.9534 26.8657;
3651 20.446 -21.6065 23.1961; 3652 20.446 -21.6065 27.0709;
3653 21.946 -21.9534 25.1335; 3654 21.9459 -20.1534 25.1335;
3655 21.946 -21.9534 22.7335; 3656 21.946 -21.9534 27.5335;
3657 21.946 -21.9534 24.4657; 3658 21.946 -21.0534 23.9335;
3659 21.946 -21.9534 25.8013; 3660 21.946 -21.0534 26.3335;
3661 21.946 -21.9534 23.4013; 3662 21.946 -21.9534 26.8657;
3663 21.946 -21.6065 23.1961; 3664 21.946 -21.6065 27.0709;
3665 24.946 -21.9534 25.1335; 3666 24.9459 -20.1534 25.1335;
3667 24.946 -21.9534 22.7335; 3668 24.946 -21.9534 27.5335;
3669 24.946 -21.9534 24.4657; 3670 24.946 -21.0534 23.9335;
3671 24.946 -21.9534 25.8013; 3672 24.946 -21.0534 26.3335;
3673 24.946 -21.9534 23.4013; 3674 24.946 -21.9534 26.8657;
3675 24.946 -21.6065 23.1961; 3676 24.946 -21.6065 27.0709;
3677 26.446 -21.9534 25.1335; 3678 26.4459 -20.1534 25.1335;
3679 26.446 -21.9534 22.7335; 3680 26.446 -21.9534 27.5335;
3681 26.446 -21.9534 24.4657; 3682 26.446 -21.0534 23.9335;
3683 26.446 -21.9534 25.8013; 3684 26.446 -21.0534 26.3335;
3685 26.446 -21.9534 23.4013; 3686 26.446 -21.9534 26.8657;
3687 26.446 -21.6065 23.1961; 3688 26.446 -21.6065 27.0709;
3689 29.4461 -20.1534 25.1335; 3690 29.4461 -21.9534 22.7335;
3691 29.4461 -21.9534 27.5335; 3692 29.4461 -21.9534 24.4657;
3693 29.4461 -21.0534 23.9335; 3694 29.4461 -21.9534 25.8013;
3695 29.4461 -21.0534 26.3335; 3696 29.4461 -21.9534 23.4013;
3697 29.4461 -21.9534 26.8657; 3698 29.4461 -21.6065 23.1961;
3699 29.4461 -21.6065 27.0709; 3700 27.303 -20.1534 25.1335;
3701 27.3031 -21.9534 22.7335; 3702 27.3031 -21.9534 27.5335;
3703 27.3031 -21.9534 24.4657; 3704 27.3031 -21.0534 23.9335;
3705 27.3031 -21.9534 25.8013; 3706 27.3031 -21.0534 26.3335;
3707 27.3031 -21.9534 23.4013; 3708 27.3031 -21.9534 26.8657;
3709 27.3031 -21.6065 23.1961; 3710 27.3031 -21.6065 27.0709;
3711 3.8994 -20.1534 25.1335; 3712 31.5891 -21.9534 25.1335;
3713 29.4461 -21.9534 25.1335; 3714 27.3031 -21.9534 25.1335;
3715 -11.6983 -22.1534 25.1335; 3716 -7.7989 -22.1534 25.1335;
3717 -3.8995 -22.1534 25.1335; 3718 -3.8995 -22.1534 37.1335;
3719 -11.6983 -22.1534 37.1335; 3720 -7.7989 -22.1534 37.1335;
3721 -27.793 -20.8084 30.6335; 3722 -27.793 -20.8084 31.6335;
3723 0 -22.1534 25.1335; 3724 3.8994 -22.1534 25.1335;
3725 7.7988 -22.1534 25.1335; 3726 11.6982 -22.1534 25.1335;
3727 15.5976 -22.1534 25.1335; 3728 19.497 -22.1534 25.1335;
3729 19.497 -22.1534 37.1335; 3730 15.5976 -22.1534 37.1335;
3731 11.6982 -22.1534 37.1335; 3732 7.7988 -22.1534 37.1335;
3733 3.8994 -22.1534 37.1335; 3734 0 -22.1534 37.1335;
3735 31.6989 -20.8084 30.6335; 3736 31.6989 -20.8084 31.6335;
3737 -26.089 -25.3534 32.6585; 3738 -26.089 -25.3534 29.6085;
3739 -26.089 -23.7534 29.6085; 3740 -26.089 -23.7534 32.6585;
3741 -26.089 -23.7534 30.6335; 3742 -26.089 -23.7534 31.6335;
3743 29.9949 -25.3534 29.6085; 3744 29.9949 -25.3534 32.6585;
3745 29.9949 -23.7534 32.6585; 3746 29.9949 -23.7534 29.6085;
3747 29.9949 -23.7534 30.6335; 3748 29.9949 -23.7534 31.6335;
3749 3.8994 -36.1534 32.9335; 3750 3.8994 -36.1534 29.3335;
3751 0 -36.1534 32.9335; 3752 0 -36.1534 29.3335;
3753 -29.497 -21.1584 31.6335; 3754 -26.089 -21.1584 31.6335;
3755 -27.793 -21.1584 31.6335; 3756 -29.497 -21.1584 30.6335;
3757 -27.793 -21.1584 30.6335; 3758 -26.089 -21.1584 30.6335;
3759 29.9949 -21.1584 30.6335; 3760 29.9949 -21.1584 31.6335;
3761 33.4029 -21.1584 31.6335; 3762 33.4029 -21.1584 30.6335;
3763 -26.772 -31.7534 23.9335; 3764 -25.647 -31.7534 23.9335;
3765 -24.5221 -31.7534 23.9335; 3766 -26.772 -31.7534 25.1335;
3767 -25.647 -31.7534 25.1335; 3768 -24.5221 -31.7534 25.1335;

3769 -26.772 -31.7534 26.3335; 3770 -24.5221 -31.7534 26.3335;
3771 -22.0971 -31.7534 23.9335; 3772 -20.7971 -31.7534 23.9335;
3773 -22.0971 -31.7534 25.1335; 3774 -20.7971 -31.7534 25.1335;
3775 -22.0971 -31.7534 26.3335; 3776 -20.7971 -31.7534 26.3335;
3777 -18.1971 -31.7534 23.9335; 3778 -16.8971 -31.7534 23.9335;
3779 -18.1971 -31.7534 25.1335; 3780 -16.8971 -31.7534 25.1335;
3781 -18.1971 -31.7534 26.3335; 3782 -16.8971 -31.7534 26.3335;
3783 -11.6971 -31.7534 23.9335; 3784 -11.6971 -31.7534 25.1335;
3785 -14.2971 -31.7534 23.9335; 3786 -12.9971 -31.7534 23.9335;
3787 -14.2971 -31.7534 25.1335; 3788 -12.9971 -31.7534 25.1335;
3789 -14.2971 -31.7534 26.3335; 3790 -12.9971 -31.7534 26.3335;
3791 -7.7971 -31.7534 23.9335; 3792 -7.7971 -31.7534 25.1335;
3793 -7.7971 -31.7534 26.3335; 3794 -10.3971 -31.7534 23.9335;
3795 -9.0971 -31.7534 23.9335; 3796 -10.3971 -31.7534 25.1335;
3797 -9.0971 -31.7534 25.1335; 3798 -10.3971 -31.7534 26.3335;
3799 -9.0971 -31.7534 26.3335; 3800 -3.8971 -31.7534 23.9335;
3801 -3.8971 -31.7534 25.1335; 3802 -3.8971 -31.7534 26.3335;
3803 -6.4971 -31.7534 23.9335; 3804 -5.1971 -31.7534 23.9335;
3805 -6.4971 -31.7534 25.1335; 3806 -5.1971 -31.7534 25.1335;
3807 -6.4971 -31.7534 26.3335; 3808 -5.1971 -31.7534 26.3335;
3809 0.00289917 -31.7534 23.9335; 3810 0.00289917 -31.7534 25.1335;
3811 0.00289917 -31.7534 26.3335; 3812 -2.5971 -31.7534 23.9335;
3813 -1.2971 -31.7534 23.9335; 3814 -2.5971 -31.7534 25.1335;
3815 -1.2971 -31.7534 25.1335; 3816 -2.5971 -31.7534 26.3335;
3817 -1.2971 -31.7534 26.3335; 3818 3.9029 -31.7534 23.9335;
3819 3.9029 -31.7534 25.1335; 3820 3.9029 -31.7534 26.3335;
3821 1.3029 -31.7534 23.9335; 3822 2.6029 -31.7534 23.9335;
3823 1.3029 -31.7534 25.1335; 3824 2.6029 -31.7534 25.1335;
3825 1.3029 -31.7534 26.3335; 3826 2.6029 -31.7534 26.3335;
3827 7.8029 -31.7534 23.9335; 3828 7.8029 -31.7534 25.1335;
3829 7.8029 -31.7534 26.3335; 3830 5.2029 -31.7534 23.9335;
3831 6.5029 -31.7534 23.9335; 3832 5.2029 -31.7534 25.1335;
3833 6.5029 -31.7534 25.1335; 3834 5.2029 -31.7534 26.3335;
3835 6.5029 -31.7534 26.3335; 3836 11.7029 -31.7534 23.9335;
3837 11.7029 -31.7534 25.1335; 3838 11.7029 -31.7534 26.3335;
3839 9.1029 -31.7534 23.9335; 3840 10.4029 -31.7534 23.9335;
3841 9.1029 -31.7534 25.1335; 3842 10.4029 -31.7534 25.1335;
3843 9.1029 -31.7534 26.3335; 3844 10.4029 -31.7534 26.3335;
3845 15.6029 -31.7534 23.9335; 3846 15.6029 -31.7534 25.1335;
3847 13.0029 -31.7534 23.9335; 3848 14.3029 -31.7534 23.9335;
3849 13.0029 -31.7534 25.1335; 3850 14.3029 -31.7534 25.1335;
3851 13.0029 -31.7534 26.3335; 3852 14.3029 -31.7534 26.3335;
3853 19.5029 -31.7534 23.9335; 3854 19.5029 -31.7534 25.1335;
3855 19.5029 -31.7534 26.3335; 3856 16.9029 -31.7534 23.9335;
3857 18.2029 -31.7534 23.9335; 3858 16.9029 -31.7534 25.1335;
3859 18.2029 -31.7534 25.1335; 3860 16.9029 -31.7534 26.3335;
3861 18.2029 -31.7534 26.3335; 3862 23.4029 -31.7534 23.9335;
3863 23.4029 -31.7534 25.1335; 3864 23.4029 -31.7534 26.3335;
3865 20.8029 -31.7534 23.9335; 3866 22.1029 -31.7534 23.9335;
3867 20.8029 -31.7534 25.1335; 3868 22.1029 -31.7534 25.1335;
3869 20.8029 -31.7534 26.3335; 3870 22.1029 -31.7534 26.3335;
3871 24.7029 -31.7534 23.9335; 3872 26.0029 -31.7534 23.9335;
3873 24.7029 -31.7534 25.1335; 3874 26.0029 -31.7534 25.1335;
3875 24.7029 -31.7534 26.3335; 3876 26.0029 -31.7534 26.3335;
3877 28.428 -31.7534 23.9335; 3878 29.553 -31.7534 23.9335;
3879 30.678 -31.7534 23.9335; 3880 28.428 -31.7534 25.1335;
3881 29.553 -31.7534 25.1335; 3882 30.678 -31.7534 25.1335;
3883 28.428 -31.7534 26.3335; 3884 30.678 -31.7534 26.3335;
3885 30.678 -31.7534 28.571; 3886 29.553 -31.7534 28.571;
3887 28.428 -31.7534 28.571; 3888 26.3263 -31.7534 28.4335;
3889 25.3497 -31.7534 28.4335; 3890 24.3731 -31.7534 28.4335;
3891 23.3964 -31.7534 28.4335; 3892 -20.4721 -31.7534 28.4335;
3893 -21.4471 -31.7534 28.4335; 3894 -22.4221 -31.7534 28.4335;
3895 -16.5721 -31.7534 28.4335; 3896 -17.5471 -31.7534 28.4335;
3897 -18.5221 -31.7534 28.4335; 3898 -11.6971 -31.7534 28.4335;
3899 -12.6721 -31.7534 28.4335; 3900 -13.6471 -31.7534 28.4335;
3901 -14.6221 -31.7534 28.4335; 3902 -7.7971 -31.7534 28.4335;
3903 -8.7721 -31.7534 28.4335; 3904 -9.7471 -31.7534 28.4335;
3905 -10.7221 -31.7534 28.4335; 3906 -3.8971 -31.7534 28.4335;
3907 -4.8721 -31.7534 28.4335; 3908 -5.8471 -31.7534 28.4335;
3909 -6.8221 -31.7534 28.4335; 3910 0.00289917 -31.7534 28.4335;
3911 -0.972101 -31.7534 28.4335; 3912 -1.9471 -31.7534 28.4335;
3913 -2.9221 -31.7534 28.4335; 3914 3.9029 -31.7534 28.4335;
3915 2.9279 -31.7534 28.4335; 3916 1.9529 -31.7534 28.4335;
3917 0.9779 -31.7534 28.4335; 3918 7.8029 -31.7534 28.4335;
3919 6.8279 -31.7534 28.4335; 3920 5.8529 -31.7534 28.4335;
3921 4.8779 -31.7534 28.4335; 3922 11.7029 -31.7534 28.4335;
3923 10.7279 -31.7534 28.4335; 3924 9.7529 -31.7534 28.4335;
3925 8.7779 -31.7534 28.4335; 3926 15.6029 -31.7534 28.4335;
3927 14.6279 -31.7534 28.4335; 3928 13.6529 -31.7534 28.4335;
3929 12.6779 -31.7534 28.4335; 3930 19.5029 -31.7534 28.4335;
3931 18.5279 -31.7534 28.4335; 3932 17.5529 -31.7534 28.4335;

3933 16.5779 -31.7534 28.4335; 3934 22.4279 -31.7534 28.4335;
3935 21.4529 -31.7534 28.4335; 3936 20.4779 -31.7534 28.4335;
3937 -24.5221 -31.7534 28.571; 3938 -25.647 -31.7534 28.571;
3939 -26.772 -31.7534 28.571; 3940 -28.847 -31.7534 26.5335;
3941 -28.847 -31.7534 28.571; 3942 -24.222 -31.7534 31.896;
3943 -24.222 -31.7534 31.1335; 3944 -24.222 -31.7534 30.371;
3945 2.9263 -31.7534 30.5335; 3946 2.92542 -31.7534 31.7335;
3947 1.95087 -31.7534 30.5335; 3948 0.975433 -31.7534 30.5335;
3949 0.975142 -31.7534 31.7335; 3950 0 -31.7534 30.5335;
3951 28.128 -31.7534 31.896; 3952 28.128 -31.7534 31.1335;
3953 28.128 -31.7534 30.371; 3954 32.753 -31.7534 26.5335;
3955 32.753 -31.7534 28.571; 3956 -26.772 -31.7534 38.3235;
3957 -25.647 -31.7534 38.3235; 3958 -24.5221 -31.7534 38.3235;
3959 -26.772 -31.7534 37.1235; 3960 -25.647 -31.7534 37.1235;
3961 -24.5221 -31.7534 37.1235; 3962 -26.772 -31.7534 35.9235;
3963 -24.5221 -31.7534 35.9235; 3964 -22.0971 -31.7534 38.3235;
3965 -20.7971 -31.7534 38.3235; 3966 -22.0971 -31.7534 37.1235;
3967 -20.7971 -31.7534 37.1235; 3968 -22.0971 -31.7534 35.9235;
3969 -20.7971 -31.7534 35.9235; 3970 -18.1971 -31.7534 38.3235;
3971 -16.8971 -31.7534 38.3235; 3972 -18.1971 -31.7534 37.1235;
3973 -16.8971 -31.7534 37.1235; 3974 -18.1971 -31.7534 35.9235;
3975 -16.8971 -31.7534 35.9235; 3976 -11.6971 -31.7534 38.3235;
3977 -11.6971 -31.7534 37.1235; 3978 -14.2971 -31.7534 38.3235;
3979 -12.9971 -31.7534 38.3235; 3980 -14.2971 -31.7534 37.1235;
3981 -12.9971 -31.7534 37.1235; 3982 -14.2971 -31.7534 35.9235;
3983 -12.9971 -31.7534 35.9235; 3984 -7.7971 -31.7534 38.3235;
3985 -7.7971 -31.7534 37.1235; 3986 -7.7971 -31.7534 35.9235;
3987 -10.3971 -31.7534 38.3235; 3988 -9.0971 -31.7534 38.3235;
3989 -10.3971 -31.7534 37.1235; 3990 -9.0971 -31.7534 37.1235;
3991 -10.3971 -31.7534 35.9235; 3992 -9.0971 -31.7534 35.9235;
3993 -3.8971 -31.7534 38.3235; 3994 -3.8971 -31.7534 37.1235;
3995 -3.8971 -31.7534 35.9235; 3996 -6.4971 -31.7534 38.3235;
3997 -5.1971 -31.7534 38.3235; 3998 -6.4971 -31.7534 37.1235;
3999 -5.1971 -31.7534 37.1235; 4000 -6.4971 -31.7534 35.9235;
4001 -5.1971 -31.7534 35.9235; 4002 0.00289917 -31.7534 38.3235;
4003 0.00289917 -31.7534 37.1235; 4004 0.00289917 -31.7534 35.9235;
4005 -2.5971 -31.7534 38.3235; 4006 -1.2971 -31.7534 38.3235;
4007 -2.5971 -31.7534 37.1235; 4008 -1.2971 -31.7534 37.1235;
4009 -2.5971 -31.7534 35.9235; 4010 -1.2971 -31.7534 35.9235;
4011 3.9029 -31.7534 38.3235; 4012 3.9029 -31.7534 37.1235;
4013 3.9029 -31.7534 35.9235; 4014 1.3029 -31.7534 38.3235;
4015 2.6029 -31.7534 38.3235; 4016 1.3029 -31.7534 37.1235;
4017 2.6029 -31.7534 37.1235; 4018 1.3029 -31.7534 35.9235;
4019 2.6029 -31.7534 35.9235; 4020 7.8029 -31.7534 38.3235;
4021 7.8029 -31.7534 37.1235; 4022 7.8029 -31.7534 35.9235;
4023 5.2029 -31.7534 38.3235; 4024 6.5029 -31.7534 38.3235;
4025 5.2029 -31.7534 37.1235; 4026 6.5029 -31.7534 37.1235;
4027 5.2029 -31.7534 35.9235; 4028 6.5029 -31.7534 35.9235;
4029 11.7029 -31.7534 38.3235; 4030 11.7029 -31.7534 37.1235;
4031 11.7029 -31.7534 35.9235; 4032 9.1029 -31.7534 38.3235;
4033 10.4029 -31.7534 38.3235; 4034 9.1029 -31.7534 37.1235;
4035 10.4029 -31.7534 37.1235; 4036 9.1029 -31.7534 35.9235;
4037 10.4029 -31.7534 35.9235; 4038 15.6029 -31.7534 38.3235;
4039 15.6029 -31.7534 37.1235; 4040 13.0029 -31.7534 38.3235;
4041 14.3029 -31.7534 38.3235; 4042 13.0029 -31.7534 37.1235;
4043 14.3029 -31.7534 37.1235; 4044 13.0029 -31.7534 35.9235;
4045 14.3029 -31.7534 35.9235; 4046 19.5029 -31.7534 38.3235;
4047 19.5029 -31.7534 37.1235; 4048 19.5029 -31.7534 35.9235;
4049 16.9029 -31.7534 38.3235; 4050 18.2029 -31.7534 38.3235;
4051 16.9029 -31.7534 37.1235; 4052 18.2029 -31.7534 37.1235;
4053 16.9029 -31.7534 35.9235; 4054 18.2029 -31.7534 35.9235;
4055 23.4029 -31.7534 38.3235; 4056 23.4029 -31.7534 37.1235;
4057 23.4029 -31.7534 35.9235; 4058 20.8029 -31.7534 38.3235;
4059 22.1029 -31.7534 38.3235; 4060 20.8029 -31.7534 37.1235;
4061 22.1029 -31.7534 37.1235; 4062 20.8029 -31.7534 35.9235;
4063 22.1029 -31.7534 35.9235; 4064 24.7029 -31.7534 38.3235;
4065 26.0029 -31.7534 38.3235; 4066 24.7029 -31.7534 37.1235;
4067 26.0029 -31.7534 37.1235; 4068 24.7029 -31.7534 35.9235;
4069 26.0029 -31.7534 35.9235; 4070 28.428 -31.7534 38.3235;
4071 29.553 -31.7534 38.3235; 4072 30.678 -31.7534 38.3235;
4073 28.428 -31.7534 37.1235; 4074 29.553 -31.7534 37.1235;
4075 30.678 -31.7534 37.1235; 4076 28.428 -31.7534 35.9235;
4077 30.678 -31.7534 35.9235; 4078 30.678 -31.7534 33.686;
4079 29.553 -31.7534 33.686; 4080 28.428 -31.7534 33.686;
4081 26.3263 -31.7534 33.8235; 4082 25.3497 -31.7534 33.8235;
4083 24.3731 -31.7534 33.8235; 4084 23.3964 -31.7534 33.8235;
4085 -20.4721 -31.7534 33.8235; 4086 -21.4471 -31.7534 33.8235;
4087 -22.4221 -31.7534 33.8235; 4088 -16.5721 -31.7534 33.8235;
4089 -17.5471 -31.7534 33.8235; 4090 -18.5221 -31.7534 33.8235;
4091 -11.6971 -31.7534 33.8235; 4092 -12.6721 -31.7534 33.8235;
4093 -13.6471 -31.7534 33.8235; 4094 -14.6221 -31.7534 33.8235;
4095 -7.7971 -31.7534 33.8235; 4096 -8.7721 -31.7534 33.8235;

4097 -9.7471 -31.7534 33.8235; 4098 -10.7221 -31.7534 33.8235;
4099 -3.8971 -31.7534 33.8235; 4100 -4.8721 -31.7534 33.8235;
4101 -5.8471 -31.7534 33.8235; 4102 -6.8221 -31.7534 33.8235;
4103 0.00289917 -31.7534 33.8235; 4104 -0.972101 -31.7534 33.8235;
4105 -1.9471 -31.7534 33.8235; 4106 -2.9221 -31.7534 33.8235;
4107 3.9029 -31.7534 33.8235; 4108 2.9279 -31.7534 33.8235;
4109 1.9529 -31.7534 33.8235; 4110 0.9779 -31.7534 33.8235;
4111 7.8029 -31.7534 33.8235; 4112 6.8279 -31.7534 33.8235;
4113 5.8529 -31.7534 33.8235; 4114 4.8779 -31.7534 33.8235;
4115 11.7029 -31.7534 33.8235; 4116 10.7279 -31.7534 33.8235;
4117 9.7529 -31.7534 33.8235; 4118 8.7779 -31.7534 33.8235;
4119 15.6029 -31.7534 33.8235; 4120 14.6279 -31.7534 33.8235;
4121 13.6529 -31.7534 33.8235; 4122 12.6779 -31.7534 33.8235;
4123 19.5029 -31.7534 33.8235; 4124 18.5279 -31.7534 33.8235;
4125 17.5529 -31.7534 33.8235; 4126 16.5779 -31.7534 33.8235;
4127 22.4279 -31.7534 33.8235; 4128 21.4529 -31.7534 33.8235;
4129 20.4779 -31.7534 33.8235; 4130 -24.5221 -31.7534 33.686;
4131 -25.647 -31.7534 33.686; 4132 -26.772 -31.7534 33.686;
4133 -28.847 -31.7534 35.7235; 4134 -28.847 -31.7534 33.686;
4135 32.753 -31.7534 35.7235; 4136 32.753 -31.7534 33.686;
4137 -26.772 -28.5534 23.9335; 4138 -25.647 -28.5534 23.9335;
4139 -24.5221 -28.5534 23.9335; 4140 -26.772 -28.5534 25.1335;
4141 -25.647 -28.5534 25.1335; 4142 -24.5221 -28.5534 25.1335;
4143 -26.772 -28.5534 26.3335; 4144 -24.5221 -28.5534 26.3335;
4145 -22.0971 -28.5534 23.9335; 4146 -20.7971 -28.5534 23.9335;
4147 -22.0971 -28.5534 25.1335; 4148 -20.7971 -28.5534 25.1335;
4149 -22.0971 -28.5534 26.3335; 4150 -20.7971 -28.5534 26.3335;
4151 -18.1971 -28.5534 23.9335; 4152 -16.8971 -28.5534 23.9335;
4153 -18.1971 -28.5534 25.1335; 4154 -16.8971 -28.5534 25.1335;
4155 -18.1971 -28.5534 26.3335; 4156 -16.8971 -28.5534 26.3335;
4157 -11.6971 -28.5534 23.9335; 4158 -11.6971 -28.5534 25.1335;
4159 -14.2971 -28.5534 23.9335; 4160 -12.9971 -28.5534 23.9335;
4161 -14.2971 -28.5534 25.1335; 4162 -12.9971 -28.5534 25.1335;
4163 -14.2971 -28.5534 26.3335; 4164 -12.9971 -28.5534 26.3335;
4165 -7.7971 -28.5534 23.9335; 4166 -7.7971 -28.5534 25.1335;
4167 -7.7971 -28.5534 26.3335; 4168 -10.3971 -28.5534 23.9335;
4169 -9.0971 -28.5534 23.9335; 4170 -10.3971 -28.5534 25.1335;
4171 -9.0971 -28.5534 25.1335; 4172 -10.3971 -28.5534 26.3335;
4173 -9.0971 -28.5534 26.3335; 4174 -3.8971 -28.5534 23.9335;
4175 -3.8971 -28.5534 25.1335; 4176 -3.8971 -28.5534 26.3335;
4177 -6.4971 -28.5534 23.9335; 4178 -5.1971 -28.5534 23.9335;
4179 -6.4971 -28.5534 25.1335; 4180 -5.1971 -28.5534 25.1335;
4181 -6.4971 -28.5534 26.3335; 4182 -5.1971 -28.5534 26.3335;
4183 0.00289917 -28.5534 23.9335; 4184 0.00289917 -28.5534 25.1335;
4185 0.00289917 -28.5534 26.3335; 4186 -2.5971 -28.5534 23.9335;
4187 -1.2971 -28.5534 23.9335; 4188 -2.5971 -28.5534 25.1335;
4189 -1.2971 -28.5534 25.1335; 4190 -2.5971 -28.5534 26.3335;
4191 -1.2971 -28.5534 26.3335; 4192 3.9029 -28.5534 23.9335;
4193 3.9029 -28.5534 25.1335; 4194 3.9029 -28.5534 26.3335;
4195 1.3029 -28.5534 23.9335; 4196 2.6029 -28.5534 23.9335;
4197 1.3029 -28.5534 25.1335; 4198 2.6029 -28.5534 25.1335;
4199 1.3029 -28.5534 26.3335; 4200 2.6029 -28.5534 26.3335;
4201 7.8029 -28.5534 23.9335; 4202 7.8029 -28.5534 25.1335;
4203 7.8029 -28.5534 26.3335; 4204 5.2029 -28.5534 23.9335;
4205 6.5029 -28.5534 23.9335; 4206 5.2029 -28.5534 25.1335;
4207 6.5029 -28.5534 25.1335; 4208 5.2029 -28.5534 26.3335;
4209 6.5029 -28.5534 26.3335; 4210 11.7029 -28.5534 23.9335;
4211 11.7029 -28.5534 25.1335; 4212 11.7029 -28.5534 26.3335;
4213 9.1029 -28.5534 23.9335; 4214 10.4029 -28.5534 23.9335;
4215 9.1029 -28.5534 25.1335; 4216 10.4029 -28.5534 25.1335;
4217 9.1029 -28.5534 26.3335; 4218 10.4029 -28.5534 26.3335;
4219 15.6029 -28.5534 23.9335; 4220 15.6029 -28.5534 25.1335;
4221 13.0029 -28.5534 23.9335; 4222 14.3029 -28.5534 23.9335;
4223 13.0029 -28.5534 25.1335; 4224 14.3029 -28.5534 25.1335;
4225 13.0029 -28.5534 26.3335; 4226 14.3029 -28.5534 26.3335;
4227 19.5029 -28.5534 23.9335; 4228 19.5029 -28.5534 25.1335;
4229 19.5029 -28.5534 26.3335; 4230 16.9029 -28.5534 23.9335;
4231 18.2029 -28.5534 23.9335; 4232 16.9029 -28.5534 25.1335;
4233 18.2029 -28.5534 25.1335; 4234 16.9029 -28.5534 26.3335;
4235 18.2029 -28.5534 26.3335; 4236 23.4029 -28.5534 23.9335;
4237 23.4029 -28.5534 25.1335; 4238 23.4029 -28.5534 26.3335;
4239 20.8029 -28.5534 23.9335; 4240 22.1029 -28.5534 23.9335;
4241 20.8029 -28.5534 25.1335; 4242 22.1029 -28.5534 25.1335;
4243 20.8029 -28.5534 26.3335; 4244 22.1029 -28.5534 26.3335;
4245 24.7029 -28.5534 23.9335; 4246 26.0029 -28.5534 23.9335;
4247 24.7029 -28.5534 25.1335; 4248 26.0029 -28.5534 25.1335;
4249 24.7029 -28.5534 26.3335; 4250 26.0029 -28.5534 26.3335;
4251 28.428 -28.5534 23.9335; 4252 29.553 -28.5534 23.9335;
4253 30.678 -28.5534 23.9335; 4254 28.428 -28.5534 25.1335;
4255 29.553 -28.5534 25.1335; 4256 30.678 -28.5534 25.1335;
4257 28.428 -28.5534 26.3335; 4258 30.678 -28.5534 26.3335;
4259 30.678 -28.5534 28.571; 4260 29.553 -28.5534 28.571;

4261 28.428 -28.5534 28.571; 4262 26.3263 -28.5534 28.4335;
4263 25.3497 -28.5534 28.4335; 4264 24.3731 -28.5534 28.4335;
4265 23.3964 -28.5534 28.4335; 4266 -20.4721 -28.5534 28.4335;
4267 -21.4471 -28.5534 28.4335; 4268 -22.4221 -28.5534 28.4335;
4269 -16.5721 -28.5534 28.4335; 4270 -17.5471 -28.5534 28.4335;
4271 -18.5221 -28.5534 28.4335; 4272 -11.6971 -28.5534 28.4335;
4273 -12.6721 -28.5534 28.4335; 4274 -13.6471 -28.5534 28.4335;
4275 -14.6221 -28.5534 28.4335; 4276 -7.7971 -28.5534 28.4335;
4277 -8.7721 -28.5534 28.4335; 4278 -9.7471 -28.5534 28.4335;
4279 -10.7221 -28.5534 28.4335; 4280 -3.8971 -28.5534 28.4335;
4281 -4.8721 -28.5534 28.4335; 4282 -5.8471 -28.5534 28.4335;
4283 -6.8221 -28.5534 28.4335; 4284 0.00289917 -28.5534 28.4335;
4285 -0.972101 -28.5534 28.4335; 4286 -1.9471 -28.5534 28.4335;
4287 -2.9221 -28.5534 28.4335; 4288 3.9029 -28.5534 28.4335;
4289 2.9279 -28.5534 28.4335; 4290 1.9529 -28.5534 28.4335;
4291 0.9779 -28.5534 28.4335; 4292 7.8029 -28.5534 28.4335;
4293 6.8279 -28.5534 28.4335; 4294 5.8529 -28.5534 28.4335;
4295 4.8779 -28.5534 28.4335; 4296 11.7029 -28.5534 28.4335;
4297 10.7279 -28.5534 28.4335; 4298 9.7529 -28.5534 28.4335;
4299 8.7779 -28.5534 28.4335; 4300 15.6029 -28.5534 28.4335;
4301 14.6279 -28.5534 28.4335; 4302 13.6529 -28.5534 28.4335;
4303 12.6779 -28.5534 28.4335; 4304 19.5029 -28.5534 28.4335;
4305 18.5279 -28.5534 28.4335; 4306 17.5529 -28.5534 28.4335;
4307 16.5779 -28.5534 28.4335; 4308 22.4279 -28.5534 28.4335;
4309 21.4529 -28.5534 28.4335; 4310 20.4779 -28.5534 28.4335;
4311 -24.5221 -28.5534 28.571; 4312 -25.647 -28.5534 28.571;
4313 -26.772 -28.5534 28.571; 4314 -28.847 -28.5534 26.5335;
4315 -28.847 -28.5534 28.571; 4316 -24.222 -28.5534 31.896;
4317 -24.222 -28.5534 31.1335; 4318 -24.222 -28.5534 30.371;
4319 2.9263 -28.5534 30.5335; 4320 2.92542 -28.5534 31.7335;
4321 1.95087 -28.5534 30.5335; 4322 0.975433 -28.5534 30.5335;
4323 0.975142 -28.5534 31.7335; 4324 0 -28.5534 30.5335;
4325 28.128 -28.5534 31.896; 4326 28.128 -28.5534 31.1335;
4327 28.128 -28.5534 30.371; 4328 32.753 -28.5534 26.5335;
4329 32.753 -28.5534 28.571; 4330 -26.772 -28.5534 38.3235;
4331 -25.647 -28.5534 38.3235; 4332 -24.5221 -28.5534 38.3235;
4333 -26.772 -28.5534 37.1235; 4334 -25.647 -28.5534 37.1235;
4335 -24.5221 -28.5534 37.1235; 4336 -26.772 -28.5534 35.9235;
4337 -24.5221 -28.5534 35.9235; 4338 -22.0971 -28.5534 38.3235;
4339 -20.7971 -28.5534 38.3235; 4340 -22.0971 -28.5534 37.1235;
4341 -20.7971 -28.5534 37.1235; 4342 -22.0971 -28.5534 35.9235;
4343 -20.7971 -28.5534 35.9235; 4344 -18.1971 -28.5534 38.3235;
4345 -16.8971 -28.5534 38.3235; 4346 -18.1971 -28.5534 37.1235;
4347 -16.8971 -28.5534 37.1235; 4348 -18.1971 -28.5534 35.9235;
4349 -16.8971 -28.5534 35.9235; 4350 -11.6971 -28.5534 38.3235;
4351 -11.6971 -28.5534 37.1235; 4352 -14.2971 -28.5534 38.3235;
4353 -12.9971 -28.5534 38.3235; 4354 -14.2971 -28.5534 37.1235;
4355 -12.9971 -28.5534 37.1235; 4356 -14.2971 -28.5534 35.9235;
4357 -12.9971 -28.5534 35.9235; 4358 -7.7971 -28.5534 38.3235;
4359 -7.7971 -28.5534 37.1235; 4360 -7.7971 -28.5534 35.9235;
4361 -10.3971 -28.5534 38.3235; 4362 -9.0971 -28.5534 38.3235;
4363 -10.3971 -28.5534 37.1235; 4364 -9.0971 -28.5534 37.1235;
4365 -10.3971 -28.5534 35.9235; 4366 -9.0971 -28.5534 35.9235;
4367 -3.8971 -28.5534 38.3235; 4368 -3.8971 -28.5534 37.1235;
4369 -3.8971 -28.5534 35.9235; 4370 -6.4971 -28.5534 38.3235;
4371 -5.1971 -28.5534 38.3235; 4372 -6.4971 -28.5534 37.1235;
4373 -5.1971 -28.5534 37.1235; 4374 -6.4971 -28.5534 35.9235;
4375 -5.1971 -28.5534 35.9235; 4376 0.00289917 -28.5534 38.3235;
4377 0.00289917 -28.5534 37.1235; 4378 0.00289917 -28.5534 35.9235;
4379 -2.5971 -28.5534 38.3235; 4380 -1.2971 -28.5534 38.3235;
4381 -2.5971 -28.5534 37.1235; 4382 -1.2971 -28.5534 37.1235;
4383 -2.5971 -28.5534 35.9235; 4384 -1.2971 -28.5534 35.9235;
4385 3.9029 -28.5534 38.3235; 4386 3.9029 -28.5534 37.1235;
4387 3.9029 -28.5534 35.9235; 4388 1.3029 -28.5534 38.3235;
4389 2.6029 -28.5534 38.3235; 4390 1.3029 -28.5534 37.1235;
4391 2.6029 -28.5534 37.1235; 4392 1.3029 -28.5534 35.9235;
4393 2.6029 -28.5534 35.9235; 4394 7.8029 -28.5534 38.3235;
4395 7.8029 -28.5534 37.1235; 4396 7.8029 -28.5534 35.9235;
4397 5.2029 -28.5534 38.3235; 4398 6.5029 -28.5534 38.3235;
4399 5.2029 -28.5534 37.1235; 4400 6.5029 -28.5534 37.1235;
4401 5.2029 -28.5534 35.9235; 4402 6.5029 -28.5534 35.9235;
4403 11.7029 -28.5534 38.3235; 4404 11.7029 -28.5534 37.1235;
4405 11.7029 -28.5534 35.9235; 4406 9.1029 -28.5534 38.3235;
4407 10.4029 -28.5534 38.3235; 4408 9.1029 -28.5534 37.1235;
4409 10.4029 -28.5534 37.1235; 4410 9.1029 -28.5534 35.9235;
4411 10.4029 -28.5534 35.9235; 4412 15.6029 -28.5534 38.3235;
4413 15.6029 -28.5534 37.1235; 4414 13.0029 -28.5534 38.3235;
4415 14.3029 -28.5534 38.3235; 4416 13.0029 -28.5534 37.1235;
4417 14.3029 -28.5534 37.1235; 4418 13.0029 -28.5534 35.9235;
4419 14.3029 -28.5534 35.9235; 4420 19.5029 -28.5534 38.3235;
4421 19.5029 -28.5534 37.1235; 4422 19.5029 -28.5534 35.9235;
4423 16.9029 -28.5534 38.3235; 4424 18.2029 -28.5534 38.3235;

4425 16.9029 -28.5534 37.1235; 4426 18.2029 -28.5534 37.1235;
4427 16.9029 -28.5534 35.9235; 4428 18.2029 -28.5534 35.9235;
4429 23.4029 -28.5534 38.3235; 4430 23.4029 -28.5534 37.1235;
4431 23.4029 -28.5534 35.9235; 4432 20.8029 -28.5534 38.3235;
4433 22.1029 -28.5534 38.3235; 4434 20.8029 -28.5534 37.1235;
4435 22.1029 -28.5534 37.1235; 4436 20.8029 -28.5534 35.9235;
4437 22.1029 -28.5534 35.9235; 4438 24.7029 -28.5534 38.3235;
4439 26.0029 -28.5534 38.3235; 4440 24.7029 -28.5534 37.1235;
4441 26.0029 -28.5534 37.1235; 4442 24.7029 -28.5534 35.9235;
4443 26.0029 -28.5534 35.9235; 4444 28.428 -28.5534 38.3235;
4445 29.553 -28.5534 38.3235; 4446 30.678 -28.5534 38.3235;
4447 28.428 -28.5534 37.1235; 4448 29.553 -28.5534 37.1235;
4449 30.678 -28.5534 37.1235; 4450 28.428 -28.5534 35.9235;
4451 30.678 -28.5534 35.9235; 4452 30.678 -28.5534 33.686;
4453 29.553 -28.5534 33.686; 4454 28.428 -28.5534 33.686;
4455 26.3263 -28.5534 33.8235; 4456 25.3497 -28.5534 33.8235;
4457 24.3731 -28.5534 33.8235; 4458 23.3964 -28.5534 33.8235;
4459 -20.4721 -28.5534 33.8235; 4460 -21.4471 -28.5534 33.8235;
4461 -22.4221 -28.5534 33.8235; 4462 -16.5721 -28.5534 33.8235;
4463 -17.5471 -28.5534 33.8235; 4464 -18.5221 -28.5534 33.8235;
4465 -11.6971 -28.5534 33.8235; 4466 -12.6721 -28.5534 33.8235;
4467 -13.6471 -28.5534 33.8235; 4468 -14.6221 -28.5534 33.8235;
4469 -7.7971 -28.5534 33.8235; 4470 -8.7721 -28.5534 33.8235;
4471 -9.7471 -28.5534 33.8235; 4472 -10.7221 -28.5534 33.8235;
4473 -3.8971 -28.5534 33.8235; 4474 -4.8721 -28.5534 33.8235;
4475 -5.8471 -28.5534 33.8235; 4476 -6.8221 -28.5534 33.8235;
4477 0.00289917 -28.5534 33.8235; 4478 -0.972101 -28.5534 33.8235;
4479 -1.9471 -28.5534 33.8235; 4480 -2.9221 -28.5534 33.8235;
4481 3.9029 -28.5534 33.8235; 4482 2.9279 -28.5534 33.8235;
4483 1.9529 -28.5534 33.8235; 4484 0.9779 -28.5534 33.8235;
4485 7.8029 -28.5534 33.8235; 4486 6.8279 -28.5534 33.8235;
4487 5.8529 -28.5534 33.8235; 4488 4.8779 -28.5534 33.8235;
4489 11.7029 -28.5534 33.8235; 4490 10.7279 -28.5534 33.8235;
4491 9.7529 -28.5534 33.8235; 4492 8.7779 -28.5534 33.8235;
4493 15.6029 -28.5534 33.8235; 4494 14.6279 -28.5534 33.8235;
4495 13.6529 -28.5534 33.8235; 4496 12.6779 -28.5534 33.8235;
4497 19.5029 -28.5534 33.8235; 4498 18.5279 -28.5534 33.8235;
4499 17.5529 -28.5534 33.8235; 4500 16.5779 -28.5534 33.8235;
4501 22.4279 -28.5534 33.8235; 4502 21.4529 -28.5534 33.8235;
4503 20.4779 -28.5534 33.8235; 4504 -24.5221 -28.5534 33.686;
4505 -25.647 -28.5534 33.686; 4506 -26.772 -28.5534 33.686;
4507 -28.847 -28.5534 35.7235; 4508 -28.847 -28.5534 33.686;
4509 32.753 -28.5534 35.7235; 4510 32.753 -28.5534 33.686;
4511 -26.772 -25.3534 23.9335; 4512 -25.647 -25.3534 23.9335;
4513 -24.5221 -25.3534 23.9335; 4514 -26.772 -25.3534 25.1335;
4515 -25.647 -25.3534 25.1335; 4516 -24.5221 -25.3534 25.1335;
4517 -26.772 -25.3534 26.3335; 4518 -24.5221 -25.3534 26.3335;
4519 -22.0971 -25.3534 23.9335; 4520 -20.7971 -25.3534 23.9335;
4521 -22.0971 -25.3534 25.1335; 4522 -20.7971 -25.3534 25.1335;
4523 -22.0971 -25.3534 26.3335; 4524 -20.7971 -25.3534 26.3335;
4525 -18.1971 -25.3534 23.9335; 4526 -16.8971 -25.3534 23.9335;
4527 -18.1971 -25.3534 25.1335; 4528 -16.8971 -25.3534 25.1335;
4529 -18.1971 -25.3534 26.3335; 4530 -16.8971 -25.3534 26.3335;
4531 -11.6971 -25.3534 23.9335; 4532 -11.6971 -25.3534 25.1335;
4533 -14.2971 -25.3534 23.9335; 4534 -12.9971 -25.3534 23.9335;
4535 -14.2971 -25.3534 25.1335; 4536 -12.9971 -25.3534 25.1335;
4537 -14.2971 -25.3534 26.3335; 4538 -12.9971 -25.3534 26.3335;
4539 -7.7971 -25.3534 23.9335; 4540 -7.7971 -25.3534 25.1335;
4541 -7.7971 -25.3534 26.3335; 4542 -10.3971 -25.3534 23.9335;
4543 -9.0971 -25.3534 23.9335; 4544 -10.3971 -25.3534 25.1335;
4545 -9.0971 -25.3534 25.1335; 4546 -10.3971 -25.3534 26.3335;
4547 -9.0971 -25.3534 26.3335; 4548 -3.8971 -25.3534 23.9335;
4549 -3.8971 -25.3534 25.1335; 4550 -3.8971 -25.3534 26.3335;
4551 -6.4971 -25.3534 23.9335; 4552 -5.1971 -25.3534 23.9335;
4553 -6.4971 -25.3534 25.1335; 4554 -5.1971 -25.3534 25.1335;
4555 -6.4971 -25.3534 26.3335; 4556 -5.1971 -25.3534 26.3335;
4557 0.00289917 -25.3534 23.9335; 4558 0.00289917 -25.3534 25.1335;
4559 0.00289917 -25.3534 26.3335; 4560 -2.5971 -25.3534 23.9335;
4561 -1.2971 -25.3534 23.9335; 4562 -2.5971 -25.3534 25.1335;
4563 -1.2971 -25.3534 25.1335; 4564 -2.5971 -25.3534 26.3335;
4565 -1.2971 -25.3534 26.3335; 4566 3.9029 -25.3534 23.9335;
4567 3.9029 -25.3534 25.1335; 4568 3.9029 -25.3534 26.3335;
4569 1.3029 -25.3534 23.9335; 4570 2.6029 -25.3534 23.9335;
4571 1.3029 -25.3534 25.1335; 4572 2.6029 -25.3534 25.1335;
4573 1.3029 -25.3534 26.3335; 4574 2.6029 -25.3534 26.3335;
4575 7.8029 -25.3534 23.9335; 4576 7.8029 -25.3534 25.1335;
4577 7.8029 -25.3534 26.3335; 4578 5.2029 -25.3534 23.9335;
4579 6.5029 -25.3534 23.9335; 4580 5.2029 -25.3534 25.1335;
4581 6.5029 -25.3534 25.1335; 4582 5.2029 -25.3534 26.3335;
4583 6.5029 -25.3534 26.3335; 4584 11.7029 -25.3534 23.9335;
4585 11.7029 -25.3534 25.1335; 4586 11.7029 -25.3534 26.3335;
4587 9.1029 -25.3534 23.9335; 4588 10.4029 -25.3534 23.9335;

4589 9.1029 -25.3534 25.1335; 4590 10.4029 -25.3534 25.1335;
4591 9.1029 -25.3534 26.3335; 4592 10.4029 -25.3534 26.3335;
4593 15.6029 -25.3534 23.9335; 4594 15.6029 -25.3534 25.1335;
4595 13.0029 -25.3534 23.9335; 4596 14.3029 -25.3534 23.9335;
4597 13.0029 -25.3534 25.1335; 4598 14.3029 -25.3534 25.1335;
4599 13.0029 -25.3534 26.3335; 4600 14.3029 -25.3534 26.3335;
4601 19.5029 -25.3534 23.9335; 4602 19.5029 -25.3534 25.1335;
4603 19.5029 -25.3534 26.3335; 4604 16.9029 -25.3534 23.9335;
4605 18.2029 -25.3534 23.9335; 4606 16.9029 -25.3534 25.1335;
4607 18.2029 -25.3534 25.1335; 4608 16.9029 -25.3534 26.3335;
4609 18.2029 -25.3534 26.3335; 4610 23.4029 -25.3534 23.9335;
4611 23.4029 -25.3534 25.1335; 4612 23.4029 -25.3534 26.3335;
4613 20.8029 -25.3534 23.9335; 4614 22.1029 -25.3534 23.9335;
4615 20.8029 -25.3534 25.1335; 4616 22.1029 -25.3534 25.1335;
4617 20.8029 -25.3534 26.3335; 4618 22.1029 -25.3534 26.3335;
4619 24.7029 -25.3534 23.9335; 4620 26.0029 -25.3534 23.9335;
4621 24.7029 -25.3534 25.1335; 4622 26.0029 -25.3534 25.1335;
4623 24.7029 -25.3534 26.3335; 4624 26.0029 -25.3534 26.3335;
4625 28.428 -25.3534 23.9335; 4626 29.553 -25.3534 23.9335;
4627 30.678 -25.3534 23.9335; 4628 28.428 -25.3534 25.1335;
4629 29.553 -25.3534 25.1335; 4630 30.678 -25.3534 25.1335;
4631 28.428 -25.3534 26.3335; 4632 30.678 -25.3534 26.3335;
4633 30.678 -25.3534 28.571; 4634 29.553 -25.3534 28.571;
4635 28.428 -25.3534 28.571; 4636 26.3263 -25.3534 28.4335;
4637 25.3497 -25.3534 28.4335; 4638 24.3731 -25.3534 28.4335;
4639 23.3964 -25.3534 28.4335; 4640 -20.4721 -25.3534 28.4335;
4641 -21.4471 -25.3534 28.4335; 4642 -22.4221 -25.3534 28.4335;
4643 -16.5721 -25.3534 28.4335; 4644 -17.5471 -25.3534 28.4335;
4645 -18.5221 -25.3534 28.4335; 4646 -11.6971 -25.3534 28.4335;
4647 -12.6721 -25.3534 28.4335; 4648 -13.6471 -25.3534 28.4335;
4649 -14.6221 -25.3534 28.4335; 4650 -7.7971 -25.3534 28.4335;
4651 -8.7721 -25.3534 28.4335; 4652 -9.7471 -25.3534 28.4335;
4653 -10.7221 -25.3534 28.4335; 4654 -3.8971 -25.3534 28.4335;
4655 -4.8721 -25.3534 28.4335; 4656 -5.8471 -25.3534 28.4335;
4657 -6.8221 -25.3534 28.4335; 4658 0.00289917 -25.3534 28.4335;
4659 -0.972101 -25.3534 28.4335; 4660 -1.9471 -25.3534 28.4335;
4661 -2.9221 -25.3534 28.4335; 4662 3.9029 -25.3534 28.4335;
4663 2.9279 -25.3534 28.4335; 4664 1.9529 -25.3534 28.4335;
4665 0.9779 -25.3534 28.4335; 4666 7.8029 -25.3534 28.4335;
4667 6.8279 -25.3534 28.4335; 4668 5.8529 -25.3534 28.4335;
4669 4.8779 -25.3534 28.4335; 4670 11.7029 -25.3534 28.4335;
4671 10.7279 -25.3534 28.4335; 4672 9.7529 -25.3534 28.4335;
4673 8.7779 -25.3534 28.4335; 4674 15.6029 -25.3534 28.4335;
4675 14.6279 -25.3534 28.4335; 4676 13.6529 -25.3534 28.4335;
4677 12.6779 -25.3534 28.4335; 4678 19.5029 -25.3534 28.4335;
4679 18.5279 -25.3534 28.4335; 4680 17.5529 -25.3534 28.4335;
4681 16.5779 -25.3534 28.4335; 4682 22.4279 -25.3534 28.4335;
4683 21.4529 -25.3534 28.4335; 4684 20.4779 -25.3534 28.4335;
4685 -24.5221 -25.3534 28.571; 4686 -25.647 -25.3534 28.571;
4687 -26.772 -25.3534 28.571; 4688 -28.847 -25.3534 26.5335;
4689 -28.847 -25.3534 28.571; 4690 -24.222 -25.3534 31.896;
4691 -24.222 -25.3534 31.1335; 4692 -24.222 -25.3534 30.371;
4693 2.9263 -25.3534 30.5335; 4694 2.92542 -25.3534 31.7335;
4695 1.95087 -25.3534 30.5335; 4696 0.975433 -25.3534 30.5335;
4697 0.975142 -25.3534 31.7335; 4698 0 -25.3534 30.5335;
4699 28.128 -25.3534 31.896; 4700 28.128 -25.3534 31.1335;
4701 28.128 -25.3534 30.371; 4702 32.753 -25.3534 26.5335;
4703 32.753 -25.3534 28.571; 4704 -26.772 -25.3534 38.3235;
4705 -25.647 -25.3534 38.3235; 4706 -24.5221 -25.3534 38.3235;
4707 -26.772 -25.3534 37.1235; 4708 -25.647 -25.3534 37.1235;
4709 -24.5221 -25.3534 37.1235; 4710 -26.772 -25.3534 35.9235;
4711 -24.5221 -25.3534 35.9235; 4712 -22.0971 -25.3534 38.3235;
4713 -20.7971 -25.3534 38.3235; 4714 -22.0971 -25.3534 37.1235;
4715 -20.7971 -25.3534 37.1235; 4716 -22.0971 -25.3534 35.9235;
4717 -20.7971 -25.3534 35.9235; 4718 -18.1971 -25.3534 38.3235;
4719 -16.8971 -25.3534 38.3235; 4720 -18.1971 -25.3534 37.1235;
4721 -16.8971 -25.3534 37.1235; 4722 -18.1971 -25.3534 35.9235;
4723 -16.8971 -25.3534 35.9235; 4724 -11.6971 -25.3534 38.3235;
4725 -11.6971 -25.3534 37.1235; 4726 -14.2971 -25.3534 38.3235;
4727 -12.9971 -25.3534 38.3235; 4728 -14.2971 -25.3534 37.1235;
4729 -12.9971 -25.3534 37.1235; 4730 -14.2971 -25.3534 35.9235;
4731 -12.9971 -25.3534 35.9235; 4732 -7.7971 -25.3534 38.3235;
4733 -7.7971 -25.3534 37.1235; 4734 -7.7971 -25.3534 35.9235;
4735 -10.3971 -25.3534 38.3235; 4736 -9.0971 -25.3534 38.3235;
4737 -10.3971 -25.3534 37.1235; 4738 -9.0971 -25.3534 37.1235;
4739 -10.3971 -25.3534 35.9235; 4740 -9.0971 -25.3534 35.9235;
4741 -3.8971 -25.3534 38.3235; 4742 -3.8971 -25.3534 37.1235;
4743 -3.8971 -25.3534 35.9235; 4744 -6.4971 -25.3534 38.3235;
4745 -5.1971 -25.3534 38.3235; 4746 -6.4971 -25.3534 37.1235;
4747 -5.1971 -25.3534 37.1235; 4748 -6.4971 -25.3534 35.9235;
4749 -5.1971 -25.3534 35.9235; 4750 0.00289917 -25.3534 38.3235;
4751 0.00289917 -25.3534 37.1235; 4752 0.00289917 -25.3534 35.9235;

4753 -2.5971 -25.3534 38.3235; 4754 -1.2971 -25.3534 38.3235;
4755 -2.5971 -25.3534 37.1235; 4756 -1.2971 -25.3534 37.1235;
4757 -2.5971 -25.3534 35.9235; 4758 -1.2971 -25.3534 35.9235;
4759 3.9029 -25.3534 38.3235; 4760 3.9029 -25.3534 37.1235;
4761 3.9029 -25.3534 35.9235; 4762 1.3029 -25.3534 38.3235;
4763 2.6029 -25.3534 38.3235; 4764 1.3029 -25.3534 37.1235;
4765 2.6029 -25.3534 37.1235; 4766 1.3029 -25.3534 35.9235;
4767 2.6029 -25.3534 35.9235; 4768 7.8029 -25.3534 38.3235;
4769 7.8029 -25.3534 37.1235; 4770 7.8029 -25.3534 35.9235;
4771 5.2029 -25.3534 38.3235; 4772 6.5029 -25.3534 38.3235;
4773 5.2029 -25.3534 37.1235; 4774 6.5029 -25.3534 37.1235;
4775 5.2029 -25.3534 35.9235; 4776 6.5029 -25.3534 35.9235;
4777 11.7029 -25.3534 38.3235; 4778 11.7029 -25.3534 37.1235;
4779 11.7029 -25.3534 35.9235; 4780 9.1029 -25.3534 38.3235;
4781 10.4029 -25.3534 38.3235; 4782 9.1029 -25.3534 37.1235;
4783 10.4029 -25.3534 37.1235; 4784 9.1029 -25.3534 35.9235;
4785 10.4029 -25.3534 35.9235; 4786 15.6029 -25.3534 38.3235;
4787 15.6029 -25.3534 37.1235; 4788 13.0029 -25.3534 38.3235;
4789 14.3029 -25.3534 38.3235; 4790 13.0029 -25.3534 37.1235;
4791 14.3029 -25.3534 37.1235; 4792 13.0029 -25.3534 35.9235;
4793 14.3029 -25.3534 35.9235; 4794 19.5029 -25.3534 38.3235;
4795 19.5029 -25.3534 37.1235; 4796 19.5029 -25.3534 35.9235;
4797 16.9029 -25.3534 38.3235; 4798 18.2029 -25.3534 38.3235;
4799 16.9029 -25.3534 37.1235; 4800 18.2029 -25.3534 37.1235;
4801 16.9029 -25.3534 35.9235; 4802 18.2029 -25.3534 35.9235;
4803 23.4029 -25.3534 38.3235; 4804 23.4029 -25.3534 37.1235;
4805 23.4029 -25.3534 35.9235; 4806 20.8029 -25.3534 38.3235;
4807 22.1029 -25.3534 38.3235; 4808 20.8029 -25.3534 37.1235;
4809 22.1029 -25.3534 37.1235; 4810 20.8029 -25.3534 35.9235;
4811 22.1029 -25.3534 35.9235; 4812 24.7029 -25.3534 38.3235;
4813 26.0029 -25.3534 38.3235; 4814 24.7029 -25.3534 37.1235;
4815 26.0029 -25.3534 37.1235; 4816 24.7029 -25.3534 35.9235;
4817 26.0029 -25.3534 35.9235; 4818 28.428 -25.3534 38.3235;
4819 29.553 -25.3534 38.3235; 4820 30.678 -25.3534 38.3235;
4821 28.428 -25.3534 37.1235; 4822 29.553 -25.3534 37.1235;
4823 30.678 -25.3534 37.1235; 4824 28.428 -25.3534 35.9235;
4825 30.678 -25.3534 35.9235; 4826 30.678 -25.3534 33.686;
4827 29.553 -25.3534 33.686; 4828 28.428 -25.3534 33.686;
4829 26.3263 -25.3534 33.8235; 4830 25.3497 -25.3534 33.8235;
4831 24.3731 -25.3534 33.8235; 4832 23.3964 -25.3534 33.8235;
4833 -20.4721 -25.3534 33.8235; 4834 -21.4471 -25.3534 33.8235;
4835 -22.4221 -25.3534 33.8235; 4836 -16.5721 -25.3534 33.8235;
4837 -17.5471 -25.3534 33.8235; 4838 -18.5221 -25.3534 33.8235;
4839 -11.6971 -25.3534 33.8235; 4840 -12.6721 -25.3534 33.8235;
4841 -13.6471 -25.3534 33.8235; 4842 -14.6221 -25.3534 33.8235;
4843 -7.7971 -25.3534 33.8235; 4844 -8.7721 -25.3534 33.8235;
4845 -9.7471 -25.3534 33.8235; 4846 -10.7221 -25.3534 33.8235;
4847 -3.8971 -25.3534 33.8235; 4848 -4.8721 -25.3534 33.8235;
4849 -5.8471 -25.3534 33.8235; 4850 -6.8221 -25.3534 33.8235;
4851 0.00289917 -25.3534 33.8235; 4852 -0.972101 -25.3534 33.8235;
4853 -1.9471 -25.3534 33.8235; 4854 -2.9221 -25.3534 33.8235;
4855 3.9029 -25.3534 33.8235; 4856 2.9279 -25.3534 33.8235;
4857 1.9529 -25.3534 33.8235; 4858 0.9779 -25.3534 33.8235;
4859 7.8029 -25.3534 33.8235; 4860 6.8279 -25.3534 33.8235;
4861 5.8529 -25.3534 33.8235; 4862 4.8779 -25.3534 33.8235;
4863 11.7029 -25.3534 33.8235; 4864 10.7279 -25.3534 33.8235;
4865 9.7529 -25.3534 33.8235; 4866 8.7779 -25.3534 33.8235;
4867 15.6029 -25.3534 33.8235; 4868 14.6279 -25.3534 33.8235;
4869 13.6529 -25.3534 33.8235; 4870 12.6779 -25.3534 33.8235;
4871 19.5029 -25.3534 33.8235; 4872 18.5279 -25.3534 33.8235;
4873 17.5529 -25.3534 33.8235; 4874 16.5779 -25.3534 33.8235;
4875 22.4279 -25.3534 33.8235; 4876 21.4529 -25.3534 33.8235;
4877 20.4779 -25.3534 33.8235; 4878 -24.5221 -25.3534 33.686;
4879 -25.647 -25.3534 33.686; 4880 -26.772 -25.3534 33.686;
4881 -28.847 -25.3534 35.7235; 4882 -28.847 -25.3534 33.686;
4883 32.753 -25.3534 35.7235; 4884 32.753 -25.3534 33.686;
4885 -24.222 -22.1534 29.6085; 4886 -24.222 -22.1534 32.6585;
4887 28.128 -22.1534 32.6585; 4888 -25.047 -22.1534 29.6085;
4889 -25.047 -22.1534 32.6585; 4890 -25.047 -22.1534 30.371;
4891 28.953 -22.1534 29.6085; 4892 28.953 -22.1534 32.6585;
4893 28.953 -22.1534 30.371; 4894 28.953 -22.1534 31.1335;
4895 28.953 -22.1534 31.896; 4896 0.000999999 -22.1534 31.7335;
4897 28.128 -22.1534 29.6085; 4898 -26.772 -22.1534 25.1335;
4899 -25.647 -22.1534 25.1335; 4900 -24.5221 -22.1534 25.1335;
4901 -22.0971 -22.1534 25.1335; 4902 -20.7971 -22.1534 25.1335;
4903 -18.1971 -22.1534 25.1335; 4904 -16.8971 -22.1534 25.1335;
4905 -14.2971 -22.1534 25.1335; 4906 -12.9971 -22.1534 25.1335;
4907 -10.3971 -22.1534 25.1335; 4908 -9.0971 -22.1534 25.1335;
4909 -6.4971 -22.1534 25.1335; 4910 -5.1971 -22.1534 25.1335;
4911 -2.5971 -22.1534 25.1335; 4912 -1.2971 -22.1534 25.1335;
4913 1.3029 -22.1534 25.1335; 4914 2.6029 -22.1534 25.1335;
4915 5.2029 -22.1534 25.1335; 4916 6.5029 -22.1534 25.1335;

4917 9.1029 -22.1534 25.1335; 4918 10.4029 -22.1534 25.1335;
4919 13.0029 -22.1534 25.1335; 4920 14.3029 -22.1534 25.1335;
4921 16.9029 -22.1534 25.1335; 4922 18.2029 -22.1534 25.1335;
4923 20.8029 -22.1534 25.1335; 4924 22.1029 -22.1534 25.1335;
4925 24.7029 -22.1534 25.1335; 4926 26.0029 -22.1534 25.1335;
4927 28.428 -22.1534 25.1335; 4928 29.553 -22.1534 25.1335;
4929 30.678 -22.1534 25.1335; 4930 30.678 -22.1534 28.571;
4931 29.553 -22.1534 28.571; 4932 28.428 -22.1534 28.571;
4933 26.3263 -22.1534 28.4335; 4934 25.3497 -22.1534 28.4335;
4935 24.3731 -22.1534 28.4335; 4936 23.3964 -22.1534 28.4335;
4937 -20.4721 -22.1534 28.4335; 4938 -21.4471 -22.1534 28.4335;
4939 -22.4221 -22.1534 28.4335; 4940 -16.5721 -22.1534 28.4335;
4941 -17.5471 -22.1534 28.4335; 4942 -18.5221 -22.1534 28.4335;
4943 -11.6971 -22.1534 28.4335; 4944 -12.6721 -22.1534 28.4335;
4945 -13.6471 -22.1534 28.4335; 4946 -14.6221 -22.1534 28.4335;
4947 -7.7971 -22.1534 28.4335; 4948 -8.7721 -22.1534 28.4335;
4949 -9.7471 -22.1534 28.4335; 4950 -10.7221 -22.1534 28.4335;
4951 -3.8971 -22.1534 28.4335; 4952 -4.8721 -22.1534 28.4335;
4953 -5.8471 -22.1534 28.4335; 4954 -6.8221 -22.1534 28.4335;
4955 0.00289917 -22.1534 28.4335; 4956 -0.972101 -22.1534 28.4335;
4957 -1.9471 -22.1534 28.4335; 4958 -2.9221 -22.1534 28.4335;
4959 3.9029 -22.1534 28.4335; 4960 2.9279 -22.1534 28.4335;
4961 1.9529 -22.1534 28.4335; 4962 0.9779 -22.1534 28.4335;
4963 7.8029 -22.1534 28.4335; 4964 6.8279 -22.1534 28.4335;
4965 5.8529 -22.1534 28.4335; 4966 4.8779 -22.1534 28.4335;
4967 11.7029 -22.1534 28.4335; 4968 10.7279 -22.1534 28.4335;
4969 9.7529 -22.1534 28.4335; 4970 8.7779 -22.1534 28.4335;
4971 14.6279 -22.1534 28.4335; 4972 13.6529 -22.1534 28.4335;
4973 12.6779 -22.1534 28.4335; 4974 19.5029 -22.1534 28.4335;
4975 18.5279 -22.1534 28.4335; 4976 17.5529 -22.1534 28.4335;
4977 16.5779 -22.1534 28.4335; 4978 22.4279 -22.1534 28.4335;
4979 21.4529 -22.1534 28.4335; 4980 20.4779 -22.1534 28.4335;
4981 -24.5221 -22.1534 28.571; 4982 -25.647 -22.1534 28.571;
4983 -26.772 -22.1534 28.571; 4984 -28.847 -22.1534 26.5335;
4985 -28.847 -22.1534 28.571; 4986 -24.222 -22.1534 31.896;
4987 -25.047 -22.1534 31.896; 4988 -24.222 -22.1534 31.1335;
4989 -25.047 -22.1534 31.1335; 4990 -24.222 -22.1534 30.371;
4991 2.9263 -22.1534 30.5335; 4992 2.92542 -22.1534 31.7335;
4993 1.95087 -22.1534 30.5335; 4994 0.975433 -22.1534 30.5335;
4995 0.975142 -22.1534 31.7335; 4996 0 -22.1534 30.5335;
4997 28.128 -22.1534 31.896; 4998 28.128 -22.1534 31.1335;
4999 28.128 -22.1534 30.371; 5000 32.753 -22.1534 26.5335;
5001 32.753 -22.1534 28.571; 5002 30.678 -22.1534 33.686;
5003 28.428 -22.1534 33.686; 5004 26.3263 -22.1534 33.8235;
5005 25.3497 -22.1534 33.8235; 5006 24.3731 -22.1534 33.8235;
5007 23.3964 -22.1534 33.8235; 5008 -20.4721 -22.1534 33.8235;
5009 -21.4471 -22.1534 33.8235; 5010 -22.4221 -22.1534 33.8235;
5011 -16.5721 -22.1534 33.8235; 5012 -17.5471 -22.1534 33.8235;
5013 -18.5221 -22.1534 33.8235; 5014 -11.6971 -22.1534 33.8235;
5015 -12.6721 -22.1534 33.8235; 5016 -13.6471 -22.1534 33.8235;
5017 -14.6221 -22.1534 33.8235; 5018 -7.7971 -22.1534 33.8235;
5019 -8.7721 -22.1534 33.8235; 5020 -9.7471 -22.1534 33.8235;
5021 -10.7221 -22.1534 33.8235; 5022 -3.8971 -22.1534 33.8235;
5023 -4.8721 -22.1534 33.8235; 5024 -5.8471 -22.1534 33.8235;
5025 -6.8221 -22.1534 33.8235; 5026 0.00289917 -22.1534 33.8235;
5027 -0.972101 -22.1534 33.8235; 5028 -1.9471 -22.1534 33.8235;
5029 -2.9221 -22.1534 33.8235; 5030 3.9029 -22.1534 33.8235;
5031 2.9279 -22.1534 33.8235; 5032 1.9529 -22.1534 33.8235;
5033 0.9779 -22.1534 33.8235; 5034 7.8029 -22.1534 33.8235;
5035 6.8279 -22.1534 33.8235; 5036 5.8529 -22.1534 33.8235;
5037 4.8779 -22.1534 33.8235; 5038 11.7029 -22.1534 33.8235;
5039 10.7279 -22.1534 33.8235; 5040 9.7529 -22.1534 33.8235;
5041 8.7779 -22.1534 33.8235; 5042 15.6029 -22.1534 33.8235;
5043 14.6279 -22.1534 33.8235; 5044 13.6529 -22.1534 33.8235;
5045 12.6779 -22.1534 33.8235; 5046 19.5029 -22.1534 33.8235;
5047 18.5279 -22.1534 33.8235; 5048 17.5529 -22.1534 33.8235;
5049 16.5779 -22.1534 33.8235; 5050 22.4279 -22.1534 33.8235;
5051 21.4529 -22.1534 33.8235; 5052 20.4779 -22.1534 33.8235;
5053 -24.5221 -22.1534 33.686; 5054 -26.772 -22.1534 33.686;
5055 -28.847 -22.1534 35.7235; 5056 -28.847 -22.1534 33.686;
5057 32.753 -22.1534 35.7235; 5058 32.753 -22.1534 33.686;
5059 -28.697 -33.4534 31.896; 5060 -28.697 -33.4534 31.1335;
5061 -28.697 -33.4534 30.371; 5062 -28.697 -30.1534 31.896;
5063 -28.697 -30.1534 31.1335; 5064 -28.697 -30.1534 30.371;
5065 -28.697 -26.9534 31.896; 5066 -28.697 -26.9534 31.1335;
5067 -28.697 -26.9534 30.371; 5068 -25.4033 -34.9409 30.3685;
5069 -25.7595 -34.7284 30.3685; 5070 -26.1157 -34.5159 30.3685;
5071 -26.472 -34.3034 30.3685; 5072 -26.8283 -34.0909 30.3685;
5073 -27.1845 -33.8784 30.3685; 5074 -27.5407 -33.6659 30.3685;
5075 -25.4033 -31.9659 31.8935; 5076 -25.7595 -32.1784 31.8935;
5077 -26.1157 -32.3909 31.8935; 5078 -26.472 -32.6034 31.8935;
5079 -26.8283 -32.8159 31.8935; 5080 -27.1845 -33.0284 31.8935;

5081 -27.5407 -33.2409 31.8935; 5082 -25.4033 -31.5534 30.3688;
5083 -25.4033 -31.5534 31.1291; 5084 -25.7595 -31.3534 30.3691;
5085 -25.7595 -31.3534 31.1298; 5086 -26.1157 -31.1534 30.3694;
5087 -26.1158 -31.1534 31.1304; 5088 -26.472 -30.9534 30.3697;
5089 -26.472 -30.9534 31.131; 5090 -26.8283 -30.7534 30.3701;
5091 -26.8283 -30.7534 31.1316; 5092 -27.1845 -30.5534 30.3704;
5093 -27.1845 -30.5534 31.1323; 5094 -27.5407 -30.3534 30.3707;
5095 -25.4033 -28.7534 31.896; 5096 -25.4033 -28.7534 32.6585;
5097 -25.7595 -28.9534 31.896; 5098 -26.1157 -29.1534 31.896;
5099 -26.472 -29.3534 31.896; 5100 -26.8283 -29.5534 31.896;
5101 -27.1845 -29.7534 31.896; 5102 -27.5407 -29.9534 31.896;
5103 -25.4033 -28.3534 30.371; 5104 -25.4033 -28.3534 29.6085;
5105 -25.7595 -28.1534 30.371; 5106 -26.1157 -27.9534 30.371;
5107 -26.472 -27.7534 30.371; 5108 -26.8283 -27.5534 30.371;
5109 -27.1845 -27.3534 30.371; 5110 -27.5407 -27.1534 30.371;
5111 -25.4033 -25.5534 31.896; 5112 -25.7595 -25.7534 31.896;
5113 -26.1157 -25.9534 31.896; 5114 -26.472 -26.1534 31.896;
5115 -26.8283 -26.3534 31.896; 5116 -27.1845 -26.5534 31.896;
5117 -27.5407 -26.7534 31.896; 5118 32.603 -33.4534 31.896;
5119 32.603 -33.4534 31.1335; 5120 32.603 -33.4534 30.371;
5121 32.603 -30.1534 32.6585; 5122 32.603 -30.1534 31.896;
5123 33.4029 -30.1534 31.896; 5124 31.803 -30.1534 31.896;
5125 32.603 -30.1534 31.1335; 5126 32.603 -30.1534 30.371;
5127 33.4029 -30.1534 30.371; 5128 31.803 -30.1534 30.371;
5129 32.603 -30.1534 29.6085; 5130 32.603 -26.9534 32.6585;
5131 32.603 -26.9534 31.896; 5132 33.4029 -26.9534 31.896;
5133 31.803 -26.9534 31.896; 5134 32.603 -26.9534 31.1335;
5135 32.603 -26.9534 30.371; 5136 33.4029 -26.9534 30.371;
5137 31.803 -26.9534 30.371; 5138 32.603 -26.9534 29.6085;
5139 31.4467 -33.6659 30.371; 5140 31.0905 -33.8784 30.371;
5141 30.7342 -34.0909 30.371; 5142 30.378 -34.3034 30.371;
5143 30.0217 -34.5159 30.371; 5144 29.6655 -34.7284 30.371;
5145 29.3092 -34.9409 30.371; 5146 31.4467 -33.2409 31.896;
5147 31.0905 -33.0284 31.896; 5148 30.7342 -32.8159 31.896;
5149 30.378 -32.6034 31.896; 5150 30.0217 -32.3909 31.896;
5151 29.6655 -32.1784 31.896; 5152 29.3092 -31.9659 31.896;
5153 31.4467 -29.9534 31.896; 5154 31.4467 -29.9534 31.1335;
5155 31.4467 -29.9534 32.6585; 5156 31.0905 -29.7534 31.896;
5157 31.0905 -29.7534 31.1335; 5158 31.0905 -29.7534 32.6585;
5159 30.7342 -29.5534 31.896; 5160 30.7342 -29.5534 31.1335;
5161 30.7342 -29.5534 32.6585; 5162 30.378 -29.3534 31.896;
5163 30.378 -29.3534 31.1335; 5164 30.378 -29.3534 32.6585;
5165 30.0217 -29.1534 31.896; 5166 30.0217 -29.1534 31.1335;
5167 30.0217 -29.1534 32.6585; 5168 29.6655 -28.9534 31.896;
5169 29.6655 -28.9534 31.1335; 5170 29.6655 -28.9534 32.6585;
5171 29.3092 -28.7534 31.896; 5172 29.3092 -28.7534 31.1335;
5173 29.3092 -28.7534 32.6585; 5174 31.4467 -30.3534 30.371;
5175 31.4467 -30.3534 29.6085; 5176 31.4467 -30.3534 31.1335;
5177 31.0905 -30.5534 30.371; 5178 31.0905 -30.5534 29.6085;
5179 31.0905 -30.5534 31.1335; 5180 30.7342 -30.7534 30.371;
5181 30.7342 -30.7534 29.6085; 5182 30.7342 -30.7534 31,1335;
5183 30.378 -30.9534 30.371; 5184 30.378 -30.9534 29.6085;
5185 30.378 -30.9534 31.1335; 5186 30.0217 -31.1534 30.371;
5187 30.0217 -31.1534 29.6085; 5188 30.0217 -31.1534 31.1335;
5189 29.6655 -31.3534 30.371; 5190 29.6655 -31.3534 29.6085;
5191 29.6655 -31.3534 31.1335; 5192 29.3092 -31.5534 30.371;
5193 29.3092 -31.5534 29.6085; 5194 29.3092 -31.5534 31.1335;
5195 31.4467 -26.7534 31.896; 5196 31.4467 -26.7534 31.1335;
5197 31.4467 -26.7534 32.6585; 5198 31.0905 -26.5534 31.896;
5199 31.0905 -26.5534 31.1335; 5200 31.0905 -26.5534 32.6585;
5201 30.7342 -26.3534 31.896; 5202 30.7342 -26.3534 31.1335;
5203 30.7342 -26.3534 32.6585; 5204 30.378 -26.1534 31.896;
5205 30.378 -26.1534 31.1335; 5206 30.378 -26.1534 32.6585;
5207 30.0217 -25.9534 31.896; 5208 30.0217 -25.9534 31.1335;
5209 30.0217 -25.9534 32.6585; 5210 29.6655 -25.7534 31.896;
5211 29.6655 -25.7534 31.1335; 5212 29.6655 -25.7534 32.6585;
5213 29.3092 -25.5534 31.896; 5214 29.3092 -25.5534 31.1335;
5215 29.3092 -25.5534 32.6585; 5216 31.4467 -27.1534 30.371;
5217 31.4467 -27.1534 29.6085; 5218 31.4467 -27.1534 31.1335;
5219 31.0905 -27.3534 30.371; 5220 31.0905 -27.3534 29.6085;
5221 31.0905 -27.3534 31.1335; 5222 30.7342 -27.5534 30.371;
5223 30.7342 -27.5534 29.6085; 5224 30.7342 -27.5534 31.1335;
5225 30.378 -27.7534 30.371; 5226 30.378 -27.7534 29.6085;
5227 30.378 -27.7534 31.1335; 5228 30.0217 -27.9534 30.371;
5229 30.0217 -27.9534 29.6085; 5230 30.0217 -27.9534 31.1335;
5231 29.6655 -28.1534 30.371; 5232 29.6655 -28.1534 29.6085;
5233 29.6655 -28.1534 31.1335; 5234 29.3092 -28.3534 30.371;
5235 29.3092 -28.3534 29.6085; 5236 29.3092 -28.3534 31.1335;
5237 -3.3595 -33.4534 32.0335; 5238 -3.3595 -33.4534 31.1335;
5239 -3.3595 -33.4534 30.2335; 5240 -3.3595 -30.1534 32.9335;
5241 -3.3595 -30.1534 32.0335; 5242 -2.8195 -30.1534 32.0335;
5243 -3.8995 -30.1534 32.0335; 5244 -3.3595 -30.1534 31.1335;

5245 -3.8995 -30.1534 31.1335; 5246 -3.3595 -30.1534 30.2335;
5247 -2.8195 -30.1534 30.2335; 5248 -3.8995 -30.1534 30.2335;
5249 -3.3595 -30.1534 29.3335; 5250 -3.3595 -26.9534 32.9335;
5251 -3.3595 -26.9534 32.0335; 5252 -2.8195 -26.9534 32.0335;
5253 -3.8995 -26.9534 32.0335; 5254 -3.3595 -26.9534 31.1335;
5255 -3.8995 -26.9534 31.1335; 5256 -3.3595 -26.9534 30.2335;
5257 -2.8195 -26.9534 30.2335; 5258 -3.8995 -26.9534 30.2335;
5259 -3.3595 -26.9534 29.3335; 5260 -3.3583 -23.7534 32.9335;
5261 -3.3583 -23.7534 32.0335; 5262 -2.8183 -23.7534 32.0335;
5263 -3.8983 -23.7534 32.0335; 5264 -3.3583 -23.7534 31.1335;
5265 -3.8983 -23.7534 31.1335; 5266 -3.3583 -23.7534 30.2335;
5267 -2.8183 -23.7534 30.2335; 5268 -3.8983 -23.7534 30.2335;
5269 -3.3583 -23.7534 29.3335; 5270 -0.352437 -34.9409 32.0335;
5271 -0.704875 -34.7284 32.0335; 5272 -1.05731 -34.5159 32.0335;
5273 -1.40975 -34.3034 32.0335; 5274 -1.76219 -34.0909 32.0335;
5275 -2.11462 -33.8784 32.0335; 5276 -2.46706 -33.6659 32.0335;
5277 0 -31.7534 32.0335; 5278 -0.352437 -31.5534 32.0335;
5279 -0.352438 -31.5534 31.1335; 5280 -0.352438 -31.5534 32.9335;
5281 -0.704875 -31.3534 32.0335; 5282 -0.704875 -31.3534 31.1335;
5283 -0.704875 -31.3534 32.9335; 5284 -1.05731 -31.1534 32.0335;
5285 -1.05731 -31.1534 31.1335; 5286 -1.05731 -31.1534 32.9335;
5287 -1.40975 -30.9534 32.0335; 5288 -1.40975 -30.9534 31.1335;
5289 -1.40975 -30.9534 32.9335; 5290 -1.76219 -30.7534 32.0335;
5291 -1.76219 -30.7534 31.1335; 5292 -1.76219 -30.7534 32.9335;
5293 -2.11462 -30.5534 32.0335; 5294 -2.11463 -30.5534 31.1335;
5295 -2.11463 -30.5534 32.9335; 5296 -2.46706 -30.3534 32.0335;
5297 -2.46706 -30.3534 31.1335; 5298 -2.46706 -30.3534 32.9335;
5299 -2.46706 -33.2409 30.2335; 5300 -2.11462 -33.0284 30.2335;
5301 -1.76219 -32.8159 30.2335; 5302 -1.40975 -32.6034 30.2335;
5303 -1.05731 -32.3909 30.2335; 5304 -0.704875 -32.1784 30.2335;
5305 -0.352437 -31.9659 30.2335; 5306 -2.46688 -29.9534 30.2335;
5307 -2.46706 -29.9534 31.1335; 5308 -2.46679 -29.9532 29.3335;
5309 -2.11426 -29.7534 30.2335; 5310 -2.11463 -29.7534 31.1335;
5311 -2.11408 -29.7531 29.3335; 5312 -1.76164 -29.5534 30.2335;
5313 -1.76219 -29.5534 31.1335; 5314 -1.76136 -29.5529 29.3335;
5315 -1.40903 -29.3534 30.2335; 5316 -1.40975 -29.3534 31.1335;
5317 -1.40865 -29.3528 29.3335; 5318 -1.05641 -29.1534 30.2335;
5319 -1.05731 -29.1534 31.1335; 5320 -1.05594 -29.1526 29.3335;
5321 -0.703788 -28.9534 30.2335; 5322 -0.704875 -28.9534 31.1335;
5323 -0.702701 -28.9534 29.3335; 5324 -0.351169 -28.7534 30.2335;
5325 -0.352438 -28.7534 31.1335; 5326 -0.349901 -28.7534 29.3335;
5327 0.00144958 -28.5534 30.2335; 5328 0 -28.5534 32.0335;
5329 -0.352437 -28.3534 32.0335; 5330 -0.352438 -28.3534 31.1335;
5331 -0.352438 -28.3534 32.9335; 5332 -0.704875 -28.1534 32.0335;
5333 -0.704875 -28.1534 31.1335; 5334 -0.704875 -28.1534 32.9335;
5335 -1.05731 -27.9534 32.0335; 5336 -1.05731 -27.9534 31.1335;
5337 -1.05731 -27.9534 32.9335; 5338 -1.40975 -27.7534 32.0335;
5339 -1.40975 -27.7534 31.1335; 5340 -1.40975 -27.7534 32.9335;
5341 -1.76219 -27.5534 32.0335; 5342 -1.76219 -27.5534 31.1335;
5343 -1.76219 -27.5534 32.9335; 5344 -2.11462 -27.3534 32.0335;
5345 -2.11463 -27.3534 31.1335; 5346 -2.11463 -27.3534 32.9335;
5347 -2.46706 -27.1534 32.0335; 5348 -2.46706 -27.1534 31.1335;
5349 -2.46706 -27.1534 32.9335; 5350 -2.46706 -26.7534 30.2335;
5351 -2.46706 -26.7534 31.1335; 5352 -2.46706 -26.7534 29.3335;
5353 -2.11462 -26.5534 30.2335; 5354 -2.11463 -26.5534 31.1335;
5355 -2.11463 -26.5534 29.3335; 5356 -1.76219 -26.3534 30.2335;
5357 -1.76219 -26.3534 31.1335; 5358 -1.76219 -26.3534 29.3335;
5359 -1.40975 -26.1534 30.2335; 5360 -1.40975 -26.1534 31.1335;
5361 -1.40975 -26.1534 29.3335; 5362 -1.05731 -25.9534 30.2335;
5363 -1.05731 -25.9534 31.1335; 5364 -1.05731 -25.9534 29.3335;
5365 -0.704875 -25.7534 30.2335; 5366 -0.704875 -25.7534 31.1335;
5367 -0.704875 -25.7534 29.3335; 5368 -0.352437 -25.5534 30.2335;
5369 -0.352438 -25.5534 31.1335; 5370 -0.352438 -25.5534 29.3335;
5371 0 -25.3534 30.2335; 5372 0 -25.3534 32.0335;
5373 -0.352288 -25.1534 32.0335; 5374 -0.352287 -25.1534 31.1335;
5375 -0.352287 -25.1534 32.9335; 5376 -0.704575 -24.9534 32.0335;
5377 -0.704575 -24.9534 31.1335; 5378 -0.704575 -24.9534 32.9335;
5379 -1.05686 -24.7534 32.0335; 5380 -1.05686 -24.7534 31.1335;
5381 -1.05686 -24.7534 32.9335; 5382 -1.40915 -24.5534 32.0335;
5383 -1.40915 -24.5534 31.1335; 5384 -1.40915 -24.5534 32.9335;
5385 -1.76144 -24.3534 32.0335; 5386 -1.76144 -24.3534 31.1335;
5387 -1.76144 -24.3534 32.9335; 5388 -2.11372 -24.1534 32.0335;
5389 -2.11373 -24.1534 31.1335; 5390 -2.11373 -24.1534 32.9335;
5391 -2.46601 -23.9534 32.0335; 5392 -2.46601 -23.9534 31.1335;
5393 -2.46601 -23.9534 32.9335; 5394 0.00075 -22.1534 30.2335;
5395 -0.351631 -22.3534 30.2335; 5396 -0.352288 -22.3534 29.3335;
5397 -0.350975 -22.3534 31.1335; 5398 -0.704013 -22.5534 30.2335;
5399 -0.704575 -22.5534 29.3335; 5400 -0.70345 -22.5534 31.1335;
5401 -1.05639 -22.7534 30.2335; 5402 -1.05642 -22.7542 29.3335;
5403 -1.05593 -22.7534 31.1335; 5404 -1.40877 -22.9534 30.2335;
5405 -1.4088 -22.954 29.3335; 5406 -1.4084 -22.9534 31.1335;
5407 -1.76116 -23.1534 30.2335; 5408 -1.76117 -23.1539 29.3335;

5409 -1.76088 -23.1534 31.1335; 5410 -2.11354 -23.3534 30.2335;
5411 -2.11355 -23.3537 29.3335; 5412 -2.11335 -23.3534 31.1335;
5413 -2.46592 -23.5534 30.2335; 5414 -2.46592 -23.5536 29.3335;
5415 -2.46582 -23.5534 31.1335; 5416 31.6989 -21.1584 30.6335;
5417 31.6989 -21.1584 31.6335; 5418 0 -19.7534 32.9335;
5419 3.8994 -19.7534 32.9335; 5420 3.8994 -19.7534 29.3335;
5421 0 -19.7534 29.3335; 5422 -3.8971 -19.7534 32.9235;
5423 -26.6952 -20.1534 37.1335; 5424 -26.6952 -20.3334 37.3735;
5425 -27.6831 -20.3334 37.3735; 5426 -25.7074 -20.1534 37.1335;
5427 -25.7074 -20.3334 37.3735; 5428 -24.7195 -20.1534 37.1335;
5429 -24.7195 -20.3334 37.3735; 5430 -23.7316 -20.1534 37.1335;
5431 -23.7316 -20.3334 37.3735; 5432 -22.7438 -20.1534 37.1335;
5433 -22.7438 -20.3334 37.3735; 5434 -21.7559 -20.1534 37.1335;
5435 -21.7559 -20.3334 37.3735; 5436 -20.768 -20.1534 37.1335;
5437 -20.768 -20.3334 37.3735; 5438 -19.7802 -20.1534 37.1335;
5439 -19.7802 -20.3334 37.3735; 5440 -18.7923 -20.1534 37.1335;
5441 -18.7923 -20.3334 37.3735; 5442 -17.8044 -20.1534 37.1335;
5443 -17.8044 -20.3334 37.3735; 5444 -16.8166 -20.1534 37.1335;
5445 -16.8166 -20.3334 37.3735; 5446 -15.8287 -20.1534 37.1335;
5447 -15.8287 -20.3334 37.3735; 5448 -14.8409 -20.1534 37.1335;
5449 -14.8409 -20.3334 37.3735; 5450 -13.853 -20.1534 37.1335;
5451 -13.853 -20.3334 37.3735; 5452 -12.8651 -20.1534 37.1335;
5453 -12.8651 -20.3334 37.3735; 5454 -11.8773 -20.1534 37.1335;
5455 -11.8773 -20.3334 37.3735; 5456 -10.8894 -20.1534 37.1335;
5457 -10.8894 -20.3334 37.3735; 5458 -9.90153 -20.1534 37.1335;
5459 -9.90153 -20.3334 37.3735; 5460 -8.91366 -20.1534 37.1335;
5461 -8.91366 -20.3334 37.3735; 5462 -7.9258 -20.1534 37.1335;
5463 -7.9258 -20.3334 37.3735; 5464 -6.93793 -20.1534 37.1335;
5465 -6.93793 -20.3334 37.3735; 5466 -5.95007 -20.1534 37.1335;
5467 -5.95007 -20.3334 37.3735; 5468 -4.9622 -20.1534 37.1335;
5469 -4.9622 -20.3334 37.3735; 5470 -3.97434 -20.1534 37.1335;
5471 -3.97433 -20.3334 37.3735; 5472 -2.98647 -20.1534 37.1335;
5473 -2.98647 -20.3334 37.3735; 5474 -1.99861 -20.1534 37.1335;
5475 -1.9986 -20.3334 37.3735; 5476 -1.01074 -20.1534 37.1335;
5477 -1.01074 -20.3334 37.3735; 5478 -0.0228731 -20.3334 37.3735;
5479 0.964986 -20.1534 37.1335; 5480 0.964991 -20.3334 37.3735;
5481 1.95286 -20.3334 37.3735; 5482 -26.6952 -20.5134 37.6135;
5483 -27.6831 -20.5134 37.6135; 5484 -25.7074 -20.5134 37.6135;
5485 -24.7195 -20.5134 37.6135; 5486 -23.7316 -20.5134 37.6135;
5487 -22.7438 -20.5134 37.6135; 5488 -21.7559 -20.5134 37.6135;
5489 -20.768 -20.5134 37.6135; 5490 -19.7802 -20.5134 37.6135;
5491 -18.7923 -20.5134 37.6135; 5492 -17.8044 -20.5134 37.6135;
5493 -16.8166 -20.5134 37.6135; 5494 -15.8287 -20.5134 37.6135;
5495 -14.8408 -20.5134 37.6135; 5496 -13.853 -20.5134 37.6135;
5497 -12.8651 -20.5134 37.6135; 5498 -11.8773 -20.5134 37.6135;
5499 -10.8894 -20.5134 37.6135; 5500 -9.90152 -20.5134 37.6135;
5501 -8.91366 -20.5134 37.6135; 5502 -7.92579 -20.5134 37.6135;
5503 -6.93793 -20.5134 37.6135; 5504 -5.95006 -20.5134 37.6135;
5505 -4.9622 -20.5134 37.6135; 5506 -3.97433 -20.5134 37.6135;
5507 -2.98647 -20.5134 37.6135; 5508 -1.9986 -20.5134 37.6135;
5509 -1.01073 -20.5134 37.6135; 5510 -0.0228685 -20.5134 37.6135;
5511 0.964996 -20.5134 37.6135; 5512 1.95286 -20.5134 37.6135;
5513 -26.6952 -20.6934 37.8535; 5514 -27.6831 -20.6934 37.8535;
5515 -25.7074 -20.6934 37.8535; 5516 -24.7195 -20.6934 37.8535;
5517 -23.7316 -20.6934 37.8535; 5518 -22.7438 -20.6934 37.8535;
5519 -21.7559 -20.6934 37.8535; 5520 -20.768 -20.6934 37.8535;
5521 -19.7802 -20.6934 37.8535; 5522 -18.7923 -20.6934 37.8535;
5523 -17.8044 -20.6934 37.8535; 5524 -16.8166 -20.6934 37.8535;
5525 -15.8287 -20.6934 37.8535; 5526 -14.8408 -20.6934 37.8535;
5527 -13.853 -20.6934 37.8535; 5528 -12.8651 -20.6934 37.8535;
5529 -11.8773 -20.6934 37.8535; 5530 -10.8894 -20.6934 37.8535;
5531 -9.90152 -20.6934 37.8535; 5532 -8.91365 -20.6934 37.8535;
5533 -7.92579 -20.6934 37.8535; 5534 -6.93792 -20.6934 37.8535;
5535 -5.95006 -20.6934 37.8535; 5536 -4.96219 -20.6934 37.8535;
5537 -3.97433 -20.6934 37.8535; 5538 -2.98646 -20.6934 37.8535;
5539 -1.99859 -20.6934 37.8535; 5540 -1.01073 -20.6934 37.8535;
5541 -0.0228639 -20.6934 37.8535; 5542 0.965001 -20.6934 37.8535;
5543 1.95287 -20.6934 37.8535; 5544 -26.6952 -20.8734 38.0935;
5545 -27.6831 -20.8734 38.0935; 5546 -25.7074 -20.8734 38.0935;
5547 -24.7195 -20.8734 38.0935; 5548 -23.7316 -20.8734 38.0935;
5549 -22.7438 -20.8734 38.0935; 5550 -21.7559 -20.8734 38.0935;
5551 -20.768 -20.8734 38.0935; 5552 -19.7802 -20.8734 38.0935;
5553 -18.7923 -20.8734 38.0935; 5554 -17.8044 -20.8734 38.0935;
5555 -16.8166 -20.8734 38.0935; 5556 -15.8287 -20.8734 38.0935;
5557 -14.8408 -20.8734 38.0935; 5558 -13.853 -20.8734 38.0935;
5559 -12.8651 -20.8734 38.0935; 5560 -11.8772 -20.8734 38.0935;
5561 -10.8894 -20.8734 38.0935; 5562 -9.90152 -20.8734 38.0935;
5563 -8.91365 -20.8734 38.0935; 5564 -7.92579 -20.8734 38.0935;
5565 -6.93792 -20.8734 38.0935; 5566 -5.95005 -20.8734 38.0935;
5567 -4.96219 -20.8734 38.0935; 5568 -3.97432 -20.8734 38.0935;
5569 -2.98646 -20.8734 38.0935; 5570 -1.99859 -20.8734 38.0935;
5571 -1.01073 -20.8734 38.0935; 5572 -0.0228592 -20.8734 38.0935;

5573 0.965006 -20.8734 38.0935; 5574 1.95287 -20.8734 38.0935;
5575 -26.6952 -21.0534 38.3335; 5576 -25.7074 -21.0534 38.3335;
5577 -24.7195 -21.0534 38.3335; 5578 -23.7316 -21.0534 38.3335;
5579 -22.7438 -21.0534 38.3335; 5580 -21.7559 -21.0534 38.3335;
5581 -20.768 -21.0534 38.3335; 5582 -19.7802 -21.0534 38.3335;
5583 -18.7923 -21.0534 38.3335; 5584 -17.8044 -21.0534 38.3335;
5585 -16.8166 -21.0534 38.3335; 5586 -15.8287 -21.0534 38.3335;
5587 -14.8408 -21.0534 38.3335; 5588 -13.853 -21.0534 38.3335;
5589 -12.8651 -21.0534 38.3335; 5590 -11.8772 -21.0534 38.3335;
5591 -10.8894 -21.0534 38.3335; 5592 -9.90151 -21.0534 38.3335;
5593 -8.91365 -21.0534 38.3335; 5594 -7.92578 -21.0534 38.3335;
5595 -6.93792 -21.0534 38.3335; 5596 -5.95005 -21.0534 38.3335;
5597 -4.96218 -21.0534 38.3335; 5598 -3.97432 -21.0534 38.3335;
5599 -2.98645 -21.0534 38.3335; 5600 -1.99859 -21.0534 38.3335;
5601 -1.01072 -21.0534 38.3335; 5602 0.96501 -21.0534 38.3335;
5603 -26.6952 -21.2334 38.5735; 5604 -27.6831 -21.2334 38.5735;
5605 -25.7074 -21.2334 38.5735; 5606 -24.7195 -21.2334 38.5735;
5607 -23.7316 -21.2334 38.5735; 5608 -22.7438 -21.2334 38.5735;
5609 -21.7559 -21.2334 38.5735; 5610 -20.768 -21.2334 38.5735;
5611 -19.7802 -21.2334 38.5735; 5612 -18.7923 -21.2334 38.5735;
5613 -17.8044 -21.2334 38.5735; 5614 -16.8166 -21.2334 38.5735;
5615 -15.8287 -21.2334 38.5735; 5616 -14.8408 -21.2334 38.5735;
5617 -13.853 -21.2334 38.5735; 5618 -12.8651 -21.2334 38.5735;
5619 -11.8772 -21.2334 38.5735; 5620 -10.8894 -21.2334 38.5735;
5621 -9.90151 -21.2334 38.5735; 5622 -8.91364 -21.2334 38.5735;
5623 -7.92578 -21.2334 38.5735; 5624 -6.93791 -21.2334 38.5735;
5625 -5.95005 -21.2334 38.5735; 5626 -4.96218 -21.2334 38.5735;
5627 -3.97431 -21.2334 38.5735; 5628 -2.98645 -21.2334 38.5735;
5629 -1.99858 -21.2334 38.5735; 5630 -1.01072 -21.2334 38.5735;
5631 -0.0228499 -21.2334 38.5735; 5632 0.965015 -21.2334 38.5735;
5633 1.95288 -21.2334 38.5735; 5634 -26.6952 -21.4134 38.8135;
5635 -27.6831 -21.4134 38.8135; 5636 -25.7074 -21.4134 38.8135;
5637 -24.7195 -21.4134 38.8135; 5638 -23.7316 -21.4134 38.8135;
5639 -22.7438 -21.4134 38.8135; 5640 -21.7559 -21.4134 38.8135;
5641 -20.768 -21.4134 38.8135; 5642 -19.7802 -21.4134 38.8135;
5643 -18.7923 -21.4134 38.8135; 5644 -17.8044 -21.4134 38.8135;
5645 -16.8166 -21.4134 38.8135; 5646 -15.8287 -21.4134 38.8135;
5647 -14.8408 -21.4134 38.8135; 5648 -13.853 -21.4134 38.8135;
5649 -12.8651 -21.4134 38.8135; 5650 -11.8772 -21.4134 38.8135;
5651 -10.8894 -21.4134 38.8135; 5652 -9.90151 -21.4134 38.8135;
5653 -8.91364 -21.4134 38.8135; 5654 -7.92578 -21.4134 38.8135;
5655 -6.93791 -21.4134 38.8135; 5656 -5.95004 -21.4134 38.8135;
5657 -4.96218 -21.4134 38.8135; 5658 -3.97431 -21.4134 38.8135;
5659 -2.98644 -21.4134 38.8135; 5660 -1.99858 -21.4134 38.8135;
5661 -1.01071 -21.4134 38.8135; 5662 -0.0228453 -21.4134 38.8135;
5663 0.96502 -21.4134 38.8135; 5664 1.95289 -21.4134 38.8135;
5665 -26.6952 -21.5934 39.0535; 5666 -25.7074 -21.5934 39.0535;
5667 -24.7195 -21.5934 39.0535; 5668 -23.7316 -21.5934 39.0535;
5669 -22.7438 -21.5934 39.0535; 5670 -21.7559 -21.5934 39.0535;
5671 -20.768 -21.5934 39.0535; 5672 -19.7802 -21.5934 39.0535;
5673 -18.7923 -21.5934 39.0535; 5674 -17.8044 -21.5934 39.0535;
5675 -16.8166 -21.5934 39.0535; 5676 -15.8287 -21.5934 39.0535;
5677 -14.8408 -21.5934 39.0535; 5678 -13.853 -21.5934 39.0535;
5679 -12.8651 -21.5934 39.0535; 5680 -11.8772 -21.5934 39.0535;
5681 -10.8894 -21.5934 39.0535; 5682 -9.9015 -21.5934 39.0535;
5683 -8.91364 -21.5934 39.0535; 5684 -7.92577 -21.5934 39.0535;
5685 -6.93791 -21.5934 39.0535; 5686 -5.95004 -21.5934 39.0535;
5687 -4.96217 -21.5934 39.0535; 5688 -3.97431 -21.5934 39.0535;
5689 -2.98644 -21.5934 39.0535; 5690 -1.99857 -21.5934 39.0535;
5691 -1.01071 -21.5934 39.0535; 5692 0.965025 -21.5934 39.0535;
5693 -26.6952 -21.7734 39.2935; 5694 -27.6831 -21.7734 39.2935;
5695 -25.7074 -21.7734 39.2935; 5696 -24.7195 -21.7734 39.2935;
5697 -23.7316 -21.7734 39.2935; 5698 -22.7438 -21.7734 39.2935;
5699 -21.7559 -21.7734 39.2935; 5700 -20.768 -21.7734 39.2935;
5701 -19.7802 -21.7734 39.2935; 5702 -18.7923 -21.7734 39.2935;
5703 -17.8044 -21.7734 39.2935; 5704 -16.8166 -21.7734 39.2935;
5705 -15.8287 -21.7734 39.2935; 5706 -14.8408 -21.7734 39.2935;
5707 -13.853 -21.7734 39.2935; 5708 -12.8651 -21.7734 39.2935;
5709 -11.8772 -21.7734 39.2935; 5710 -10.8894 -21.7734 39.2935;
5711 -9.9015 -21.7734 39.2935; 5712 -8.91363 -21.7734 39.2935;
5713 -7.92577 -21.7734 39.2935; 5714 -6.9379 -21.7734 39.2935;
5715 -5.95004 -21.7734 39.2935; 5716 -4.96217 -21.7734 39.2935;
5717 -3.9743 -21.7734 39.2935; 5718 -2.98644 -21.7734 39.2935;
5719 -1.99857 -21.7734 39.2935; 5720 -1.0107 -21.7734 39.2935;
5721 -0.022836 -21.7734 39.2935; 5722 0.96503 -21.7734 39.2935;
5723 1.95289 -21.7734 39.2935; 5724 -26.6952 -21.9534 39.5335;
5725 -25.7074 -21.9534 39.5335; 5726 -24.7195 -21.9534 39.5335;
5727 -23.7316 -21.9534 39.5335; 5728 -22.7438 -21.9534 39.5335;
5729 -21.7559 -21.9534 39.5335; 5730 -20.768 -21.9534 39.5335;
5731 -19.7802 -21.9534 39.5335; 5732 -18.7923 -21.9534 39.5335;
5733 -17.8044 -21.9534 39.5335; 5734 -16.8166 -21.9534 39.5335;
5735 -15.8287 -21.9534 39.5335; 5736 -14.8408 -21.9534 39.5335;

5737 -13.853 -21.9534 39.5335; 5738 -12.8651 -21.9534 39.5335;
5739 -11.8772 -21.9534 39.5335; 5740 -10.8894 -21.9534 39.5335;
5741 -9.9015 -21.9534 39.5335; 5742 -8.91363 -21.9534 39.5335;
5743 -7.92577 -21.9534 39.5335; 5744 -6.9379 -21.9534 39.5335;
5745 -5.95003 -21.9534 39.5335; 5746 -4.96217 -21.9534 39.5335;
5747 -3.9743 -21.9534 39.5335; 5748 -2.98643 -21.9534 39.5335;
5749 -1.99856 -21.9534 39.5335; 5750 -1.0107 -21.9534 39.5335;
5751 0.965034 -21.9534 39.5335; 5752 2.94073 -20.1534 37.1335;
5753 2.94073 -20.3334 37.3735; 5754 3.9286 -20.3334 37.3735;
5755 4.91648 -20.1534 37.1335; 5756 4.91648 -20.3334 37.3735;
5757 5.90435 -20.1534 37.1335; 5758 5.90435 -20.3334 37.3735;
5759 6.89223 -20.1534 37.1335; 5760 6.89223 -20.3334 37.3735;
5761 7.8801 -20.1534 37.1335; 5762 7.8801 -20.3334 37.3735;
5763 8.86798 -20.1534 37.1335; 5764 8.86798 -20.3334 37.3735;
5765 9.85585 -20.1534 37.1335; 5766 9.85585 -20.3334 37.3735;
5767 10.8437 -20.1534 37.1335; 5768 10.8437 -20.3334 37.3735;
5769 11.8316 -20.1534 37.1335; 5770 11.8316 -20.3334 37.3735;
5771 12.8195 -20.1534 37.1335; 5772 12.8195 -20.3334 37.3735;
5773 13.8074 -20.1534 37.1335; 5774 13.8074 -20.3334 37.3735;
5775 14.7952 -20.1534 37.1335; 5776 14.7952 -20.3334 37.3735;
5777 15.7831 -20.1534 37.1335; 5778 15.7831 -20.3334 37.3735;
5779 16.771 -20.1534 37.1335; 5780 16.771 -20.3334 37.3735;
5781 17.7589 -20.1534 37.1335; 5782 17.7589 -20.3334 37.3735;
5783 18.7467 -20.1534 37.1335; 5784 18.7467 -20.3334 37.3735;
5785 19.7346 -20.1534 37.1335; 5786 19.7346 -20.3334 37.3735;
5787 20.7225 -20.1534 37.1335; 5788 20.7225 -20.3334 37.3735;
5789 21.7104 -20.1534 37.1335; 5790 21.7104 -20.3334 37.3735;
5791 22.6982 -20.1534 37.1335; 5792 22.6982 -20.3334 37.3735;
5793 23.6861 -20.1534 37.1335; 5794 23.6861 -20.3334 37.3735;
5795 24.674 -20.1534 37.1335; 5796 24.674 -20.3334 37.3735;
5797 25.6619 -20.1534 37.1335; 5798 25.6619 -20.3334 37.3735;
5799 26.6497 -20.1534 37.1335; 5800 26.6497 -20.3334 37.3735;
5801 27.6376 -20.1534 37.1335; 5802 27.6376 -20.3334 37.3735;
5803 28.6255 -20.1534 37.1335; 5804 28.6255 -20.3334 37.3735;
5805 29.6134 -20.1534 37.1335; 5806 29.6134 -20.3334 37.3735;
5807 30.6012 -20.1534 37.1335; 5808 30.6012 -20.3334 37.3735;
5809 31.5891 -20.3334 37.3735; 5810 2.94073 -20.5134 37.6135;
5811 3.92861 -20.5134 37.6135; 5812 4.91648 -20.5134 37.6135;
5813 5.90436 -20.5134 37.6135; 5814 6.89223 -20.5134 37.6135;
5815 7.88011 -20.5134 37.6135; 5816 8.86798 -20.5134 37.6135;
5817 9.85586 -20.5134 37.6135; 5818 10.8437 -20.5134 37.6135;
5819 11.8316 -20.5134 37.6135; 5820 12.8195 -20.5134 37.6135;
5821 13.8074 -20.5134 37.6135; 5822 14.7952 -20.5134 37.6135;
5823 15.7831 -20.5134 37.6135; 5824 16.771 -20.5134 37.6135;
5825 17.7589 -20.5134 37.6135; 5826 18.7467 -20.5134 37.6135;
5827 19.7346 -20.5134 37.6135; 5828 20.7225 -20.5134 37.6135;
5829 21.7104 -20.5134 37.6135; 5830 22.6982 -20.5134 37.6135;
5831 23.6861 -20.5134 37.6135; 5832 24.674 -20.5134 37.6135;
5833 25.6619 -20.5134 37.6135; 5834 26.6497 -20.5134 37.6135;
5835 27.6376 -20.5134 37.6135; 5836 28.6255 -20.5134 37.6135;
5837 29.6134 -20.5134 37.6135; 5838 30.6012 -20.5134 37.6135;
5839 31.5891 -20.5134 37.6135; 5840 2.94074 -20.6934 37.8535;
5841 3.92861 -20.6934 37.8535; 5842 4.91649 -20.6934 37.8535;
5843 5.90436 -20.6934 37.8535; 5844 6.89224 -20.6934 37.8535;
5845 7.88011 -20.6934 37.8535; 5846 8.86799 -20.6934 37.8535;
5847 9.85586 -20.6934 37.8535; 5848 10.8437 -20.6934 37.8535;
5849 11.8316 -20.6934 37.8535; 5850 12.8195 -20.6934 37.8535;
5851 13.8074 -20.6934 37.8535; 5852 14.7952 -20.6934 37.8535;
5853 15.7831 -20.6934 37.8535; 5854 16.771 -20.6934 37.8535;
5855 17.7589 -20.6934 37.8535; 5856 18.7467 -20.6934 37.8535;
5857 19.7346 -20.6934 37.8535; 5858 20.7225 -20.6934 37.8535;
5859 21.7104 -20.6934 37.8535; 5860 22.6982 -20.6934 37.8535;
5861 23.6861 -20.6934 37.8535; 5862 24.674 -20.6934 37.8535;
5863 25.6619 -20.6934 37.8535; 5864 26.6497 -20.6934 37.8535;
5865 27.6376 -20.6934 37.8535; 5866 28.6255 -20.6934 37.8535;
5867 29.6134 -20.6934 37.8535; 5868 30.6012 -20.6934 37.8535;
5869 31.5891 -20.6934 37.8535; 5870 2.94074 -20.8734 38.0935;
5871 3.92862 -20.8734 38.0935; 5872 4.91649 -20.8734 38.0935;
5873 5.90437 -20.8734 38.0935; 5874 6.89224 -20.8734 38.0935;
5875 7.88012 -20.8734 38.0935; 5876 8.86799 -20.8734 38.0935;
5877 9.85586 -20.8734 38.0935; 5878 10.8437 -20.8734 38.0935;
5879 11.8316 -20.8734 38.0935; 5880 12.8195 -20.8734 38.0935;
5881 13.8074 -20.8734 38.0935; 5882 14.7952 -20.8734 38.0935;
5883 15.7831 -20.8734 38.0935; 5884 16.771 -20.8734 38.0935;
5885 17.7589 -20.8734 38.0935; 5886 18.7467 -20.8734 38.0935;
5887 19.7346 -20.8734 38.0935; 5888 20.7225 -20.8734 38.0935;
5889 21.7104 -20.8734 38.0935; 5890 22.6982 -20.8734 38.0935;
5891 23.6861 -20.8734 38.0935; 5892 24.674 -20.8734 38.0935;
5893 25.6619 -20.8734 38.0935; 5894 26.6497 -20.8734 38.0935;
5895 27.6376 -20.8734 38.0935; 5896 28.6255 -20.8734 38.0935;
5897 29.6134 -20.8734 38.0935; 5898 30.6012 -20.8734 38.0935;
5899 31.5891 -20.8734 38.0935; 5900 2.94075 -21.0534 38.3335;

5901 4.9165 -21.0534 38.3335; 5902 5.90437 -21.0534 38.3335;
5903 6.89225 -21.0534 38.3335; 5904 7.88012 -21.0534 38.3335;
5905 8.86799 -21.0534 38.3335; 5906 9.85587 -21.0534 38.3335;
5907 10.8437 -21.0534 38.3335; 5908 11.8316 -21.0534 38.3335;
5909 12.8195 -21.0534 38.3335; 5910 13.8074 -21.0534 38.3335;
5911 14.7952 -21.0534 38.3335; 5912 15.7831 -21.0534 38.3335;
5913 16.771 -21.0534 38.3335; 5914 17.7589 -21.0534 38.3335;
5915 18.7467 -21.0534 38.3335; 5916 19.7346 -21.0534 38.3335;
5917 20.7225 -21.0534 38.3335; 5918 21.7104 -21.0534 38.3335;
5919 22.6982 -21.0534 38.3335; 5920 23.6861 -21.0534 38.3335;
5921 24.674 -21.0534 38.3335; 5922 25.6619 -21.0534 38.3335;
5923 26.6497 -21.0534 38.3335; 5924 27.6376 -21.0534 38.3335;
5925 28.6255 -21.0534 38.3335; 5926 29.6134 -21.0534 38.3335;
5927 30.6012 -21.0534 38.3335; 5928 2.94075 -21.2334 38.5735;
5929 3.92863 -21.2334 38.5735; 5930 4.9165 -21.2334 38.5735;
5931 5.90438 -21.2334 38.5735; 5932 6.89225 -21.2334 38.5735;
5933 7.88013 -21.2334 38.5735; 5934 8.868 -21.2334 38.5735;
5935 9.85587 -21.2334 38.5735; 5936 10.8437 -21.2334 38.5735;
5937 11.8316 -21.2334 38.5735; 5938 12.8195 -21.2334 38.5735;
5939 13.8074 -21.2334 38.5735; 5940 14.7952 -21.2334 38.5735;
5941 15.7831 -21.2334 38.5735; 5942 16.771 -21.2334 38.5735;
5943 17.7589 -21.2334 38.5735; 5944 18.7467 -21.2334 38.5735;
5945 19.7346 -21.2334 38.5735; 5946 20.7225 -21.2334 38.5735;
5947 21.7104 -21.2334 38.5735; 5948 22.6982 -21.2334 38.5735;
5949 23.6861 -21.2334 38.5735; 5950 24.674 -21.2334 38.5735;
5951 25.6619 -21.2334 38.5735; 5952 26.6497 -21.2334 38.5735;
5953 27.6376 -21.2334 38.5735; 5954 28.6255 -21.2334 38.5735;
5955 29.6134 -21.2334 38.5735; 5956 30.6012 -21.2334 38.5735;
5957 31.5891 -21.2334 38.5735; 5958 2.94076 -21.4134 38.8135;
5959 3.92863 -21.4134 38.8135; 5960 4.91651 -21.4134 38.8135;
5961 5.90438 -21.4134 38.8135; 5962 6.89225 -21.4134 38.8135;
5963 7.88013 -21.4134 38.8135; 5964 8.868 -21.4134 38.8135;
5965 9.85588 -21.4134 38.8135; 5966 10.8438 -21.4134 38.8135;
5967 11.8316 -21.4134 38.8135; 5968 12.8195 -21.4134 38.8135;
5969 13.8074 -21.4134 38.8135; 5970 14.7952 -21.4134 38.8135;
5971 15.7831 -21.4134 38.8135; 5972 16.771 -21.4134 38.8135;
5973 17.7589 -21.4134 38.8135; 5974 18.7467 -21.4134 38.8135;
5975 19.7346 -21.4134 38.8135; 5976 20.7225 -21.4134 38.8135;
5977 21.7104 -21.4134 38.8135; 5978 22.6982 -21.4134 38.8135;
5979 23.6861 -21.4134 38.8135; 5980 24.674 -21.4134 38.8135;
5981 25.6619 -21.4134 38.8135; 5982 26.6497 -21.4134 38.8135;
5983 27.6376 -21.4134 38.8135; 5984 28.6255 -21.4134 38.8135;
5985 29.6134 -21.4134 38.8135; 5986 30.6012 -21.4134 38.8135;
5987 31.5891 -21.4134 38.8135; 5988 2.94076 -21.5934 39.0535;
5989 4.91651 -21.5934 39.0535; 5990 5.90438 -21.5934 39.0535;
5991 6.89226 -21.5934 39.0535; 5992 7.88013 -21.5934 39.0535;
5993 8.86801 -21.5934 39.0535; 5994 9.85588 -21.5934 39.0535;
5995 10.8438 -21.5934 39.0535; 5996 11.8316 -21.5934 39.0535;
5997 12.8195 -21.5934 39.0535; 5998 13.8074 -21.5934 39.0535;
5999 14.7952 -21.5934 39.0535; 6000 15.7831 -21.5934 39.0535;
6001 16.771 -21.5934 39.0535; 6002 17.7589 -21.5934 39.0535;
6003 18.7467 -21.5934 39.0535; 6004 19.7346 -21.5934 39.0535;
6005 20.7225 -21.5934 39.0535; 6006 21.7104 -21.5934 39.0535;
6007 22.6982 -21.5934 39.0535; 6008 23.6861 -21.5934 39.0535;
6009 24.674 -21.5934 39.0535; 6010 25.6619 -21.5934 39.0535;
6011 26.6497 -21.5934 39.0535; 6012 27.6376 -21.5934 39.0535;
6013 28.6255 -21.5934 39.0535; 6014 29.6134 -21.5934 39.0535;
6015 30.6012 -21.5934 39.0535; 6016 2.94077 -21.7734 39.2935;
6017 3.92864 -21.7734 39.2935; 6018 4.91652 -21.7734 39.2935;
6019 5.90439 -21.7734 39.2935; 6020 6.89226 -21.7734 39.2935;
6021 7.88014 -21.7734 39.2935; 6022 8.86801 -21.7734 39.2935;
6023 9.85588 -21.7734 39.2935; 6024 10.8438 -21.7734 39.2935;
6025 11.8316 -21.7734 39.2935; 6026 12.8195 -21.7734 39.2935;
6027 13.8074 -21.7734 39.2935; 6028 14.7953 -21.7734 39.2935;
6029 15.7831 -21.7734 39.2935; 6030 16.771 -21.7734 39.2935;
6031 17.7589 -21.7734 39.2935; 6032 18.7467 -21.7734 39.2935;
6033 19.7346 -21.7734 39.2935; 6034 20.7225 -21.7734 39.2935;
6035 21.7104 -21.7734 39.2935; 6036 22.6982 -21.7734 39.2935;
6037 23.6861 -21.7734 39.2935; 6038 24.674 -21.7734 39.2935;
6039 25.6619 -21.7734 39.2935; 6040 26.6497 -21.7734 39.2935;
6041 27.6376 -21.7734 39.2935; 6042 28.6255 -21.7734 39.2935;
6043 29.6134 -21.7734 39.2935; 6044 30.6012 -21.7734 39.2935;
6045 31.5891 -21.7734 39.2935; 6046 2.94077 -21.9534 39.5335;
6047 4.91652 -21.9534 39.5335; 6048 5.90439 -21.9534 39.5335;
6049 6.89227 -21.9534 39.5335; 6050 7.88014 -21.9534 39.5335;
6051 8.86801 -21.9534 39.5335; 6052 9.85589 -21.9534 39.5335;
6053 10.8438 -21.9534 39.5335; 6054 11.8316 -21.9534 39.5335;
6055 12.8195 -21.9534 39.5335; 6056 13.8074 -21.9534 39.5335;
6057 14.7953 -21.9534 39.5335; 6058 15.7831 -21.9534 39.5335;
6059 16.771 -21.9534 39.5335; 6060 17.7589 -21.9534 39.5335;
6061 18.7467 -21.9534 39.5335; 6062 19.7346 -21.9534 39.5335;
6063 20.7225 -21.9534 39.5335; 6064 21.7104 -21.9534 39.5335;

6065 22.6982 -21.9534 39.5335; 6066 23.6861 -21.9534 39.5335;
6067 24.674 -21.9534 39.5335; 6068 25.6619 -21.9534 39.5335;
6069 26.6497 -21.9534 39.5335; 6070 27.6376 -21.9534 39.5335;
6071 28.6255 -21.9534 39.5335; 6072 29.6134 -21.9534 39.5335;
6073 30.6012 -21.9534 39.5335; 6074 30.6012 -20.3334 36.8935;
6075 31.5891 -20.3334 36.8935; 6076 29.6133 -20.3334 36.8935;
6077 28.6255 -20.3334 36.8935; 6078 27.6376 -20.3334 36.8935;
6079 26.6497 -20.3334 36.8935; 6080 25.6618 -20.3334 36.8935;
6081 24.674 -20.3334 36.8935; 6082 23.6861 -20.3334 36.8935;
6083 22.6982 -20.3334 36.8935; 6084 21.7104 -20.3334 36.8935;
6085 20.7225 -20.3334 36.8935; 6086 19.7346 -20.3334 36.8935;
6087 18.7467 -20.3334 36.8935; 6088 17.7589 -20.3334 36.8935;
6089 16.771 -20.3334 36.8935; 6090 15.7831 -20.3334 36.8935;
6091 14.7952 -20.3334 36.8935; 6092 13.8074 -20.3334 36.8935;
6093 12.8195 -20.3334 36.8935; 6094 11.8316 -20.3334 36.8935;
6095 10.8437 -20.3334 36.8935; 6096 9.85585 -20.3334 36.8935;
6097 8.86798 -20.3334 36.8935; 6098 7.8801 -20.3334 36.8935;
6099 6.89223 -20.3334 36.8935; 6100 5.90435 -20.3334 36.8935;
6101 4.91648 -20.3334 36.8935; 6102 3.9286 -20.3334 36.8935;
6103 2.94073 -20.3334 36.8935; 6104 1.95286 -20.3334 36.8935;
6105 30.6012 -20.5134 36.6535; 6106 31.5891 -20.5134 36.6535;
6107 29.6133 -20.5134 36.6535; 6108 28.6255 -20.5134 36.6535;
6109 27.6376 -20.5134 36.6535; 6110 26.6497 -20.5134 36.6535;
6111 25.6619 -20.5134 36.6535; 6112 24.674 -20.5134 36.6535;
6113 23.6861 -20.5134 36.6535; 6114 22.6982 -20.5134 36.6535;
6115 21.7104 -20.5134 36.6535; 6116 20.7225 -20.5134 36.6535;
6117 19.7346 -20.5134 36.6535; 6118 18.7467 -20.5134 36.6535;
6119 17.7589 -20.5134 36.6535; 6120 16.771 -20.5134 36.6535;
6121 15.7831 -20.5134 36.6535; 6122 14.7952 -20.5134 36.6535;
6123 13.8074 -20.5134 36.6535; 6124 12.8195 -20.5134 36.6535;
6125 11.8316 -20.5134 36.6535; 6126 10.8437 -20.5134 36.6535;
6127 9.85586 -20.5134 36.6535; 6128 8.86798 -20.5134 36.6535;
6129 7.88011 -20.5134 36.6535; 6130 6.89223 -20.5134 36.6535;
6131 5.90436 -20.5134 36.6535; 6132 4.91648 -20.5134 36.6535;
6133 3.92861 -20.5134 36.6535; 6134 2.94073 -20.5134 36.6535;
6135 1.95286 -20.5134 36.6535; 6136 30.6012 -20.6934 36.4135;
6137 31.5891 -20.6934 36.4135; 6138 29.6134 -20.6934 36.4135;
6139 28.6255 -20.6934 36.4135; 6140 27.6376 -20.6934 36.4135;
6141 26.6497 -20.6934 36.4135; 6142 25.6619 -20.6934 36.4135;
6143 24.674 -20.6934 36.4135; 6144 23.6861 -20.6934 36.4135;
6145 22.6982 -20.6934 36.4135; 6146 21.7104 -20.6934 36.4135;
6147 20.7225 -20.6934 36.4135; 6148 19.7346 -20.6934 36.4135;
6149 18.7467 -20.6934 36.4135; 6150 17.7589 -20.6934 36.4135;
6151 16.771 -20.6934 36.4135; 6152 15.7831 -20.6934 36.4135;
6153 14.7952 -20.6934 36.4135; 6154 13.8074 -20.6934 36.4135;
6155 12.8195 -20.6934 36.4135; 6156 11.8316 -20.6934 36.4135;
6157 10.8437 -20.6934 36.4135; 6158 9.85586 -20.6934 36.4135;
6159 8.86799 -20.6934 36.4135; 6160 7.88011 -20.6934 36.4135;
6161 6.89224 -20.6934 36.4135; 6162 5.90436 -20.6934 36.4135;
6163 4.91649 -20.6934 36.4135; 6164 3.92861 -20.6934 36.4135;
6165 2.94074 -20.6934 36.4135; 6166 1.95287 -20.6934 36.4135;
6167 30.6012 -20.8734 36.1735; 6168 31.5891 -20.8734 36.1735;
6169 29.6134 -20.8734 36.1735; 6170 28.6255 -20.8734 36.1735;
6171 27.6376 -20.8734 36.1735; 6172 26.6497 -20.8734 36.1735;
6173 25.6619 -20.8734 36.1735; 6174 24.674 -20.8734 36.1735;
6175 23.6861 -20.8734 36.1735; 6176 22.6982 -20.8734 36.1735;
6177 21.7104 -20.8734 36.1735; 6178 20.7225 -20.8734 36.1735;
6179 19.7346 -20.8734 36.1735; 6180 18.7467 -20.8734 36.1735;
6181 17.7589 -20.8734 36.1735; 6182 16.771 -20.8734 36.1735;
6183 15.7831 -20.8734 36.1735; 6184 14.7952 -20.8734 36.1735;
6185 13.8074 -20.8734 36.1735; 6186 12.8195 -20.8734 36.1735;
6187 11.8316 -20.8734 36.1735; 6188 10.8437 -20.8734 36.1735;
6189 9.85586 -20.8734 36.1735; 6190 8.86799 -20.8734 36.1735;
6191 7.88011 -20.8734 36.1735; 6192 6.89224 -20.8734 36.1735;
6193 5.90437 -20.8734 36.1735; 6194 4.91649 -20.8734 36.1735;
6195 3.92862 -20.8734 36.1735; 6196 2.94074 -20.8734 36.1735;
6197 1.95287 -20.8734 36.1735; 6198 30.6012 -21.0534 35.9335;
6199 29.6134 -21.0534 35.9335; 6200 28.6255 -21.0534 35.9335;
6201 27.6376 -21.0534 35.9335; 6202 26.6497 -21.0534 35.9335;
6203 25.6619 -21.0534 35.9335; 6204 24.674 -21.0534 35.9335;
6205 23.6861 -21.0534 35.9335; 6206 22.6982 -21.0534 35.9335;
6207 21.7104 -21.0534 35.9335; 6208 20.7225 -21.0534 35.9335;
6209 19.7346 -21.0534 35.9335; 6210 18.7467 -21.0534 35.9335;
6211 17.7589 -21.0534 35.9335; 6212 16.771 -21.0534 35.9335;
6213 15.7831 -21.0534 35.9335; 6214 14.7952 -21.0534 35.9335;
6215 13.8074 -21.0534 35.9335; 6216 12.8195 -21.0534 35.9335;
6217 11.8316 -21.0534 35.9335; 6218 10.8437 -21.0534 35.9335;
6219 9.85587 -21.0534 35.9335; 6220 8.86799 -21.0534 35.9335;
6221 7.88012 -21.0534 35.9335; 6222 6.89224 -21.0534 35.9335;
6223 5.90437 -21.0534 35.9335; 6224 4.9165 -21.0534 35.9335;
6225 2.94075 -21.0534 35.9335; 6226 30.6012 -21.2334 35.6935;
6227 31.5891 -21.2334 35.6935; 6228 29.6134 -21.2334 35.6935;

6229 28.6255 -21.2334 35.6935; 6230 27.6376 -21.2334 35.6935;
6231 26.6497 -21.2334 35.6935; 6232 25.6619 -21.2334 35.6935;
6233 24.674 -21.2334 35.6935; 6234 23.6861 -21.2334 35.6935;
6235 22.6982 -21.2334 35.6935; 6236 21.7104 -21.2334 35.6935;
6237 20.7225 -21.2334 35.6935; 6238 19.7346 -21.2334 35.6935;
6239 18.7467 -21.2334 35.6935; 6240 17.7589 -21.2334 35.6935;
6241 16.771 -21.2334 35.6935; 6242 15.7831 -21.2334 35.6935;
6243 14.7952 -21.2334 35.6935; 6244 13.8074 -21.2334 35.6935;
6245 12.8195 -21.2334 35.6935; 6246 11.8316 -21.2334 35.6935;
6247 10.8437 -21.2334 35.6935; 6248 9.85587 -21.2334 35.6935;
6249 8.868 -21.2334 35.6935; 6250 7.88012 -21.2334 35.6935;
6251 6.89225 -21.2334 35.6935; 6252 5.90437 -21.2334 35.6935;
6253 4.9165 -21.2334 35.6935; 6254 3.92863 -21.2334 35.6935;
6255 2.94075 -21.2334 35.6935; 6256 1.95288 -21.2334 35.6935;
6257 30.6012 -21.4134 35.4535; 6258 31.5891 -21.4134 35.4535;
6259 29.6134 -21.4134 35.4535; 6260 28.6255 -21.4134 35.4535;
6261 27.6376 -21.4134 35.4535; 6262 26.6497 -21.4134 35.4535;
6263 25.6619 -21.4134 35.4535; 6264 24.674 -21.4134 35.4535;
6265 23.6861 -21.4134 35.4535; 6266 22.6982 -21.4134 35.4535;
6267 21.7104 -21.4134 35.4535; 6268 20.7225 -21.4134 35.4535;
6269 19.7346 -21.4134 35.4535; 6270 18.7467 -21.4134 35.4535;
6271 17.7589 -21.4134 35.4535; 6272 16.771 -21.4134 35.4535;
6273 15.7831 -21.4134 35.4535; 6274 14.7952 -21.4134 35.4535;
6275 13.8074 -21.4134 35.4535; 6276 12.8195 -21.4134 35.4535;
6277 11.8316 -21.4134 35.4535; 6278 10.8437 -21.4134 35,4535;
6279 9.85588 -21.4134 35.4535; 6280 8.868 -21.4134 35.4535;
6281 7.88013 -21.4134 35.4535; 6282 6.89225 -21.4134 35.4535;
6283 5.90438 -21.4134 35.4535; 6284 4.91651 -21.4134 35.4535;
6285 3.92863 -21.4134 35.4535; 6286 2.94076 -21.4134 35.4535;
6287 1.95289 -21.4134 35.4535; 6288 30.6012 -21.5934 35.2135;
6289 29.6134 -21.5934 35.2135; 6290 28.6255 -21.5934 35.2135;
6291 27.6376 -21.5934 35.2135; 6292 26.6497 -21.5934 35.2135;
6293 25.6619 -21.5934 35.2135; 6294 24.674 -21.5934 35.2135;
6295 23.6861 -21.5934 35.2135; 6296 22.6982 -21.5934 35.2135;
6297 21.7104 -21.5934 35.2135; 6298 20.7225 -21.5934 35.2135;
6299 19.7346 -21.5934 35.2135; 6300 18.7467 -21.5934 35.2135;
6301 17.7589 -21.5934 35.2135; 6302 16.771 -21.5934 35.2135;
6303 15.7831 -21.5934 35.2135; 6304 14.7952 -21.5934 35.2135;
6305 13.8074 -21.5934 35.2135; 6306 12.8195 -21.5934 35.2135;
6307 11.8316 -21.5934 35.2135; 6308 10.8438 -21.5934 35.2135;
6309 9.85588 -21.5934 35.2135; 6310 8.868 -21.5934 35.2135;
6311 7.88013 -21.5934 35.2135; 6312 6.89226 -21.5934 35.2135;
6313 5.90438 -21.5934 35.2135; 6314 4.91651 -21.5934 35,2135;
6315 2.94076 -21.5934 35.2135; 6316 30.6012 -21.7734 34.9735;
6317 31.5891 -21.7734 34.9735; 6318 29.6134 -21.7734 34.9735;
6319 28.6255 -21.7734 34.9735; 6320 27.6376 -21.7734 34.9735;
6321 26.6497 -21.7734 34.9735; 6322 25.6619 -21.7734 34.9735;
6323 24.674 -21.7734 34.9735; 6324 23.6861 -21.7734 34.9735;
6325 22.6982 -21.7734 34.9735; 6326 21.7104 -21.7734 34.9735;
6327 20.7225 -21.7734 34.9735; 6328 19.7346 -21.7734 34.9735;
6329 18.7467 -21.7734 34.9735; 6330 17.7589 -21.7734 34.9735;
6331 16.771 -21.7734 34.9735; 6332 15.7831 -21.7734 34.9735;
6333 14.7952 -21.7734 34.9735; 6334 13.8074 -21.7734 34.9735;
6335 12.8195 -21.7734 34.9735; 6336 11.8316 -21.7734 34.9735;
6337 10.8438 -21.7734 34.9735; 6338 9.85588 -21.7734 34.9735;
6339 8.86801 -21.7734 34.9735; 6340 7.88013 -21.7734 34.9735;
6341 6.89226 -21.7734 34.9735; 6342 5.90439 -21.7734 34.9735;
6343 4.91651 -21.7734 34.9735; 6344 3.92864 -21.7734 34.9735;
6345 2.94077 -21.7734 34.9735; 6346 1.95289 -21.7734 34.9735;
6347 30.6012 -21.9534 34.7335; 6348 29.6134 -21.9534 34.7335;
6349 28.6255 -21.9534 34.7335; 6350 27.6376 -21.9534 34.7335;
6351 26.6497 -21.9534 34.7335; 6352 25.6619 -21.9534 34.7335;
6353 24.674 -21.9534 34.7335; 6354 23.6861 -21.9534 34.7335;
6355 22.6982 -21.9534 34.7335; 6356 21.7104 -21.9534 34.7335;
6357 20.7225 -21.9534 34.7335; 6358 19.7346 -21.9534 34.7335;
6359 18.7467 -21.9534 34.7335; 6360 17.7589 -21.9534 34.7335;
6361 16.771 -21.9534 34.7335; 6362 15.7831 -21.9534 34.7335;
6363 14.7953 -21.9534 34.7335; 6364 13.8074 -21.9534 34.7335;
6365 12.8195 -21.9534 34.7335; 6366 11.8316 -21.9534 34.7335;
6367 10.8438 -21.9534 34.7335; 6368 9.85589 -21.9534 34.7335;
6369 8.86801 -21.9534 34.7335; 6370 7.88014 -21.9534 34.7335;
6371 6.89227 -21.9534 34.7335; 6372 5.90439 -21.9534 34.7335;
6373 4.91652 -21.9534 34.7335; 6374 2.94077 -21.9534 34.7335;
6375 0.96499 -20.3334 36.8935; 6376 -0.0228754 -20.3334 36.8935;
6377 -1.01074 -20.3334 36.8935; 6378 -1.99861 -20.3334 36.8935;
6379 -2.98647 -20.3334 36.8935; 6380 -3.97434 -20.3334 36.8935;
6381 -4.9622 -20.3334 36.8935; 6382 -5.95007 -20.3334 36.8935;
6383 -6.93793 -20.3334 36.8935; 6384 -7.9258 -20.3334 36.8935;
6385 -8.91366 -20.3334 36.8935; 6386 -9.90153 -20.3334 36.8935;
6387 -10.8894 -20.3334 36.8935; 6388 -11.8773 -20.3334 36.8935;
6389 -12.8651 -20.3334 36.8935; 6390 -13.853 -20.3334 36.8935;
6391 -14.8409 -20.3334 36.8935; 6392 -15.8287 -20.3334 36.8935;

6393 -16.8166 -20.3334 36.8935; 6394 -17.8044 -20.3334 36.8935;
6395 -18.7923 -20.3334 36.8935; 6396 -19.7802 -20.3334 36.8935;
6397 -20.768 -20.3334 36.8935; 6398 -21.7559 -20.3334 36.8935;
6399 -22.7438 -20.3334 36.8935; 6400 -23.7316 -20.3334 36.8935;
6401 -24.7195 -20.3334 36.8935; 6402 -25.7074 -20.3334 36.8935;
6403 -26.6952 -20.3334 36.8935; 6404 -27.6831 -20.3334 36.8935;
6405 0.964994 -20.5134 36.6535; 6406 -0.0228708 -20.5134 36.6535;
6407 -1.01074 -20.5134 36.6535; 6408 -1.9986 -20.5134 36.6535;
6409 -2.98647 -20.5134 36.6535; 6410 -3.97433 -20.5134 36.6535;
6411 -4.9622 -20.5134 36.6535; 6412 -5.95006 -20.5134 36.6535;
6413 -6.93793 -20.5134 36.6535; 6414 -7.92579 -20.5134 36.6535;
6415 -8.91366 -20.5134 36.6535; 6416 -9.90153 -20.5134 36.6535;
6417 -10.8894 -20.5134 36.6535; 6418 -11.8773 -20.5134 36.6535;
6419 -12.8651 -20.5134 36.6535; 6420 -13.853 -20.5134 36.6535;
6421 -14.8409 -20.5134 36.6535; 6422 -15.8287 -20.5134 36.6535;
6423 -16.8166 -20.5134 36.6535; 6424 -17.8044 -20.5134 36.6535;
6425 -18.7923 -20.5134 36.6535; 6426 -19.7802 -20.5134 36.6535;
6427 -20.768 -20.5134 36.6535; 6428 -21.7559 -20.5134 36.6535;
6429 -22.7438 -20.5134 36.6535; 6430 -23.7316 -20.5134 36.6535;
6431 -24.7195 -20.5134 36.6535; 6432 -25.7074 -20.5134 36.6535;
6433 -26.6952 -20.5134 36.6535; 6434 -27.6831 -20.5134 36.6535;
6435 0.964999 -20.6934 36.4135; 6436 -0.0228661 -20.6934 36.4135;
6437 -1.01073 -20.6934 36.4135; 6438 -1.9986 -20.6934 36.4135;
6439 -2.98646 -20.6934 36.4135; 6440 -3.97433 -20.6934 36.4135;
6441 -4.96219 -20.6934 36.4135; 6442 -5.95006 -20.6934 36.4135;
6443 -6.93792 -20.6934 36.4135; 6444 -7.92579 -20.6934 36.4135;
6445 -8.91366 -20.6934 36.4135; 6446 -9.90152 -20.6934 36.4135;
6447 -10.8894 -20.6934 36.4135; 6448 -11.8773 -20.6934 36.4135;
6449 -12.8651 -20.6934 36.4135; 6450 -13.853 -20.6934 36.4135;
6451 -14.8408 -20.6934 36.4135; 6452 -15.8287 -20.6934 36.4135;
6453 -16.8166 -20.6934 36.4135; 6454 -17.8044 -20.6934 36.4135;
6455 -18.7923 -20.6934 36.4135; 6456 -19.7802 -20.6934 36.4135;
6457 -20.768 -20.6934 36.4135; 6458 -21.7559 -20.6934 36.4135;
6459 -22.7438 -20.6934 36.4135; 6460 -23.7316 -20.6934 36.4135;
6461 -24.7195 -20.6934 36.4135; 6462 -25.7074 -20.6934 36.4135;
6463 -26.6952 -20.6934 36.4135; 6464 -27.6831 -20.6934 36.4135;
6465 0.965004 -20.8734 36.1735; 6466 -0.0228614 -20.8734 36.1735;
6467 -1.01073 -20.8734 36.1735; 6468 -1.99859 -20.8734 36.1735;
6469 -2.98646 -20.8734 36.1735; 6470 -3.97433 -20.8734 36.1735;
6471 -4.96219 -20.8734 36.1735; 6472 -5.95006 -20.8734 36.1735;
6473 -6.93792 -20.8734 36.1735; 6474 -7.92579 -20.8734 36.1735;
6475 -8.91365 -20.8734 36.1735; 6476 -9.90152 -20.8734 36.1735;
6477 -10.8894 -20.8734 36.1735; 6478 -11.8773 -20.8734 36.1735;
6479 -12.8651 -20.8734 36.1735; 6480 -13.853 -20.8734 36.1735;
6481 -14.8408 -20.8734 36.1735; 6482 -15.8287 -20.8734 36.1735;
6483 -16.8166 -20.8734 36.1735; 6484 -17.8044 -20.8734 36.1735;
6485 -18.7923 -20.8734 36.1735; 6486 -19.7802 -20.8734 36.1735;
6487 -20.768 -20.8734 36.1735; 6488 -21.7559 -20.8734 36.1735;
6489 -22.7438 -20.8734 36.1735; 6490 -23.7316 -20.8734 36.1735;
6491 -24.7195 -20.8734 36.1735; 6492 -25.7074 -20.8734 36.1735;
6493 -26.6952 -20.8734 36.1735; 6494 -27.6831 -20.8734 36.1735;
6495 0.965008 -21.0534 35.9335; 6496 -1.01072 -21.0534 35.9335;
6497 -1.99859 -21.0534 35.9335; 6498 -2.98645 -21.0534 35.9335;
6499 -3.97432 -21.0534 35.9335; 6500 -4.96219 -21.0534 35.9335;
6501 -5.95005 -21.0534 35.9335; 6502 -6.93792 -21.0534 35.9335;
6503 -7.92578 -21.0534 35.9335; 6504 -8.91365 -21.0534 35.9335;
6505 -9.90152 -21.0534 35.9335; 6506 -10.8894 -21.0534 35.9335;
6507 -11.8772 -21.0534 35.9335; 6508 -12.8651 -21.0534 35.9335;
6509 -13.853 -21.0534 35.9335; 6510 -14.8408 -21.0534 35.9335;
6511 -15.8287 -21.0534 35.9335; 6512 -16.8166 -21.0534 35.9335;
6513 -17.8044 -21.0534 35.9335; 6514 -18.7923 -21.0534 35.9335;
6515 -19.7802 -21.0534 35.9335; 6516 -20.768 -21.0534 35.9335;
6517 -21.7559 -21.0534 35.9335; 6518 -22.7438 -21.0534 35.9335;
6519 -23.7316 -21.0534 35.9335; 6520 -24.7195 -21.0534 35.9335;
6521 -25.7074 -21.0534 35.9335; 6522 -26.6952 -21.0534 35.9335;
6523 0.965013 -21.2334 35.6935; 6524 -0.0228519 -21.2334 35.6935;
6525 -1.01072 -21.2334 35.6935; 6526 -1.99858 -21.2334 35.6935;
6527 -2.98645 -21.2334 35.6935; 6528 -3.97432 -21.2334 35.6935;
6529 -4.96218 -21.2334 35.6935; 6530 -5.95005 -21.2334 35.6935;
6531 -6.93791 -21.2334 35.6935; 6532 -7.92578 -21.2334 35.6935;
6533 -8.91365 -21.2334 35.6935; 6534 -9.90151 -21.2334 35.6935;
6535 -10.8894 -21.2334 35.6935; 6536 -11.8772 -21.2334 35.6935;
6537 -12.8651 -21.2334 35.6935; 6538 -13.853 -21.2334 35.6935;
6539 -14.8408 -21.2334 35.6935; 6540 -15.8287 -21.2334 35.6935;
6541 -16.8166 -21.2334 35.6935; 6542 -17.8044 -21.2334 35.6935;
6543 -18.7923 -21.2334 35.6935; 6544 -19.7802 -21.2334 35.6935;
6545 -20.768 -21.2334 35.6935; 6546 -21.7559 -21.2334 35.6935;
6547 -22.7438 -21.2334 35.6935; 6548 -23.7316 -21.2334 35.6935;
6549 -24.7195 -21.2334 35.6935; 6550 -25.7074 -21.2334 35.6935;
6551 -26.6952 -21.2334 35.6935; 6552 -27.6831 -21.2334 35.6935;
6553 0.965018 -21.4134 35.4535; 6554 -0.0228473 -21.4134 35.4535;
6555 -1.01071 -21.4134 35.4535; 6556 -1.99858 -21.4134 35.4535;

6557 -2.98645 -21.4134 35.4535; 6558 -3.97431 -21.4134 35.4535;
6559 -4.96218 -21.4134 35.4535; 6560 -5.95004 -21.4134 35.4535;
6561 -6.93791 -21.4134 35.4535; 6562 -7.92578 -21.4134 35.4535;
6563 -8.91364 -21.4134 35.4535; 6564 -9.90151 -21.4134 35.4535;
6565 -10.8894 -21.4134 35.4535; 6566 -11.8772 -21.4134 35.4535;
6567 -12.8651 -21.4134 35.4535; 6568 -13.853 -21.4134 35.4535;
6569 -14.8408 -21.4134 35.4535; 6570 -15.8287 -21.4134 35.4535;
6571 -16.8166 -21.4134 35.4535; 6572 -17.8044 -21.4134 35.4535;
6573 -18.7923 -21.4134 35.4535; 6574 -19.7802 -21.4134 35.4535;
6575 -20.768 -21.4134 35.4535; 6576 -21.7559 -21.4134 35.4535;
6577 -22.7438 -21.4134 35.4535; 6578 -23.7316 -21.4134 35.4535;
6579 -24.7195 -21.4134 35.4535; 6580 -25.7074 -21.4134 35.4535;
6581 -26.6952 -21.4134 35.4535; 6582 -27.6831 -21.4134 35.4535;
6583 0.965023 -21.5934 35.2135; 6584 -1.01071 -21.5934 35.2135;
6585 -1.99858 -21.5934 35.2135; 6586 -2.98644 -21.5934 35.2135;
6587 -3.97431 -21.5934 35.2135; 6588 -4.96217 -21.5934 35.2135;
6589 -5.95004 -21.5934 35.2135; 6590 -6.93791 -21.5934 35.2135;
6591 -7.92577 -21.5934 35.2135; 6592 -8.91364 -21.5934 35.2135;
6593 -9.90151 -21.5934 35.2135; 6594 -10.8894 -21.5934 35.2135;
6595 -11.8772 -21.5934 35.2135; 6596 -12.8651 -21.5934 35.2135;
6597 -13.853 -21.5934 35.2135; 6598 -14.8408 -21.5934 35.2135;
6599 -15.8287 -21.5934 35.2135; 6600 -16.8166 -21.5934 35.2135;
6601 -17.8044 -21.5934 35.2135; 6602 -18.7923 -21.5934 35.2135;
6603 -19.7802 -21.5934 35.2135; 6604 -20.768 -21.5934 35.2135;
6605 -21.7559 -21.5934 35.2135; 6606 -22.7438 -21.5934 35.2135;
6607 -23.7316 -21.5934 35.2135; 6608 -24.7195 -21.5934 35.2135;
6609 -25.7074 -21.5934 35.2135; 6610 -26.6952 -21.5934 35.2135;
6611 0.965028 -21.7734 34.9735; 6612 -0.0228379 -21.7734 34.9735;
6613 -1.01071 -21.7734 34.9735; 6614 -1.99857 -21.7734 34.9735;
6615 -2.98644 -21.7734 34.9735; 6616 -3.97431 -21.7734 34.9735;
6617 -4.96217 -21.7734 34.9735; 6618 -5.95004 -21.7734 34.9735;
6619 -6.9379 -21.7734 34.9735; 6620 -7.92577 -21.7734 34.9735;
6621 -8.91364 -21.7734 34.9735; 6622 -9.9015 -21.7734 34.9735;
6623 -10.8894 -21.7734 34.9735; 6624 -11.8772 -21.7734 34.9735;
6625 -12.8651 -21.7734 34.9735; 6626 -13.853 -21.7734 34.9735;
6627 -14.8408 -21.7734 34.9735; 6628 -15.8287 -21.7734 34.9735;
6629 -16.8166 -21.7734 34.9735; 6630 -17.8044 -21.7734 34.9735;
6631 -18.7923 -21.7734 34.9735; 6632 -19.7802 -21.7734 34.9735;
6633 -20.768 -21.7734 34.9735; 6634 -21.7559 -21.7734 34.9735;
6635 -22.7438 -21.7734 34.9735; 6636 -23.7316 -21.7734 34.9735;
6637 -24.7195 -21.7734 34.9735; 6638 -25.7074 -21.7734 34.9735;
6639 -26.6952 -21.7734 34.9735; 6640 -27.6831 -21.7734 34.9735;
6641 0.965032 -21.9534 34.7335; 6642 -1.0107 -21.9534 34.7335;
6643 -1.99857 -21.9534 34.7335; 6644 -2.98643 -21.9534 34.7335;
6645 -3.9743 -21.9534 34.7335; 6646 -4.96217 -21.9534 34.7335;
6647 -5.95003 -21.9534 34.7335; 6648 -6.9379 -21.9534 34.7335;
6649 -7.92577 -21.9534 34.7335; 6650 -8.91363 -21.9534 34.7335;
6651 -9.9015 -21.9534 34.7335; 6652 -10.8894 -21.9534 34.7335;
6653 -11.8772 -21.9534 34.7335; 6654 -12.8651 -21.9534 34.7335;
6655 -13.853 -21.9534 34.7335; 6656 -14.8408 -21.9534 34.7335;
6657 -15.8287 -21.9534 34.7335; 6658 -16.8166 -21.9534 34.7335;
6659 -17.8044 -21.9534 34.7335; 6660 -18.7923 -21.9534 34.7335;
6661 -19.7802 -21.9534 34.7335; 6662 -20.768 -21.9534 34.7335;
6663 -21.7559 -21.9534 34.7335; 6664 -22.7438 -21.9534 34.7335;
6665 -23.7316 -21.9534 34.7335; 6666 -24.7195 -21.9534 34.7335;
6667 -25.7074 -21.9534 34.7335; 6668 -26.6952 -21.9534 34.7335;
6669 -26.6952 -20.1534 25.1335; 6670 -26.6952 -20.3334 25.3735;
6671 -27.6831 -20.3334 25.3735; 6672 -25.7074 -20.1534 25.1335;
6673 -25.7074 -20.3334 25.3735; 6674 -24.7195 -20.1534 25.1335;
6675 -24.7195 -20.3334 25.3735; 6676 -23.7316 -20.1534 25.1335;
6677 -23.7316 -20.3334 25.3735; 6678 -22.7438 -20.1534 25.1335;
6679 -22.7438 -20.3334 25.3735; 6680 -21.7559 -20.1534 25.1335;
6681 -21.7559 -20.3334 25.3735; 6682 -20.768 -20.1534 25.1335;
6683 -20.768 -20.3334 25.3735; 6684 -19.7802 -20.1534 25.1335;
6685 -19.7802 -20.3334 25.3735; 6686 -18.7923 -20.1534 25.1335;
6687 -18.7923 -20.3334 25.3735; 6688 -17.8044 -20.1534 25.1335;
6689 -17.8044 -20.3334 25.3735; 6690 -16.8166 -20.1534 25.1335;
6691 -16.8166 -20.3334 25.3735; 6692 -15.8287 -20.1534 25.1335;
6693 -15.8287 -20.3334 25.3735; 6694 -14.8409 -20.1534 25.1335;
6695 -14.8409 -20.3334 25.3735; 6696 -13.853 -20.1534 25.1335;
6697 -13.853 -20.3334 25.3735; 6698 -12.8651 -20.1534 25.1335;
6699 -12.8651 -20.3334 25.3735; 6700 -11.8773 -20.1534 25.1335;
6701 -11.8773 -20.3334 25.3735; 6702 -10.8894 -20.1534 25.1335;
6703 -10.8894 -20.3334 25.3735; 6704 -9.90153 -20.1534 25.1335;
6705 -9.90153 -20.3334 25.3735; 6706 -8.91366 -20.1534 25.1335;
6707 -8.91366 -20.3334 25.3735; 6708 -7.9258 -20.1534 25.1335;
6709 -7.9258 -20.3334 25.3735; 6710 -6.93793 -20.1534 25.1335;
6711 -6.93793 -20.3334 25.3735; 6712 -5.95007 -20.1534 25.1335;
6713 -5.95007 -20.3334 25.3735; 6714 -4.9622 -20.1534 25.1335;
6715 -4.9622 -20.3334 25.3735; 6716 -3.97434 -20.1534 25.1335;
6717 -3.97433 -20.3334 25.3735; 6718 -2.98647 -20.1534 25.1335;
6719 -2.98647 -20.3334 25.3735; 6720 -1.99861 -20.1534 25.1335;

6721 -1.9986 -20.3334 25.3735; 6722 -1.01074 -20.1534 25.1335;
6723 -1.01074 -20.3334 25.3735; 6724 -0.0228731 -20.3334 25.3735;
6725 0.964986 -20.1534 25.1335; 6726 0.964991 -20.3334 25.3735;
6727 1.95286 -20.3334 25.3735; 6728 -26.6952 -20.5134 25.6135;
6729 -27.6831 -20.5134 25.6135; 6730 -25.7074 -20.5134 25.6135;
6731 -24.7195 -20.5134 25.6135; 6732 -23.7316 -20.5134 25.6135;
6733 -22.7438 -20.5134 25.6135; 6734 -21.7559 -20.5134 25.6135;
6735 -20.768 -20.5134 25.6135; 6736 -19.7802 -20.5134 25.6135;
6737 -18.7923 -20.5134 25.6135; 6738 -17.8044 -20.5134 25.6135;
6739 -16.8166 -20.5134 25.6135; 6740 -15.8287 -20.5134 25.6135;
6741 -14.8408 -20.5134 25.6135; 6742 -13.853 -20.5134 25.6135;
6743 -12.8651 -20.5134 25.6135; 6744 -11.8773 -20.5134 25.6135;
6745 -10.8894 -20.5134 25.6135; 6746 -9.90152 -20.5134 25.6135;
6747 -8.91366 -20.5134 25.6135; 6748 -7.92579 -20.5134 25.6135;
6749 -6.93793 -20.5134 25.6135; 6750 -5.95006 -20.5134 25.6135;
6751 -4.9622 -20.5134 25.6135; 6752 -3.97433 -20.5134 25.6135;
6753 -2.98647 -20.5134 25.6135; 6754 -1.9986 -20.5134 25.6135;
6755 -1.01073 -20.5134 25.6135; 6756 -0.0228685 -20.5134 25.6135;
6757 0.964996 -20.5134 25.6135; 6758 1.95286 -20.5134 25.6135;
6759 -26.6952 -20.6934 25.8535; 6760 -27.6831 -20.6934 25.8535;
6761 -25.7074 -20.6934 25.8535; 6762 -24.7195 -20.6934 25.8535;
6763 -23.7316 -20.6934 25.8535; 6764 -22.7438 -20.6934 25.8535;
6765 -21.7559 -20.6934 25.8535; 6766 -20.768 -20.6934 25.8535;
6767 -19.7802 -20.6934 25.8535; 6768 -18.7923 -20.6934 25.8535;
6769 -17.8044 -20.6934 25.8535; 6770 -16.8166 -20.6934 25.8535;
6771 -15.8287 -20.6934 25.8535; 6772 -14.8408 -20.6934 25.8535;
6773 -13.853 -20.6934 25.8535; 6774 -12.8651 -20.6934 25.8535;
6775 -11.8773 -20.6934 25.8535; 6776 -10.8894 -20.6934 25.8535;
6777 -9.90152 -20.6934 25.8535; 6778 -8.91365 -20.6934 25.8535;
6779 -7.92579 -20.6934 25.8535; 6780 -6.93792 -20.6934 25.8535;
6781 -5.95006 -20.6934 25.8535; 6782 -4.96219 -20.6934 25.8535;
6783 -3.97433 -20.6934 25.8535; 6784 -2.98646 -20.6934 25.8535;
6785 -1.99859 -20.6934 25.8535; 6786 -1.01073 -20.6934 25.8535;
6787 -0.0228639 -20.6934 25.8535; 6788 0.965001 -20.6934 25.8535;
6789 1.95287 -20.6934 25.8535; 6790 -26.6952 -20.8734 26.0935;
6791 -27.6831 -20.8734 26.0935; 6792 -25.7074 -20.8734 26.0935;
6793 -24.7195 -20.8734 26.0935; 6794 -23.7316 -20.8734 26.0935;
6795 -22.7438 -20.8734 26.0935; 6796 -21.7559 -20.8734 26.0935;
6797 -20.768 -20.8734 26.0935; 6798 -19.7802 -20.8734 26.0935;
6799 -18.7923 -20.8734 26.0935; 6800 -17.8044 -20.8734 26.0935;
6801 -16.8166 -20.8734 26.0935; 6802 -15.8287 -20.8734 26.0935;
6803 -14.8408 -20.8734 26.0935; 6804 -13.853 -20.8734 26.0935;
6805 -12.8651 -20.8734 26.0935; 6806 -11.8772 -20.8734 26.0935;
6807 -10.8894 -20.8734 26.0935; 6808 -9.90152 -20.8734 26.0935;
6809 -8.91365 -20.8734 26.0935; 6810 -7.92579 -20.8734 26.0935;
6811 -6.93792 -20.8734 26.0935; 6812 -5.95005 -20.8734 26.0935;
6813 -4.96219 -20.8734 26.0935; 6814 -3.97432 -20.8734 26.0935;
6815 -2.98646 -20.8734 26.0935; 6816 -1.99859 -20.8734 26.0935;
6817 -1.01073 -20.8734 26.0935; 6818 -0.0228592 -20.8734 26.0935;
6819 0.965006 -20.8734 26.0935; 6820 1.95287 -20.8734 26.0935;
6821 -26.6952 -21.0534 26.3335; 6822 -25.7074 -21.0534 26.3335;
6823 -24.7195 -21.0534 26.3335; 6824 -23.7316 -21.0534 26.3335;
6825 -22.7438 -21.0534 26.3335; 6826 -21.7559 -21.0534 26.3335;
6827 -20.768 -21.0534 26.3335; 6828 -19.7802 -21.0534 26.3335;
6829 -18.7923 -21.0534 26.3335; 6830 -17.8044 -21.0534 26.3335;
6831 -16.8166 -21.0534 26.3335; 6832 -15.8287 -21.0534 26.3335;
6833 -14.8408 -21.0534 26.3335; 6834 -13.853 -21.0534 26.3335;
6835 -12.8651 -21.0534 26.3335; 6836 -11.8772 -21.0534 26.3335;
6837 -10.8894 -21.0534 26.3335; 6838 -9.90151 -21.0534 26.3335;
6839 -8.91365 -21.0534 26.3335; 6840 -7.92578 -21.0534 26.3335;
6841 -6.93792 -21.0534 26.3335; 6842 -5.95005 -21.0534 26.3335;
6843 -4.96218 -21.0534 26.3335; 6844 -3.97432 -21.0534 26.3335;
6845 -2.98645 -21.0534 26.3335; 6846 -1.99859 -21.0534 26.3335;
6847 -1.01072 -21.0534 26.3335; 6848 0.96501 -21.0534 26.3335;
6849 -26.6952 -21.2334 26.5735; 6850 -27.6831 -21.2334 26.5735;
6851 -25.7074 -21.2334 26.5735; 6852 -24.7195 -21.2334 26.5735;
6853 -23.7316 -21.2334 26.5735; 6854 -22.7438 -21.2334 26.5735;
6855 -21.7559 -21.2334 26.5735; 6856 -20.768 -21.2334 26.5735;
6857 -19.7802 -21.2334 26.5735; 6858 -18.7923 -21.2334 26.5735;
6859 -17.8044 -21.2334 26.5735; 6860 -16.8166 -21.2334 26.5735;
6861 -15.8287 -21.2334 26.5735; 6862 -14.8408 -21.2334 26.5735;
6863 -13.853 -21.2334 26.5735; 6864 -12.8651 -21.2334 26.5735;
6865 -11.8772 -21.2334 26.5735; 6866 -10.8894 -21.2334 26.5735;
6867 -9.90151 -21.2334 26.5735; 6868 -8.91364 -21.2334 26.5735;
6869 -7.92578 -21.2334 26.5735; 6870 -6.93791 -21.2334 26.5735;
6871 -5.95005 -21.2334 26.5735; 6872 -4.96218 -21.2334 26.5735;
6873 -3.97431 -21.2334 26.5735; 6874 -2.98645 -21.2334 26.5735;
6875 -1.99858 -21.2334 26.5735; 6876 -1.01072 -21.2334 26.5735;
6877 -0.0228499 -21.2334 26.5735; 6878 0.965015 -21.2334 26.5735;
6879 1.95288 -21.2334 26.5735; 6880 -26.6952 -21.4134 26.8135;
6881 -27.6831 -21.4134 26.8135; 6882 -25.7074 -21.4134 26.8135;
6883 -24.7195 -21.4134 26.8135; 6884 -23.7316 -21.4134 26.8135;

6885 -22.7438 -21.4134 26.8135; 6886 -21.7559 -21.4134 26.8135;
6887 -20.768 -21.4134 26.8135; 6888 -19.7802 -21.4134 26.8135;
6889 -18.7923 -21.4134 26.8135; 6890 -17.8044 -21.4134 26.8135;
6891 -16.8166 -21.4134 26.8135; 6892 -15.8287 -21.4134 26.8135;
6893 -14.8408 -21.4134 26.8135; 6894 -13.853 -21.4134 26.8135;
6895 -12.8651 -21.4134 26.8135; 6896 -11.8772 -21.4134 26.8135;
6897 -10.8894 -21.4134 26.8135; 6898 -9.90151 -21.4134 26.8135;
6899 -8.91364 -21.4134 26.8135; 6900 -7.92578 -21.4134 26.8135;
6901 -6.93791 -21.4134 26.8135; 6902 -5.95004 -21.4134 26.8135;
6903 -4.96218 -21.4134 26.8135; 6904 -3.97431 -21.4134 26.8135;
6905 -2.98644 -21.4134 26.8135; 6906 -1.99858 -21.4134 26.8135;
6907 -1.01071 -21.4134 26.8135; 6908 -0.0228453 -21.4134 26.8135;
6909 0.96502 -21.4134 26.8135; 6910 1.95289 -21.4134 26.8135;
6911 -26.6952 -21.5934 27.0535; 6912 -25.7074 -21.5934 27.0535;
6913 -24.7195 -21.5934 27.0535; 6914 -23.7316 -21.5934 27.0535;
6915 -22.7438 -21.5934 27.0535; 6916 -21.7559 -21.5934 27.0535;
6917 -20.768 -21.5934 27.0535; 6918 -19.7802 -21.5934 27.0535;
6919 -18.7923 -21.5934 27.0535; 6920 -17.8044 -21.5934 27.0535;
6921 -16.8166 -21.5934 27.0535; 6922 -15.8287 -21.5934 27.0535;
6923 -14.8408 -21.5934 27.0535; 6924 -13.853 -21.5934 27.0535;
6925 -12.8651 -21.5934 27.0535; 6926 -11.8772 -21.5934 27.0535;
6927 -10.8894 -21.5934 27.0535; 6928 -9.9015 -21.5934 27.0535;
6929 -8.91364 -21.5934 27.0535; 6930 -7.92577 -21.5934 27.0535;
6931 -6.93791 -21.5934 27.0535; 6932 -5.95004 -21.5934 27.0535;
6933 -4.96217 -21.5934 27.0535; 6934 -3.97431 -21.5934 27.0535;
6935 -2.98644 -21.5934 27.0535; 6936 -1.99857 -21.5934 27.0535;
6937 -1.01071 -21.5934 27.0535; 6938 0.965025 -21.5934 27.0535;
6939 -26.6952 -21.7734 27.2935; 6940 -27.6831 -21.7734 27.2935;
6941 -25.7074 -21.7734 27.2935; 6942 -24.7195 -21.7734 27.2935;
6943 -23.7316 -21.7734 27.2935; 6944 -22.7438 -21.7734 27.2935;
6945 -21.7559 -21.7734 27.2935; 6946 -20.768 -21.7734 27.2935;
6947 -19.7802 -21.7734 27.2935; 6948 -18.7923 -21.7734 27.2935;
6949 -17.8044 -21.7734 27.2935; 6950 -16.8166 -21.7734 27.2935;
6951 -15.8287 -21.7734 27.2935; 6952 -14.8408 -21.7734 27.2935;
6953 -13.853 -21.7734 27.2935; 6954 -12.8651 -21.7734 27.2935;
6955 -11.8772 -21.7734 27.2935; 6956 -10.8894 -21.7734 27.2935;
6957 -9.9015 -21.7734 27.2935; 6958 -8.91363 -21.7734 27.2935;
6959 -7.92577 -21.7734 27.2935; 6960 -6.9379 -21.7734 27.2935;
6961 -5.95004 -21.7734 27.2935; 6962 -4.96217 -21.7734 27.2935;
6963 -3.9743 -21.7734 27.2935; 6964 -2.98644 -21.7734 27.2935;
6965 -1.99857 -21.7734 27.2935; 6966 -1.0107 -21.7734 27.2935;
6967 -0.022836 -21.7734 27.2935; 6968 0.96503 -21.7734 27.2935;
6969 1.95289 -21.7734 27.2935; 6970 -26.6952 -21.9534 27.5335;
6971 -25.7074 -21.9534 27.5335; 6972 -24.7195 -21.9534 27.5335;
6973 -23.7316 -21.9534 27.5335; 6974 -22.7438 -21.9534 27.5335;
6975 -21.7559 -21.9534 27.5335; 6976 -20.768 -21.9534 27.5335;
6977 -19.7802 -21.9534 27.5335; 6978 -18.7923 -21.9534 27.5335;
6979 -17.8044 -21.9534 27.5335; 6980 -16.8166 -21.9534 27.5335;
6981 -15.8287 -21.9534 27.5335; 6982 -14.8408 -21.9534 27.5335;
6983 -13.853 -21.9534 27.5335; 6984 -12.8651 -21.9534 27.5335;
6985 -11.8772 -21.9534 27.5335; 6986 -10.8894 -21.9534 27.5335;
6987 -9.9015 -21.9534 27.5335; 6988 -8.91363 -21.9534 27.5335;
6989 -7.92577 -21.9534 27.5335; 6990 -6.9379 -21.9534 27.5335;
6991 -5.95003 -21.9534 27.5335; 6992 -4.96217 -21.9534 27.5335;
6993 -3.9743 -21.9534 27.5335; 6994 -2.98643 -21.9534 27.5335;
6995 -1.99856 -21.9534 27.5335; 6996 -1.0107 -21.9534 27.5335;
6997 0.965034 -21.9534 27.5335; 6998 2.94073 -20.1534 25.1335;
6999 2.94073 -20.3334 25.3735; 7000 3.9286 -20.3334 25.3735;
7001 4.91648 -20.1534 25.1335; 7002 4.91648 -20.3334 25.3735;
7003 5.90435 -20.1534 25.1335; 7004 5.90435 -20.3334 25.3735;
7005 6.89223 -20.1534 25.1335; 7006 6.89223 -20.3334 25.3735;
7007 7.8801 -20.1534 25.1335; 7008 7.8801 -20.3334 25.3735;
7009 8.86798 -20.1534 25.1335; 7010 8.86798 -20.3334 25.3735;
7011 9.85585 -20.1534 25.1335; 7012 9.85585 -20.3334 25.3735;
7013 10.8437 -20.1534 25.1335; 7014 10.8437 -20.3334 25.3735;
7015 11.8316 -20.1534 25.1335; 7016 11.8316 -20.3334 25.3735;
7017 12.8195 -20.1534 25.1335; 7018 12.8195 -20.3334 25.3735;
7019 13.8074 -20.1534 25.1335; 7020 13.8074 -20.3334 25.3735;
7021 14.7952 -20.1534 25.1335; 7022 14.7952 -20.3334 25.3735;
7023 15.7831 -20.1534 25.1335; 7024 15.7831 -20.3334 25.3735;
7025 16.771 -20.1534 25.1335; 7026 16.771 -20.3334 25.3735;
7027 17.7589 -20.1534 25.1335; 7028 17.7589 -20.3334 25.3735;
7029 18.7467 -20.1534 25.1335; 7030 18.7467 -20.3334 25.3735;
7031 19.7346 -20.1534 25.1335; 7032 19.7346 -20.3334 25.3735;
7033 20.7225 -20.1534 25.1335; 7034 20.7225 -20.3334 25.3735;
7035 21.7104 -20.1534 25.1335; 7036 21.7104 -20.3334 25.3735;
7037 22.6982 -20.1534 25.1335; 7038 22.6982 -20.3334 25.3735;
7039 23.6861 -20.1534 25.1335; 7040 23.6861 -20.3334 25.3735;
7041 24.674 -20.1534 25.1335; 7042 24.674 -20.3334 25.3735;
7043 25.6619 -20.1534 25.1335; 7044 25.6619 -20.3334 25.3735;
7045 26.6497 -20.1534 25.1335; 7046 26.6497 -20.3334 25.3735;
7047 27.6376 -20.1534 25.1335; 7048 27.6376 -20.3334 25.3735;

7049 28.6255 -20.1534 25.1335; 7050 28.6255 -20.3334 25.3735;
7051 29.6134 -20.1534 25.1335; 7052 29.6134 -20.3334 25.3735;
7053 30.6012 -20.1534 25.1335; 7054 30.6012 -20.3334 25.3735;
7055 31.5891 -20.3334 25.3735; 7056 2.94073 -20.5134 25.6135;
7057 3.92861 -20.5134 25.6135; 7058 4.91648 -20.5134 25.6135;
7059 5.90436 -20.5134 25.6135; 7060 6.89223 -20.5134 25.6135;
7061 7.88011 -20.5134 25.6135; 7062 8.86798 -20.5134 25.6135;
7063 9.85586 -20.5134 25.6135; 7064 10.8437 -20.5134 25.6135;
7065 11.8316 -20.5134 25.6135; 7066 12.8195 -20.5134 25.6135;
7067 13.8074 -20.5134 25.6135; 7068 14.7952 -20.5134 25.6135;
7069 15.7831 -20.5134 25.6135; 7070 16.771 -20.5134 25.6135;
7071 17.7589 -20.5134 25.6135; 7072 18.7467 -20.5134 25.6135;
7073 19.7346 -20.5134 25.6135; 7074 20.7225 -20.5134 25.6135;
7075 21.7104 -20.5134 25.6135; 7076 22.6982 -20.5134 25.6135;
7077 23.6861 -20.5134 25.6135; 7078 24.674 -20.5134 25.6135;
7079 25.6619 -20.5134 25.6135; 7080 26.6497 -20.5134 25.6135;
7081 27.6376 -20.5134 25.6135; 7082 28.6255 -20.5134 25.6135;
7083 29.6134 -20.5134 25.6135; 7084 30.6012 -20.5134 25.6135;
7085 31.5891 -20.5134 25.6135; 7086 2.94074 -20.6934 25.8535;
7087 3.92861 -20.6934 25.8535; 7088 4.91649 -20.6934 25.8535;
7089 5.90436 -20.6934 25.8535; 7090 6.89224 -20.6934 25.8535;
7091 7.88011 -20.6934 25.8535; 7092 8.86799 -20.6934 25.8535;
7093 9.85586 -20.6934 25.8535; 7094 10.8437 -20.6934 25.8535;
7095 11.8316 -20.6934 25.8535; 7096 12.8195 -20.6934 25.8535;
7097 13.8074 -20.6934 25.8535; 7098 14.7952 -20.6934 25.8535;
7099 15.7831 -20.6934 25.8535; 7100 16.771 -20.6934 25.8535;
7101 17.7589 -20.6934 25.8535; 7102 18.7467 -20.6934 25.8535;
7103 19.7346 -20.6934 25.8535; 7104 20.7225 -20.6934 25.8535;
7105 21.7104 -20.6934 25.8535; 7106 22.6982 -20.6934 25.8535;
7107 23.6861 -20.6934 25.8535; 7108 24.674 -20.6934 25.8535;
7109 25.6619 -20.6934 25.8535; 7110 26.6497 -20.6934 25.8535;
7111 27.6376 -20.6934 25.8535; 7112 28.6255 -20.6934 25.8535;
7113 29.6134 -20.6934 25.8535; 7114 30.6012 -20.6934 25.8535;
7115 31.5891 -20.6934 25.8535; 7116 2.94074 -20.8734 26.0935;
7117 3.92862 -20.8734 26.0935; 7118 4.91649 -20.8734 26.0935;
7119 5.90437 -20.8734 26.0935; 7120 6.89224 -20.8734 26.0935;
7121 7.88012 -20.8734 26.0935; 7122 8.86799 -20.8734 26.0935;
7123 9.85586 -20.8734 26.0935; 7124 10.8437 -20.8734 26.0935;
7125 11.8316 -20.8734 26.0935; 7126 12.8195 -20.8734 26.0935;
7127 13.8074 -20.8734 26.0935; 7128 14.7952 -20.8734 26.0935;
7129 15.7831 -20.8734 26.0935; 7130 16.771 -20.8734 26.0935;
7131 17.7589 -20.8734 26.0935; 7132 18.7467 -20.8734 26.0935;
7133 19.7346 -20.8734 26.0935; 7134 20.7225 -20.8734 26.0935;
7135 21.7104 -20.8734 26.0935; 7136 22.6982 -20.8734 26.0935;
7137 23.6861 -20.8734 26.0935; 7138 24.674 -20.8734 26.0935;
7139 25.6619 -20.8734 26.0935; 7140 26.6497 -20.8734 26.0935;
7141 27.6376 -20.8734 26.0935; 7142 28.6255 -20.8734 26.0935;
7143 29.6134 -20.8734 26.0935; 7144 30.6012 -20.8734 26.0935;
7145 31.5891 -20.8734 26.0935; 7146 2.94075 -21.0534 26.3335;
7147 4.9165 -21.0534 26.3335; 7148 5.90437 -21.0534 26.3335;
7149 6.89225 -21.0534 26.3335; 7150 7.88012 -21.0534 26.3335;
7151 8.86799 -21.0534 26.3335; 7152 9.85587 -21.0534 26.3335;
7153 10.8437 -21.0534 26.3335; 7154 11.8316 -21.0534 26.3335;
7155 12.8195 -21.0534 26.3335; 7156 13.8074 -21.0534 26.3335;
7157 14.7952 -21.0534 26.3335; 7158 15.7831 -21.0534 26.3335;
7159 16.771 -21.0534 26.3335; 7160 17.7589 -21.0534 26.3335;
7161 18.7467 -21.0534 26.3335; 7162 19.7346 -21.0534 26.3335;
7163 20.7225 -21.0534 26.3335; 7164 21.7104 -21.0534 26.3335;
7165 22.6982 -21.0534 26.3335; 7166 23.6861 -21.0534 26.3335;
7167 24.674 -21.0534 26.3335; 7168 25.6619 -21.0534 26.3335;
7169 26.6497 -21.0534 26.3335; 7170 27.6376 -21.0534 26.3335;
7171 28.6255 -21.0534 26.3335; 7172 29.6134 -21.0534 26.3335;
7173 30.6012 -21.0534 26.3335; 7174 2.94075 -21.2334 26.5735;
7175 3.92863 -21.2334 26.5735; 7176 4.9165 -21.2334 26.5735;
7177 5.90438 -21.2334 26.5735; 7178 6.89225 -21.2334 26.5735;
7179 7.88013 -21.2334 26.5735; 7180 8.868 -21.2334 26.5735;
7181 9.85587 -21.2334 26.5735; 7182 10.8437 -21.2334 26.5735;
7183 11.8316 -21.2334 26.5735; 7184 12.8195 -21.2334 26.5735;
7185 13.8074 -21.2334 26.5735; 7186 14.7952 -21.2334 26.5735;
7187 15.7831 -21.2334 26.5735; 7188 16.771 -21.2334 26.5735;
7189 17.7589 -21.2334 26.5735; 7190 18.7467 -21.2334 26.5735;
7191 19.7346 -21.2334 26.5735; 7192 20.7225 -21.2334 26.5735;
7193 21.7104 -21.2334 26.5735; 7194 22.6982 -21.2334 26.5735;
7195 23.6861 -21.2334 26.5735; 7196 24.674 -21.2334 26.5735;
7197 25.6619 -21.2334 26.5735; 7198 26.6497 -21.2334 26.5735;
7199 27.6376 -21.2334 26.5735; 7200 28.6255 -21.2334 26.5735;
7201 29.6134 -21.2334 26.5735; 7202 30.6012 -21.2334 26.5735;
7203 31.5891 -21.2334 26.5735; 7204 2.94076 -21.4134 26.8135;
7205 3.92863 -21.4134 26.8135; 7206 4.91651 -21.4134 26.8135;
7207 5.90438 -21.4134 26.8135; 7208 6.89225 -21.4134 26.8135;
7209 7.88013 -21.4134 26.8135; 7210 8.868 -21.4134 26.8135;
7211 9.85588 -21.4134 26.8135; 7212 10.8438 -21.4134 26.8135;

7213 11.8316 -21.4134 26.8135; 7214 12.8195 -21.4134 26.8135;
7215 13.8074 -21.4134 26.8135; 7216 14.7952 -21.4134 26.8135;
7217 15.7831 -21.4134 26.8135; 7218 16.771 -21.4134 26.8135;
7219 17.7589 -21.4134 26.8135; 7220 18.7467 -21.4134 26.8135;
7221 19.7346 -21.4134 26.8135; 7222 20.7225 -21.4134 26.8135;
7223 21.7104 -21.4134 26.8135; 7224 22.6982 -21.4134 26.8135;
7225 23.6861 -21.4134 26.8135; 7226 24.674 -21.4134 26.8135;
7227 25.6619 -21.4134 26.8135; 7228 26.6497 -21.4134 26.8135;
7229 27.6376 -21.4134 26.8135; 7230 28.6255 -21.4134 26.8135;
7231 29.6134 -21.4134 26.8135; 7232 30.6012 -21.4134 26.8135;
7233 31.5891 -21.4134 26.8135; 7234 2.94076 -21.5934 27.0535;
7235 4.91651 -21.5934 27.0535; 7236 5.90438 -21.5934 27.0535;
7237 6.89226 -21.5934 27.0535; 7238 7.88013 -21.5934 27.0535;
7239 8.86801 -21.5934 27.0535; 7240 9.85588 -21.5934 27.0535;
7241 10.8438 -21.5934 27.0535; 7242 11.8316 -21.5934 27.0535;
7243 12.8195 -21.5934 27.0535; 7244 13.8074 -21.5934 27.0535;
7245 14.7952 -21.5934 27.0535; 7246 15.7831 -21.5934 27.0535;
7247 16.771 -21.5934 27.0535; 7248 17.7589 -21.5934 27.0535;
7249 18.7467 -21.5934 27.0535; 7250 19.7346 -21.5934 27.0535;
7251 20.7225 -21.5934 27.0535; 7252 21.7104 -21.5934 27.0535;
7253 22.6982 -21.5934 27.0535; 7254 23.6861 -21.5934 27.0535;
7255 24.674 -21.5934 27.0535; 7256 25.6619 -21.5934 27.0535;
7257 26.6497 -21.5934 27.0535; 7258 27.6376 -21.5934 27.0535;
7259 28.6255 -21.5934 27.0535; 7260 29.6134 -21.5934 27.0535;
7261 30.6012 -21.5934 27.0535; 7262 2.94077 -21.7734 27.2935;
7263 3.92864 -21.7734 27.2935; 7264 4.91652 -21.7734 27.2935;
7265 5.90439 -21.7734 27.2935; 7266 6.89226 -21.7734 27.2935;
7267 7.88014 -21.7734 27.2935; 7268 8.86801 -21.7734 27.2935;
7269 9.85588 -21.7734 27.2935; 7270 10.8438 -21.7734 27.2935;
7271 11.8316 -21.7734 27.2935; 7272 12.8195 -21.7734 27.2935;
7273 13.8074 -21.7734 27.2935; 7274 14.7953 -21.7734 27.2935;
7275 15.7831 -21.7734 27.2935; 7276 16.771 -21.7734 27.2935;
7277 17.7589 -21.7734 27.2935; 7278 18.7467 -21.7734 27.2935;
7279 19.7346 -21.7734 27.2935; 7280 20.7225 -21.7734 27.2935;
7281 21.7104 -21.7734 27.2935; 7282 22.6982 -21.7734 27.2935;
7283 23.6861 -21.7734 27.2935; 7284 24.674 -21.7734 27.2935;
7285 25.6619 -21.7734 27.2935; 7286 26.6497 -21.7734 27.2935;
7287 27.6376 -21.7734 27.2935; 7288 28.6255 -21.7734 27.2935;
7289 29.6134 -21.7734 27.2935; 7290 30.6012 -21.7734 27.2935;
7291 31.5891 -21.7734 27.2935; 7292 2.94077 -21.9534 27.5335;
7293 4.91652 -21.9534 27.5335; 7294 5.90439 -21.9534 27.5335;
7295 6.89227 -21.9534 27.5335; 7296 7.88014 -21.9534 27.5335;
7297 8.86801 -21.9534 27.5335; 7298 9.85589 -21.9534 27.5335;
7299 10.8438 -21.9534 27.5335; 7300 11.8316 -21.9534 27.5335;
7301 12.8195 -21.9534 27.5335; 7302 13.8074 -21.9534 27.5335;
7303 14.7953 -21.9534 27.5335; 7304 15.7831 -21.9534 27.5335;
7305 16.771 -21.9534 27.5335; 7306 17.7589 -21.9534 27.5335;
7307 18.7467 -21.9534 27.5335; 7308 19.7346 -21.9534 27.5335;
7309 20.7225 -21.9534 27.5335; 7310 21.7104 -21.9534 27.5335;
7311 22.6982 -21.9534 27.5335; 7312 23.6861 -21.9534 27.5335;
7313 24.674 -21.9534 27.5335; 7314 25.6619 -21.9534 27.5335;
7315 26.6497 -21.9534 27.5335; 7316 27.6376 -21.9534 27.5335;
7317 28.6255 -21.9534 27.5335; 7318 29.6134 -21.9534 27.5335;
7319 30.6012 -21.9534 27.5335; 7320 30.6012 -20.3334 24.8935;
7321 31.5891 -20.3334 24.8935; 7322 29.6133 -20.3334 24.8935;
7323 28.6255 -20.3334 24.8935; 7324 27.6376 -20.3334 24.8935;
7325 26.6497 -20.3334 24.8935; 7326 25.6618 -20.3334 24.8935;
7327 24.674 -20.3334 24.8935; 7328 23.6861 -20.3334 24.8935;
7329 22.6982 -20.3334 24.8935; 7330 21.7104 -20.3334 24.8935;
7331 20.7225 -20.3334 24.8935; 7332 19.7346 -20.3334 24.8935;
7333 18.7467 -20.3334 24.8935; 7334 17.7589 -20.3334 24.8935;
7335 16.771 -20.3334 24.8935; 7336 15.7831 -20.3334 24.8935;
7337 14.7952 -20.3334 24.8935; 7338 13.8074 -20.3334 24.8935;
7339 12.8195 -20.3334 24.8935; 7340 11.8316 -20.3334 24.8935;
7341 10.8437 -20.3334 24.8935; 7342 9.85585 -20.3334 24.8935;
7343 8.86798 -20.3334 24.8935; 7344 7.8801 -20.3334 24.8935;
7345 6.89223 -20.3334 24.8935; 7346 5.90435 -20.3334 24.8935;
7347 4.91648 -20.3334 24.8935; 7348 3.9286 -20.3334 24.8935;
7349 2.94073 -20.3334 24.8935; 7350 1.95286 -20.3334 24.8935;
7351 30.6012 -20.5134 24.6535; 7352 31.5891 -20.5134 24.6535;
7353 29.6133 -20.5134 24.6535; 7354 28.6255 -20.5134 24.6535;
7355 27.6376 -20.5134 24.6535; 7356 26.6497 -20.5134 24.6535;
7357 25.6619 -20.5134 24.6535; 7358 24.674 -20.5134 24.6535;
7359 23.6861 -20.5134 24.6535; 7360 22.6982 -20.5134 24.6535;
7361 21.7104 -20.5134 24.6535; 7362 20.7225 -20.5134 24.6535;
7363 19.7346 -20.5134 24.6535; 7364 18.7467 -20.5134 24.6535;
7365 17.7589 -20.5134 24.6535; 7366 16.771 -20.5134 24.6535;
7367 15.7831 -20.5134 24.6535; 7368 14.7952 -20.5134 24.6535;
7369 13.8074 -20.5134 24.6535; 7370 12.8195 -20.5134 24.6535;
7371 11.8316 -20.5134 24.6535; 7372 10.8437 -20.5134 24.6535;
7373 9.85586 -20.5134 24.6535; 7374 8.86798 -20.5134 24.6535;
7375 7.88011 -20.5134 24.6535; 7376 6.89223 -20.5134 24.6535;

7377 5.90436 -20.5134 24.6535; 7378 4.91648 -20.5134 24.6535;
7379 3.92861 -20.5134 24.6535; 7380 2.94073 -20.5134 24.6535;
7381 1.95286 -20.5134 24.6535; 7382 30.6012 -20.6934 24.4135;
7383 31.5891 -20.6934 24.4135; 7384 29.6134 -20.6934 24.4135;
7385 28.6255 -20.6934 24.4135; 7386 27.6376 -20.6934 24.4135;
7387 26.6497 -20.6934 24.4135; 7388 25.6619 -20.6934 24.4135;
7389 24.674 -20.6934 24.4135; 7390 23.6861 -20.6934 24.4135;
7391 22.6982 -20.6934 24.4135; 7392 21.7104 -20.6934 24.4135;
7393 20.7225 -20.6934 24.4135; 7394 19.7346 -20.6934 24.4135;
7395 18.7467 -20.6934 24.4135; 7396 17.7589 -20.6934 24.4135;
7397 16.771 -20.6934 24.4135; 7398 15.7831 -20.6934 24.4135;
7399 14.7952 -20.6934 24.4135; 7400 13.8074 -20.6934 24.4135;
7401 12.8195 -20.6934 24.4135; 7402 11.8316 -20.6934 24.4135;
7403 10.8437 -20.6934 24.4135; 7404 9.85586 -20.6934 24.4135;
7405 8.86799 -20.6934 24.4135; 7406 7.88011 -20.6934 24.4135;
7407 6.89224 -20.6934 24.4135; 7408 5.90436 -20.6934 24.4135;
7409 4.91649 -20.6934 24.4135; 7410 3.92861 -20.6934 24.4135;
7411 2.94074 -20.6934 24.4135; 7412 1.95287 -20.6934 24.4135;
7413 30.6012 -20.8734 24.1735; 7414 31.5891 -20.8734 24.1735;
7415 29.6134 -20.8734 24.1735; 7416 28.6255 -20.8734 24.1735;
7417 27.6376 -20.8734 24.1735; 7418 26.6497 -20.8734 24.1735;
7419 25.6619 -20.8734 24.1735; 7420 24.674 -20.8734 24.1735;
7421 23.6861 -20.8734 24.1735; 7422 22.6982 -20.8734 24.1735;
7423 21.7104 -20.8734 24.1735; 7424 20.7225 -20.8734 24.1735;
7425 19.7346 -20.8734 24.1735; 7426 18.7467 -20.8734 24.1735;
7427 17.7589 -20.8734 24.1735; 7428 16.771 -20.8734 24.1735;
7429 15.7831 -20.8734 24.1735; 7430 14.7952 -20.8734 24.1735;
7431 13.8074 -20.8734 24.1735; 7432 12.8195 -20.8734 24.1735;
7433 11.8316 -20.8734 24.1735; 7434 10.8437 -20.8734 24.1735;
7435 9.85586 -20.8734 24.1735; 7436 8.86799 -20.8734 24.1735;
7437 7.88011 -20.8734 24.1735; 7438 6.89224 -20.8734 24.1735;
7439 5.90437 -20.8734 24.1735; 7440 4.91649 -20.8734 24.1735;
7441 3.92862 -20.8734 24.1735; 7442 2.94074 -20.8734 24.1735;
7443 1.95287 -20.8734 24.1735; 7444 30.6012 -21.0534 23.9335;
7445 29.6134 -21.0534 23.9335; 7446 28.6255 -21.0534 23.9335;
7447 27.6376 -21.0534 23.9335; 7448 26.6497 -21.0534 23.9335;
7449 25.6619 -21.0534 23.9335; 7450 24.674 -21.0534 23.9335;
7451 23.6861 -21.0534 23.9335; 7452 22.6982 -21.0534 23.9335;
7453 21.7104 -21.0534 23.9335; 7454 20.7225 -21.0534 23.9335;
7455 19.7346 -21.0534 23.9335; 7456 18.7467 -21.0534 23.9335;
7457 17.7589 -21.0534 23.9335; 7458 16.771 -21.0534 23.9335;
7459 15.7831 -21.0534 23.9335; 7460 14.7952 -21.0534 23.9335;
7461 13.8074 -21.0534 23.9335; 7462 12.8195 -21.0534 23.9335;
7463 11.8316 -21.0534 23.9335; 7464 10.8437 -21.0534 23.9335;
7465 9.85587 -21.0534 23.9335; 7466 8.86799 -21.0534 23.9335;
7467 7.88012 -21.0534 23.9335; 7468 6.89224 -21.0534 23.9335;
7469 5.90437 -21.0534 23.9335; 7470 4.9165 -21.0534 23.9335;
7471 2.94075 -21.0534 23.9335; 7472 30.6012 -21.2334 23.6935;
7473 31.5891 -21.2334 23.6935; 7474 29.6134 -21.2334 23.6935;
7475 28.6255 -21.2334 23.6935; 7476 27.6376 -21.2334 23.6935;
7477 26.6497 -21.2334 23.6935; 7478 25.6619 -21.2334 23.6935;
7479 24.674 -21.2334 23.6935; 7480 23.6861 -21.2334 23.6935;
7481 22.6982 -21.2334 23.6935; 7482 21.7104 -21.2334 23.6935;
7483 20.7225 -21.2334 23.6935; 7484 19.7346 -21.2334 23.6935;
7485 18.7467 -21.2334 23.6935; 7486 17.7589 -21.2334 23.6935;
7487 16.771 -21.2334 23.6935; 7488 15.7831 -21.2334 23.6935;
7489 14.7952 -21.2334 23.6935; 7490 13.8074 -21.2334 23.6935;
7491 12.8195 -21.2334 23.6935; 7492 11.8316 -21.2334 23.6935;
7493 10.8437 -21.2334 23.6935; 7494 9.85587 -21.2334 23.6935;
7495 8.868 -21.2334 23.6935; 7496 7.88012 -21.2334 23.6935;
7497 6.89225 -21.2334 23.6935; 7498 5.90437 -21.2334 23.6935;
7499 4.9165 -21.2334 23.6935; 7500 3.92863 -21.2334 23.6935;
7501 2.94075 -21.2334 23.6935; 7502 1.95288 -21.2334 23.6935;
7503 30.6012 -21.4134 23.4535; 7504 31.5891 -21.4134 23.4535;
7505 29.6134 -21.4134 23.4535; 7506 28.6255 -21.4134 23.4535;
7507 27.6376 -21.4134 23.4535; 7508 26.6497 -21.4134 23.4535;
7509 25.6619 -21.4134 23.4535; 7510 24.674 -21.4134 23.4535;
7511 23.6861 -21.4134 23.4535; 7512 22.6982 -21.4134 23.4535;
7513 21.7104 -21.4134 23.4535; 7514 20.7225 -21.4134 23.4535;
7515 19.7346 -21.4134 23.4535; 7516 18.7467 -21.4134 23.4535;
7517 17.7589 -21.4134 23.4535; 7518 16.771 -21.4134 23.4535;
7519 15.7831 -21.4134 23.4535; 7520 14.7952 -21.4134 23.4535;
7521 13.8074 -21.4134 23.4535; 7522 12.8195 -21.4134 23.4535;
7523 11.8316 -21.4134 23.4535; 7524 10.8437 -21.4134 23.4535;
7525 9.85588 -21.4134 23.4535; 7526 8.868 -21.4134 23.4535;
7527 7.88013 -21.4134 23.4535; 7528 6.89225 -21.4134 23.4535;
7529 5.90438 -21.4134 23.4535; 7530 4.91651 -21.4134 23.4535;
7531 3.92863 -21.4134 23.4535; 7532 2.94076 -21.4134 23.4535;
7533 1.95289 -21.4134 23.4535; 7534 30.6012 -21.5934 23.2135;
7535 29.6134 -21.5934 23.2135; 7536 28.6255 -21.5934 23.2135;
7537 27.6376 -21.5934 23.2135; 7538 26.6497 -21.5934 23.2135;
7539 25.6619 -21.5934 23.2135; 7540 24.674 -21.5934 23.2135;

7541 23.6861 -21.5934 23.2135; 7542 22.6982 -21.5934 23.2135;
7543 21.7104 -21.5934 23.2135; 7544 20.7225 -21.5934 23.2135;
7545 19.7346 -21.5934 23.2135; 7546 18.7467 -21.5934 23.2135;
7547 17.7589 -21.5934 23.2135; 7548 16.771 -21.5934 23.2135;
7549 15.7831 -21.5934 23.2135; 7550 14.7952 -21.5934 23.2135;
7551 13.8074 -21.5934 23.2135; 7552 12.8195 -21.5934 23.2135;
7553 11.8316 -21.5934 23.2135; 7554 10.8438 -21.5934 23.2135;
7555 9.85588 -21.5934 23.2135; 7556 8.868 -21.5934 23.2135;
7557 7.88013 -21.5934 23.2135; 7558 6.89226 -21.5934 23.2135;
7559 5.90438 -21.5934 23.2135; 7560 4.91651 -21.5934 23.2135;
7561 2.94076 -21.5934 23.2135; 7562 30.6012 -21.7734 22.9735;
7563 31.5891 -21.7734 22.9735; 7564 29.6134 -21.7734 22.9735;
7565 28.6255 -21.7734 22.9735; 7566 27.6376 -21.7734 22.9735;
7567 26.6497 -21.7734 22.9735; 7568 25.6619 -21.7734 22.9735;
7569 24.674 -21.7734 22.9735; 7570 23.6861 -21.7734 22.9735;
7571 22.6982 -21.7734 22.9735; 7572 21.7104 -21.7734 22.9735;
7573 20.7225 -21.7734 22.9735; 7574 19.7346 -21.7734 22.9735;
7575 18.7467 -21.7734 22.9735; 7576 17.7589 -21.7734 22.9735;
7577 16.771 -21.7734 22.9735; 7578 15.7831 -21.7734 22.9735;
7579 14.7952 -21.7734 22.9735; 7580 13.8074 -21.7734 22.9735;
7581 12.8195 -21.7734 22.9735; 7582 11.8316 -21.7734 22.9735;
7583 10.8438 -21.7734 22.9735; 7584 9.85588 -21.7734 22.9735;
7585 8.86801 -21.7734 22.9735; 7586 7.88013 -21.7734 22.9735;
7587 6.89226 -21.7734 22.9735; 7588 5.90439 -21.7734 22.9735;
7589 4.91651 -21.7734 22.9735; 7590 3.92864 -21.7734 22.9735;
7591 2.94077 -21.7734 22.9735; 7592 1.95289 -21.7734 22.9735;
7593 30.6012 -21.9534 22.7335; 7594 29.6134 -21.9534 22.7335;
7595 28.6255 -21.9534 22.7335; 7596 27.6376 -21.9534 22.7335;
7597 26.6497 -21.9534 22.7335; 7598 25.6619 -21.9534 22.7335;
7599 24.674 -21.9534 22.7335; 7600 23.6861 -21.9534 22.7335;
7601 22.6982 -21.9534 22.7335; 7602 21.7104 -21.9534 22.7335;
7603 20.7225 -21.9534 22.7335; 7604 19.7346 -21.9534 22.7335;
7605 18.7467 -21.9534 22.7335; 7606 17.7589 -21.9534 22.7335;
7607 16.771 -21.9534 22.7335; 7608 15.7831 -21.9534 22.7335;
7609 14.7953 -21.9534 22.7335; 7610 13.8074 -21.9534 22.7335;
7611 12.8195 -21.9534 22.7335; 7612 11.8316 -21.9534 22.7335;
7613 10.8438 -21.9534 22.7335; 7614 9.85589 -21.9534 22.7335;
7615 8.86801 -21.9534 22.7335; 7616 7.88014 -21.9534 22.7335;
7617 6.89227 -21.9534 22.7335; 7618 5.90439 -21.9534 22.7335;
7619 4.91652 -21.9534 22.7335; 7620 2.94077 -21.9534 22.7335;
7621 0.96499 -20.3334 24.8935; 7622 -0.0228754 -20.3334 24.8935;
7623 -1.01074 -20.3334 24.8935; 7624 -1.99861 -20.3334 24.8935;
7625 -2.98647 -20.3334 24.8935; 7626 -3.97434 -20.3334 24.8935;
7627 -4.9622 -20.3334 24.8935; 7628 -5.95007 -20.3334 24.8935;
7629 -6.93793 -20.3334 24.8935; 7630 -7.9258 -20.3334 24.8935;
7631 -8.91366 -20.3334 24.8935; 7632 -9.90153 -20.3334 24.8935;
7633 -10.8894 -20.3334 24.8935; 7634 -11.8773 -20.3334 24.8935;
7635 -12.8651 -20.3334 24.8935; 7636 -13.853 -20.3334 24.8935;
7637 -14.8409 -20.3334 24.8935; 7638 -15.8287 -20.3334 24.8935;
7639 -16.8166 -20.3334 24.8935; 7640 -17.8044 -20.3334 24.8935;
7641 -18.7923 -20.3334 24.8935; 7642 -19.7802 -20.3334 24.8935;
7643 -20.768 -20.3334 24.8935; 7644 -21.7559 -20.3334 24.8935;
7645 -22.7438 -20.3334 24.8935; 7646 -23.7316 -20.3334 24.8935;
7647 -24.7195 -20.3334 24.8935; 7648 -25.7074 -20.3334 24.8935;
7649 -26.6952 -20.3334 24.8935; 7650 -27.6831 -20.3334 24.8935;
7651 0.964994 -20.5134 24.6535; 7652 -0.0228708 -20.5134 24.6535;
7653 -1.01074 -20.5134 24.6535; 7654 -1.9986 -20.5134 24.6535;
7655 -2.98647 -20.5134 24.6535; 7656 -3.97433 -20.5134 24.6535;
7657 -4.9622 -20.5134 24.6535; 7658 -5.95006 -20.5134 24.6535;
7659 -6.93793 -20.5134 24.6535; 7660 -7.92579 -20.5134 24.6535;
7661 -8.91366 -20.5134 24.6535; 7662 -9.90153 -20.5134 24.6535;
7663 -10.8894 -20.5134 24.6535; 7664 -11.8773 -20.5134 24.6535;
7665 -12.8651 -20.5134 24.6535; 7666 -13.853 -20.5134 24.6535;
7667 -14.8409 -20.5134 24.6535; 7668 -15.8287 -20.5134 24.6535;
7669 -16.8166 -20.5134 24.6535; 7670 -17.8044 -20.5134 24.6535;
7671 -18.7923 -20.5134 24.6535; 7672 -19.7802 -20.5134 24.6535;
7673 -20.768 -20.5134 24.6535; 7674 -21.7559 -20.5134 24.6535;
7675 -22.7438 -20.5134 24.6535; 7676 -23.7316 -20.5134 24.6535;
7677 -24.7195 -20.5134 24.6535; 7678 -25.7074 -20.5134 24.6535;
7679 -26.6952 -20.5134 24.6535; 7680 -27.6831 -20.5134 24.6535;
7681 0.964999 -20.6934 24.4135; 7682 -0.0228661 -20.6934 24.4135;
7683 -1.01073 -20.6934 24.4135; 7684 -1.9986 -20.6934 24.4135;
7685 -2.98646 -20.6934 24.4135; 7686 -3.97433 -20.6934 24.4135;
7687 -4.96219 -20.6934 24.4135; 7688 -5.95006 -20.6934 24.4135;
7689 -6.93792 -20.6934 24.4135; 7690 -7.92579 -20.6934 24.4135;
7691 -8.91366 -20.6934 24.4135; 7692 -9.90152 -20.6934 24.4135;
7693 -10.8894 -20.6934 24.4135; 7694 -11.8773 -20.6934 24.4135;
7695 -12.8651 -20.6934 24.4135; 7696 -13.853 -20.6934 24.4135;
7697 -14.8408 -20.6934 24.4135; 7698 -15.8287 -20.6934 24.4135;
7699 -16.8166 -20.6934 24.4135; 7700 -17.8044 -20.6934 24.4135;
7701 -18.7923 -20.6934 24.4135; 7702 -19.7802 -20.6934 24.4135;
7703 -20.768 -20.6934 24.4135; 7704 -21.7559 -20.6934 24.4135;

7705 -22.7438 -20.6934 24.4135; 7706 -23.7316 -20.6934 24.4135;
7707 -24.7195 -20.6934 24.4135; 7708 -25.7074 -20.6934 24.4135;
7709 -26.6952 -20.6934 24.4135; 7710 -27.6831 -20.6934 24.4135;
7711 0.965004 -20.8734 24.1735; 7712 -0.0228614 -20.8734 24.1735;
7713 -1.01073 -20.8734 24.1735; 7714 -1.99859 -20.8734 24.1735;
7715 -2.98646 -20.8734 24.1735; 7716 -3.97433 -20.8734 24.1735;
7717 -4.96219 -20.8734 24.1735; 7718 -5.95006 -20.8734 24.1735;
7719 -6.93792 -20.8734 24.1735; 7720 -7.92579 -20.8734 24.1735;
7721 -8.91365 -20.8734 24.1735; 7722 -9.90152 -20.8734 24.1735;
7723 -10.8894 -20.8734 24.1735; 7724 -11.8773 -20.8734 24.1735;
7725 -12.8651 -20.8734 24.1735; 7726 -13.853 -20.8734 24.1735;
7727 -14.8408 -20.8734 24.1735; 7728 -15.8287 -20.8734 24.1735;
7729 -16.8166 -20.8734 24.1735; 7730 -17.8044 -20.8734 24.1735;
7731 -18.7923 -20.8734 24.1735; 7732 -19.7802 -20.8734 24.1735;
7733 -20.768 -20.8734 24.1735; 7734 -21.7559 -20.8734 24.1735;
7735 -22.7438 -20.8734 24.1735; 7736 -23.7316 -20.8734 24.1735;
7737 -24.7195 -20.8734 24.1735; 7738 -25.7074 -20.8734 24.1735;
7739 -26.6952 -20.8734 24.1735; 7740 -27.6831 -20.8734 24.1735;
7741 0.965008 -21.0534 23.9335; 7742 -1.01072 -21.0534 23.9335;
7743 -1.99859 -21.0534 23.9335; 7744 -2.98645 -21.0534 23.9335;
7745 -3.97432 -21.0534 23.9335; 7746 -4.96219 -21.0534 23.9335;
7747 -5.95005 -21.0534 23.9335; 7748 -6.93792 -21.0534 23.9335;
7749 -7.92578 -21.0534 23.9335; 7750 -8.91365 -21.0534 23.9335;
7751 -9.90152 -21.0534 23.9335; 7752 -10.8894 -21.0534 23.9335;
7753 -11.8772 -21.0534 23.9335; 7754 -12.8651 -21.0534 23.9335;
7755 -13.853 -21.0534 23.9335; 7756 -14.8408 -21.0534 23.9335;
7757 -15.8287 -21.0534 23.9335; 7758 -16.8166 -21.0534 23.9335;
7759 -17.8044 -21.0534 23.9335; 7760 -18.7923 -21.0534 23.9335;
7761 -19.7802 -21.0534 23.9335; 7762 -20.768 -21.0534 23.9335;
7763 -21.7559 -21.0534 23.9335; 7764 -22.7438 -21.0534 23.9335;
7765 -23.7316 -21.0534 23.9335; 7766 -24.7195 -21.0534 23.9335;
7767 -25.7074 -21.0534 23.9335; 7768 -26.6952 -21.0534 23.9335;
7769 0.965013 -21.2334 23.6935; 7770 -0.0228519 -21.2334 23.6935;
7771 -1.01072 -21.2334 23.6935; 7772 -1.99858 -21.2334 23.6935;
7773 -2.98645 -21.2334 23.6935; 7774 -3.97432 -21.2334 23.6935;
7775 -4.96218 -21.2334 23.6935; 7776 -5.95005 -21.2334 23.6935;
7777 -6.93791 -21.2334 23.6935; 7778 -7.92578 -21.2334 23.6935;
7779 -8.91365 -21.2334 23.6935; 7780 -9.90151 -21.2334 23.6935;
7781 -10.8894 -21.2334 23.6935; 7782 -11.8772 -21.2334 23.6935;
7783 -12.8651 -21.2334 23.6935; 7784 -13.853 -21.2334 23.6935;
7785 -14.8408 -21.2334 23.6935; 7786 -15.8287 -21.2334 23.6935;
7787 -16.8166 -21.2334 23.6935; 7788 -17.8044 -21.2334 23.6935;
7789 -18.7923 -21.2334 23.6935; 7790 -19.7802 -21.2334 23.6935;
7791 -20.768 -21.2334 23.6935; 7792 -21.7559 -21.2334 23.6935;
7793 -22.7438 -21.2334 23.6935; 7794 -23.7316 -21.2334 23.6935;
7795 -24.7195 -21.2334 23.6935; 7796 -25.7074 -21.2334 23.6935;
7797 -26.6952 -21.2334 23.6935; 7798 -27.6831 -21.2334 23.6935;
7799 0.965018 -21.4134 23.4535; 7800 -0.0228473 -21.4134 23.4535;
7801 -1.01071 -21.4134 23.4535; 7802 -1.99858 -21.4134 23.4535;
7803 -2.98645 -21.4134 23.4535; 7804 -3.97431 -21.4134 23.4535;
7805 -4.96218 -21.4134 23.4535; 7806 -5.95004 -21.4134 23.4535;
7807 -6.93791 -21.4134 23.4535; 7808 -7.92578 -21.4134 23.4535;
7809 -8.91364 -21.4134 23.4535; 7810 -9.90151 -21.4134 23.4535;
7811 -10.8894 -21.4134 23.4535; 7812 -11.8772 -21.4134 23.4535;
7813 -12.8651 -21.4134 23.4535; 7814 -13.853 -21.4134 23.4535;
7815 -14.8408 -21.4134 23.4535; 7816 -15.8287 -21.4134 23.4535;
7817 -16.8166 -21.4134 23.4535; 7818 -17.8044 -21.4134 23.4535;
7819 -18.7923 -21.4134 23.4535; 7820 -19.7802 -21.4134 23.4535;
7821 -20.768 -21.4134 23.4535; 7822 -21.7559 -21.4134 23.4535;
7823 -22.7438 -21.4134 23.4535; 7824 -23.7316 -21.4134 23.4535;
7825 -24.7195 -21.4134 23.4535; 7826 -25.7074 -21.4134 23.4535;
7827 -26.6952 -21.4134 23.4535; 7828 -27.6831 -21.4134 23.4535;
7829 0.965023 -21.5934 23.2135; 7830 -1.01071 -21.5934 23.2135;
7831 -1.99858 -21.5934 23.2135; 7832 -2.98644 -21.5934 23.2135;
7833 -3.97431 -21.5934 23.2135; 7834 -4.96217 -21.5934 23.2135;
7835 -5.95004 -21.5934 23.2135; 7836 -6.93791 -21.5934 23.2135;
7837 -7.92577 -21.5934 23.2135; 7838 -8.91364 -21.5934 23.2135;
7839 -9.90151 -21.5934 23.2135; 7840 -10.8894 -21.5934 23.2135;
7841 -11.8772 -21.5934 23.2135; 7842 -12.8651 -21.5934 23.2135;
7843 -13.853 -21.5934 23.2135; 7844 -14.8408 -21.5934 23.2135;
7845 -15.8287 -21.5934 23.2135; 7846 -16.8166 -21.5934 23.2135;
7847 -17.8044 -21.5934 23.2135; 7848 -18.7923 -21.5934 23.2135;
7849 -19.7802 -21.5934 23.2135; 7850 -20.768 -21.5934 23.2135;
7851 -21.7559 -21.5934 23.2135; 7852 -22.7438 -21.5934 23.2135;
7853 -23.7316 -21.5934 23.2135; 7854 -24.7195 -21.5934 23.2135;
7855 -25.7074 -21.5934 23.2135; 7856 -26.6952 -21.5934 23.2135;
7857 0.965028 -21.7734 22.9735; 7858 -0.0228379 -21.7734 22.9735;
7859 -1.01071 -21.7734 22.9735; 7860 -1.99857 -21.7734 22.9735;
7861 -2.98644 -21.7734 22.9735; 7862 -3.97431 -21.7734 22.9735;
7863 -4.96217 -21.7734 22.9735; 7864 -5.95004 -21.7734 22.9735;
7865 -6.9379 -21.7734 22.9735; 7866 -7.92577 -21.7734 22.9735;
7867 -8.91364 -21.7734 22.9735; 7868 -9.9015 -21.7734 22.9735;

7869 -10.8894 -21.7734 22.9735; 7870 -11.8772 -21.7734 22.9735;
7871 -12.8651 -21.7734 22.9735; 7872 -13.853 -21.7734 22.9735;
7873 -14.8408 -21.7734 22.9735; 7874 -15.8287 -21.7734 22.9735;
7875 -16.8166 -21.7734 22.9735; 7876 -17.8044 -21.7734 22.9735;
7877 -18.7923 -21.7734 22.9735; 7878 -19.7802 -21.7734 22.9735;
7879 -20.768 -21.7734 22.9735; 7880 -21.7559 -21.7734 22.9735;
7881 -22.7438 -21.7734 22.9735; 7882 -23.7316 -21.7734 22.9735;
7883 -24.7195 -21.7734 22.9735; 7884 -25.7074 -21.7734 22.9735;
7885 -26.6952 -21.7734 22.9735; 7886 -27.6831 -21.7734 22.9735;
7887 0.965032 -21.9534 22.7335; 7888 -1.0107 -21.9534 22.7335;
7889 -1.99857 -21.9534 22.7335; 7890 -2.98643 -21.9534 22.7335;
7891 -3.9743 -21.9534 22.7335; 7892 -4.96217 -21.9534 22.7335;
7893 -5.95003 -21.9534 22.7335; 7894 -6.9379 -21.9534 22.7335;
7895 -7.92577 -21.9534 22.7335; 7896 -8.91363 -21.9534 22.7335;
7897 -9.9015 -21.9534 22.7335; 7898 -10.8894 -21.9534 22.7335;
7899 -11.8772 -21.9534 22.7335; 7900 -12.8651 -21.9534 22.7335;
7901 -13.853 -21.9534 22.7335; 7902 -14.8408 -21.9534 22.7335;
7903 -15.8287 -21.9534 22.7335; 7904 -16.8166 -21.9534 22.7335;
7905 -17.8044 -21.9534 22.7335; 7906 -18.7923 -21.9534 22.7335;
7907 -19.7802 -21.9534 22.7335; 7908 -20.768 -21.9534 22.7335;
7909 -21.7559 -21.9534 22.7335; 7910 -22.7438 -21.9534 22.7335;
7911 -23.7316 -21.9534 22.7335; 7912 -24.7195 -21.9534 22.7335;
7913 -25.7074 -21.9534 22.7335; 7914 -26.6952 -21.9534 22.7335;
7915 -27.793 -19.1834 30.8835; 7916 -28.006 -19.3865 30.6335;
7917 -27.793 -19.1834 31.1335; 7918 -27.793 -19.1834 31.3835;
7919 -28.006 -19.3865 31.6335; 7920 -28.219 -19.5897 30.6335;
7921 -28.219 -19.5897 31.6335; 7922 -28.432 -19.7928 30.6335;
7923 -28.432 -19.7928 31.6335; 7924 -28.645 -19.9959 30.6335;
7925 -28.645 -19.9959 31.6335; 7926 -29.071 -20.4022 30.6335;
7927 -29.071 -20.4022 31.6335; 7928 -29.284 -20.6053 30.6335;
7929 -29.284 -20.6053 31.6335; 7930 -29.497 -20.8084 30.8835;
7931 -29.497 -20.8084 31.1335; 7932 -29.497 -20.8084 31.3835;
7933 -26.089 -20.8084 30.8835; 7934 -26.302 -20.6053 30.6335;
7935 -26.089 -20.8084 31.1335; 7936 -26.089 -20.8084 31.3835;
7937 -26.302 -20.6053 31.6335; 7938 -26.515 -20.4021 30.6335;
7939 -26.515 -20.4021 31.6335; 7940 -26.728 -20.199 30.6335;
7941 -26.728 -20.199 31.6335; 7942 -27.154 -19.7928 30.6335;
7943 -27.154 -19.7928 31.6335; 7944 -27.367 -19.5896 30.6335;
7945 -27.367 -19.5896 31.6335; 7946 -27.58 -19.3865 30.6335;
7947 -27.58 -19.3865 31.6335; 7948 31.6989 -19.1834 30.8835;
7949 31.4859 -19.3865 30.6335; 7950 31.6989 -19.1834 31.1335;
7951 31.6989 -19.1834 31.3835; 7952 31.4859 -19.3865 31.6335;
7953 31.2729 -19.5897 30.6335; 7954 31.2729 -19.5897 31.6335;
7955 31.0599 -19.7928 30.6335; 7956 31.0599 -19.7928 31.6335;
7957 30.8469 -19.9959 30.6335; 7958 30.8469 -19.9959 31.6335;
7959 30.4209 -20.4022 30.6335; 7960 30.4209 -20.4022 31.6335;
7961 30.2079 -20.6053 30.6335; 7962 30.2079 -20.6053 31.6335;
7963 29.9949 -20.8084 30.8835; 7964 29.9949 -20.8084 31.1335;
7965 29.9949 -20.8084 31.3835; 7966 33.4029 -20.8084 30.8835;
7967 33.1899 -20.6053 30.6335; 7968 33.4029 -20.8084 31.1335;
7969 33.4029 -20.8084 31.3835; 7970 33.1899 -20.6053 31.6335;
7971 32.9769 -20.4022 30.6335; 7972 32.9769 -20.4022 31.6335;
7973 32.7639 -20.199 30.6335; 7974 32.7639 -20.199 31.6335;
7975 32.3379 -19.7928 30.6335; 7976 32.3379 -19.7928 31.6335;
7977 32.1249 -19.5896 30.6335; 7978 32.1249 -19.5896 31.6335;
7979 31.9119 -19.3865 30.6335; 7980 31.9119 -19.3865 31.6335;
7981 -3.8971 -19.7534 29.3235; 7982 -28.929 -20.8084 31.6335;
7983 -28.361 -20.8084 31.6335; 7984 -27.225 -20.8084 31.6335;
7985 -26.657 -20.8084 31.6335; 7986 -28.361 -20.8084 30.6335;
7987 -27.225 -20.8084 30.6335; 7988 32.2669 -20.8084 31.6335;
7989 32.8349 -20.8084 31.6335; 7990 30.5629 -20.8084 31,6335;
7991 31.1309 -20.8084 31.6335; 7992 32.2669 -20.8084 30.6335;
7993 31.1309 -20.8084 30.6335; 7994 31.4859 -19.3865 30.8835;
7995 31.4859 -19.3865 31.1335; 7996 31.4859 -19.3865 31.3835;
7997 31.2729 -19.5896 30.8835; 7998 31.2729 -19.5896 31.1335;
7999 31.2729 -19.5896 31.3835; 8000 31.0599 -19.7928 30.8835;
8001 31.0599 -19.7928 31.1335; 8002 31.0599 -19.7928 31,3835;
8003 30.8469 -19.9959 30.8835; 8004 30.8469 -19.9959 31.1335;
8005 30.8469 -19.9959 31.3835; 8006 30.6339 -20.199 30.8835;
8007 30.6339 -20.199 30.6335; 8008 30.6339 -20.199 31.1335;
8009 30.6339 -20.199 31.3835; 8010 30.6339 -20.199 31.6335;
8011 30.4209 -20.4021 30.8835; 8012 30.4209 -20.4021 31.1335;
8013 30.4209 -20.4021 31.3835; 8014 30.2079 -20.6053 30.8835;
8015 30.2079 -20.6053 31.1335; 8016 30.2079 -20.6053 31.3835;
8017 31.9119 -19.3865 30.8835; 8018 31.9119 -19.3865 31.1335;
8019 31.9119 -19.3865 31.3835; 8020 32.1249 -19.5896 30.8835;
8021 32.1249 -19.5896 31.1335; 8022 32.1249 -19.5896 31.3835;
8023 32.3379 -19.7928 30.8835; 8024 32.3379 -19.7928 31.1335;
8025 32.3379 -19.7928 31.3835; 8026 32.5509 -19.9959 30.8835;
8027 32.5509 -19.9959 31.1335; 8028 32.5509 -19.9959 31.3835;
8029 32.7639 -20.199 30.8835; 8030 32.7639 -20.199 31.1335;
8031 32.7639 -20.199 31.3835; 8032 32.9769 -20.4021 30.8835;

8033 32.9769 -20.4021 31.1335; 8034 32.9769 -20.4021 31.3835;
8035 33.1899 -20.6053 30.8835; 8036 33.1899 -20.6053 31.1335;
8037 33.1899 -20.6053 31.3835; 8038 -28.006 -19.3865 30.8835;
8039 -28.006 -19.3865 31.1335; 8040 -28.006 -19.3865 31.3835;
8041 -28.219 -19.5896 30.8835; 8042 -28.219 -19.5896 31.1335;
8043 -28.219 -19.5896 31.3835; 8044 -28.432 -19.7928 30.8835;
8045 -28.432 -19.7928 31.1335; 8046 -28.432 -19.7928 31.3835;
8047 -28.645 -19.9959 30.8835; 8048 -28.645 -19.9959 31.1335;
8049 -28.645 -19.9959 31.3835; 8050 -28.858 -20.199 30.8835;
8051 -28.858 -20.199 30.6335; 8052 -28.858 -20.199 31.1335;
8053 -28.858 -20.199 31.3835; 8054 -28.858 -20.199 31.6335;
8055 -29.071 -20.4021 30.8835; 8056 -29.071 -20.4021 31.1335;
8057 -29.071 -20.4021 31.3835; 8058 -29.284 -20.6053 30.8835;
8059 -29.284 -20.6053 31.1335; 8060 -29.284 -20.6053 31.3835;
8061 -27.58 -19.3865 30.8835; 8062 -27.58 -19.3865 31.1335;
8063 -27.58 -19.3865 31.3835; 8064 -27.367 -19.5896 30.8835;
8065 -27.367 -19.5896 31.1335; 8066 -27.367 -19.5896 31.3835;
8067 -27.154 -19.7928 30.8835; 8068 -27.154 -19.7928 31.1335;
8069 -27.154 -19.7928 31.3835; 8070 -26.941 -19.9959 30.8835;
8071 -26.941 -19.9959 31.1335; 8072 -26.941 -19.9959 31.3835;
8073 -26.728 -20.199 30.8835; 8074 -26.728 -20.199 31.1335;
8075 -26.728 -20.199 31.3835; 8076 -26.515 -20.4021 30.8835;
8077 -26.515 -20.4021 31.1335; 8078 -26.515 -20.4021 31.3835;
8079 -26.302 -20.6053 30.8835; 8080 -26.302 -20.6053 31.1335;
8081 -26.302 -20.6053 31.3835; 8082 -11.6986 -31.7534 26.0335;
8083 -25.647 -31.7534 26.171; 8084 -28.847 -31.7534 27.571;
8085 -28.847 -31.7534 34.686; 8086 -25.6487 -31.7534 36.0885;
8087 -11.6978 -31.7534 36.2283; 8088 1.9529 -31.7534 31.7335;
8089 1.9497 -31.7534 31.1335; 8090 15.6012 -31.7534 26.0335;
8091 15.6021 -31.7534 36.2287; 8092 29.5514 -31.7534 36.0885;
8093 32.7518 -31.7534 34.6885; 8094 29.553 -31.7534 26.171;
8095 32.753 -31.7534 27.571; 8096 1.9529 -28.5534 31.7335;
8097 -11.6986 -28.5534 26.0335; 8098 -25.647 -28.5534 26.171;
8099 -28.847 -28.5534 27.571; 8100 1.9513 -28.5534 31.1279;
8101 15.6012 -28.5534 26.0335; 8102 29.553 -28.5534 26.171;
8103 32.753 -28.5534 27.571; 8104 -25.647 -28.5534 36.091;
8105 -28.8458 -28.5534 34.6885; 8106 -11.7074 -28.5534 36.231;
8107 15.6012 -28.5534 36.2335; 8108 29.5546 -28.5534 36.0885;
8109 32.753 -28.5534 34.691; 8110 1.9529 -25.3534 31.7335;
8111 -25.647 -25.3534 26.171; 8112 -28.847 -25.3534 27.571;
8113 -11.6986 -25.3534 26.0335; 8114 1.95116 -25.3534 31.1272;
8115 15.6012 -25.3534 26.0335; 8116 29.553 -25.3534 26.171;
8117 32.753 -25.3534 27.571; 8118 32.753 -25.3534 34.691;
8119 29.5514 -25.3534 36.0885; 8120 15.5932 -25.3534 36.2312;
8121 -11.6986 -25.3534 36.2335; 8122 -25.647 -25.3534 36.091;
8123 -28.8482 -25.3534 34.6885; 8124 1.9529 -22.1534 31.7335;
8125 3.8994 -19.7534 28.3335; 8126 0 -19.7534 28.3335;
8127 -3.8971 -19.7534 28.3235; 8128 -4.8971 -19.7534 32.9235;
8129 -4.8971 -19.7534 29.3235; 8130 4.8994 -19.7534 32.9335;
8131 4.8994 -19.7534 29.3335; 8132 0 -19.7534 33.9335;
8133 3.8994 -19.7534 33.9335; 8134 -3.8971 -19.7534 33.9235;
8135 4.8994 -19.7534 28.3335; 8136 4.8994 -19.7534 33.9335;
8137 -4.8971 -19.7534 33.9235; 8138 -4.8971 -19.7534 28.3235;
8139 -2.7 -19.7534 29.3335; 8140 -2.70922 -19.7534 32.9265;
8141 2.7 -19.7534 29.3335; 8142 2.7 -19.7534 32.9335; 8143 0 -19.7534 29.6935;
8144 -0.270092 -19.7534 29.6934; 8145 -0.269998 -19.7534 29.3328;
8146 0 -19.7534 30.0535; 8147 -0.270184 -19.7534 30.0534;
8148 0 -19.7534 30.4135; 8149 -0.270277 -19.7534 30.4133;
8150 0 -19.7534 30.7735; 8151 -0.270369 -19.7534 30.7732;
8152 0 -19.7534 31.1335; 8153 -0.270461 -19.7534 31.1332;
8154 0 -19.7534 31.4935; 8155 -0.270553 -19.7534 31.4931;
8156 0 -19.7534 31.8535; 8157 -0.270645 -19.7534 31.853;
8158 0 -19.7534 32.2135; 8159 -0.270738 -19.7534 32.2129;
8160 0 -19.7534 32.5735; 8161 -0.27083 -19.7534 32.5729;
8162 -0.270922 -19.7534 32.9328; 8163 -0.540184 -19.7534 29.6934;
8164 -0.54 -19.7534 29.3335; 8165 -0.540369 -19.7534 30.0532;
8166 -0.540553 -19.7534 30.4131; 8167 -0.540737 -19.7534 30.7729;
8168 -0.540922 -19.7534 31.1328; 8169 -0.541106 -19.7534 31.4927;
8170 -0.541291 -19.7534 31.8525; 8171 -0.541475 -19.7534 32.2124;
8172 -0.541659 -19.7534 32.5722; 8173 -0.541844 -19.7534 32.9321;
8174 -0.810277 -19.7534 29.6933; 8175 -0.81 -19.7534 29.3335;
8176 -0.810553 -19.7534 30.0531; 8177 -0.81083 -19.7534 30.4129;
8178 -0.811106 -19.7534 30.7727; 8179 -0.811383 -19.7534 31.1325;
8180 -0.811659 -19.7534 31.4922; 8181 -0.811936 -19.7534 31.852;
8182 -0.812212 -19.7534 32.2118; 8183 -0.812489 -19.7534 32.5716;
8184 -0.812766 -19.7534 32.9314; 8185 -1.08037 -19.7534 29.6932;
8186 -1.08 -19.7534 29.3335; 8187 -1.08074 -19.7534 30.0529;
8188 -1.08111 -19.7534 30.4127; 8189 -1.08147 -19.7534 30.7724;
8190 -1.08184 -19.7534 31.1321; 8191 -1.08221 -19.7534 31.4918;
8192 -1.08258 -19.7534 31.8516; 8193 -1.08295 -19.7534 32.2113;
8194 -1.08332 -19.7534 32.571; 8195 -1.08369 -19.7534 32.9307;
8196 -1.35046 -19.7534 29.6932; 8197 -1.35 -19.7534 29.3335;

8198 -1.35092 -19.7534 30.0528; 8199 -1.35138 -19.7534 30.4125;
8200 -1.35184 -19.7534 30.7721; 8201 -1.3523 -19.7534 31.1318;
8202 -1.35277 -19.7534 31.4914; 8203 -1.35323 -19.7534 31.8511;
8204 -1.35369 -19.7534 32.2107; 8205 -1.35415 -19.7534 32.5704;
8206 -1.35461 -19.7534 32.93; 8207 -1.62055 -19.7534 29.6931;
8208 -1.62 -19.7534 29.3335; 8209 -1.62111 -19.7534 30.0527;
8210 -1.62166 -19.7534 30.4122; 8211 -1.62221 -19.7534 30.7718;
8212 -1.62277 -19.7534 31.1314; 8213 -1.62332 -19.7534 31.491;
8214 -1.62387 -19.7534 31.8506; 8215 -1.62442 -19.7534 32.2102;
8216 -1.62498 -19.7534 32.5697; 8217 -1.62553 -19.7534 32.9293;
8218 -1.89065 -19.7534 29.693; 8219 -1.89 -19.7534 29.3335;
8220 -1.89129 -19.7534 30.0525; 8221 -1.89194 -19.7534 30.412;
8222 -1.89258 -19.7534 30.7716; 8223 -1.89323 -19.7534 31.1311;
8224 -1.89387 -19.7534 31.4906; 8225 -1.89452 -19.7534 31.8501;
8226 -1.89516 -19.7534 32.2096; 8227 -1.89581 -19.7534 32.5691;
8228 -1.89645 -19.7534 32.9286; 8229 -2.16074 -19.7534 29.6929;
8230 -2.16 -19.7534 29.3335; 8231 -2.16148 -19.7534 30.0524;
8232 -2.16221 -19.7534 30.4118; 8233 -2.16295 -19.7534 30.7713;
8234 -2.16369 -19.7534 31.1307; 8235 -2.16442 -19.7534 31.4902;
8236 -2.16516 -19.7534 31.8496; 8237 -2.1659 -19.7534 32.209;
8238 -2.16664 -19.7534 32.5685; 8239 -2.16737 -19.7534 32.9279;
8240 -2.43083 -19.7534 29.6929; 8241 -2.43 -19.7534 29.3335;
8242 -2.43166 -19.7534 30.0522; 8243 -2.43249 -19.7534 30.4116;
8244 -2.43332 -19.7534 30.771; 8245 -2.43415 -19.7534 31.1304;
8246 -2.43498 -19.7534 31.4897; 8247 -2.43581 -19.7534 31.8491;
8248 -2.43664 -19.7534 32.2085; 8249 -2.43747 -19.7534 32.5679;
8250 -2.4383 -19.7534 32.9272; 8251 -2.70092 -19.7534 29.6928;
8252 -2.70184 -19.7534 30.0521; 8253 -2.70277 -19.7534 30.4114;
8254 -2.70369 -19.7534 30.7707; 8255 -2.70461 -19.7534 31.13;
8256 -2.70553 -19.7534 31.4893; 8257 -2.70645 -19.7534 31.8486;
8258 -2.70737 -19.7534 32.2079; 8259 -2.7083 -19.7534 32.5672;
8260 2.7 -19.7534 29.6935; 8261 2.43 -19.7534 29.6935;
8262 2.43 -19.7534 29.3335; 8263 2.7 -19.7534 30.0535;
8264 2.43 -19.7534 30.0535; 8265 2.7 -19.7534 30.4135;
8266 2.43 -19.7534 30.4135; 8267 2.7 -19.7534 30.7735;
8268 2.43 -19.7534 30.7735; 8269 2.7 -19.7534 31.1335;
8270 2.43 -19.7534 31.1335; 8271 2.7 -19.7534 31.4935;
8272 2.43 -19.7534 31.4935; 8273 2.7 -19.7534 31.8535;
8274 2.43 -19.7534 31.8535; 8275 2.7 -19.7534 32.2135;
8276 2.43 -19.7534 32.2135; 8277 2.7 -19.7534 32.5735;
8278 2.43 -19.7534 32.5735; 8279 2.43 -19.7534 32.9335;
8280 2.16 -19.7534 29.6935; 8281 2.16 -19.7534 29.3335;
8282 2.16 -19.7534 30.0535; 8283 2.16 -19.7534 30.4135;
8284 2.16 -19.7534 30.7735; 8285 2.16 -19.7534 31.1335;
8286 2.16 -19.7534 31.4935; 8287 2.16 -19.7534 31.8535;
8288 2.16 -19.7534 32.2135; 8289 2.16 -19.7534 32.5735;
8290 2.16 -19.7534 32.9335; 8291 1.89 -19.7534 29.6935;
8292 1.89 -19.7534 29.3335; 8293 1.89 -19.7534 30.0535;
8294 1.89 -19.7534 30.4135; 8295 1.89 -19.7534 30.7735;
8296 1.89 -19.7534 31.1335; 8297 1.89 -19.7534 31.4935;
8298 1.89 -19.7534 31.8535; 8299 1.89 -19.7534 32.2135;
8300 1.89 -19.7534 32.5735; 8301 1.89 -19.7534 32.9335;
8302 1.62 -19.7534 29.6935; 8303 1.62 -19.7534 29.3335;
8304 1.62 -19.7534 30.0535; 8305 1.62 -19.7534 30.4135;
8306 1.62 -19.7534 30.7735; 8307 1.62 -19.7534 31.1335;
8308 1.62 -19.7534 31.4935; 8309 1.62 -19.7534 31.8535;
8310 1.62 -19.7534 32.2135; 8311 1.62 -19.7534 32.5735;
8312 1.62 -19.7534 32.9335; 8313 1.35 -19.7534 29.6935;
8314 1.35 -19.7534 29.3335; 8315 1.35 -19.7534 30.0535;
8316 1.35 -19.7534 30.4135; 8317 1.35 -19.7534 30.7735;
8318 1.35 -19.7534 31.1335; 8319 1.35 -19.7534 31.4935;
8320 1.35 -19.7534 31.8535; 8321 1.35 -19.7534 32.2135;
8322 1.35 -19.7534 32.5735; 8323 1.35 -19.7534 32.9335;
8324 1.08 -19.7534 29.6935; 8325 1.08 -19.7534 29.3335;
8326 1.08 -19.7534 30.0535; 8327 1.08 -19.7534 30.4135;
8328 1.08 -19.7534 30.7735; 8329 1.08 -19.7534 31.1335;
8330 1.08 -19.7534 31.4935; 8331 1.08 -19.7534 31.8535;
8332 1.08 -19.7534 32.2135; 8333 1.08 -19.7534 32.5735;
8334 1.08 -19.7534 32.9335; 8335 0.81 -19.7534 29.6935;
8336 0.81 -19.7534 29.3335; 8337 0.81 -19.7534 30.0535;
8338 0.81 -19.7534 30.4135; 8339 0.81 -19.7534 30.7735;
8340 0.81 -19.7534 31.1335; 8341 0.81 -19.7534 31.4935;
8342 0.81 -19.7534 31.8535; 8343 0.81 -19.7534 32.2135;
8344 0.81 -19.7534 32.5735; 8345 0.81 -19.7534 32.9335;
8346 0.54 -19.7534 29.6935; 8347 0.54 -19.7534 29.3335;
8348 0.54 -19.7534 30.0535; 8349 0.54 -19.7534 30.4135;
8350 0.54 -19.7534 30.7735; 8351 0.54 -19.7534 31.1335;
8352 0.54 -19.7534 31.4935; 8353 0.54 -19.7534 31.8535;
8354 0.54 -19.7534 32.2135; 8355 0.54 -19.7534 32.5735;
8356 0.54 -19.7534 32.9335; 8357 0.27 -19.7534 29.6935;
8358 0.27 -19.7534 29.3335; 8359 0.27 -19.7534 30.0535;
8360 0.27 -19.7534 30.4135; 8361 0.27 -19.7534 30.7735;

8362 0.27 -19.7534 31.1335; 8363 0.27 -19.7534 31.4935;
8364 0.27 -19.7534 31.8535; 8365 0.27 -19.7534 32.2135;
8366 0.27 -19.7534 32.5735; 8367 0.27 -19.7534 32.9335;
8368 4.8994 -19.7534 28.5335; 8369 4.40946 -19.7534 28.5335;
8370 4.40946 -19.7534 28.3335; 8371 4.8994 -19.7534 28.7335;
8372 4.40946 -19.7534 28.7335; 8373 4.8994 -19.7534 28.9335;
8374 4.40946 -19.7534 28.9335; 8375 4.8994 -19.7534 29.1335;
8376 4.40946 -19.7534 29.1335; 8377 4.40946 -19.7534 29.3335;
8378 3.91952 -19.7534 28.5335; 8379 3.91952 -19.7534 28.3335;
8380 3.91952 -19.7534 28.7335; 8381 3.91952 -19.7534 28.9335;
8382 3.91952 -19.7534 29.1335; 8383 3.91952 -19.7534 29.3335;
8384 3.42958 -19.7534 28.5335; 8385 3.42958 -19.7534 28.3335;
8386 3.42958 -19.7534 28.7335; 8387 3.42958 -19.7534 28.9335;
8388 3.42958 -19.7534 29.1335; 8389 3.42958 -19.7534 29.3335;
8390 2.93964 -19.7534 28.5335; 8391 2.93964 -19.7534 28.3335;
8392 2.93964 -19.7534 28.7335; 8393 2.93964 -19.7534 28.9335;
8394 2.93964 -19.7534 29.1335; 8395 2.93964 -19.7534 29.3335;
8396 2.4497 -19.7534 28.5335; 8397 2.4497 -19.7534 28.3335;
8398 2.4497 -19.7534 28.7335; 8399 2.4497 -19.7534 28.9335;
8400 2.4497 -19.7534 29.1335; 8401 1.95976 -19.7534 28.5335;
8402 1.95976 -19.7534 28.3335; 8403 1.95976 -19.7534 28.7335;
8404 1.95976 -19.7534 28.9335; 8405 1.95976 -19.7534 29.1335;
8406 1.95976 -19.7534 29.3335; 8407 1.46982 -19.7534 28.5335;
8408 1.46982 -19.7534 28.3335; 8409 1.46982 -19.7534 28.7335;
8410 1.46982 -19.7534 28.9335; 8411 1.46982 -19.7534 29.1335;
8412 1.46982 -19.7534 29.3335; 8413 0.97988 -19.7534 28.5335;
8414 0.97988 -19.7534 28.3335; 8415 0.97988 -19.7534 28.7335;
8416 0.97988 -19.7534 28.9335; 8417 0.97988 -19.7534 29.1335;
8418 0.97988 -19.7534 29.3335; 8419 0.48994 -19.7534 28.5335;
8420 0.48994 -19.7534 28.3335; 8421 0.48994 -19.7534 28.7335;
8422 0.48994 -19.7534 28.9335; 8423 0.48994 -19.7534 29.1335;
8424 0.48994 -19.7534 29.3335; 8425 0 -19.7534 28.5335;
8426 0 -19.7534 28.7335; 8427 0 -19.7534 28.9335; 8428 0 -19.7534 29.1335;
8429 -0.48971 -19.7534 28.5325; 8430 -0.489709 -19.7534 28.3322;
8431 -0.48971 -19.7534 28.7325; 8432 -0.48971 -19.7534 28.9325;
8433 -0.48971 -19.7534 29.1325; 8434 -0.489709 -19.7534 29.3322;
8435 -0.97942 -19.7534 28.5315; 8436 -0.979419 -19.7534 28.331;
8437 -0.97942 -19.7534 28.7315; 8438 -0.97942 -19.7534 28.9315;
8439 -0.97942 -19.7534 29.1315; 8440 -0.979419 -19.7534 29.331;
8441 -1.46913 -19.7534 28.5305; 8442 -1.46913 -19.7534 28.3297;
8443 -1.46913 -19.7534 28.7305; 8444 -1.46913 -19.7534 28.9305;
8445 -1.46913 -19.7534 29.1305; 8446 -1.46913 -19.7534 29.3297;
8447 -1.95884 -19.7534 28.5295; 8448 -1.95884 -19.7534 28.3295;
8449 -1.95884 -19.7534 28.7295; 8450 -1.95884 -19.7534 28.9295;
8451 -1.95884 -19.7534 29.1295; 8452 -1.95884 -19.7534 29.3295;
8453 -2.44855 -19.7534 28.5285; 8454 -2.44855 -19.7534 28.3285;
8455 -2.44855 -19.7534 28.7285; 8456 -2.44855 -19.7534 28.9285;
8457 -2.44855 -19.7534 29.1285; 8458 -2.93826 -19.7534 28.5275;
8459 -2.93826 -19.7534 28.3275; 8460 -2.93826 -19.7534 28.7275;
8461 -2.93826 -19.7534 28.9275; 8462 -2.93826 -19.7534 29.1275;
8463 -2.93826 -19.7534 29.3275; 8464 -3.42797 -19.7534 28.5265;
8465 -3.42797 -19.7534 28.3265; 8466 -3.42797 -19.7534 28.7265;
8467 -3.42797 -19.7534 28.9265; 8468 -3.42797 -19.7534 29.1265;
8469 -3.42797 -19.7534 29.3265; 8470 -3.91768 -19.7534 28.5255;
8471 -3.91768 -19.7534 28.3255; 8472 -3.91768 -19.7534 28.7255;
8473 -3.91768 -19.7534 28.9255; 8474 -3.91768 -19.7534 29.1255;
8475 -3.91768 -19.7534 29.3255; 8476 -4.40739 -19.7534 28.5245;
8477 -4.40739 -19.7534 28.3235; 8478 -4.40739 -19.7534 28.7245;
8479 -4.40739 -19.7534 28.9245; 8480 -4.40739 -19.7534 29.1245;
8481 -4.40739 -19.7534 29.3235; 8482 -4.8971 -19.7534 28.5235;
8483 -4.8971 -19.7534 28.7235; 8484 -4.8971 -19.7534 28.9235;
8485 -4.8971 -19.7534 29.1235; 8486 4.8994 -19.7534 33.1335;
8487 4.40946 -19.7534 33.1335; 8488 4.40946 -19.7534 32.9335;
8489 4.8994 -19.7534 33.3335; 8490 4.40946 -19.7534 33.3335;
8491 4.8994 -19.7534 33.5335; 8492 4.40946 -19.7534 33.5335;
8493 4.8994 -19.7534 33.7335; 8494 4.40946 -19.7534 33.7335;
8495 4.40946 -19.7534 33.9335; 8496 3.91952 -19.7534 33.1335;
8497 3.91952 -19.7534 32.9335; 8498 3.91952 -19.7534 33.3335;
8499 3.91952 -19.7534 33.5335; 8500 3.91952 -19.7534 33.7335;
8501 3.91952 -19.7534 33.9335; 8502 3.42958 -19.7534 33.1335;
8503 3.42958 -19.7534 32.9335; 8504 3.42958 -19.7534 33.3335;
8505 3.42958 -19.7534 33.5335; 8506 3.42958 -19.7534 33.7335;
8507 3.42958 -19.7534 33.9335; 8508 2.93964 -19.7534 33.1335;
8509 2.93964 -19.7534 32.9335; 8510 2.93964 -19.7534 33.3335;
8511 2.93964 -19.7534 33.5335; 8512 2.93964 -19.7534 33.7335;
8513 2.93964 -19.7534 33.9335; 8514 2.4497 -19.7534 33.1335;
8515 2.4497 -19.7534 33.3335; 8516 2.4497 -19.7534 33.5335;
8517 2.4497 -19.7534 33.7335; 8518 2.4497 -19.7534 33.9335;
8519 1.95976 -19.7534 33.1335; 8520 1.95976 -19.7534 32.9335;
8521 1.95976 -19.7534 33.3335; 8522 1.95976 -19.7534 33.5335;
8523 1.95976 -19.7534 33.7335; 8524 1.95976 -19.7534 33.9335;
8525 1.46982 -19.7534 33.1335; 8526 1.46982 -19.7534 32.9335;

8527 1.46982 -19.7534 33.3335; 8528 1.46982 -19.7534 33.5335;
8529 1.46982 -19.7534 33.7335; 8530 1.46982 -19.7534 33.9335;
8531 0.97988 -19.7534 33.1335; 8532 0.97988 -19.7534 32.9335;
8533 0.97988 -19.7534 33.3335; 8534 0.97988 -19.7534 33.5335;
8535 0.97988 -19.7534 33.7335; 8536 0.97988 -19.7534 33.9335;
8537 0.48994 -19.7534 33.1335; 8538 0.48994 -19.7534 32.9335;
8539 0.48994 -19.7534 33.3335; 8540 0.48994 -19.7534 33.5335;
8541 0.48994 -19.7534 33.7335; 8542 0.48994 -19.7534 33.9335;
8543 0 -19.7534 33.1335; 8544 0 -19.7534 33.3335; 8545 0 -19.7534 33.5335;
8546 0 -19.7534 33.7335; 8547 -0.48971 -19.7534 33.1325;
8548 -0.489709 -19.7534 32.9322; 8549 -0.48971 -19.7534 33.3325;
8550 -0.48971 -19.7534 33.5325; 8551 -0.48971 -19.7534 33.7325;
8552 -0.489709 -19.7534 33.9322; 8553 -0.97942 -19.7534 33.1315;
8554 -0.979419 -19.7534 32.931; 8555 -0.97942 -19.7534 33.3315;
8556 -0.97942 -19.7534 33.5315; 8557 -0.97942 -19.7534 33.7315;
8558 -0.979419 -19.7534 33.931; 8559 -1.46913 -19.7534 33.1305;
8560 -1.46913 -19.7534 32.9297; 8561 -1.46913 -19.7534 33.3305;
8562 -1.46913 -19.7534 33.5305; 8563 -1.46913 -19.7534 33.7305;
8564 -1.46913 -19.7534 33.9297; 8565 -1.95884 -19.7534 33.1295;
8566 -1.95884 -19.7534 32.9295; 8567 -1.95884 -19.7534 33.3295;
8568 -1.95884 -19.7534 33.5295; 8569 -1.95884 -19.7534 33.7295;
8570 -1.95884 -19.7534 33.9295; 8571 -2.44855 -19.7534 33.1285;
8572 -2.44855 -19.7534 33.3285; 8573 -2.44855 -19.7534 33.5285;
8574 -2.44855 -19.7534 33.7285; 8575 -2.44855 -19.7534 33.9285;
8576 -2.93826 -19.7534 33.1275; 8577 -2.93826 -19.7534 32.9275;
8578 -2.93826 -19.7534 33.3275; 8579 -2.93826 -19.7534 33.5275;
8580 -2.93826 -19.7534 33.7275; 8581 -2.93826 -19.7534 33.9275;
8582 -3.42797 -19.7534 33.1265; 8583 -3.42797 -19.7534 32.9265;
8584 -3.42797 -19.7534 33.3265; 8585 -3.42797 -19.7534 33.5265;
8586 -3.42797 -19.7534 33.7265; 8587 -3.42797 -19.7534 33.9265;
8588 -3.91768 -19.7534 33.1255; 8589 -3.91768 -19.7534 32.9255;
8590 -3.91768 -19.7534 33.3255; 8591 -3.91768 -19.7534 33.5255;
8592 -3.91768 -19.7534 33.7255; 8593 -3.91768 -19.7534 33.9255;
8594 -4.40739 -19.7534 33.1245; 8595 -4.40739 -19.7534 32.9235;
8596 -4.40739 -19.7534 33.3245; 8597 -4.40739 -19.7534 33.5245;
8598 -4.40739 -19.7534 33.7245; 8599 -4.40739 -19.7534 33.9235;
8600 -4.8971 -19.7534 33.1235; 8601 -4.8971 -19.7534 33.3235;
8602 -4.8971 -19.7534 33.5235; 8603 -4.8971 -19.7534 33.7235;
8604 -4.3971 -19.7534 32.5635; 8605 -3.8971 -19.7534 32.5635;
8606 -4.8971 -19.7534 32.5635; 8607 -4.3971 -19.7534 32.2035;
8608 -3.8971 -19.7534 32.2035; 8609 -4.8971 -19.7534 32.2035;
8610 -4.3971 -19.7534 31.8435; 8611 -3.8971 -19.7534 31.8435;
8612 -4.8971 -19.7534 31.8435; 8613 -4.3971 -19.7534 31.4835;
8614 -3.8971 -19.7534 31.4835; 8615 -4.8971 -19.7534 31.4835;
8616 -4.3971 -19.7534 31.1235; 8617 -3.8971 -19.7534 31.1235;
8618 -4.8971 -19.7534 31.1235; 8619 -4.3971 -19.7534 30.7635;
8620 -3.8971 -19.7534 30.7635; 8621 -4.8971 -19.7534 30.7635;
8622 -4.3971 -19.7534 30.4035; 8623 -3.8971 -19.7534 30.4035;
8624 -4.8971 -19.7534 30.4035; 8625 -4.3971 -19.7534 30.0435;
8626 -3.8971 -19.7534 30.0435; 8627 -4.8971 -19.7534 30.0435;
8628 -4.3971 -19.7534 29.6835; 8629 -3.8971 -19.7534 29.6835;
8630 -4.8971 -19.7534 29.6835; 8631 -3.00619 -19.7534 32.9258;
8632 -3.0055 -19.7534 32.5663; 8633 -3.30316 -19.7534 32.925;
8634 -3.3027 -19.7534 32.5654; 8635 -3.60013 -19.7534 32.9243;
8636 -3.5999 -19.7534 32.5644; 8637 -3.00481 -19.7534 32.2068;
8638 -3.30224 -19.7534 32.2057; 8639 -3.59967 -19.7534 32.2046;
8640 -3.00411 -19.7534 31.8473; 8641 -3.30178 -19.7534 31.8461;
8642 -3.59944 -19.7534 31.8448; 8643 -3.00342 -19.7534 31.4879;
8644 -3.30132 -19.7534 31.4864; 8645 -3.59921 -19.7534 31.485;
8646 -3.00273 -19.7534 31.1284; 8647 -3.30085 -19.7534 31.1268;
8648 -3.59898 -19.7534 31.1251; 8649 -3.00204 -19.7534 30.7689;
8650 -3.30039 -19.7534 30.7671; 8651 -3.59875 -19.7534 30.7653;
8652 -3.00135 -19.7534 30.4094; 8653 -3.29993 -19.7534 30.4075;
8654 -3.59852 -19.7534 30.4055; 8655 -3.00066 -19.7534 30.05;
8656 -3.29947 -19.7534 30.0478; 8657 -3.59829 -19.7534 30.0457;
8658 -2.99997 -19.7534 29.6905; 8659 -3.29901 -19.7534 29.6882;
8660 -3.59806 -19.7534 29.6858; 8661 -2.99927 -19.7534 29.331;
8662 -3.29855 -19.7534 29.3285; 8663 -3.59783 -19.7534 29.326;
8664 4.8994 -19.7534 32.5735; 8665 3.8994 -19.7534 32.5735;
8666 4.8994 -19.7534 32.2135; 8667 3.8994 -19.7534 32.2135;
8668 4.8994 -19.7534 31.8535; 8669 3.8994 -19.7534 31.8535;
8670 4.8994 -19.7534 31.4935; 8671 3.8994 -19.7534 31.4935;
8672 4.8994 -19.7534 31.1335; 8673 3.8994 -19.7534 31.1335;
8674 4.8994 -19.7534 30.7735; 8675 3.8994 -19.7534 30.7735;
8676 4.8994 -19.7534 30.4135; 8677 3.8994 -19.7534 30.4135;
8678 4.8994 -19.7534 30.0535; 8679 3.8994 -19.7534 30.0535;
8680 4.8994 -19.7534 29.6935; 8681 3.8994 -19.7534 29.6935;
8682 3.2997 -19.7534 29.3335; 8683 3.2997 -19.7534 32.9335;
8684 -28.847 -22.1534 27.571; 8685 -28.8447 -22.1534 34.691;
8686 1.9497 -22.1534 31.1335; 8687 32.753 -22.1534 27.571;
8688 32.7542 -22.1534 34.6885; 8689 29.5476 -22.1534 33.6885;
8690 -25.647 -22.1534 33.691; 8691 15.6012 -22.1534 28.4335;

8692 3.59955 -19.7534 32.9335; 8693 3.59955 -19.7534 32.5735;
8694 3.2997 -19.7534 32.5735; 8695 2.99985 -19.7534 32.9335;
8696 2.99985 -19.7534 32.5735; 8697 3.59955 -19.7534 32.2135;
8698 3.2997 -19.7534 32.2135; 8699 2.99985 -19.7534 32.2135;
8700 3.59955 -19.7534 31.8535; 8701 3.2997 -19.7534 31.8535;
8702 2.99985 -19.7534 31.8535; 8703 3.59955 -19.7534 31.4935;
8704 3.2997 -19.7534 31.4935; 8705 2.99985 -19.7534 31.4935;
8706 3.59955 -19.7534 31.1335; 8707 3.2997 -19.7534 31.1335;
8708 2.99985 -19.7534 31.1335; 8709 3.59955 -19.7534 30.7735;
8710 3.2997 -19.7534 30.7735; 8711 2.99985 -19.7534 30.7735;
8712 3.59955 -19.7534 30.4135; 8713 3.2997 -19.7534 30.4135;
8714 2.99985 -19.7534 30.4135; 8715 3.59955 -19.7534 30.0535;
8716 3.2997 -19.7534 30.0535; 8717 2.99985 -19.7534 30.0535;
8718 3.59955 -19.7534 29.6935; 8719 3.2997 -19.7534 29.6935;
8720 2.99985 -19.7534 29.6935; 8721 3.59955 -19.7534 29.3335;
8722 2.99985 -19.7534 29.3335; 8723 4.3994 -19.7534 32.9335;
8724 4.3994 -19.7534 32.5735; 8725 4.3994 -19.7534 32.2135;
8726 4.3994 -19.7534 31.8535; 8727 4.3994 -19.7534 31.4935;
8728 4.3994 -19.7534 31.1335; 8729 4.3994 -19.7534 30.7735;
8730 4.3994 -19.7534 30.4135; 8731 4.3994 -19.7534 30.0535;
8732 4.3994 -19.7534 29.6935; 8733 4.3994 -19.7534 29.3335;
MEMBER INCIDENCES
1 1 2; 2 3 4; 3 5 847; 4 7 848; 5 9 10; 6 11 12; 7 13 851; 8 15 852; 9 17 18;
10 19 20; 11 21 22; 12 23 24; 13 25 26; 14 27 28; 15 29 30; 16 31 32; 17 33 34;
18 35 36; 19 37 38; 20 39 40; 21 41 42; 22 43 44; 23 45 46; 24 47 48; 25 49 50;
26 51 52; 27 53 54; 28 55 56; 29 57 58; 30 59 60; 31 61 62; 32 63 64; 33 65 66;
34 67 68; 35 69 70; 36 71 72; 37 73 74; 38 75 76; 39 77 78; 40 79 80;
41 81 886; 42 83 84; 43 85 888; 44 87 88; 45 89 90; 46 91 891; 47 93 94;
48 95 893; 49 97 98; 50 99 100; 51 101 102; 52 103 104; 53 105 106; 54 107 108;
55 109 110; 56 111 112; 57 113 114; 58 115 116; 59 117 118; 60 119 120;
61 121 122; 62 123 124; 63 125 126; 64 127 128; 65 129 130; 66 131 132;
67 133 134; 68 135 136; 69 137 138; 70 139 140; 71 141 142; 72 143 144;
73 145 146; 74 147 148; 75 149 150; 76 151 152; 77 153 154; 78 155 156;
79 157 158; 80 159 160; 81 161 162; 82 163 164; 83 165 166; 84 2 167; 85 4 168;
86 169 170; 87 10 171; 88 173 174; 89 18 175; 90 22 176; 91 177 178; 92 26 179;
93 180 181; 94 30 182; 95 183 184; 96 34 120; 97 185 162; 98 38 122;
99 186 160; 100 42 124; 101 187 158; 102 46 126; 103 188 156; 104 50 128;
105 189 154; 106 54 130; 107 190 152; 108 58 132; 109 191 150; 110 62 134;
111 192 148; 112 66 136; 113 193 146; 114 70 138; 115 194 4084; 116 74 195;
117 196 197; 118 198 199; 119 180 200; 120 198 80; 121 80 201; 122 84 203;
123 74 204; 124 78 205; 125 206 207; 126 208 209; 127 210 211; 128 88 212;
129 213 214; 130 215 216; 131 217 218; 132 219 220; 133 221 222; 134 100 223;
135 102 224; 136 100 225; 137 218 226; 138 215 217; 139 48 104; 140 52 106;
141 106 104; 142 50 108; 143 46 110; 144 110 108; 145 206 227; 146 173 228;
147 229 230; 148 213 231; 149 232 233; 150 78 234; 151 78 236; 152 112 237;
153 20 238; 154 114 239; 155 18 240; 156 116 241; 157 116 242; 158 116 243;
159 118 244; 160 245 246; 161 22 247; 162 120 248; 163 30 249; 164 250 251;
165 120 250; 166 252 253; 167 122 252; 168 124 254; 169 124 255; 170 255 256;
171 126 257; 172 258 259; 173 126 258; 174 128 260; 175 128 261; 176 261 262;
177 130 263; 178 130 264; 179 264 265; 180 132 266; 181 266 267; 182 134 268;
183 136 269; 184 134 270; 185 270 271; 186 136 272; 187 272 273; 188 138 274;
189 138 3891; 190 275 276; 191 140 277; 192 140 278; 193 279 280; 194 26 281;
195 76 282; 196 76 283; 197 284 285; 198 94 279; 199 76 286; 200 219 287;
201 216 288; 202 169 289; 203 221 290; 204 98 293; 205 142 295; 206 28 296;
207 72 144; 208 144 297; 209 72 298; 210 68 146; 211 146 299; 212 68 300;
213 64 148; 214 148 301; 215 64 302; 216 60 150; 217 150 303; 218 189 304;
219 60 305; 220 56 152; 221 152 306; 222 56 307; 223 52 154; 224 154 308;
225 52 309; 226 48 156; 227 156 310; 228 48 311; 229 44 158; 230 187 312;
231 158 313; 232 160 314; 233 183 315; 234 162 316; 235 177 317; 236 164 318;
237 202 319; 238 166 320; 239 166 322; 240 24 323; 241 164 324; 242 32 325;
243 162 36; 244 36 326; 245 44 327; 246 40 160; 247 40 328; 248 80 329;
249 291 331; 250 206 332; 251 98 180; 252 229 210; 253 213 211; 254 333 196;
255 2 334; 256 4 335; 257 10 338; 258 12 339; 259 18 342; 260 20 343;
261 22 344; 262 24 345; 263 26 346; 264 28 347; 265 30 348; 266 32 349;
267 34 350; 268 36 351; 269 38 352; 270 40 353; 271 42 354; 272 44 355;
273 46 356; 274 48 357; 275 50 358; 276 52 359; 277 54 360; 278 56 361;
279 58 362; 280 60 363; 281 62 364; 282 64 365; 283 66 366; 284 68 367;
285 70 368; 286 72 369; 287 74 370; 288 76 371; 289 196 372; 290 78 373;
291 80 374; 292 84 376; 293 88 378; 294 90 379; 295 94 381; 296 98 383;
297 100 384; 298 102 385; 299 112 386; 300 114 387; 301 116 388; 302 118 389;
303 120 390; 304 122 391; 305 124 392; 306 126 393; 307 128 394; 308 130 395;
309 132 396; 310 134 397; 311 136 398; 312 138 399; 313 140 400; 314 142 401;
315 144 402; 316 146 403; 317 148 404; 318 150 405; 319 152 406; 320 154 407;
321 156 408; 322 158 409; 323 160 410; 324 162 411; 325 164 412; 326 166 413;
327 334 414; 328 335 415; 329 416 417; 330 338 418; 331 420 421; 332 342 422;
333 344 423; 334 424 425; 335 346 426; 336 427 428; 337 348 429; 338 430 431;
339 350 390; 340 432 411; 341 352 391; 342 433 410; 343 354 392; 344 434 409;
345 356 393; 346 435 408; 347 358 394; 348 436 407; 349 360 395; 350 437 406;
351 362 396; 352 438 405; 353 364 397; 354 439 404; 355 366 398; 356 440 403;
357 368 399; 358 441 4458; 359 370 442; 360 372 443; 361 444 445; 362 427 446;
363 444 374; 364 374 447; 365 376 449; 366 370 450; 367 373 451; 368 452 453;
369 454 455; 370 456 457; 371 378 458; 372 459 460; 373 461 462; 374 463 464;

375 465 466; 376 467 468; 377 384 469; 378 385 470; 379 384 471; 380 464 472;
381 461 463; 382 452 473; 383 420 474; 384 475 476; 385 459 477; 386 478 479;
387 373 480; 388 373 482; 389 386 483; 390 343 484; 391 387 485; 392 342 486;
393 388 487; 394 388 488; 395 388 489; 396 389 490; 397 491 492; 398 344 493;
399 390 494; 400 348 495; 401 496 497; 402 390 496; 403 498 499; 404 391 498;
405 392 500; 406 392 501; 407 501 502; 408 393 503; 409 504 505; 410 393 504;
411 394 506; 412 394 507; 413 507 508; 414 395 509; 415 395 510; 416 510 511;
417 396 512; 418 512 513; 419 397 514; 420 398 515; 421 397 516; 422 516 517;
423 398 518; 424 518 519; 425 399 520; 426 399 4265; 427 521 522; 428 400 523;
429 400 524; 430 525 526; 431 346 527; 432 371 528; 433 371 529; 434 530 531;
435 381 525; 436 371 532; 437 465 533; 438 462 534; 439 416 535; 440 467 536;
441 383 539; 442 401 541; 443 347 542; 444 369 402; 445 402 543; 446 369 544;
447 367 403; 448 403 545; 449 367 546; 450 365 404; 451 404 547; 452 365 548;
453 363 405; 454 405 549; 455 436 550; 456 363 551; 457 361 406; 458 406 552;
459 361 553; 460 359 407; 461 407 554; 462 359 555; 463 357 408; 464 408 556;
465 357 557; 466 355 409; 467 434 501; 468 409 558; 469 410 559; 470 430 560;
471 411 561; 472 424 562; 473 412 563; 474 448 564; 475 413 565; 476 413 567;
477 345 568; 478 412 569; 479 349 570; 480 411 351; 481 351 571; 482 355 572;
483 353 410; 484 353 573; 485 374 574; 486 537 576; 487 452 577; 488 383 427;
489 475 456; 490 459 457; 491 334 578; 492 335 579; 493 338 582; 494 339 583;
495 342 586; 496 343 587; 497 344 588; 498 345 589; 499 346 590; 500 347 591;
501 348 592; 502 349 593; 503 350 594; 504 351 595; 505 352 596; 506 353 597;
507 354 598; 508 355 599; 509 356 600; 510 357 601; 511 358 602; 512 359 603;
513 360 604; 514 361 605; 515 362 606; 516 363 607; 517 364 608; 518 365 609;
519 366 610; 520 367 611; 521 368 612; 522 369 613; 523 370 614; 524 371 615;
525 372 616; 526 373 617; 527 374 618; 528 376 620; 529 378 622; 530 379 623;
531 381 625; 532 383 627; 533 384 628; 534 385 629; 535 386 630; 536 387 631;
537 388 632; 538 389 633; 539 390 634; 540 391 635; 541 392 636; 542 393 637;
543 394 638; 544 395 639; 545 396 640; 546 397 641; 547 398 642; 548 399 643;
549 400 644; 550 401 645; 551 402 646; 552 403 647; 553 404 648; 554 405 649;
555 406 650; 556 407 651; 557 408 652; 558 409 653; 559 410 654; 560 411 655;
561 412 656; 562 413 657; 563 578 658; 564 579 659; 565 660 661; 566 582 662;
567 664 665; 568 586 666; 569 588 667; 570 668 669; 571 590 670; 572 671 672;
573 592 673; 574 674 675; 575 594 634; 576 676 655; 577 596 635; 578 677 654;
579 598 636; 580 678 653; 581 600 637; 582 679 652; 583 602 638; 584 680 651;
585 604 639; 586 681 650; 587 606 640; 588 682 649; 589 608 641; 590 683 648;
591 610 642; 592 684 647; 593 612 643; 594 685 4832; 595 614 686; 596 616 687;
597 688 689; 598 671 690; 599 688 618; 600 618 691; 601 620 693; 602 614 694;
603 617 695; 604 696 697; 605 698 699; 606 700 701; 607 622 702; 608 703 704;
609 705 706; 610 707 708; 611 709 710; 612 711 712; 613 628 713; 614 629 714;
615 628 715; 616 708 716; 617 705 707; 618 696 717; 619 664 718; 620 719 720;
621 703 721; 622 722 723; 623 617 724; 624 617 726; 625 630 727; 626 587 728;
627 631 729; 628 586 730; 629 632 731; 630 632 732; 631 632 733; 632 633 734;
633 735 736; 634 588 737; 635 634 738; 636 592 739; 637 740 741; 638 634 740;
639 742 743; 640 635 742; 641 636 744; 642 636 745; 643 745 746; 644 637 747;
645 748 749; 646 637 748; 647 638 750; 648 638 751; 649 751 752; 650 639 753;
651 639 754; 652 754 755; 653 640 756; 654 756 757; 655 641 758; 656 642 759;
657 641 760; 658 760 761; 659 642 762; 660 762 763; 661 643 764; 662 643 4639;
663 765 766; 664 644 767; 665 644 768; 666 769 770; 667 590 771; 668 615 772;
669 615 773; 670 774 775; 671 625 769; 672 615 776; 673 709 777; 674 706 778;
675 660 779; 676 711 780; 677 627 783; 678 645 785; 679 591 786; 680 613 646;
681 646 787; 682 613 788; 683 611 647; 684 647 789; 685 611 790; 686 609 648;
687 648 791; 688 609 792; 689 607 649; 690 649 793; 691 680 794; 692 607 795;
693 605 650; 694 650 796; 695 605 797; 696 603 651; 697 651 798; 698 603 799;
699 601 652; 700 652 800; 701 601 801; 702 599 653; 703 678 745; 704 653 802;
705 654 803; 706 674 804; 707 655 805; 708 668 806; 709 656 807; 710 692 808;
711 657 809; 712 657 811; 713 589 812; 714 656 813; 715 593 814; 716 655 595;
717 595 815; 718 599 816; 719 597 654; 720 597 817; 721 618 818; 722 781 820;
723 696 821; 724 627 671; 725 719 700; 726 703 701; 727 822 229; 728 231 823;
729 822 824; 730 825 826; 731 827 828; 732 825 829; 733 832 833; 734 834 82;
735 832 86; 736 832 835; 737 834 836; 738 14 837; 739 838 839; 740 838 841;
741 16 842; 742 14 843; 743 838 844; 744 578 845; 745 579 846; 746 582 849;
747 583 850; 748 586 853; 749 587 854; 750 588 855; 751 589 856; 752 590 857;
753 591 858; 754 592 859; 755 593 860; 756 594 861; 757 595 862; 758 596 863;
759 597 864; 760 598 865; 761 599 866; 762 600 867; 763 601 868; 764 602 869;
765 603 870; 766 604 871; 767 605 872; 768 606 873; 769 607 874; 770 608 875;
771 609 876; 772 610 877; 773 611 878; 774 612 879; 775 613 880; 776 614 881;
777 615 882; 778 616 883; 779 617 884; 780 618 885; 781 620 887; 782 622 889;
783 623 890; 784 625 892; 785 627 894; 786 628 895; 787 629 896; 788 630 897;
789 631 898; 790 632 899; 791 633 900; 792 634 901; 793 635 902; 794 636 903;
795 637 904; 796 638 905; 797 639 906; 798 640 907; 799 641 908; 800 642 909;
801 643 910; 802 644 911; 803 645 912; 804 646 913; 805 647 914; 806 648 915;
807 649 916; 808 650 917; 809 651 918; 810 652 919; 811 653 920; 812 654 921;
813 655 922; 814 656 923; 815 657 924; 816 925 926; 817 822 927; 818 231 928;
819 477 929; 820 231 930; 821 931 475; 822 822 932; 823 477 933; 824 930 934;
825 932 935; 826 930 936; 827 937 938; 828 930 939; 829 932 940; 830 340 941;
831 942 943; 832 944 945; 833 946 947; 834 948 949; 835 942 950; 836 825 951;
837 930 377; 838 932 375; 839 948 952; 840 953 954; 841 340 955; 842 942 956;
843 957 719; 844 931 958; 845 721 959; 846 477 960; 847 957 961; 848 958 962;
849 960 963; 850 958 964; 851 958 619; 852 960 621; 853 960 965; 854 958 966;
855 584 967; 856 968 969; 857 970 971; 858 972 973; 859 974 975; 860 974 976;
861 977 978; 862 979 980; 863 972 981; 864 584 982; 865 972 983; 866 984 218;

867 288 985; 868 96 986; 869 986 987; 870 984 988; 871 92 989; 872 989 990;
873 986 991; 874 288 992; 875 993 994; 876 8 995; 877 996 997; 878 998 999;
879 1000 1001; 880 998 1002; 881 1003 1004; 882 1000 1005; 883 1003 1006;
884 1007 1008; 885 1009 1010; 886 1007 1011; 887 1012 464; 888 984 1013;
889 534 1014; 890 1012 534; 891 288 1015; 892 1013 1012; 893 1015 534;
894 1013 5123; 895 1015 5129; 896 336 5128; 897 337 5121; 898 1016 5127;
899 1017 5124; 900 1013 382; 901 1015 380; 902 998 5193; 903 1003 5194;
904 1018 1019; 905 1020 1021; 906 1018 1022; 907 1023 1024; 908 1017 5154;
909 1018 5173; 910 1025 708; 911 1012 1026; 912 778 1027; 913 534 1028;
914 778 1025; 915 1026 1025; 916 1026 626; 917 1028 778; 918 1026 5132;
919 1028 624; 920 1028 5138; 921 1026 5130; 922 581 5133; 923 1029 5136;
924 1030 5137; 925 1020 5235; 926 1023 5236; 927 1031 1032; 928 1033 1034;
929 1031 1035; 930 1036 1037; 931 1036 5214; 932 1031 5215; 933 984 1038;
934 2009 1042; 935 2011 1040; 936 1039 1043; 937 1045 1046; 938 1047 1048;
939 1049 1050; 940 258 1051; 941 1045 1052; 942 1053 1054; 943 1049 1055;
944 1047 1056; 945 1049 1057; 946 1058 1059; 947 1060 5249; 948 1062 5247;
949 1064 5240; 950 188 5280; 951 1061 5243; 952 1063 5242; 953 1053 5279;
954 504 4324; 955 1065 1066; 956 1062 5308; 957 1063 5307; 958 1068 5253;
959 1067 5259; 960 1069 5257; 961 1071 5250; 962 1070 5252; 963 1071 5349;
964 1065 5330; 965 748 5371; 966 1072 1073; 967 1074 1075; 968 1075 1076;
969 1077 925; 970 1058 1078; 971 1078 1079; 972 1080 1081; 973 1007 1082;
974 1082 1083; 975 1084 1009; 976 1085 2; 977 167 1086; 978 332 1085;
979 227 1087; 980 195 1088; 981 1086 1089; 982 1088 1090; 983 1089 18;
984 1090 114; 985 175 1091; 986 1091 1092; 987 1092 114; 988 240 1093;
989 1094 1095; 990 1093 22; 991 1096 1097; 992 176 1098; 993 1098 1099;
994 1099 116; 995 247 1100; 996 1101 1102; 997 1100 30; 998 1103 1104;
999 182 1105; 1000 1105 1106; 1001 1106 118; 1002 249 1109; 1003 1110 1111;
1004 1109 34; 1005 1112 1113; 1006 1107 1115; 1007 1116 1117; 1008 1115 38;
1009 1118 1119; 1010 1114 1121; 1011 1122 1123; 1012 1121 42; 1013 1124 1125;
1014 1120 1127; 1015 1128 1129; 1016 1127 46; 1017 1130 1131; 1018 1126 1133;
1019 1134 1135; 1020 1133 50; 1021 1136 1137; 1022 1132 1140; 1023 1141 1142;
1024 1140 54; 1025 1143 1144; 1026 1138 1146; 1027 1147 1148; 1028 1146 58;
1029 1149 1150; 1030 1145 1152; 1031 1153 1154; 1032 1152 62; 1033 1155 1156;
1034 1151 1158; 1035 1159 1160; 1036 1158 66; 1037 1161 1162; 1038 1157 1164;
1039 1165 1166; 1040 1164 70; 1041 1167 1168; 1042 1163 1169; 1043 1170 1171;
1044 1169 26; 1045 1172 1173; 1046 179 1174; 1047 1174 1175; 1048 1175 140;
1049 281 1176; 1050 1177 140; 1051 1176 1178; 1052 1179 1177; 1053 1178 4;
1054 282 1179; 1055 168 1180; 1056 1180 1181; 1057 1182 1181; 1058 174 74;
1059 1183 173; 1060 826 1183; 1061 1184 825; 1062 1185 198; 1063 239 1185;
1064 1095 114; 1065 199 1186; 1066 1097 1094; 1067 1186 1187; 1068 241 1096;
1069 1187 1188; 1070 242 1188; 1071 243 1101; 1072 1189 1188; 1073 1102 1103;
1074 1190 1189; 1075 1104 118; 1076 246 1190; 1077 244 245; 1078 1111 118;
1079 1191 245; 1080 1113 1110; 1081 1192 1191; 1082 248 1112; 1083 251 1192;
1084 1108 1116; 1085 1193 250; 1086 1117 1118; 1087 1194 1193; 1088 1119 122;
1089 253 1194; 1090 1123 122; 1091 1195 252; 1092 1125 1122; 1093 1196 1195;
1094 254 1124; 1095 256 1196; 1096 1129 124; 1097 1197 255; 1098 1131 1128;
1099 1198 1199; 1100 257 1130; 1101 259 1198; 1102 1135 126; 1103 1137 1134;
1104 260 1136; 1105 1142 128; 1106 1202 261; 1107 1144 1141; 1108 1203 1202;
1109 263 1143; 1110 265 1203; 1111 1139 1147; 1112 1204 264; 1113 1148 1149;
1114 1205 1204; 1115 1150 132; 1116 267 1205; 1117 1154 132; 1118 1206 266;
1119 1156 1153; 1120 1207 1206; 1121 268 1155; 1122 271 1207; 1123 1160 134;
1124 1208 270; 1125 1162 1159; 1126 1209 1208; 1127 269 1161; 1128 273 1209;
1129 1166 136; 1130 1210 272; 1131 1168 1165; 1132 1211 1210; 1133 274 1167;
1134 276 1211; 1135 278 1214; 1136 1214 279; 1137 999 1215; 1138 1216 998;
1139 285 1216; 1140 283 284; 1141 207 88; 1142 1087 74; 1143 212 1217;
1144 204 1217; 1145 230 1217; 1146 228 822; 1147 1218 834; 1148 836 16;
1149 839 16; 1150 835 14; 1151 837 838; 1152 201 1184; 1153 203 1219;
1154 927 834; 1155 928 832; 1156 926 1074; 1157 1220 1074; 1158 1221 925;
1159 1222 1220; 1160 1223 1221; 1161 1224 1222; 1162 1225 1223; 1163 1226 1224;
1164 1227 1225; 1165 1228 1226; 1166 1229 1227; 1167 1230 1228; 1168 1231 1229;
1169 842 1230; 1170 841 1231; 1171 1233 830; 1172 1234 827; 1173 1235 1233;
1174 1236 1234; 1175 1237 1235; 1176 1238 1236; 1177 1239 1237; 1178 1240 1238;
1179 1241 1239; 1180 1242 1240; 1181 1243 1241; 1182 1244 1242; 1183 844 1243;
1184 843 1244; 1185 1076 1077; 1186 223 1181; 1187 286 1182; 1188 225 219;
1189 220 76; 1190 287 216; 1191 985 284; 1192 1245 1246; 1193 1046 1049;
1194 1246 1041; 1195 1050 1047; 1196 1043 1245; 1197 1048 1039; 1198 1247 1053;
1199 1051 3950; 1200 1248 1247; 1201 1249 1248; 1202 1250 1249; 1203 1251 1250;
1204 1252 1251; 1205 1055 1252; 1206 1253 258; 1207 1254 1253; 1208 1255 1254;
1209 1256 1255; 1210 1257 1256; 1211 1258 1257; 1212 1052 1258; 1213 1259 1081;
1214 1059 1081; 1215 1260 1259; 1216 1261 1260; 1217 1262 1261; 1218 1263 1262;
1219 1264 1263; 1220 1056 1264; 1221 1265 1058; 1222 1266 1265; 1223 1267 1266;
1224 1268 1267; 1225 1269 1268; 1226 1270 1269; 1227 1057 1270; 1228 312 1271;
1229 1271 1272; 1230 1272 255; 1231 1079 1080; 1232 1273 261; 1233 262 1201;
1234 304 1273; 1235 1054 5277; 1236 988 986; 1237 1038 1277; 1238 991 993;
1239 1277 1278; 1240 1278 288; 1241 994 989; 1242 992 989; 1243 987 8;
1244 995 996; 1245 997 6; 1246 990 6; 1247 1279 996; 1248 1280 8;
1249 1281 1279; 1250 1282 1280; 1251 1283 1281; 1252 1284 1282; 1253 1285 1283;
1254 1286 1284; 1255 1287 1285; 1256 1288 1286; 1257 1289 1287; 1258 1290 1288;
1259 1006 1289; 1260 1005 1290; 1261 1004 1000; 1262 1291 6; 1263 1292 996;
1264 1293 1291; 1265 1294 1292; 1266 1295 1293; 1267 1296 1294; 1268 1297 1295;
1269 1298 1296; 1270 1299 1297; 1271 1300 1298; 1272 1301 1299; 1273 1302 1300;
1274 1008 1301; 1275 1010 1302; 1276 1011 1009; 1277 1303 231; 1278 1083 1084;

1279 293 1304; 1280 330 1305; 1281 1305 1306; 1282 1002 1003; 1283 1306 94;
1284 1215 94; 1285 170 196; 1286 224 291; 1287 290 102; 1288 222 196;
1289 226 221; 1290 289 984; 1291 1309 12; 1292 1310 208; 1293 236 1311;
1294 1312 1309; 1295 1311 1313; 1296 238 1312; 1297 1313 112; 1298 1314 20;
1299 1315 1314; 1300 237 1315; 1301 1316 20; 1302 1317 1318; 1303 323 1316;
1304 1319 1320; 1305 1321 24; 1306 1322 1321; 1307 322 1322; 1308 1323 24;
1309 1324 1325; 1310 325 1323; 1311 1326 1327; 1312 1328 32; 1313 1329 1328;
1314 324 1329; 1315 1330 32; 1316 1331 1332; 1317 326 1330; 1318 1333 1334;
1319 1335 36; 1320 1336 1337; 1321 328 1335; 1322 1338 1339; 1323 1340 40;
1324 1341 1342; 1325 327 1340; 1326 1343 1344; 1327 1345 44; 1328 1346 1347;
1329 311 1345; 1330 1348 1349; 1331 1350 48; 1332 1351 1352; 1333 309 1350;
1334 1353 1354; 1335 1355 52; 1336 1356 1357; 1337 307 1355; 1338 1358 1359;
1339 1360 56; 1340 1361 1362; 1341 305 1360; 1342 1363 1364; 1343 1365 60;
1344 1366 1367; 1345 302 1365; 1346 1368 1369; 1347 1370 64; 1348 1371 1372;
1349 300 1370; 1350 1373 1374; 1351 1375 68; 1352 1376 1377; 1353 298 1375;
1354 1378 1379; 1355 1380 72; 1356 1381 1382; 1357 296 1380; 1358 1383 1384;
1359 1387 28; 1360 1388 142; 1361 1389 1387; 1362 1390 1388; 1363 171 1389;
1364 197 1390; 1365 1391 10; 1366 331 1391; 1367 233 78; 1368 1392 232;
1369 828 1392; 1370 1219 827; 1371 1318 112; 1372 319 1394; 1373 1320 1317;
1374 1394 1395; 1375 320 1319; 1376 1395 177; 1377 178 166; 1378 1325 166;
1379 317 1396; 1380 1327 1324; 1381 1396 1397; 1382 318 1326; 1383 1397 183;
1384 184 164; 1385 185 1398; 1386 1332 164; 1387 315 1399; 1388 1334 1331;
1389 1399 1400; 1390 316 1333; 1391 1400 185; 1392 186 1401; 1393 1337 162;
1394 1398 1402; 1395 1339 1336; 1396 1402 1403; 1397 314 1338; 1398 1403 186;
1399 187 1404; 1400 1342 160; 1401 1401 1405; 1402 1344 1341; 1403 1405 1406;
1404 313 1343; 1405 1406 187; 1406 188 1276; 1407 1347 158; 1408 1404 1407;
1409 1349 1346; 1410 1408 1409; 1411 310 1348; 1412 1409 188; 1413 189 1410;
1414 1352 156; 1415 1276 1275; 1416 1354 1351; 1417 308 1353; 1418 190 1411;
1419 1357 154; 1420 1410 1412; 1421 1359 1356; 1422 1412 1413; 1423 306 1358;
1424 1413 190; 1425 191 1414; 1426 1362 152; 1427 1411 1415; 1428 1364 1361;
1429 1415 1416; 1430 303 1363; 1431 1416 191; 1432 192 1417; 1433 1367 150;
1434 1414 1418; 1435 1369 1366; 1436 1418 1419; 1437 301 1368; 1438 1419 192;
1439 193 1420; 1440 1372 148; 1441 1417 1421; 1442 1374 1371; 1443 1421 1422;
1444 299 1373; 1445 1422 193; 1446 1377 146; 1447 1420 1423; 1448 1379 1376;
1449 1423 1424; 1450 297 1378; 1451 1424 194; 1452 1382 144; 1453 1425 194;
1454 1384 1381; 1455 1426 1425; 1456 295 1383; 1457 200 1426; 1458 1427 142;
1459 181 1427; 1460 1304 1000; 1461 1001 1428; 1462 1428 169; 1463 209 90;
1464 234 1310; 1465 205 1429; 1466 214 1429; 1467 823 232; 1468 1430 84;
1469 329 1431; 1470 1431 1430; 1471 829 830; 1472 824 831; 1473 831 1303;
1474 1432 334; 1475 414 1433; 1476 577 1432; 1477 473 1434; 1478 442 1435;
1479 1433 1436; 1480 1435 1437; 1481 1436 342; 1482 1437 387; 1483 422 1438;
1484 1438 1439; 1485 1439 387; 1486 486 1440; 1487 1441 1442; 1488 1440 344;
1489 1443 1444; 1490 423 1445; 1491 1445 1446; 1492 1446 388; 1493 493 1447;
1494 1448 1449; 1495 1447 348; 1496 1450 1451; 1497 429 1452; 1498 1452 1453;
1499 1453 389; 1500 495 1456; 1501 1457 1458; 1502 1456 350; 1503 1459 1460;
1504 1454 1462; 1505 1463 1464; 1506 1462 352; 1507 1465 1466; 1508 1461 1468;
1509 1469 1470; 1510 1468 354; 1511 1471 1472; 1512 1467 1474; 1513 1475 1476;
1514 1474 356; 1515 1477 1478; 1516 1473 1480; 1517 1481 1482; 1518 1480 358;
1519 1483 1484; 1520 1479 1487; 1521 1488 1489; 1522 1487 360; 1523 1490 1491;
1524 1485 1493; 1525 1494 1495; 1526 1493 362; 1527 1496 1497; 1528 1492 1499;
1529 1500 1501; 1530 1499 364; 1531 1502 1503; 1532 1498 1505; 1533 1506 1507;
1534 1505 366; 1535 1508 1509; 1536 1504 1511; 1537 1512 1513; 1538 1511 368;
1539 1514 1515; 1540 1510 1516; 1541 1517 1518; 1542 1516 346; 1543 1519 1520;
1544 426 1521; 1545 1521 1522; 1546 1522 400; 1547 527 1523; 1548 1524 400;
1549 1523 1525; 1550 1526 1524; 1551 1525 335; 1552 528 1526; 1553 415 1527;
1554 1527 1528; 1555 1529 1528; 1556 421 370; 1557 1530 420; 1558 947 1530;
1559 1531 946; 1560 1532 444; 1561 485 1532; 1562 1442 387; 1563 445 1533;
1564 1444 1441; 1565 1533 1534; 1566 487 1443; 1567 1534 1535; 1568 488 1535;
1569 489 1448; 1570 1536 1535; 1571 1449 1450; 1572 1537 1536; 1573 1451 389;
1574 492 1537; 1575 490 491; 1576 1458 389; 1577 1538 491; 1578 1460 1457;
1579 1539 1538; 1580 494 1459; 1581 497 1539; 1582 1455 1463; 1583 1540 496;
1584 1464 1465; 1585 1541 1540; 1586 1466 391; 1587 499 1541; 1588 1470 391;
1589 1542 498; 1590 1472 1469; 1591 1543 1542; 1592 500 1471; 1593 502 1543;
1594 1476 392; 1595 1544 501; 1596 1478 1475; 1597 1545 1546; 1598 503 1477;
1599 505 1545; 1600 1482 393; 1601 1484 1481; 1602 506 1483; 1603 1489 394;
1604 1549 507; 1605 1491 1488; 1606 1550 1549; 1607 509 1490; 1608 511 1550;
1609 1486 1494; 1610 1551 510; 1611 1495 1496; 1612 1552 1551; 1613 1497 396;
1614 513 1552; 1615 1501 396; 1616 1553 512; 1617 1503 1500; 1618 1554 1553;
1619 514 1502; 1620 517 1554; 1621 1507 397; 1622 1555 516; 1623 1509 1506;
1624 1556 1555; 1625 515 1508; 1626 519 1556; 1627 1513 398; 1628 1557 518;
1629 1515 1512; 1630 1558 1557; 1631 520 1514; 1632 522 1558; 1633 524 1561;
1634 1561 525; 1635 1021 1562; 1636 1563 1020; 1637 531 1563; 1638 529 530;
1639 453 378; 1640 1434 370; 1641 458 1564; 1642 450 1564; 1643 476 1564;
1644 474 931; 1645 447 1531; 1646 449 1565; 1647 469 1528; 1648 532 1529;
1649 471 465; 1650 466 371; 1651 533 462; 1652 1014 530; 1653 1566 507;
1654 508 1548; 1655 550 1566; 1656 1066 5328; 1657 1022 1023; 1658 539 1570;
1659 575 1571; 1660 1571 1572; 1661 1024 1020; 1662 1572 381; 1663 1562 381;
1664 417 372; 1665 470 537; 1666 536 385; 1667 468 372; 1668 472 467;
1669 535 1012; 1670 1575 339; 1671 1576 454; 1672 482 1577; 1673 1578 1575;
1674 1577 1579; 1675 484 1578; 1676 1579 386; 1677 1580 343; 1678 1581 1580;
1679 483 1581; 1680 1582 343; 1681 1583 1584; 1682 568 1582; 1683 1585 1586;
1684 1587 345; 1685 1588 1587; 1686 567 1588; 1687 1589 345; 1688 1590 1591;

1689 570 1589; 1690 1592 1593; 1691 1594 349; 1692 1595 1594; 1693 569 1595;
1694 1596 349; 1695 1597 1598; 1696 571 1596; 1697 1599 1600; 1698 1601 351;
1699 1602 1603; 1700 573 1601; 1701 1604 1605; 1702 1606 353; 1703 1607 1608;
1704 572 1606; 1705 1609 1610; 1706 1611 355; 1707 1612 1613; 1708 557 1611;
1709 1614 1615; 1710 1616 357; 1711 1617 1618; 1712 555 1616; 1713 1619 1620;
1714 1621 359; 1715 1622 1623; 1716 553 1621; 1717 1624 1625; 1718 1626 361;
1719 1627 1628; 1720 551 1626; 1721 1629 1630; 1722 1631 363; 1723 1632 1633;
1724 548 1631; 1725 1634 1635; 1726 1636 365; 1727 1637 1638; 1728 546 1636;
1729 1639 1640; 1730 1641 367; 1731 1642 1643; 1732 544 1641; 1733 1644 1645;
1734 1646 369; 1735 1647 1648; 1736 542 1646; 1737 1649 1650; 1738 1653 347;
1739 1654 401; 1740 1655 1653; 1741 1656 1654; 1742 418 1655; 1743 443 1656;
1744 1657 338; 1745 576 1657; 1746 479 373; 1747 1658 478; 1748 949 1658;
1749 1565 948; 1750 1584 386; 1751 564 1660; 1752 1586 1583; 1753 1660 1661;
1754 565 1585; 1755 1661 424; 1756 425 413; 1757 1591 413; 1758 562 1662;
1759 1593 1590; 1760 1662 1663; 1761 563 1592; 1762 1663 430; 1763 431 412;
1764 432 1664; 1765 1598 412; 1766 560 1665; 1767 1600 1597; 1768 1665 1666;
1769 561 1599; 1770 1666 432; 1771 433 1667; 1772 1603 411; 1773 1664 1668;
1774 1605 1602; 1775 1668 1669; 1776 559 1604; 1777 1669 433; 1778 434 1670;
1779 1608 410; 1780 1667 1671; 1781 1610 1607; 1782 1671 1672; 1783 558 1609;
1784 1672 434; 1785 435 1569; 1786 1613 409; 1787 1670 1673; 1788 1615 1612;
1789 1674 1675; 1790 556 1614; 1791 1675 435; 1792 436 1676; 1793 1618 408;
1794 1569 1568; 1795 1620 1617; 1796 554 1619; 1797 437 1677; 1798 1623 407;
1799 1676 1678; 1800 1625 1622; 1801 1678 1679; 1802 552 1624; 1803 1679 437;
1804 438 1680; 1805 1628 406; 1806 1677 1681; 1807 1630 1627; 1808 1681 1682;
1809 549 1629; 1810 1682 438; 1811 439 1683; 1812 1633 405; 1813 1680 1684;
1814 1635 1632; 1815 1684 1685; 1816 547 1634; 1817 1685 439; 1818 440 1686;
1819 1638 404; 1820 1683 1687; 1821 1640 1637; 1822 1687 1688; 1823 545 1639;
1824 1688 440; 1825 1643 403; 1826 1686 1689; 1827 1645 1642; 1828 1689 1690;
1829 543 1644; 1830 1690 441; 1831 1648 402; 1832 1691 441; 1833 1650 1647;
1834 1692 1691; 1835 541 1649; 1836 446 1692; 1837 1693 401; 1838 428 1693;
1839 1570 1018; 1840 1019 1694; 1841 1694 416; 1842 455 379; 1843 480 1576;
1844 451 1695; 1845 460 1695; 1846 929 478; 1847 1696 376; 1848 952 953;
1849 1697 1696; 1850 574 1697; 1851 954 946; 1852 1698 578; 1853 658 1699;
1854 821 1698; 1855 717 1700; 1856 686 1701; 1857 1699 1702; 1858 1701 1703;
1859 1702 586; 1860 1703 631; 1861 666 1704; 1862 1704 1705; 1863 1705 631;
1864 730 1706; 1865 1707 1708; 1866 1706 588; 1867 1709 1710; 1868 667 1711;
1869 1711 1712; 1870 1712 632; 1871 737 1713; 1872 1714 1715; 1873 1713 592;
1874 1716 1717; 1875 673 1718; 1876 1718 1719; 1877 1719 633; 1878 739 1722;
1879 1723 1724; 1880 1722 594; 1881 1725 1726; 1882 1720 1728; 1883 1729 1730;
1884 1728 596; 1885 1731 1732; 1886 1727 1734; 1887 1735 1736; 1888 1734 598;
1889 1737 1738; 1890 1733 1740; 1891 1741 1742; 1892 1740 600; 1893 1743 1744;
1894 1739 1746; 1895 1747 1748; 1896 1746 602; 1897 1749 1750; 1898 1745 1753;
1899 1754 1755; 1900 1753 604; 1901 1756 1757; 1902 1751 1759; 1903 1760 1761;
1904 1759 606; 1905 1762 1763; 1906 1758 1765; 1907 1766 1767; 1908 1765 608;
1909 1768 1769; 1910 1764 1771; 1911 1772 1773; 1912 1771 610; 1913 1774 1775;
1914 1770 1777; 1915 1778 1779; 1916 1777 612; 1917 1780 1781; 1918 1776 1782;
1919 1783 1784; 1920 1782 590; 1921 1785 1786; 1922 670 1787; 1923 1787 1788;
1924 1788 644; 1925 771 1789; 1926 1790 644; 1927 1789 1791; 1928 1792 1790;
1929 1791 579; 1930 772 1792; 1931 659 1793; 1932 1793 1794; 1933 1795 1794;
1934 665 614; 1935 1796 664; 1936 978 3738; 1937 1797 977; 1938 1798 688;
1939 729 1798; 1940 1708 631; 1941 689 1799; 1942 1710 1707; 1943 1799 1800;
1944 731 1709; 1945 1800 1801; 1946 732 1801; 1947 733 1714; 1948 1802 1801;
1949 1715 1716; 1950 1803 1802; 1951 1717 633; 1952 736 1803; 1953 734 735;
1954 1724 633; 1955 1804 735; 1956 1726 1723; 1957 1805 1804; 1958 738 1725;
1959 741 1805; 1960 1721 1729; 1961 1806 740; 1962 1730 1731; 1963 1807 1806;
1964 1732 635; 1965 743 1807; 1966 1736 635; 1967 1808 742; 1968 1738 1735;
1969 1809 1808; 1970 744 1737; 1971 746 1809; 1972 1742 636; 1973 1810 745;
1974 1744 1741; 1975 1811 1812; 1976 747 1743; 1977 749 1811; 1978 1748 637;
1979 1750 1747; 1980 750 1749; 1981 1755 638; 1982 1815 751; 1983 1757 1754;
1984 1816 1815; 1985 753 1756; 1986 755 1816; 1987 1752 1760; 1988 1817 754;
1989 1761 1762; 1990 1818 1817; 1991 1763 640; 1992 757 1818; 1993 1767 640;
1994 1819 756; 1995 1769 1766; 1996 1820 1819; 1997 758 1768; 1998 761 1820;
1999 1773 641; 2000 1821 760; 2001 1775 1772; 2002 1822 1821; 2003 759 1774;
2004 763 1822; 2005 1779 642; 2006 1823 762; 2007 1781 1778; 2008 1824 1823;
2009 764 1780; 2010 766 1824; 2011 768 1827; 2012 1827 769; 2013 1034 1828;
2014 1829 1033; 2015 775 3743; 2016 773 774; 2017 697 622; 2018 1700 614;
2019 702 1830; 2020 694 1830; 2021 720 1830; 2022 718 957; 2023 691 1797;
2024 693 1831; 2025 713 1794; 2026 776 1795; 2027 715 709; 2028 710 615;
2029 777 706; 2030 1027 774; 2031 1832 751; 2032 752 1814; 2033 794 1832;
2034 1073 5372; 2035 1035 1036; 2036 783 1836; 2037 819 1837; 2038 1837 1838;
2039 1037 1033; 2040 1838 625; 2041 1828 625; 2042 661 616; 2043 714 781;
2044 780 629; 2045 712 616; 2046 716 711; 2047 779 1025; 2048 1841 583;
2049 1842 698; 2050 726 1843; 2051 1844 1841; 2052 1843 1845; 2053 728 1844;
2054 1845 630; 2055 1846 587; 2056 1847 1846; 2057 727 1847; 2058 1848 587;
2059 1849 1850; 2060 812 1848; 2061 1851 1852; 2062 1853 589; 2063 1854 1853;
2064 811 1854; 2065 1855 589; 2066 1856 1857; 2067 814 1855; 2068 1858 1859;
2069 1860 593; 2070 1861 1860; 2071 813 1861; 2072 1862 593; 2073 1863 1864;
2074 815 1862; 2075 1865 1866; 2076 1867 595; 2077 1868 1869; 2078 817 1867;
2079 1870 1871; 2080 1872 597; 2081 1873 1874; 2082 816 1872; 2083 1875 1876;
2084 1877 599; 2085 1878 1879; 2086 801 1877; 2087 1880 1881; 2088 1882 601;
2089 1883 1884; 2090 799 1882; 2091 1885 1886; 2092 1887 603; 2093 1888 1889;
2094 797 1887; 2095 1890 1891; 2096 1892 605; 2097 1893 1894; 2098 795 1892;

2099 1895 1896; 2100 1897 607; 2101 1898 1899; 2102 792 1897; 2103 1900 1901;
2104 1902 609; 2105 1903 1904; 2106 790 1902; 2107 1905 1906; 2108 1907 611;
2109 1908 1909; 2110 788 1907; 2111 1910 1911; 2112 1912 613; 2113 1913 1914;
2114 786 1912; 2115 1915 1916; 2116 1919 591; 2117 1920 645; 2118 1921 1919;
2119 1922 1920; 2120 662 1921; 2121 687 1922; 2122 1923 582; 2123 820 1923;
2124 723 617; 2125 1924 722; 2126 975 3737; 2127 1831 974; 2128 1850 630;
2129 808 1926; 2130 1852 1849; 2131 1926 1927; 2132 809 1851; 2133 1927 668;
2134 669 657; 2135 1857 657; 2136 806 1928; 2137 1859 1856; 2138 1928 1929;
2139 807 1858; 2140 1929 674; 2141 675 656; 2142 676 1930; 2143 1864 656;
2144 804 1931; 2145 1866 1863; 2146 1931 1932; 2147 805 1865; 2148 1932 676;
2149 677 1933; 2150 1869 655; 2151 1930 1934; 2152 1871 1868; 2153 1934 1935;
2154 803 1870; 2155 1935 677; 2156 678 1936; 2157 1874 654; 2158 1933 1937;
2159 1876 1873; 2160 1937 1938; 2161 802 1875; 2162 1938 678; 2163 679 1835;
2164 1879 653; 2165 1936 1939; 2166 1881 1878; 2167 1940 1941; 2168 800 1880;
2169 1941 679; 2170 680 1942; 2171 1884 652; 2172 1835 1834; 2173 1886 1883;
2174 798 1885; 2175 681 1943; 2176 1889 651; 2177 1942 1944; 2178 1891 1888;
2179 1944 1945; 2180 796 1890; 2181 1945 681; 2182 682 1946; 2183 1894 650;
2184 1943 1947; 2185 1896 1893; 2186 1947 1948; 2187 793 1895; 2188 1948 682;
2189 683 1949; 2190 1899 649; 2191 1946 1950; 2192 1901 1898; 2193 1950 1951;
2194 791 1900; 2195 1951 683; 2196 684 1952; 2197 1904 648; 2198 1949 1953;
2199 1906 1903; 2200 1953 1954; 2201 789 1905; 2202 1954 684; 2203 1909 647;
2204 1952 1955; 2205 1911 1908; 2206 1955 1956; 2207 787 1910; 2208 1956 685;
2209 1914 646; 2210 1957 685; 2211 1916 1913; 2212 1958 1957; 2213 785 1915;
2214 690 1958; 2215 1959 645; 2216 672 1959; 2217 1836 1031; 2218 1032 3744;
2219 1960 660; 2220 699 623; 2221 724 1842; 2222 695 1961; 2223 704 1961;
2224 959 722; 2225 1962 620; 2226 976 979; 2227 1963 1962; 2228 818 1963;
2229 980 977; 2230 1964 953; 2231 1965 1964; 2232 1967 1965; 2233 1968 1966;
2234 1969 1967; 2235 1970 1968; 2236 1971 1969; 2237 1972 1970; 2238 1973 1971;
2239 1974 1972; 2240 956 1973; 2241 955 1974; 2242 941 942; 2243 939 340;
2244 936 937; 2245 943 341; 2246 938 932; 2247 940 341; 2248 934 477;
2249 933 944; 2250 945 931; 2251 935 931; 2252 951 1975; 2253 1975 1976;
2254 1976 1977; 2255 1977 1978; 2256 1978 1979; 2257 1979 1980; 2258 1980 341;
2259 950 5093; 2260 1981 979; 2261 1982 974; 2262 1983 1981; 2263 1984 1982;
2264 1985 1983; 2265 1986 1984; 2266 1987 1985; 2267 1988 1986; 2268 1989 1987;
2269 1990 1988; 2270 1991 1989; 2271 1992 1990; 2272 983 1991; 2273 982 1992;
2274 967 972; 2275 1994 953; 2276 1993 1995; 2277 1996 1994; 2278 1995 1997;
2279 1998 1996; 2280 1997 1999; 2281 2000 1998; 2282 1999 2001; 2283 2002 2000;
2284 2001 2003; 2285 2004 2002; 2286 2003 585; 2287 981 2004; 2288 973 585;
2289 2005 585; 2290 2006 584; 2291 2007 2005; 2292 2008 2006; 2293 966 2007;
2294 965 2008; 2295 963 721; 2296 969 721; 2297 971 960; 2298 961 968;
2299 964 970; 2300 962 957; 2301 2013 5260; 2302 2012 5263; 2303 2010 5269;
2304 2014 5267; 2305 2015 5262; 2306 1069 5352; 2307 1070 5351; 2308 2015 5392;
2309 2013 5393; 2310 2015 5415; 2311 2014 5414; 2312 1041 1044; 2313 1047 2018;
2314 1045 2019; 2315 1199 1197; 2316 1062 1199; 2317 1407 1408; 2318 1064 1407;
2319 1546 1544; 2320 1069 1546; 2321 1673 1674; 2322 1071 1673; 2323 1812 1810;
2324 2014 1812; 2325 1939 1940; 2326 2013 1939; 2327 845 3109; 2328 846 2021;
2329 848 2022; 2330 849 2475; 2331 852 2025; 2332 853 2026; 2333 855 2027;
2334 2028 2029; 2335 857 2030; 2336 2031 2032; 2337 859 2033; 2338 2034 2035;
2339 861 3715; 2340 2036 922; 2341 863 3716; 2342 2037 921; 2343 865 3717;
2344 2011 920; 2345 867 3723; 2346 2038 919; 2347 869 3724; 2348 2039 918;
2349 871 3725; 2350 2040 917; 2351 873 3726; 2352 2041 916; 2353 875 3727;
2354 2042 915; 2355 877 3728; 2356 2043 914; 2357 879 3116; 2358 2044 5007;
2359 881 3110; 2360 883 2476; 2361 2047 2048; 2362 2031 2049; 2363 2047 885;
2364 881 2051; 2365 884 2052; 2366 2053 2054; 2367 2055 2056; 2368 886 888;
2369 889 2057; 2370 2058 2059; 2371 891 2060; 2372 893 2061; 2373 2062 2063;
2374 2064 2065; 2375 895 2066; 2376 896 2067; 2377 895 2068; 2378 2061 2069;
2379 891 893; 2380 2053 2070; 2381 852 2071; 2382 2072 2073; 2383 2058 3062;
2384 851 2075; 2385 884 2076; 2386 884 2465; 2387 897 2079; 2388 854 2080;
2389 898 2081; 2390 853 3120; 2391 899 3127; 2392 899 2084; 2393 899 2085;
2394 900 2086; 2395 2087 2088; 2396 855 2089; 2397 901 3142; 2398 859 3135;
2399 2092 2093; 2400 901 2092; 2401 2094 2095; 2402 902 2094; 2403 903 3157;
2404 903 2009; 2405 2009 2097; 2406 904 3166; 2407 904 2017; 2408 905 2100;
2409 905 2101; 2410 2101 2102; 2411 906 3181; 2412 906 2104; 2413 2104 2105;
2414 907 2106; 2415 2106 2107; 2416 908 2108; 2417 909 3205; 2418 908 2110;
2419 2110 2111; 2420 909 2112; 2421 2112 2113; 2422 910 2114; 2423 910 4936;
2424 2115 2116; 2425 911 3217; 2426 911 2118; 2427 2119 2120; 2428 857 2121;
2429 882 3112; 2430 882 2123; 2431 847 3090; 2432 892 2119; 2433 882 2125;
2434 2062 2126; 2435 2060 3091; 2436 848 2128; 2437 2064 2129; 2438 912 3025;
2439 858 3024; 2440 880 2500; 2441 913 2135; 2442 880 2136; 2443 878 3729;
2444 914 2965; 2445 878 2964; 2446 876 3730; 2447 915 2139; 2448 876 2919;
2449 874 3731; 2450 916 2890; 2451 2039 2142; 2452 874 2889; 2453 872 3732;
2454 917 2845; 2455 872 2844; 2456 870 3733; 2457 918 2146; 2458 870 2147;
2459 868 3734; 2460 919 2770; 2461 868 2769; 2462 866 3718; 2463 2011 2009;
2464 920 2725; 2465 921 2151; 2466 2034 2152; 2467 922 2650; 2468 2028 2154;
2469 923 2605; 2470 2050 2156; 2471 924 2575; 2472 924 2159; 2473 856 2574;
2474 923 2161; 2475 860 2604; 2476 922 3719; 2477 862 2649; 2478 866 2724;
2479 864 3720; 2480 864 2679; 2481 885 2166; 2482 2130 2167; 2483 2053 2168;
2484 894 2031; 2485 2072 886; 2486 2058 888; 2487 2169 845; 2488 2020 2170;
2489 2168 2169; 2490 2070 2171; 2491 2045 2172; 2492 2170 3114; 2493 2172 3115;
2494 2173 853; 2495 2174 898; 2496 2026 2175; 2497 2175 2176; 2498 2176 898;
2499 2082 3123; 2500 2178 2179; 2501 2177 3126; 2502 2180 3124; 2503 2027 2182;
2504 2182 2183; 2505 2183 899; 2506 2089 3129; 2507 2185 3130; 2508 2184 3132;

2509 2187 2188; 2510 2033 2189; 2511 2189 2190; 2512 2190 900; 2513 2091 3138;
2514 2194 2195; 2515 2193 3141; 2516 2196 3139; 2517 2191 2199; 2518 2200 2201;
2519 2199 3147; 2520 2202 3148; 2521 2198 3153; 2522 2206 2207; 2523 2205 3156;
2524 2208 2209; 2525 2204 3162; 2526 2212 2213; 2527 2211 3165; 2528 2214 3163;
2529 2210 3168; 2530 2218 2219; 2531 2217 869; 2532 2220 3172; 2533 2216 3177;
2534 2225 2226; 2535 2224 3180; 2536 2227 2228; 2537 2222 3186; 2538 2231 2232;
2539 2230 3189; 2540 2233 2234; 2541 2229 2236; 2542 2237 3193; 2543 2236 3195;
2544 2239 2240; 2545 2235 3201; 2546 2243 2244; 2547 2242 3204; 2548 2245 2246;
2549 2241 3210; 2550 2249 2250; 2551 2248 879; 2552 2251 3211; 2553 2247 3213;
2554 2254 2255; 2555 2253 3216; 2556 2256 2257; 2557 2030 2258; 2558 2258 2259;
2559 2259 911; 2560 2121 3218; 2561 2261 911; 2562 2260 2262; 2563 2263 3219;
2564 2262 3111; 2565 2122 2263; 2566 2021 2264; 2567 2264 2265; 2568 2266 2265;
2569 2025 881; 2570 2267 2268; 2571 2269 3069; 2572 2271 2047; 2573 2081 2271;
2574 2179 3121; 2575 2048 2272; 2576 2181 2178; 2577 2272 2273; 2578 2083 2180;
2579 2273 2274; 2580 2084 2274; 2581 2085 2185; 2582 2275 2274; 2583 2186 2187;
2584 2276 2275; 2585 2188 3133; 2586 2088 2276; 2587 2086 2087; 2588 2195 3136;
2589 2277 2087; 2590 2197 2194; 2591 2278 2277; 2592 2090 2196; 2593 2093 2278;
2594 2192 3145; 2595 2279 2092; 2596 2201 2202; 2597 2280 2279; 2598 2203 902;
2599 2095 2280; 2600 2207 3151; 2601 2281 2094; 2602 2209 3154; 2603 2282 2281;
2604 2096 2208; 2605 2097 2282; 2606 2213 3160; 2607 2283 2009; 2608 2215 2212;
2609 2284 2283; 2610 2098 2214; 2611 2099 2284; 2612 2219 904; 2613 2221 3169;
2614 2100 2220; 2615 2226 3175; 2616 2287 2101; 2617 2228 3178; 2618 2288 2287;
2619 2103 2227; 2620 2105 2288; 2621 2223 2231; 2622 2289 2104; 2623 2232 3187;
2624 2290 2289; 2625 2234 3190; 2626 2107 2290; 2627 2238 907; 2628 2291 2106;
2629 2240 2237; 2630 2292 2291; 2631 2108 3196; 2632 2111 2292; 2633 2244 3199;
2634 2293 2110; 2635 2246 3202; 2636 2294 2293; 2637 2109 2245; 2638 2113 2294;
2639 2250 3208; 2640 2295 2112; 2641 2252 2249; 2642 2296 2295; 2643 2114 2251;
2644 2116 2296; 2645 2118 2299; 2646 2299 2119; 2647 2300 2301; 2648 2123 847;
2649 2054 889; 2650 2171 881; 2651 2057 2302; 2652 2051 2302; 2653 2073 2302;
2654 2303 3061; 2655 2066 2265; 2656 2125 2266; 2657 2068 2062; 2658 2063 882;
2659 2126 2060; 2660 2127 2304; 2661 2305 2101; 2662 2102 2286; 2663 2142 2305;
2664 2022 883; 2665 2067 2130; 2666 2129 896; 2667 2065 883; 2668 2069 2064;
2669 2310 3092; 2670 2312 2464; 2671 2313 2055; 2672 2078 2314; 2673 2315 2312;
2674 2314 2491; 2675 2080 2490; 2676 2316 897; 2677 2317 854; 2678 2318 2317;
2679 2079 2318; 2680 2319 2544; 2681 2320 2321; 2682 2160 2559; 2683 2322 2560;
2684 2324 856; 2685 2325 2324; 2686 2159 2325; 2687 2326 856; 2688 2327 2328;
2689 2162 2589; 2690 2329 2330; 2691 2331 860; 2692 2332 2331; 2693 2161 2332;
2694 2333 2619; 2695 2334 2335; 2696 2163 2634; 2697 2336 2635; 2698 2338 2664;
2699 2339 2665; 2700 2165 2338; 2701 2341 2342; 2702 2343 2694; 2703 2344 2345;
2704 2164 2709; 2705 2346 2347; 2706 2348 2739; 2707 2349 2350; 2708 2149 2754;
2709 2351 2755; 2710 2353 868; 2711 2354 2355; 2712 2147 2799; 2713 2356 2800;
2714 2358 2814; 2715 2359 2360; 2716 2145 2829; 2717 2361 2362; 2718 2363 2859;
2719 2364 2365; 2720 2143 2874; 2721 2366 2875; 2722 2368 2904; 2723 2369 2905;
2724 2140 2368; 2725 2371 2372; 2726 2373 2934; 2727 2374 2375; 2728 2138 2949;
2729 2376 2377; 2730 2378 2979; 2731 2379 2380; 2732 2136 2994; 2733 2381 2995;
2734 2383 880; 2735 2384 2385; 2736 2134 3009; 2737 2386 2387; 2738 2390 858;
2739 2391 912; 2740 2392 3037; 2741 2393 3038; 2742 2023 2392; 2743 2046 2393;
2744 2394 849; 2745 2167 2394; 2746 2075 884; 2747 2395 2396; 2748 2397 3070;
2749 2321 2545; 2750 2156 2400; 2751 2323 2320; 2752 2400 2401; 2753 2157 2322;
2754 2401 2028; 2755 2029 924; 2756 2328 924; 2757 2154 2402; 2758 2330 2590;
2759 2402 2403; 2760 2155 2329; 2761 2403 2034; 2762 2035 923; 2763 2036 2404;
2764 2335 2620; 2765 2152 2405; 2766 2337 2334; 2767 2405 2406; 2768 2153 2336;
2769 2406 2036; 2770 2037 2407; 2771 2340 922; 2772 2404 2408; 2773 2342 2339;
2774 2408 2409; 2775 2151 2680; 2776 2409 2037; 2777 2345 2695; 2778 2407 2411;
2779 2347 2710; 2780 2411 2412; 2781 2150 2346; 2782 2412 2011; 2783 2038 2308;
2784 2350 2740; 2785 2410 2413; 2786 2352 2349; 2787 2413 2414; 2788 2148 2351;
2789 2414 2038; 2790 2355 919; 2791 2308 2307; 2792 2357 2785; 2793 2146 2356;
2794 2040 2416; 2795 2360 2815; 2796 2415 2417; 2797 2362 2830; 2798 2417 2418;
2799 2144 2361; 2800 2418 2040; 2801 2041 2419; 2802 2365 2860; 2803 2416 2420;
2804 2367 2364; 2805 2420 2421; 2806 2141 2366; 2807 2421 2041; 2808 2042 2422;
2809 2370 916; 2810 2419 2423; 2811 2372 2369; 2812 2423 2424; 2813 2139 2920;
2814 2424 2042; 2815 2043 2425; 2816 2375 2935; 2817 2422 2426; 2818 2377 2950;
2819 2426 2427; 2820 2137 2376; 2821 2427 2043; 2822 2380 2980; 2823 2425 2428;
2824 2382 2379; 2825 2428 2429; 2826 2135 2381; 2827 2429 2044; 2828 2385 913;
2829 2430 2044; 2830 2387 3010; 2831 2431 2430; 2832 2133 2386; 2833 2049 2431;
2834 2432 912; 2835 2032 2432; 2836 2433 3084; 2837 2435 2436; 2838 2056 890;
2839 2076 2313; 2840 2052 2437; 2841 2059 2437; 2842 2074 2438; 2843 2439 887;
2844 2440 2439; 2845 2166 2440; 2846 885 4885; 2847 2442 4888; 2848 887 4886;
2849 2445 4889; 2850 2441 2442; 2851 2444 2445; 2852 2443 2269; 2853 2446 2397;
2854 2270 2267; 2855 2398 2395; 2856 2268 3068; 2857 2396 3067; 2858 2071 2303;
2859 2438 851; 2860 892 2447; 2861 892 4897; 2862 2449 4891; 2863 894 4887;
2864 2452 4892; 2865 2304 847; 2866 2128 2310; 2867 2124 2300; 2868 2436 3089;
2869 2301 3083; 2870 2434 2435; 2871 2450 2454; 2872 2453 2433; 2873 2448 2449;
2874 2451 2452; 2875 2447 2455; 2876 2455 2456; 2877 2456 894; 2878 2017 2016;
2879 2016 4896; 2880 2457 2458; 2881 2459 5425; 2882 2460 2469; 2883 2461 2462;
2884 2462 2463; 2885 2463 6640; 2886 2464 2460; 2887 2465 2463; 2888 2459 2466;
2889 2466 2467; 2890 2459 2461; 2891 2461 2468; 2892 2469 2467; 2893 2462 2468;
2894 2469 2470; 2895 2462 2471; 2896 2472 5809; 2897 2473 2481; 2898 2474 6317;
2899 2475 2473; 2900 2476 2474; 2901 2472 2477; 2902 2477 2478; 2903 2472 2479;
2904 2479 2480; 2905 2481 2478; 2906 2482 2480; 2907 2481 2483; 2908 2482 2484;
2909 2485 2486; 2910 2487 2493; 2911 2488 2496; 2912 2489 2499; 2913 2490 2488;
2914 2491 2489; 2915 2487 2492; 2916 2492 2493; 2917 2487 2494; 2918 2494 2495;

2919 2496 2493; 2920 2497 2495; 2921 2496 2498; 2922 2497 2499; 2923 2500 2501;
2924 2502 2506; 2925 2503 2509; 2926 2504 2512; 2927 880 2503; 2928 913 2504;
2929 2502 2505; 2930 2505 2506; 2931 2502 2507; 2932 2507 2508; 2933 2509 2506;
2934 2510 2508; 2935 2509 2511; 2936 2510 2512; 2937 2513 2514; 2938 2515 5481;
2939 2516 2523; 2940 2517 6346; 2941 2518 2516; 2942 2357 2517; 2943 2515 2519;
2944 2519 2520; 2945 2515 2521; 2946 2521 2522; 2947 2523 2520; 2948 2524 2522;
2949 2523 2525; 2950 2524 2526; 2951 2318 2527; 2952 2528 2532; 2953 2529 2535;
2954 2530 2538; 2955 854 2529; 2956 897 2530; 2957 2528 2531; 2958 2531 2532;
2959 2528 2533; 2960 2533 2534; 2961 2535 2532; 2962 2536 2534; 2963 2535 2537;
2964 2536 2538; 2965 2539 2540; 2966 2541 2547; 2967 2542 2550; 2968 2543 2553;
2969 2544 2542; 2970 2545 2543; 2971 2541 2546; 2972 2546 2547; 2973 2541 2548;
2974 2548 2549; 2975 2550 2547; 2976 2551 2549; 2977 2550 2552; 2978 2551 2553;
2979 2554 2555; 2980 2556 2562; 2981 2557 2565; 2982 2558 2568; 2983 2559 2557;
2984 2560 2558; 2985 2556 2561; 2986 2561 2562; 2987 2556 2563; 2988 2563 2564;
2989 2565 2562; 2990 2566 2564; 2991 2565 2567; 2992 2566 2568; 2993 2569 2570;
2994 2571 2577; 2995 2572 2580; 2996 2573 2583; 2997 2574 2572; 2998 2575 2573;
2999 2571 2576; 3000 2576 2577; 3001 2571 2578; 3002 2578 2579; 3003 2580 2577;
3004 2581 2579; 3005 2580 2582; 3006 2581 2583; 3007 2584 2585; 3008 2586 2592;
3009 2587 2595; 3010 2588 2598; 3011 2589 2587; 3012 2590 2588; 3013 2586 2591;
3014 2591 2592; 3015 2586 2593; 3016 2593 2594; 3017 2595 2592; 3018 2596 2594;
3019 2595 2597; 3020 2596 2598; 3021 2599 2600; 3022 2601 2607; 3023 2602 2610;
3024 2603 2613; 3025 2604 2602; 3026 2605 2603; 3027 2601 2606; 3028 2606 2607;
3029 2601 2608; 3030 2608 2609; 3031 2610 2607; 3032 2611 2609; 3033 2610 2612;
3034 2611 2613; 3035 2614 2615; 3036 2616 2622; 3037 2617 2625; 3038 2618 2628;
3039 2619 2617; 3040 2620 2618; 3041 2616 2621; 3042 2621 2622; 3043 2616 2623;
3044 2623 2624; 3045 2625 2622; 3046 2626 2624; 3047 2625 2627; 3048 2626 2628;
3049 2629 2630; 3050 2631 2637; 3051 2632 2640; 3052 2633 2643; 3053 2634 2632;
3054 2635 2633; 3055 2631 2636; 3056 2636 2637; 3057 2631 2638; 3058 2638 2639;
3059 2640 2637; 3060 2641 2639; 3061 2640 2642; 3062 2641 2643; 3063 2644 2645;
3064 2646 2652; 3065 2647 2655; 3066 2648 2658; 3067 2649 2647; 3068 2650 2648;
3069 2646 2651; 3070 2651 2652; 3071 2646 2653; 3072 2653 2654; 3073 2655 2652;
3074 2656 2654; 3075 2655 2657; 3076 2656 2658; 3077 2659 2660; 3078 2661 2667;
3079 2662 2670; 3080 2663 2673; 3081 2664 2662; 3082 2665 2663; 3083 2661 2666;
3084 2666 2667; 3085 2661 2668; 3086 2668 2669; 3087 2670 2667; 3088 2671 2669;
3089 2670 2672; 3090 2671 2673; 3091 2674 2675; 3092 2676 2682; 3093 2677 2685;
3094 2678 2688; 3095 2679 2677; 3096 2680 2678; 3097 2676 2681; 3098 2681 2682;
3099 2676 2683; 3100 2683 2684; 3101 2685 2682; 3102 2686 2684; 3103 2685 2687;
3104 2686 2688; 3105 2689 2690; 3106 2691 2697; 3107 2692 2700; 3108 2693 2703;
3109 2694 2692; 3110 2695 2693; 3111 2691 2696; 3112 2696 2697; 3113 2691 2698;
3114 2698 2699; 3115 2700 2697; 3116 2701 2699; 3117 2700 2702; 3118 2701 2703;
3119 2704 2705; 3120 2706 2712; 3121 2707 2715; 3122 2708 2718; 3123 2709 2707;
3124 2710 2708; 3125 2706 2711; 3126 2711 2712; 3127 2706 2713; 3128 2713 2714;
3129 2715 2712; 3130 2716 2714; 3131 2715 2717; 3132 2716 2718; 3133 2719 2720;
3134 2721 2727; 3135 2722 2730; 3136 2723 2733; 3137 2724 2722; 3138 2725 2723;
3139 2721 2726; 3140 2726 2727; 3141 2721 2728; 3142 2728 2729; 3143 2730 2727;
3144 2731 2729; 3145 2730 2732; 3146 2731 2733; 3147 2734 2735; 3148 2736 2742;
3149 2737 2745; 3150 2738 2748; 3151 2739 2737; 3152 2740 2738; 3153 2736 2741;
3154 2741 2742; 3155 2736 2743; 3156 2743 2744; 3157 2745 2742; 3158 2746 2744;
3159 2745 2747; 3160 2746 2748; 3161 2749 2750; 3162 2751 2757; 3163 2752 2760;
3164 2753 2763; 3165 2754 2752; 3166 2755 2753; 3167 2751 2756; 3168 2756 2757;
3169 2751 2758; 3170 2758 2759; 3171 2760 2757; 3172 2761 2759; 3173 2760 2762;
3174 2761 2763; 3175 2764 2765; 3176 2766 2772; 3177 2767 2775; 3178 2768 2778;
3179 2769 2767; 3180 2770 2768; 3181 2766 2771; 3182 2771 2772; 3183 2766 2773;
3184 2773 2774; 3185 2775 2772; 3186 2776 2774; 3187 2775 2777; 3188 2776 2778;
3189 2779 2780; 3190 2781 2787; 3191 2782 2790; 3192 2783 2793; 3193 2784 2782;
3194 2785 2783; 3195 2781 2786; 3196 2786 2787; 3197 2781 2788; 3198 2788 2789;
3199 2790 2787; 3200 2791 2789; 3201 2790 2792; 3202 2791 2793; 3203 2794 2795;
3204 2796 2802; 3205 2797 2805; 3206 2798 2808; 3207 2799 2797; 3208 2800 2798;
3209 2796 2801; 3210 2801 2802; 3211 2796 2803; 3212 2803 2804; 3213 2805 2802;
3214 2806 2804; 3215 2805 2807; 3216 2806 2808; 3217 2809 2810; 3218 2811 2817;
3219 2812 2820; 3220 2813 2823; 3221 2814 2812; 3222 2815 2813; 3223 2811 2816;
3224 2816 2817; 3225 2811 2818; 3226 2818 2819; 3227 2820 2817; 3228 2821 2819;
3229 2820 2822; 3230 2821 2823; 3231 2824 2825; 3232 2826 2832; 3233 2827 2835;
3234 2828 2838; 3235 2829 2827; 3236 2830 2828; 3237 2826 2831; 3238 2831 2832;
3239 2826 2833; 3240 2833 2834; 3241 2835 2832; 3242 2836 2834; 3243 2835 2837;
3244 2836 2838; 3245 2839 2840; 3246 2841 2847; 3247 2842 2850; 3248 2843 2853;
3249 2844 2842; 3250 2845 2843; 3251 2841 2846; 3252 2846 2847; 3253 2841 2848;
3254 2848 2849; 3255 2850 2847; 3256 2851 2849; 3257 2850 2852; 3258 2851 2853;
3259 2854 2855; 3260 2856 2862; 3261 2857 2865; 3262 2858 2868; 3263 2859 2857;
3264 2860 2858; 3265 2856 2861; 3266 2861 2862; 3267 2856 2863; 3268 2863 2864;
3269 2865 2862; 3270 2866 2864; 3271 2865 2867; 3272 2866 2868; 3273 2869 2870;
3274 2871 2877; 3275 2872 2880; 3276 2873 2883; 3277 2874 2872; 3278 2875 2873;
3279 2871 2876; 3280 2876 2877; 3281 2871 2878; 3282 2878 2879; 3283 2880 2877;
3284 2881 2879; 3285 2880 2882; 3286 2881 2883; 3287 2884 2885; 3288 2886 2892;
3289 2887 2895; 3290 2888 2898; 3291 2889 2887; 3292 2890 2888; 3293 2886 2891;
3294 2891 2892; 3295 2886 2893; 3296 2893 2894; 3297 2895 2892; 3298 2896 2894;
3299 2895 2897; 3300 2896 2898; 3301 2899 2900; 3302 2901 2907; 3303 2902 2910;
3304 2903 2913; 3305 2904 2902; 3306 2905 2903; 3307 2901 2906; 3308 2906 2907;
3309 2901 2908; 3310 2908 2909; 3311 2910 2907; 3312 2911 2909; 3313 2910 2912;
3314 2911 2913; 3315 2914 2915; 3316 2916 2922; 3317 2917 2925; 3318 2918 2928;
3319 2919 2917; 3320 2920 2918; 3321 2916 2921; 3322 2921 2922; 3323 2916 2923;
3324 2923 2924; 3325 2925 2922; 3326 2926 2924; 3327 2925 2927; 3328 2926 2928;

3329 2929 2930; 3330 2931 2937; 3331 2932 2940; 3332 2933 2943; 3333 2934 2932;
3334 2935 2933; 3335 2931 2936; 3336 2936 2937; 3337 2931 2938; 3338 2938 2939;
3339 2940 2937; 3340 2941 2939; 3341 2940 2942; 3342 2941 2943; 3343 2944 2945;
3344 2946 2952; 3345 2947 2955; 3346 2948 2958; 3347 2949 2947; 3348 2950 2948;
3349 2946 2951; 3350 2951 2952; 3351 2946 2953; 3352 2953 2954; 3353 2955 2952;
3354 2956 2954; 3355 2955 2957; 3356 2956 2958; 3357 2959 2960; 3358 2961 2967;
3359 2962 2970; 3360 2963 2973; 3361 2964 2962; 3362 2965 2963; 3363 2961 2966;
3364 2966 2967; 3365 2961 2968; 3366 2968 2969; 3367 2970 2967; 3368 2971 2969;
3369 2970 2972; 3370 2971 2973; 3371 2974 2975; 3372 2976 2982; 3373 2977 2985;
3374 2978 2988; 3375 2979 2977; 3376 2980 2978; 3377 2976 2981; 3378 2981 2982;
3379 2976 2983; 3380 2983 2984; 3381 2985 2982; 3382 2986 2984; 3383 2985 2987;
3384 2986 2988; 3385 2989 2990; 3386 2991 2997; 3387 2992 3000; 3388 2993 3003;
3389 2994 2992; 3390 2995 2993; 3391 2991 2996; 3392 2996 2997; 3393 2991 2998;
3394 2998 2999; 3395 3000 2997; 3396 3001 2999; 3397 3000 3002; 3398 3001 3003;
3399 3004 3005; 3400 3006 3012; 3401 3007 3015; 3402 3008 3018; 3403 3009 3007;
3404 3010 3008; 3405 3006 3011; 3406 3011 3012; 3407 3006 3013; 3408 3013 3014;
3409 3015 3012; 3410 3016 3014; 3411 3015 3017; 3412 3016 3018; 3413 3019 3020;
3414 3021 3027; 3415 3022 3030; 3416 3023 3033; 3417 3024 3022; 3418 3025 3023;
3419 3021 3026; 3420 3026 3027; 3421 3021 3028; 3422 3028 3029; 3423 3030 3027;
3424 3031 3029; 3425 3030 3032; 3426 3031 3033; 3427 3034 3040; 3428 3035 3043;
3429 3036 3046; 3430 3037 3035; 3431 3038 3036; 3432 3034 3039; 3433 3039 3040;
3434 3034 3041; 3435 3041 3042; 3436 3043 3040; 3437 3044 3042; 3438 3043 3045;
3439 3044 3046; 3440 3047 3051; 3441 3048 3054; 3442 3049 3057; 3443 858 3048;
3444 912 3049; 3445 3047 3050; 3446 3050 3051; 3447 3047 3052; 3448 3052 3053;
3449 3054 3051; 3450 3055 3053; 3451 3054 3056; 3452 3055 3057; 3453 2459 5423;
3454 2487 5428; 3455 2528 5432; 3456 2541 5434; 3457 2556 5436; 3458 2571 5440;
3459 2586 5442; 3460 2601 5446; 3461 2616 5448; 3462 2631 5452; 3463 2646 5454;
3464 2661 5458; 3465 2676 5460; 3466 2691 5464; 3467 2706 5466; 3468 2721 5470;
3469 2736 5472; 3470 2751 5476; 3471 2781 2515; 3472 2515 2796; 3473 2796 5752;
3474 3058 2811; 3475 2470 2498; 3476 2467 5575; 3477 2468 6522; 3478 2471 2499;
3479 2311 2457; 3480 2457 2485; 3481 2485 2318; 3482 2318 2539; 3483 2539 2554;
3484 2554 2569; 3485 2569 2325; 3486 2584 2599; 3487 2599 2332; 3488 2614 2629;
3489 2629 2644; 3490 2644 3719; 3491 2659 2674; 3492 2674 3720; 3493 2689 2704;
3494 2704 2719; 3495 2719 3718; 3496 2734 2749; 3497 2749 2764; 3498 2764 3734;
3499 2779 2513; 3500 2513 2794; 3501 2794 3733; 3502 2809 2824; 3503 3059 3060;
3504 3061 3065; 3505 3063 3078; 3506 3065 3072; 3507 3067 3078; 3508 3069 3066;
3509 3065 3756; 3510 3072 3757; 3511 3066 3758; 3512 3073 7916; 3513 3071 7986;
3514 3074 7934; 3515 3063 3753; 3516 3078 3755; 3517 3064 3754; 3518 3079 7919;
3519 3077 7982; 3520 3080 7937; 3521 3073 7915; 3522 3083 3087; 3523 3085 3100;
3524 3087 3094; 3525 3089 3100; 3526 3091 3088; 3527 3087 3759; 3528 3094 5416;
3529 3088 3762; 3530 3095 7949; 3531 3093 7993; 3532 3096 7967; 3533 3085 3760;
3534 3100 5417; 3535 3086 3761; 3536 3101 7952; 3537 3099 7990; 3538 3102 7970;
3539 3095 7948; 3540 2168 3105; 3541 3105 4898; 3542 3106 3107; 3543 2388 3108;
3544 3109 2020; 3545 3110 2045; 3546 3111 846; 3547 3112 2122; 3548 3113 4900;
3549 3114 2173; 3550 3115 2174; 3551 3116 910; 3552 3117 3170; 3553 3118 3171;
3554 3119 4901; 3555 3120 2082; 3556 3121 898; 3557 3122 4902; 3558 3123 2177;
3559 3124 2181; 3560 3125 2182; 3561 3126 855; 3562 3127 2083; 3563 3128 4904;
3564 3129 2184; 3565 3130 2186; 3566 3131 2189; 3567 3132 859; 3568 3133 900;
3569 3134 4905; 3570 3135 2091; 3571 3136 900; 3572 3137 4906; 3573 3138 2193;
3574 3139 2197; 3575 3140 3715; 3576 3141 861; 3577 3142 2090; 3578 3143 4907;
3579 3144 2191; 3580 3145 2200; 3581 3146 3716; 3582 3147 863; 3583 3148 2203;
3584 3149 4909; 3585 3150 2198; 3586 3151 902; 3587 3152 4910; 3588 3153 2205;
3589 3154 2206; 3590 3155 3717; 3591 3156 865; 3592 3157 2096; 3593 3158 4911;
3594 3159 2204; 3595 3160 903; 3596 3161 4912; 3597 3162 2211; 3598 3163 2215;
3599 3164 3723; 3600 3165 867; 3601 3166 2098; 3602 3167 3117; 3603 3168 3118;
3604 3169 2218; 3605 3170 4914; 3606 3171 2217; 3607 3172 2221; 3608 3173 4915;
3609 3174 2216; 3610 3175 905; 3611 3176 4916; 3612 3177 2224; 3613 3178 2225;
3614 3179 3725; 3615 3180 871; 3616 3181 2103; 3617 3182 4917; 3618 3183 2222;
3619 3184 2223; 3620 3185 4918; 3621 3186 2230; 3622 3187 2233; 3623 3188 3726;
3624 3189 873; 3625 3190 907; 3626 3191 4919; 3627 3192 2229; 3628 3193 2238;
3629 3194 3727; 3630 3195 875; 3631 3196 2239; 3632 3197 4921; 3633 3198 2235;
3634 3199 908; 3635 3200 4922; 3636 3201 2242; 3637 3202 2243; 3638 3203 3728;
3639 3204 877; 3640 3205 2109; 3641 3206 4923; 3642 3207 2241; 3643 3208 909;
3644 3209 4924; 3645 3210 2248; 3646 3211 2252; 3647 3212 4926; 3648 3213 2253;
3649 3214 2254; 3650 3215 2258; 3651 3216 857; 3652 3217 2117; 3653 3218 2260;
3654 3219 2261; 3655 3220 2264; 3656 3221 4928; 3657 3105 3222; 3658 3223 7650;
3659 3224 3231; 3660 3225 3226; 3661 3226 3227; 3662 3227 6940; 3663 3109 3224;
3664 3110 3227; 3665 3223 3228; 3666 3228 3229; 3667 3223 3225; 3668 3225 3230;
3669 3231 3229; 3670 3226 3230; 3671 3231 3232; 3672 3226 3233; 3673 3234 7321;
3674 3235 3241; 3675 3236 7291; 3676 3111 3235; 3677 3112 3236; 3678 3234 3237;
3679 3237 3238; 3680 3234 3239; 3681 3239 3240; 3682 3241 3238; 3683 3242 3240;
3684 3241 3243; 3685 3242 3244; 3686 3113 3245; 3687 3246 3250; 3688 3247 3253;
3689 3248 3256; 3690 3114 3247; 3691 3115 3248; 3692 3246 3249; 3693 3249 3250;
3694 3246 3251; 3695 3251 3252; 3696 3253 3250; 3697 3254 3252; 3698 3253 3255;
3699 3254 3256; 3700 3116 3257; 3701 3258 3262; 3702 3259 3265; 3703 3260 3268;
3704 879 3259; 3705 910 3260; 3706 3258 3261; 3707 3261 3262; 3708 3258 3263;
3709 3263 3264; 3710 3265 3262; 3711 3266 3264; 3712 3265 3267; 3713 3266 3268;
3714 3117 3269; 3715 3270 7350; 3716 3271 3277; 3717 3272 6969; 3718 3118 3271;
3719 2221 3272; 3720 3270 3273; 3721 3273 3274; 3722 3270 3275; 3723 3275 3276;
3724 3277 3274; 3725 3278 3276; 3726 3277 3279; 3727 3278 3280; 3728 2175 3281;
3729 3282 3286; 3730 3283 3289; 3731 3284 3292; 3732 853 3283; 3733 898 3284;
3734 3282 3285; 3735 3285 3286; 3736 3282 3287; 3737 3287 3288; 3738 3289 3286;

3739 3290 3288; 3740 3289 3291; 3741 3290 3292; 3742 3119 3293; 3743 3294 3298;
3744 3295 3301; 3745 3296 3304; 3746 3120 3295; 3747 3121 3296; 3748 3294 3297;
3749 3297 3298; 3750 3294 3299; 3751 3299 3300; 3752 3301 3298; 3753 3302 3300;
3754 3301 3303; 3755 3302 3304; 3756 3122 3305; 3757 3306 3310; 3758 3307 3313;
3759 3308 3316; 3760 3123 3307; 3761 3124 3308; 3762 3306 3309; 3763 3309 3310;
3764 3306 3311; 3765 3311 3312; 3766 3313 3310; 3767 3314 3312; 3768 3313 3315;
3769 3314 3316; 3770 3125 3317; 3771 3318 3322; 3772 3319 3325; 3773 3320 3328;
3774 3126 3319; 3775 3127 3320; 3776 3318 3321; 3777 3321 3322; 3778 3318 3323;
3779 3323 3324; 3780 3325 3322; 3781 3326 3324; 3782 3325 3327; 3783 3326 3328;
3784 3128 3329; 3785 3330 3334; 3786 3331 3337; 3787 3332 3340; 3788 3129 3331;
3789 3130 3332; 3790 3330 3333; 3791 3333 3334; 3792 3330 3335; 3793 3335 3336;
3794 3337 3334; 3795 3338 3336; 3796 3337 3339; 3797 3338 3340; 3798 3131 3341;
3799 3342 3346; 3800 3343 3349; 3801 3344 3352; 3802 3132 3343; 3803 3133 3344;
3804 3342 3345; 3805 3345 3346; 3806 3342 3347; 3807 3347 3348; 3808 3349 3346;
3809 3350 3348; 3810 3349 3351; 3811 3350 3352; 3812 3134 3353; 3813 3354 3358;
3814 3355 3361; 3815 3356 3364; 3816 3135 3355; 3817 3136 3356; 3818 3354 3357;
3819 3357 3358; 3820 3354 3359; 3821 3359 3360; 3822 3361 3358; 3823 3362 3360;
3824 3361 3363; 3825 3362 3364; 3826 3137 3365; 3827 3366 3370; 3828 3367 3373;
3829 3368 3376; 3830 3138 3367; 3831 3139 3368; 3832 3366 3369; 3833 3369 3370;
3834 3366 3371; 3835 3371 3372; 3836 3373 3370; 3837 3374 3372; 3838 3373 3375;
3839 3374 3376; 3840 3140 3377; 3841 3378 3382; 3842 3379 3385; 3843 3380 3388;
3844 3141 3379; 3845 3142 3380; 3846 3378 3381; 3847 3381 3382; 3848 3378 3383;
3849 3383 3384; 3850 3385 3382; 3851 3386 3384; 3852 3385 3387; 3853 3386 3388;
3854 3143 3389; 3855 3390 3394; 3856 3391 3397; 3857 3392 3400; 3858 3144 3391;
3859 3145 3392; 3860 3390 3393; 3861 3393 3394; 3862 3390 3395; 3863 3395 3396;
3864 3397 3394; 3865 3398 3396; 3866 3397 3399; 3867 3398 3400; 3868 3146 3401;
3869 3402 3406; 3870 3403 3409; 3871 3404 3412; 3872 3147 3403; 3873 3148 3404;
3874 3402 3405; 3875 3405 3406; 3876 3402 3407; 3877 3407 3408; 3878 3409 3406;
3879 3410 3408; 3880 3409 3411; 3881 3410 3412; 3882 3149 3413; 3883 3414 3418;
3884 3415 3421; 3885 3416 3424; 3886 3150 3415; 3887 3151 3416; 3888 3414 3417;
3889 3417 3418; 3890 3414 3419; 3891 3419 3420; 3892 3421 3418; 3893 3422 3420;
3894 3421 3423; 3895 3422 3424; 3896 3152 3425; 3897 3426 3430; 3898 3427 3433;
3899 3428 3436; 3900 3153 3427; 3901 3154 3428; 3902 3426 3429; 3903 3429 3430;
3904 3426 3431; 3905 3431 3432; 3906 3433 3430; 3907 3434 3432; 3908 3433 3435;
3909 3434 3436; 3910 3155 3437; 3911 3438 3442; 3912 3439 3445; 3913 3440 3448;
3914 3156 3439; 3915 3157 3440; 3916 3438 3441; 3917 3441 3442; 3918 3438 3443;
3919 3443 3444; 3920 3445 3442; 3921 3446 3444; 3922 3445 3447; 3923 3446 3448;
3924 3158 3449; 3925 3450 3454; 3926 3451 3457; 3927 3452 3460; 3928 3159 3451;
3929 3160 3452; 3930 3450 3453; 3931 3453 3454; 3932 3450 3455; 3933 3455 3456;
3934 3457 3454; 3935 3458 3456; 3936 3457 3459; 3937 3458 3460; 3938 3161 3461;
3939 3462 3466; 3940 3463 3469; 3941 3464 3472; 3942 3162 3463; 3943 3163 3464;
3944 3462 3465; 3945 3465 3466; 3946 3462 3467; 3947 3467 3468; 3948 3469 3466;
3949 3470 3468; 3950 3469 3471; 3951 3470 3472; 3952 3164 3473; 3953 3474 3478;
3954 3475 3481; 3955 3476 3484; 3956 3165 3475; 3957 3166 3476; 3958 3474 3477;
3959 3477 3478; 3960 3474 3479; 3961 3479 3480; 3962 3481 3478; 3963 3482 3480;
3964 3481 3483; 3965 3482 3484; 3966 3167 3485; 3967 3486 3490; 3968 3487 3493;
3969 3488 3496; 3970 3168 3487; 3971 3169 3488; 3972 3486 3489; 3973 3489 3490;
3974 3486 3491; 3975 3491 3492; 3976 3493 3490; 3977 3494 3492; 3978 3493 3495;
3979 3494 3496; 3980 3170 3497; 3981 3498 3502; 3982 3499 3505; 3983 3500 3508;
3984 3171 3499; 3985 3172 3500; 3986 3498 3501; 3987 3501 3502; 3988 3498 3503;
3989 3503 3504; 3990 3505 3502; 3991 3506 3504; 3992 3505 3507; 3993 3506 3508;
3994 3173 3509; 3995 3510 3514; 3996 3511 3517; 3997 3512 3520; 3998 3174 3511;
3999 3175 3512; 4000 3510 3513; 4001 3513 3514; 4002 3510 3515; 4003 3515 3516;
4004 3517 3514; 4005 3518 3516; 4006 3517 3519; 4007 3518 3520; 4008 3176 3521;
4009 3522 3526; 4010 3523 3529; 4011 3524 3532; 4012 3177 3523; 4013 3178 3524;
4014 3522 3525; 4015 3525 3526; 4016 3522 3527; 4017 3527 3528; 4018 3529 3526;
4019 3530 3528; 4020 3529 3531; 4021 3530 3532; 4022 3179 3533; 4023 3534 3538;
4024 3535 3541; 4025 3536 3544; 4026 3180 3535; 4027 3181 3536; 4028 3534 3537;
4029 3537 3538; 4030 3534 3539; 4031 3539 3540; 4032 3541 3538; 4033 3542 3540;
4034 3541 3543; 4035 3542 3544; 4036 3182 3545; 4037 3546 3550; 4038 3547 3553;
4039 3548 3556; 4040 3183 3547; 4041 3184 3548; 4042 3546 3549; 4043 3549 3550;
4044 3546 3551; 4045 3551 3552; 4046 3553 3550; 4047 3554 3552; 4048 3553 3555;
4049 3554 3556; 4050 3185 3557; 4051 3558 3562; 4052 3559 3565; 4053 3560 3568;
4054 3186 3559; 4055 3187 3560; 4056 3558 3561; 4057 3561 3562; 4058 3558 3563;
4059 3563 3564; 4060 3565 3562; 4061 3566 3564; 4062 3565 3567; 4063 3566 3568;
4064 3188 3569; 4065 3570 3574; 4066 3571 3577; 4067 3572 3580; 4068 3189 3571;
4069 3190 3572; 4070 3570 3573; 4071 3573 3574; 4072 3570 3575; 4073 3575 3576;
4074 3577 3574; 4075 3578 3576; 4076 3577 3579; 4077 3578 3580; 4078 3191 3581;
4079 3582 3586; 4080 3583 3589; 4081 3584 3592; 4082 3192 3583; 4083 3193 3584;
4084 3582 3585; 4085 3585 3586; 4086 3582 3587; 4087 3587 3588; 4088 3589 3586;
4089 3590 3588; 4090 3589 3591; 4091 3590 3592; 4092 3194 3593; 4093 3594 3598;
4094 3595 3601; 4095 3596 3604; 4096 3195 3595; 4097 3196 3596; 4098 3594 3597;
4099 3597 3598; 4100 3594 3599; 4101 3599 3600; 4102 3601 3598; 4103 3602 3600;
4104 3601 3603; 4105 3602 3604; 4106 3197 3605; 4107 3606 3610; 4108 3607 3613;
4109 3608 3616; 4110 3198 3607; 4111 3199 3608; 4112 3606 3609; 4113 3609 3610;
4114 3606 3611; 4115 3611 3612; 4116 3613 3610; 4117 3614 3612; 4118 3613 3615;
4119 3614 3616; 4120 3200 3617; 4121 3618 3622; 4122 3619 3625; 4123 3620 3628;
4124 3201 3619; 4125 3202 3620; 4126 3618 3621; 4127 3621 3622; 4128 3618 3623;
4129 3623 3624; 4130 3625 3622; 4131 3626 3624; 4132 3625 3627; 4133 3626 3628;
4134 3203 3629; 4135 3630 3634; 4136 3631 3637; 4137 3632 3640; 4138 3204 3631;
4139 3205 3632; 4140 3630 3633; 4141 3633 3634; 4142 3630 3635; 4143 3635 3636;
4144 3637 3634; 4145 3638 3636; 4146 3637 3639; 4147 3638 3640; 4148 3206 3641;

4149 3642 3646; 4150 3643 3649; 4151 3644 3652; 4152 3207 3643; 4153 3208 3644;
4154 3642 3645; 4155 3645 3646; 4156 3642 3647; 4157 3647 3648; 4158 3649 3646;
4159 3650 3648; 4160 3649 3651; 4161 3650 3652; 4162 3209 3653; 4163 3654 3658;
4164 3655 3661; 4165 3656 3664; 4166 3210 3655; 4167 3211 3656; 4168 3654 3657;
4169 3657 3658; 4170 3654 3659; 4171 3659 3660; 4172 3661 3658; 4173 3662 3660;
4174 3661 3663; 4175 3662 3664; 4176 3212 3665; 4177 3666 3670; 4178 3667 3673;
4179 3668 3676; 4180 3213 3667; 4181 3214 3668; 4182 3666 3669; 4183 3669 3670;
4184 3666 3671; 4185 3671 3672; 4186 3673 3670; 4187 3674 3672; 4188 3673 3675;
4189 3674 3676; 4190 3215 3677; 4191 3678 3682; 4192 3679 3685; 4193 3680 3688;
4194 3216 3679; 4195 3217 3680; 4196 3678 3681; 4197 3681 3682; 4198 3678 3683;
4199 3683 3684; 4200 3685 3682; 4201 3686 3684; 4202 3685 3687; 4203 3686 3688;
4204 3689 3693; 4205 3690 3696; 4206 3691 3699; 4207 3218 3690; 4208 3219 3691;
4209 3689 3692; 4210 3692 3693; 4211 3689 3694; 4212 3694 3695; 4213 3696 3693;
4214 3697 3695; 4215 3696 3698; 4216 3697 3699; 4217 3700 3704; 4218 3701 3707;
4219 3702 3710; 4220 857 3701; 4221 911 3702; 4222 3700 3703; 4223 3703 3704;
4224 3700 3705; 4225 3705 3706; 4226 3707 3704; 4227 3708 3706; 4228 3707 3709;
4229 3708 3710; 4230 3223 6669; 4231 3246 6674; 4232 3282 6678; 4233 3294 6680;
4234 3306 6682; 4235 3318 6686; 4236 3330 6688; 4237 3342 6692; 4238 3354 6694;
4239 3366 6698; 4240 3378 6700; 4241 3390 6704; 4242 3402 6706; 4243 3414 6710;
4244 3426 6712; 4245 3438 6716; 4246 3450 6718; 4247 3462 6722; 4248 3486 3270;
4249 3270 3498; 4250 3498 6998; 4251 3711 3510; 4252 3232 3255; 4253 3229 7768;
4254 3230 6821; 4255 3233 3256; 4256 2175 3119; 4257 3220 3712; 4258 3221 3713;
4259 2258 3714; 4260 3715 901; 4261 3716 902; 4262 3717 903; 4263 3062 2074;
4264 2465 2078; 4265 3718 920; 4266 2725 2150; 4267 2650 2153; 4268 2605 2155;
4269 2575 2157; 4270 2574 2160; 4271 2604 2162; 4272 3719 862; 4273 2649 2163;
4274 2724 2164; 4275 3720 921; 4276 2679 2165; 4277 3069 2270; 4278 3061 2072;
4279 2464 850; 4280 2491 2316; 4281 2490 2315; 4282 2544 854; 4283 2559 2319;
4284 2560 2323; 4285 2589 2326; 4286 2619 860; 4287 2634 2333; 4288 2635 2337;
4289 2664 862; 4290 2665 2340; 4291 2694 864; 4292 2709 2343; 4293 3070 2398;
4294 2545 897; 4295 2590 2327; 4296 2620 923; 4297 2680 2341; 4298 2695 921;
4299 2710 2344; 4300 3068 852; 4301 3067 851; 4302 2470 5694; 4303 2467 5604;
4304 2458 2461; 4305 2466 2458; 4306 2469 2466; 4307 2468 6494; 4308 2498 2488;
4309 2493 2498; 4310 2497 2489; 4311 2494 2497; 4312 2486 2494; 4313 2492 2486;
4314 2496 2492; 4315 2495 2487; 4316 2499 2495; 4317 2537 2529; 4318 2532 2537;
4319 2536 2530; 4320 2533 2536; 4321 2527 2533; 4322 2531 2527; 4323 2535 2531;
4324 2534 2528; 4325 2538 2534; 4326 2552 2542; 4327 2547 2552; 4328 2551 2543;
4329 2548 2551; 4330 2540 2548; 4331 2546 2540; 4332 2550 2546; 4333 2549 2541;
4334 2553 2549; 4335 2567 2557; 4336 2562 2567; 4337 2566 2558; 4338 2563 2566;
4339 2555 2563; 4340 2561 2555; 4341 2565 2561; 4342 2564 2556; 4343 2568 2564;
4344 2582 2572; 4345 2577 2582; 4346 2581 2573; 4347 2578 2581; 4348 2570 2578;
4349 2576 2570; 4350 2580 2576; 4351 2579 2571; 4352 2583 2579; 4353 2597 2587;
4354 2592 2597; 4355 2596 2588; 4356 2593 2596; 4357 2585 2593; 4358 2591 2585;
4359 2595 2591; 4360 2594 2586; 4361 2598 2594; 4362 2612 2602; 4363 2607 2612;
4364 2611 2603; 4365 2608 2611; 4366 2600 2608; 4367 2606 2600; 4368 2610 2606;
4369 2609 2601; 4370 2613 2609; 4371 2627 2617; 4372 2622 2627; 4373 2626 2618;
4374 2623 2626; 4375 2615 2623; 4376 2621 2615; 4377 2625 2621; 4378 2624 2616;
4379 2628 2624; 4380 2642 2632; 4381 2637 2642; 4382 2641 2633; 4383 2638 2641;
4384 2630 2638; 4385 2636 2630; 4386 2640 2636; 4387 2639 2631; 4388 2643 2639;
4389 2657 2647; 4390 2652 2657; 4391 2656 2648; 4392 2653 2656; 4393 2645 2653;
4394 2651 2645; 4395 2655 2651; 4396 2654 2646; 4397 2658 2654; 4398 2672 2662;
4399 2667 2672; 4400 2671 2663; 4401 2668 2671; 4402 2660 2668; 4403 2666 2660;
4404 2670 2666; 4405 2669 2661; 4406 2673 2669; 4407 2687 2677; 4408 2682 2687;
4409 2686 2678; 4410 2683 2686; 4411 2675 2683; 4412 2681 2675; 4413 2685 2681;
4414 2684 2676; 4415 2688 2684; 4416 2702 2692; 4417 2697 2702; 4418 2701 2693;
4419 2698 2701; 4420 2690 2698; 4421 2696 2690; 4422 2700 2696; 4423 2699 2691;
4424 2703 2699; 4425 2717 2707; 4426 2712 2717; 4427 2716 2708; 4428 2713 2716;
4429 2705 2713; 4430 2711 2705; 4431 2715 2711; 4432 2714 2706; 4433 2718 2714;
4434 2732 2722; 4435 2727 2732; 4436 2731 2723; 4437 2728 2731; 4438 2720 2728;
4439 2726 2720; 4440 2730 2726; 4441 2729 2721; 4442 2733 2729; 4443 2325 2584;
4444 2332 2614; 4445 3719 2659; 4446 3720 2689; 4447 3718 2734; 4448 3063 3062;
4449 3065 3063; 4450 3078 3064; 4451 3072 3066; 4452 3072 3068; 4453 3078 3072;
4454 3064 3070; 4455 3066 3064; 4456 3076 7926; 4457 3721 7987; 4458 3075 7942;
4459 3082 7927; 4460 3722 7984; 4461 3081 7943; 4462 2182 4903; 4463 2189 3134;
4464 3232 7886; 4465 3229 7798; 4466 3222 3225; 4467 3228 3222; 4468 3231 3228;
4469 3230 6791; 4470 3255 3247; 4471 3250 3255; 4472 3254 3248; 4473 3251 3254;
4474 3245 3251; 4475 3249 3245; 4476 3253 3249; 4477 3252 3246; 4478 3256 3252;
4479 3291 3283; 4480 3286 3291; 4481 3290 3284; 4482 3287 3290; 4483 3281 3287;
4484 3285 3281; 4485 3289 3285; 4486 3288 3282; 4487 3292 3288; 4488 3303 3295;
4489 3298 3303; 4490 3302 3296; 4491 3299 3302; 4492 3293 3299; 4493 3297 3293;
4494 3301 3297; 4495 3300 3294; 4496 3304 3300; 4497 3315 3307; 4498 3310 3315;
4499 3314 3308; 4500 3311 3314; 4501 3305 3311; 4502 3309 3305; 4503 3313 3309;
4504 3312 3306; 4505 3316 3312; 4506 3327 3319; 4507 3322 3327; 4508 3326 3320;
4509 3323 3326; 4510 3317 3323; 4511 3321 3317; 4512 3325 3321; 4513 3324 3318;
4514 3328 3324; 4515 3339 3331; 4516 3334 3339; 4517 3338 3332; 4518 3335 3338;
4519 3329 3335; 4520 3333 3329; 4521 3337 3333; 4522 3336 3330; 4523 3340 3336;
4524 3351 3343; 4525 3346 3351; 4526 3350 3344; 4527 3347 3350; 4528 3341 3347;
4529 3345 3341; 4530 3349 3345; 4531 3348 3342; 4532 3352 3348; 4533 3363 3355;
4534 3358 3363; 4535 3362 3356; 4536 3359 3362; 4537 3353 3359; 4538 3357 3353;
4539 3361 3357; 4540 3360 3354; 4541 3364 3360; 4542 3375 3367; 4543 3370 3375;
4544 3374 3368; 4545 3371 3374; 4546 3365 3371; 4547 3369 3365; 4548 3373 3369;
4549 3372 3366; 4550 3376 3372; 4551 3387 3379; 4552 3382 3387; 4553 3386 3380;
4554 3383 3386; 4555 3377 3383; 4556 3381 3377; 4557 3385 3381; 4558 3384 3378;

4559 3388 3384; 4560 3399 3391; 4561 3394 3399; 4562 3398 3392; 4563 3395 3398;
4564 3389 3395; 4565 3393 3389; 4566 3397 3393; 4567 3396 3390; 4568 3400 3396;
4569 3411 3403; 4570 3406 3411; 4571 3410 3404; 4572 3407 3410; 4573 3401 3407;
4574 3405 3401; 4575 3409 3405; 4576 3408 3402; 4577 3412 3408; 4578 3423 3415;
4579 3418 3423; 4580 3422 3416; 4581 3419 3422; 4582 3413 3419; 4583 3417 3413;
4584 3421 3417; 4585 3420 3414; 4586 3424 3420; 4587 3435 3427; 4588 3430 3435;
4589 3434 3428; 4590 3431 3434; 4591 3425 3431; 4592 3429 3425; 4593 3433 3429;
4594 3432 3426; 4595 3436 3432; 4596 3447 3439; 4597 3442 3447; 4598 3446 3440;
4599 3443 3446; 4600 3437 3443; 4601 3441 3437; 4602 3445 3441; 4603 3444 3438;
4604 3448 3444; 4605 2475 2023; 4606 3723 904; 4607 3724 905; 4608 3725 906;
4609 3726 907; 4610 3727 908; 4611 3728 909; 4612 2476 2046; 4613 3090 2124;
4614 3091 2127; 4615 3025 2133; 4616 3024 2134; 4617 2500 913; 4618 3729 914;
4619 2965 2137; 4620 2964 2138; 4621 3730 915; 4622 2919 2140; 4623 3731 916;
4624 2890 2141; 4625 2889 2143; 4626 3732 917; 4627 2845 2144; 4628 2844 2145;
4629 3733 918; 4630 3734 919; 4631 2770 2148; 4632 2769 2149; 4633 3092 2061;
4634 2739 866; 4635 2754 2348; 4636 2755 2352; 4637 2784 2353; 4638 2518 2784;
4639 2799 2518; 4640 2800 2357; 4641 2814 870; 4642 2829 2358; 4643 2859 872;
4644 2874 2363; 4645 2875 2367; 4646 2904 874; 4647 2905 2370; 4648 2934 876;
4649 2949 2373; 4650 2979 878; 4651 2994 2378; 4652 2995 2382; 4653 3009 2383;
4654 3037 2390; 4655 3038 2391; 4656 2740 920; 4657 2785 2354; 4658 2815 918;
4659 2830 2359; 4660 2860 917; 4661 2920 2371; 4662 2935 915; 4663 2950 2374;
4664 2980 914; 4665 3010 2384; 4666 3084 2434; 4667 3089 848; 4668 3083 2454;
4669 2483 6045; 4670 2478 5957; 4671 2482 2474; 4672 2479 2482; 4673 3060 2479;
4674 2477 3060; 4675 2481 2477; 4676 2480 6168; 4677 2511 2503; 4678 2506 2511;
4679 2510 2504; 4680 2507 2510; 4681 2501 2507; 4682 2505 2501; 4683 2509 2505;
4684 2508 2502; 4685 2512 2508; 4686 2525 5723; 4687 2520 5633; 4688 2524 2517;
4689 2521 2524; 4690 2514 2521; 4691 2519 2514; 4692 2523 2519; 4693 2522 6197;
4694 2747 2737; 4695 2742 2747; 4696 2746 2738; 4697 2743 2746; 4698 2735 2743;
4699 2741 2735; 4700 2745 2741; 4701 2744 2736; 4702 2748 2744; 4703 2762 2752;
4704 2757 2762; 4705 2761 2753; 4706 2758 2761; 4707 2750 2758; 4708 2756 2750;
4709 2760 2756; 4710 2759 2751; 4711 2763 2759; 4712 2777 2767; 4713 2772 2777;
4714 2776 2768; 4715 2773 2776; 4716 2765 2773; 4717 2771 2765; 4718 2775 2771;
4719 2774 2766; 4720 2778 2774; 4721 2792 2782; 4722 2787 2792; 4723 2791 2783;
4724 2788 2791; 4725 2780 2788; 4726 2786 2780; 4727 2790 2786; 4728 2789 2781;
4729 2793 2789; 4730 2807 2797; 4731 2802 2807; 4732 2806 2798; 4733 2803 2806;
4734 2795 2803; 4735 2801 2795; 4736 2805 2801; 4737 2804 2796; 4738 2808 2804;
4739 2822 2812; 4740 2817 2822; 4741 2821 2813; 4742 2818 2821; 4743 2810 2818;
4744 2816 2810; 4745 2820 2816; 4746 2819 2811; 4747 2823 2819; 4748 2837 2827;
4749 2832 2837; 4750 2836 2828; 4751 2833 2836; 4752 2825 2833; 4753 2831 2825;
4754 2835 2831; 4755 2834 2826; 4756 2838 2834; 4757 2852 2842; 4758 2847 2852;
4759 2851 2843; 4760 2848 2851; 4761 2840 2848; 4762 2846 2840; 4763 2850 2846;
4764 2849 2841; 4765 2853 2849; 4766 2867 2857; 4767 2862 2867; 4768 2866 2858;
4769 2863 2866; 4770 2855 2863; 4771 2861 2855; 4772 2865 2861; 4773 2864 2856;
4774 2868 2864; 4775 2882 2872; 4776 2877 2882; 4777 2881 2873; 4778 2878 2881;
4779 2870 2878; 4780 2876 2870; 4781 2880 2876; 4782 2879 2871; 4783 2883 2879;
4784 2897 2887; 4785 2892 2897; 4786 2896 2888; 4787 2893 2896; 4788 2885 2893;
4789 2891 2885; 4790 2895 2891; 4791 2894 2886; 4792 2898 2894; 4793 2912 2902;
4794 2907 2912; 4795 2911 2903; 4796 2908 2911; 4797 2900 2908; 4798 2906 2900;
4799 2910 2906; 4800 2909 2901; 4801 2913 2909; 4802 2927 2917; 4803 2922 2927;
4804 2926 2918; 4805 2923 2926; 4806 2915 2923; 4807 2921 2915; 4808 2925 2921;
4809 2924 2916; 4810 2928 2924; 4811 2942 2932; 4812 2937 2942; 4813 2941 2933;
4814 2938 2941; 4815 2930 2938; 4816 2936 2930; 4817 2940 2936; 4818 2939 2931;
4819 2943 2939; 4820 2957 2947; 4821 2952 2957; 4822 2956 2948; 4823 2953 2956;
4824 2945 2953; 4825 2951 2945; 4826 2955 2951; 4827 2954 2946; 4828 2958 2954;
4829 2972 2962; 4830 2967 2972; 4831 2971 2963; 4832 2968 2971; 4833 2960 2968;
4834 2966 2960; 4835 2970 2966; 4836 2969 2961; 4837 2973 2969; 4838 2987 2977;
4839 2982 2987; 4840 2986 2978; 4841 2983 2986; 4842 2975 2983; 4843 2981 2975;
4844 2985 2981; 4845 2984 2976; 4846 2988 2984; 4847 3002 2992; 4848 2997 3002;
4849 3001 2993; 4850 2998 3001; 4851 2990 2998; 4852 2996 2990; 4853 3000 2996;
4854 2999 2991; 4855 3003 2999; 4856 3017 3007; 4857 3012 3017; 4858 3016 3008;
4859 3013 3016; 4860 3005 3013; 4861 3011 3005; 4862 3015 3011; 4863 3014 3006;
4864 3018 3014; 4865 3032 3022; 4866 3027 3032; 4867 3031 3023; 4868 3028 3031;
4869 3020 3028; 4870 3026 3020; 4871 3030 3026; 4872 3029 3021; 4873 3033 3029;
4874 3045 3035; 4875 3040 3045; 4876 3044 3036; 4877 3041 3044; 4878 3107 3041;
4879 3039 3107; 4880 3043 3039; 4881 3042 3034; 4882 3046 3042; 4883 3056 3048;
4884 3051 3056; 4885 3055 3049; 4886 3052 3055; 4887 3108 3052; 4888 3050 3108;
4889 3054 3050; 4890 3053 3047; 4891 3057 3053; 4892 3034 5805; 4893 3047 5801;
4894 3021 5799; 4895 3006 5797; 4896 2502 5793; 4897 2991 5791; 4898 2976 5787;
4899 2961 5785; 4900 2946 5781; 4901 2931 5779; 4902 2916 5775; 4903 2901 5773;
4904 2886 5769; 4905 2871 5767; 4906 2856 5763; 4907 2841 5761; 4908 2826 5757;
4909 2811 5755; 4910 3045 2483; 4911 3056 3045; 4912 3032 3056; 4913 3017 3032;
4914 2511 3017; 4915 3002 2511; 4916 2987 3002; 4917 2972 2987; 4918 2957 2972;
4919 2942 2957; 4920 2927 2942; 4921 2912 2927; 4922 2897 2912; 4923 2882 2897;
4924 2867 2882; 4925 2852 2867; 4926 2837 2852; 4927 2822 2837; 4928 2807 2822;
4929 2525 2807; 4930 2792 2525; 4931 2777 2792; 4932 2762 2777; 4933 2747 2762;
4934 2732 2747; 4935 3040 5926; 4936 3051 5924; 4937 3027 5923; 4938 3012 5922;
4939 2506 5920; 4940 2997 5919; 4941 2982 5917; 4942 2967 5916; 4943 2952 5914;
4944 2937 5913; 4945 2922 5911; 4946 2907 5910; 4947 2892 5908; 4948 2877 5907;
4949 2862 5905; 4950 2847 5904; 4951 2832 5902; 4952 2817 5901; 4953 2802 5900;
4954 2520 2802; 4955 2787 2520; 4956 2757 5601; 4957 2742 5599; 4958 2727 5598;
4959 3042 6199; 4960 3053 6201; 4961 3029 6202; 4962 3014 6203; 4963 2508 6205;
4964 2999 6206; 4965 2984 6208; 4966 2969 6209; 4967 2954 6211; 4968 2939 6212;

4969 2924 6214; 4970 2909 6215; 4971 2894 6217; 4972 2879 6218; 4973 2864 6220;
4974 2849 6221; 4975 2834 6223; 4976 2819 6224; 4977 2804 6225; 4978 2522 2804;
4979 2789 2522; 4980 2759 6496; 4981 2744 6498; 4982 2729 6499; 4983 3046 2484;
4984 3057 3046; 4985 3033 3057; 4986 3018 3033; 4987 2512 3018; 4988 3003 2512;
4989 2988 3003; 4990 2973 2988; 4991 2958 2973; 4992 2943 2958; 4993 2928 2943;
4994 2913 2928; 4995 2898 2913; 4996 2883 2898; 4997 2868 2883; 4998 2853 2868;
4999 2838 2853; 5000 2823 2838; 5001 2808 2823; 5002 2526 2808; 5003 2793 2526;
5004 2778 2793; 5005 2763 2778; 5006 2748 2763; 5007 2733 2748; 5008 3734 2779;
5009 3733 2809; 5010 3059 2167; 5011 3106 3059; 5012 2388 3106; 5013 3019 2388;
5014 3004 3019; 5015 2500 3004; 5016 2989 2500; 5017 2974 2989; 5018 3729 2974;
5019 2959 3729; 5020 2944 2959; 5021 2929 2944; 5022 3730 2929; 5023 2914 3730;
5024 2899 2914; 5025 3731 2899; 5026 2884 3731; 5027 2869 2884; 5028 2854 2869;
5029 3732 2854; 5030 2839 3732; 5031 2824 2839; 5032 3085 3084; 5033 3087 3085;
5034 3100 3086; 5035 3094 3088; 5036 3094 3090; 5037 3100 3094; 5038 3086 3092;
5039 3088 3086; 5040 3098 7959; 5041 3735 7992; 5042 3097 7975; 5043 3104 7960;
5044 3736 7988; 5045 3103 7976; 5046 2258 4927; 5047 3243 7563; 5048 3238 7473;
5049 3242 3236; 5050 3239 3242; 5051 3712 3239; 5052 3237 3712; 5053 3241 3237;
5054 3240 7145; 5055 3267 3259; 5056 3262 3267; 5057 3266 3260; 5058 3263 3266;
5059 3257 3263; 5060 3261 3257; 5061 3265 3261; 5062 3264 3258; 5063 3268 3264;
5064 3279 7592; 5065 3274 7502; 5066 3278 3272; 5067 3275 3278; 5068 3269 3275;
5069 3273 3269; 5070 3277 3273; 5071 3276 6820; 5072 3459 3451; 5073 3454 3459;
5074 3458 3452; 5075 3455 3458; 5076 3449 3455; 5077 3453 3449; 5078 3457 3453;
5079 3456 3450; 5080 3460 3456; 5081 3471 3463; 5082 3466 3471; 5083 3470 3464;
5084 3467 3470; 5085 3461 3467; 5086 3465 3461; 5087 3469 3465; 5088 3468 3462;
5089 3472 3468; 5090 3483 3475; 5091 3478 3483; 5092 3482 3476; 5093 3479 3482;
5094 3473 3479; 5095 3477 3473; 5096 3481 3477; 5097 3480 3474; 5098 3484 3480;
5099 3495 3487; 5100 3490 3495; 5101 3494 3488; 5102 3491 3494; 5103 3485 3491;
5104 3489 3485; 5105 3493 3489; 5106 3492 3486; 5107 3496 3492; 5108 3507 3499;
5109 3502 3507; 5110 3506 3500; 5111 3503 3506; 5112 3497 3503; 5113 3501 3497;
5114 3505 3501; 5115 3504 3498; 5116 3508 3504; 5117 3519 3511; 5118 3514 3519;
5119 3518 3512; 5120 3515 3518; 5121 3509 3515; 5122 3513 3509; 5123 3517 3513;
5124 3516 3510; 5125 3520 3516; 5126 3531 3523; 5127 3526 3531; 5128 3530 3524;
5129 3527 3530; 5130 3521 3527; 5131 3525 3521; 5132 3529 3525; 5133 3528 3522;
5134 3532 3528; 5135 3543 3535; 5136 3538 3543; 5137 3542 3536; 5138 3539 3542;
5139 3533 3539; 5140 3537 3533; 5141 3541 3537; 5142 3540 3534; 5143 3544 3540;
5144 3555 3547; 5145 3550 3555; 5146 3554 3548; 5147 3551 3554; 5148 3545 3551;
5149 3549 3545; 5150 3553 3549; 5151 3552 3546; 5152 3556 3552; 5153 3567 3559;
5154 3562 3567; 5155 3566 3560; 5156 3563 3566; 5157 3557 3563; 5158 3561 3557;
5159 3565 3561; 5160 3564 3558; 5161 3568 3564; 5162 3579 3571; 5163 3574 3579;
5164 3578 3572; 5165 3575 3578; 5166 3569 3575; 5167 3573 3569; 5168 3577 3573;
5169 3576 3570; 5170 3580 3576; 5171 3591 3583; 5172 3586 3591; 5173 3590 3584;
5174 3587 3590; 5175 3581 3587; 5176 3585 3581; 5177 3589 3585; 5178 3588 3582;
5179 3592 3588; 5180 3603 3595; 5181 3598 3603; 5182 3602 3596; 5183 3599 3602;
5184 3593 3599; 5185 3597 3593; 5186 3601 3597; 5187 3600 3594; 5188 3604 3600;
5189 3615 3607; 5190 3610 3615; 5191 3614 3608; 5192 3611 3614; 5193 3605 3611;
5194 3609 3605; 5195 3613 3609; 5196 3612 3606; 5197 3616 3612; 5198 3627 3619;
5199 3622 3627; 5200 3626 3620; 5201 3623 3626; 5202 3617 3623; 5203 3621 3617;
5204 3625 3621; 5205 3624 3618; 5206 3628 3624; 5207 3639 3631; 5208 3634 3639;
5209 3638 3632; 5210 3635 3638; 5211 3629 3635; 5212 3633 3629; 5213 3637 3633;
5214 3636 3630; 5215 3640 3636; 5216 3651 3643; 5217 3646 3651; 5218 3650 3644;
5219 3647 3650; 5220 3641 3647; 5221 3645 3641; 5222 3649 3645; 5223 3648 3642;
5224 3652 3648; 5225 3663 3655; 5226 3658 3663; 5227 3662 3656; 5228 3659 3662;
5229 3653 3659; 5230 3657 3653; 5231 3661 3657; 5232 3660 3654; 5233 3664 3660;
5234 3675 3667; 5235 3670 3675; 5236 3674 3668; 5237 3671 3674; 5238 3665 3671;
5239 3669 3665; 5240 3673 3669; 5241 3672 3666; 5242 3676 3672; 5243 3687 3679;
5244 3682 3687; 5245 3686 3680; 5246 3683 3686; 5247 3677 3683; 5248 3681 3677;
5249 3685 3681; 5250 3684 3678; 5251 3688 3684; 5252 3698 3690; 5253 3693 3698;
5254 3697 3691; 5255 3694 3697; 5256 3713 3694; 5257 3692 3713; 5258 3696 3692;
5259 3695 3689; 5260 3699 3695; 5261 3709 3701; 5262 3704 3709; 5263 3708 3702;
5264 3705 3708; 5265 3714 3705; 5266 3703 3714; 5267 3707 3703; 5268 3706 3700;
5269 3710 3706; 5270 3689 7051; 5271 3700 7047; 5272 3678 7045; 5273 3666 7043;
5274 3258 7039; 5275 3654 7037; 5276 3642 7033; 5277 3630 7031; 5278 3618 7027;
5279 3606 7025; 5280 3594 7021; 5281 3582 7019; 5282 3570 7015; 5283 3558 7013;
5284 3546 7009; 5285 3534 7007; 5286 3522 7003; 5287 3510 7001; 5288 3698 3243;
5289 3709 3698; 5290 3687 3709; 5291 3675 3687; 5292 3267 3675; 5293 3663 3267;
5294 3651 3663; 5295 3639 3651; 5296 3627 3639; 5297 3615 3627; 5298 3603 3615;
5299 3591 3603; 5300 3579 3591; 5301 3567 3579; 5302 3555 3567; 5303 3543 3555;
5304 3531 3543; 5305 3519 3531; 5306 3507 3519; 5307 3279 3507; 5308 3495 3279;
5309 3483 3495; 5310 3471 3483; 5311 3459 3471; 5312 3447 3459; 5313 3693 7445;
5314 3704 7447; 5315 3682 7448; 5316 3670 7449; 5317 3262 7451; 5318 3658 7452;
5319 3646 7454; 5320 3634 7455; 5321 3622 7457; 5322 3610 7458; 5323 3598 7460;
5324 3586 7461; 5325 3574 7463; 5326 3562 7464; 5327 3550 7466; 5328 3538 7467;
5329 3526 7469; 5330 3514 7470; 5331 3502 7471; 5332 3274 3502; 5333 3490 3274;
5334 3466 7742; 5335 3454 7744; 5336 3442 7745; 5337 3695 7172; 5338 3706 7170;
5339 3684 7169; 5340 3672 7168; 5341 3264 7166; 5342 3660 7165; 5343 3648 7163;
5344 3636 7162; 5345 3624 7160; 5346 3612 7159; 5347 3600 7157; 5348 3588 7156;
5349 3576 7154; 5350 3564 7153; 5351 3552 7151; 5352 3540 7150; 5353 3528 7148;
5354 3516 7147; 5355 3504 7146; 5356 3276 3504; 5357 3492 3276; 5358 3468 6847;
5359 3456 6845; 5360 3444 6844; 5361 3699 3244; 5362 3710 3699; 5363 3688 3710;
5364 3676 3688; 5365 3268 3676; 5366 3664 3268; 5367 3652 3664; 5368 3640 3652;
5369 3628 3640; 5370 3616 3628; 5371 3604 3616; 5372 3592 3604; 5373 3580 3592;
5374 3568 3580; 5375 3556 3568; 5376 3544 3556; 5377 3532 3544; 5378 3520 3532;

5379 3508 3520; 5380 3280 3508; 5381 3496 3280; 5382 3484 3496; 5383 3472 3484;
5384 3460 3472; 5385 3448 3460; 5386 2717 2732; 5387 2702 2717; 5388 2687 2702;
5389 2672 2687; 5390 2657 2672; 5391 2642 2657; 5392 2627 2642; 5393 2612 2627;
5394 2597 2612; 5395 2582 2597; 5396 2567 2582; 5397 2552 2567; 5398 2537 2552;
5399 2498 2537; 5400 2712 5596; 5401 2697 5595; 5402 2682 5593; 5403 2667 5592;
5404 2652 5590; 5405 2637 5589; 5406 2622 5587; 5407 2607 5586; 5408 2592 5584;
5409 2577 5583; 5410 2562 5581; 5411 2547 5580; 5412 2532 5579; 5413 2493 5577;
5414 2714 6501; 5415 2699 6502; 5416 2684 6504; 5417 2669 6505; 5418 2654 6507;
5419 2639 6508; 5420 2624 6510; 5421 2609 6511; 5422 2594 6513; 5423 2579 6514;
5424 2564 6516; 5425 2549 6517; 5426 2534 6518; 5427 2495 6520; 5428 2718 2733;
5429 2703 2718; 5430 2688 2703; 5431 2673 2688; 5432 2658 2673; 5433 2643 2658;
5434 2628 2643; 5435 2613 2628; 5436 2598 2613; 5437 2583 2598; 5438 2568 2583;
5439 2553 2568; 5440 2538 2553; 5441 2499 2538; 5442 3435 3447; 5443 3423 3435;
5444 3411 3423; 5445 3399 3411; 5446 3387 3399; 5447 3375 3387; 5448 3363 3375;
5449 3351 3363; 5450 3339 3351; 5451 3327 3339; 5452 3315 3327; 5453 3303 3315;
5454 3291 3303; 5455 3255 3291; 5456 3430 7747; 5457 3418 7748; 5458 3406 7750;
5459 3394 7751; 5460 3382 7753; 5461 3370 7754; 5462 3358 7756; 5463 3346 7757;
5464 3334 7759; 5465 3322 7760; 5466 3310 7762; 5467 3298 7763; 5468 3286 7764;
5469 3250 7766; 5470 3432 6842; 5471 3420 6841; 5472 3408 6839; 5473 3396 6838;
5474 3384 6836; 5475 3372 6835; 5476 3360 6833; 5477 3348 6832; 5478 3336 6830;
5479 3324 6829; 5480 3312 6827; 5481 3300 6826; 5482 3288 6825; 5483 3252 6823;
5484 3436 3448; 5485 3424 3436; 5486 3412 3424; 5487 3400 3412; 5488 3388 3400;
5489 3376 3388; 5490 3364 3376; 5491 3352 3364; 5492 3340 3352; 5493 3328 3340;
5494 3316 3328; 5495 3304 3316; 5496 3292 3304; 5497 3256 3292; 5498 3737 1924;
5499 3738 1796; 5500 3069 3739; 5501 3070 3740; 5502 3739 3738; 5503 3740 3737;
5504 3739 3741; 5505 3741 3742; 5506 3066 3741; 5507 3742 3740; 5508 3064 3742;
5509 3743 1829; 5510 3083 3746; 5511 3744 1960; 5512 3084 3745; 5513 3745 3744;
5514 3746 3743; 5515 3746 3747; 5516 3747 3748; 5517 3087 3747; 5518 3748 3745;
5519 3085 3748; 5520 3749 189; 5521 3750 261; 5522 3751 188; 5523 3752 258;
5524 261 507; 5525 507 751; 5526 751 2101; 5527 189 436; 5528 436 680;
5529 680 2039; 5530 1993 5104; 5531 948 5096; 5532 3753 3077; 5533 3754 3080;
5534 3755 3722; 5535 3754 3755; 5536 3755 3753; 5537 3756 3071; 5538 3753 3756;
5539 3757 3721; 5540 3756 3757; 5541 3758 3074; 5542 3757 3758; 5543 3758 3754;
5544 3759 3093; 5545 3760 3099; 5546 3759 3760; 5547 3761 3102; 5548 3760 5417;
5549 3762 3096; 5550 3761 3762; 5551 3762 5416; 5552 34 1107; 5553 120 1108;
5554 38 1114; 5555 42 1120; 5556 46 1126; 5557 50 1132; 5558 54 1138;
5559 130 1139; 5560 58 1145; 5561 62 1151; 5562 66 1157; 5563 70 1163;
5564 277 1172; 5565 280 1213; 5566 1173 1170; 5567 1213 1212; 5568 1171 138;
5569 1212 275; 5570 3891 275; 5571 1232 827; 5572 830 1232; 5573 1201 1200;
5574 1200 258; 5575 3950 1053; 5576 12 172; 5577 28 294; 5578 90 235;
5579 98 330; 5580 112 321; 5581 294 1385; 5582 202 84; 5583 235 1429;
5584 321 1393; 5585 1307 196; 5586 1308 208; 5587 172 1308; 5588 1385 1386;
5589 1386 142; 5590 291 292; 5591 292 1307; 5592 1393 202; 5593 4084 144;
5594 350 1454; 5595 390 1455; 5596 352 1461; 5597 354 1467; 5598 356 1473;
5599 358 1479; 5600 360 1485; 5601 395 1486; 5602 362 1492; 5603 364 1498;
5604 366 1504; 5605 368 1510; 5606 523 1519; 5607 526 1560; 5608 1520 1517;
5609 1560 1559; 5610 1518 399; 5611 1559 521; 5612 4265 521; 5613 1548 1547;
5614 1547 504; 5615 4324 1065; 5616 339 419; 5617 347 540; 5618 379 481;
5619 383 575; 5620 386 566; 5621 540 1651; 5622 448 376; 5623 481 1695;
5624 566 1659; 5625 1573 372; 5626 1574 454; 5627 419 1574; 5628 1651 1652;
5629 1652 401; 5630 537 538; 5631 538 1573; 5632 1659 448; 5633 4458 402;
5634 594 1720; 5635 634 1721; 5636 596 1727; 5637 598 1733; 5638 600 1739;
5639 602 1745; 5640 604 1751; 5641 639 1752; 5642 606 1758; 5643 608 1764;
5644 610 1770; 5645 612 1776; 5646 767 1785; 5647 770 1826; 5648 1786 1783;
5649 1826 1825; 5650 1784 643; 5651 1825 765; 5652 4639 765; 5653 1814 1813;
5654 1813 748; 5655 4698 1072; 5656 583 663; 5657 591 784; 5658 623 725;
5659 627 819; 5660 630 810; 5661 784 1917; 5662 692 620; 5663 725 1961;
5664 810 1925; 5665 1839 616; 5666 1840 698; 5667 663 1840; 5668 1917 1918;
5669 1918 645; 5670 781 782; 5671 782 1839; 5672 1925 692; 5673 4832 646;
5674 4885 2441; 5675 4886 2444; 5676 4887 2451; 5677 4888 2443; 5678 4889 2446;
5679 4891 2450; 5680 4892 2453; 5681 4896 2038; 5682 4897 2448; 5683 4898 4899;
5684 4899 3113; 5685 4900 2175; 5686 4901 3122; 5687 4902 3125; 5688 4903 3128;
5689 4904 3131; 5690 861 3144; 5691 901 2192; 5692 3715 3143; 5693 4905 3137;
5694 4906 3140; 5695 863 3150; 5696 3716 3149; 5697 4907 4908; 5698 4908 3146;
5699 865 3159; 5700 3717 3158; 5701 4909 3152; 5702 4910 3155; 5703 867 2210;
5704 3723 4913; 5705 4911 3161; 5706 4912 3164; 5707 869 3174; 5708 3724 3173;
5709 4913 3167; 5710 4914 3724; 5711 871 3183; 5712 906 3184; 5713 3725 3182;
5714 4915 3176; 5715 4916 3179; 5716 873 3192; 5717 3726 3191; 5718 4917 3185;
5719 4918 3188; 5720 875 3198; 5721 3727 3197; 5722 4919 4920; 5723 4920 3194;
5724 877 3207; 5725 3728 3206; 5726 4921 3200; 5727 4922 3203; 5728 879 2247;
5729 3116 4925; 5730 4923 3209; 5731 4924 3116; 5732 4925 3212; 5733 4926 3215;
5734 4927 3221; 5735 4928 4929; 5736 4929 3220; 5737 2117 2256; 5738 2120 2298;
5739 2257 3214; 5740 2298 2297; 5741 2255 910; 5742 2297 2115; 5743 4936 2115;
5744 2286 2285; 5745 2285 2017; 5746 850 2024; 5747 858 2132; 5748 890 2077;
5749 897 2158; 5750 2132 2388; 5751 2050 887; 5752 2077 2437; 5753 2158 2399;
5754 2309 883; 5755 2311 2055; 5756 2024 2311; 5757 2388 2389; 5758 2389 912;
5759 2130 2131; 5760 2131 2309; 5761 2399 2050; 5762 5007 913; 5763 840 833;
5764 1218 840; 5765 5083 830; 5766 5085 5083; 5767 5087 5085; 5768 5089 5087;
5769 5091 5089; 5770 5093 5091; 5771 5096 1966; 5772 5104 946; 5773 5121 1013;
5774 5123 1016; 5775 5124 337; 5776 5127 1015; 5777 5128 1017; 5778 5129 336;
5779 5130 581; 5780 5132 1029; 5781 5133 1030; 5782 5136 1028; 5783 5137 580;
5784 5138 580; 5785 5154 5157; 5786 5155 337; 5787 5157 5160; 5788 5158 5155;

5789 5160 5163; 5790 5161 5158; 5791 5163 5166; 5792 5164 5161; 5793 5166 5169;
5794 5167 5164; 5795 5169 5172; 5796 5170 5167; 5797 5172 1023; 5798 5173 5170;
5799 5175 336; 5800 5176 1017; 5801 5178 5175; 5802 5179 5176; 5803 5181 5178;
5804 5182 5179; 5805 5184 5181; 5806 5185 5182; 5807 5187 5184; 5808 5188 5185;
5809 5190 5187; 5810 5191 5188; 5811 5193 5190; 5812 5194 5191; 5813 5196 1030;
5814 5197 581; 5815 5199 5196; 5816 5200 5197; 5817 5202 5199; 5818 5203 5200;
5819 5205 5202; 5820 5206 5203; 5821 5208 5205; 5822 5209 5206; 5823 5211 5208;
5824 5212 5209; 5825 5214 5211; 5826 5215 5212; 5827 5217 580; 5828 5218 1030;
5829 5220 5217; 5830 5221 5218; 5831 5223 5220; 5832 5224 5221; 5833 5226 5223;
5834 5227 5224; 5835 5229 5226; 5836 5230 5227; 5837 5232 5229; 5838 5233 5230;
5839 5235 5232; 5840 5236 5233; 5841 5240 1061; 5842 5242 1064; 5843 5243 5245;
5844 5245 5248; 5845 5247 1063; 5846 5248 1060; 5847 5249 1062; 5848 5250 1068;
5849 5252 1071; 5850 5253 5255; 5851 5255 5258; 5852 5257 1070; 5853 5258 1067;
5854 5259 1069; 5855 5260 2012; 5856 5262 2013; 5857 5263 5265; 5858 5265 5268;
5859 5267 2015; 5860 5268 2010; 5861 5269 2014; 12748 5277 188;
12749 5279 5282; 12750 5280 5283; 12751 5282 5285; 12752 5283 5286;
12753 5285 5288; 12754 5286 5289; 12755 5288 5291; 12756 5289 5292;
12757 5291 5294; 12758 5292 5295; 12759 5294 5297; 12760 5295 5298;
12761 5297 1063; 12762 5298 1064; 12763 5307 5310; 12764 5308 5311;
12765 5310 5313; 12766 5311 5314; 12767 5313 5316; 12768 5314 5317;
12769 5316 5319; 12770 5317 5320; 12771 5319 5322; 12772 5320 504;
12773 5322 5325; 12774 5325 1065; 12775 5328 435; 12776 5330 5333;
12777 5331 435; 12778 5333 5336; 12779 5334 5331; 12780 5336 5339;
12781 5337 5334; 12782 5339 5342; 12783 5340 5337; 12784 5342 5345;
12785 5343 5340; 12786 5345 5348; 12787 5346 5343; 12788 5348 1070;
12789 5349 5346; 12790 5351 5354; 12791 5352 5355; 12792 5354 5357;
12793 5355 5358; 12794 5357 5360; 12795 5358 5361; 12796 5360 5363;
12797 5361 5364; 12798 5363 5366; 12799 5364 5367; 12800 5366 5369;
12801 5367 5370; 12802 5369 1072; 12803 5370 748; 12804 5371 4698;
12805 5372 679; 12806 5374 1072; 12807 5375 679; 12808 5377 5374;
12809 5378 5375; 12810 5380 5377; 12811 5381 5378; 12812 5383 5380;
12813 5384 5381; 12814 5386 5383; 12815 5387 5384; 12816 5389 5386;
12817 5390 5387; 12818 5392 5389; 12819 5393 5390; 12820 5397 2016;
12821 5400 5397; 12822 5402 2017; 12823 5403 5400; 12824 5405 5402;
12825 5406 5403; 12826 5408 5405; 12827 5409 5406; 12828 5411 5408;
12829 5412 5409; 12830 5414 5411; 12831 5415 5412; 12832 5416 3735;
12833 5417 3736; 12834 5417 3761; 12835 5416 3759; 12836 5420 2101;
12837 2039 2415; 12838 5419 2039; 12839 2011 2410; 12840 5422 2011;
12841 5423 5426; 12842 5425 5483; 12843 5426 2487; 12844 5428 5430;
12845 5430 2528; 12846 5432 2541; 12847 5434 2556; 12848 5436 5438;
12849 5438 2571; 12850 5440 2586; 12851 5442 5444; 12852 5444 2601;
12853 5446 2616; 12854 5448 5450; 12855 5450 2631; 12856 5452 2646;
12857 5454 5456; 12858 5456 2661; 12859 5458 2676; 12860 5460 5462;
12861 5462 2691; 12862 5464 2706; 12863 5466 5468; 12864 5468 2721;
12865 5470 2736; 12866 5472 5474; 12867 5474 2751; 12868 5476 2766;
12869 2766 5479; 12870 5479 2781; 12871 5481 5512; 12872 5483 5514;
12873 5512 5543; 12874 5514 5545; 12875 5543 5574; 12876 5545 2467;
12877 5574 2520; 12878 5575 5576; 12879 5576 2493; 12880 5577 5578;
12881 5578 2532; 12882 5579 2547; 12883 5580 2562; 12884 5581 5582;
12885 5582 2577; 12886 5583 2592; 12887 5584 5585; 12888 5585 2607;
12889 5586 2622; 12890 5587 5588; 12891 5588 2637; 12892 5589 2652;
12893 5590 5591; 12894 5591 2667; 12895 5592 2682; 12896 5593 5594;
12897 5594 2697; 12898 5595 2712; 12899 5596 5597; 12900 5597 2727;
12901 5598 2742; 12902 5599 5600; 12903 5600 2757; 12904 5601 2772;
12905 2772 5602; 12906 5602 2787; 12907 5604 5635; 12908 5633 5664;
12909 5635 2470; 12910 5664 2525; 12911 5694 2460; 12912 5723 2516;
12913 5752 2811; 12914 5755 2826; 12915 5757 5759; 12916 5759 2841;
12917 5761 2856; 12918 5763 5765; 12919 5765 2871; 12920 5767 2886;
12921 5769 5771; 12922 5771 2901; 12923 5773 2916; 12924 5775 5777;
12925 5777 2931; 12926 5779 2946; 12927 5781 5783; 12928 5783 2961;
12929 5785 2976; 12930 5787 5789; 12931 5789 2991; 12932 5791 2502;
12933 5793 5795; 12934 5795 3006; 12935 5797 3021; 12936 5799 3047;
12937 5801 5803; 12938 5803 3034; 12939 5805 5807; 12940 5807 2472;
12941 5809 5839; 12942 5839 5869; 12943 5869 5899; 12944 5899 2478;
12945 5900 2817; 12946 5901 2832; 12947 5902 5903; 12948 5903 2847;
12949 5904 2862; 12950 5905 5906; 12951 5906 2877; 12952 5907 2892;
12953 5908 5909; 12954 5909 2907; 12955 5910 2922; 12956 5911 5912;
12957 5912 2937; 12958 5913 2952; 12959 5914 5915; 12960 5915 2967;
12961 5916 2982; 12962 5917 5918; 12963 5918 2997; 12964 5919 2506;
12965 5920 5921; 12966 5921 3012; 12967 5922 3027; 12968 5923 3051;
12969 5924 5925; 12970 5925 3040; 12971 5926 5927; 12972 5927 2478;
12973 5957 5987; 12974 5987 2483; 12975 6045 2473; 12976 6075 2472;
12977 6104 2515; 12978 6106 6075; 12979 6135 6104; 12980 6137 6106;
12981 6166 6135; 12982 6168 6137; 12983 6197 6166; 12984 6198 2480;
12985 6199 6198; 12986 6200 3042; 12987 6201 6200; 12988 6202 3053;
12989 6203 3029; 12990 6204 3014; 12991 6205 6204; 12992 6206 2508;
12993 6207 2999; 12994 6208 6207; 12995 6209 2984; 12996 6210 2969;
12997 6211 6210; 12998 6212 2954; 12999 6213 2939; 13000 6214 6213;
13001 6215 2924; 13002 6216 2909; 13003 6217 6216; 13004 6218 2894;
13005 6219 2879; 13006 6220 6219; 13007 6221 2864; 13008 6222 2849;
13009 6223 6222; 13010 6224 2834; 13011 6225 2819; 13012 6227 2480;
13013 6256 2522; 13014 6258 6227; 13015 6287 6256; 13016 2484 6258;

13017 2526 6287; 13018 6317 2484; 13019 6346 2526; 13020 6404 2459;
13021 6434 6404; 13022 6464 6434; 13023 6494 6464; 13024 6495 2789;
13025 2774 6495; 13026 6496 2774; 13027 6497 2759; 13028 6498 6497;
13029 6499 2744; 13030 6500 2729; 13031 6501 6500; 13032 6502 2714;
13033 6503 2699; 13034 6504 6503; 13035 6505 2684; 13036 6506 2669;
13037 6507 6506; 13038 6508 2654; 13039 6509 2639; 13040 6510 6509;
13041 6511 2624; 13042 6512 2609; 13043 6513 6512; 13044 6514 2594;
13045 6515 2579; 13046 6516 6515; 13047 6517 2564; 13048 6518 2549;
13049 6519 2534; 13050 6520 6519; 13051 6521 2495; 13052 6522 6521;
13053 6552 2468; 13054 6582 6552; 13055 2471 6582; 13056 6640 2471;
13057 6669 6672; 13058 6671 3223; 13059 6672 3246; 13060 6674 6676;
13061 6676 3282; 13062 6678 3294; 13063 6680 3306; 13064 6682 6684;
13065 6684 3318; 13066 6686 3330; 13067 6688 6690; 13068 6690 3342;
13069 6692 3354; 13070 6694 6696; 13071 6696 3366; 13072 6698 3378;
13073 6700 6702; 13074 6702 3390; 13075 6704 3402; 13076 6706 6708;
13077 6708 3414; 13078 6710 3426; 13079 6712 6714; 13080 6714 3438;
13081 6716 3450; 13082 6718 6720; 13083 6720 3462; 13084 6722 3474;
13085 3474 6725; 13086 6725 3486; 13087 6727 3270; 13088 6729 6671;
13089 6758 6727; 13090 6760 6729; 13091 6789 6758; 13092 6791 6760;
13093 6820 6789; 13094 6821 6822; 13095 6822 3252; 13096 6823 6824;
13097 6824 3288; 13098 6825 3300; 13099 6826 3312; 13100 6827 6828;
13101 6828 3324; 13102 6829 3336; 13103 6830 6831; 13104 6831 3348;
13105 6832 3360; 13106 6833 6834; 13107 6834 3372; 13108 6835 3384;
13109 6836 6837; 13110 6837 3396; 13111 6838 3408; 13112 6839 6840;
13113 6840 3420; 13114 6841 3432; 13115 6842 6843; 13116 6843 3444;
13117 6844 3456; 13118 6845 6846; 13119 6846 3468; 13120 6847 3480;
13121 3480 6848; 13122 6848 3492; 13123 6850 3230; 13124 6879 3276;
13125 6881 6850; 13126 6910 6879; 13127 3233 6881; 13128 3280 6910;
13129 6940 3233; 13130 6969 3280; 13131 6998 3510; 13132 7001 3522;
13133 7003 7005; 13134 7005 3534; 13135 7007 3546; 13136 7009 7011;
13137 7011 3558; 13138 7013 3570; 13139 7015 7017; 13140 7017 3582;
13141 7019 3594; 13142 7021 7023; 13143 7023 3606; 13144 7025 3618;
13145 7027 7029; 13146 7029 3630; 13147 7031 3642; 13148 7033 7035;
13149 7035 3654; 13150 7037 3258; 13151 7039 7041; 13152 7041 3666;
13153 7043 3678; 13154 7045 3700; 13155 7047 7049; 13156 7049 3689;
13157 7051 7053; 13158 7053 3234; 13159 7055 3234; 13160 7085 7055;
13161 7115 7085; 13162 7145 7115; 13163 7146 3516; 13164 7147 3528;
13165 7148 7149; 13166 7149 3540; 13167 7150 3552; 13168 7151 7152;
13169 7152 3564; 13170 7153 3576; 13171 7154 7155; 13172 7155 3588;
13173 7156 3600; 13174 7157 7158; 13175 7158 3612; 13176 7159 3624;
13177 7160 7161; 13178 7161 3636; 13179 7162 3648; 13180 7163 7164;
13181 7164 3660; 13182 7165 3264; 13183 7166 7167; 13184 7167 3672;
13185 7168 3684; 13186 7169 3706; 13187 7170 7171; 13188 7171 3695;
13189 7172 7173; 13190 7173 3240; 13191 7203 3240; 13192 7233 7203;
13193 3244 7233; 13194 7291 3244; 13195 7321 7352; 13196 7350 7381;
13197 7352 7383; 13198 7381 7412; 13199 7383 7414; 13200 7412 7443;
13201 7414 3238; 13202 7443 3274; 13203 7444 3238; 13204 7445 7444;
13205 7446 3693; 13206 7447 7446; 13207 7448 3704; 13208 7449 3682;
13209 7450 3670; 13210 7451 7450; 13211 7452 3262; 13212 7453 3658;
13213 7454 7453; 13214 7455 3646; 13215 7456 3634; 13216 7457 7456;
13217 7458 3622; 13218 7459 3610; 13219 7460 7459; 13220 7461 3598;
13221 7462 3586; 13222 7463 7462; 13223 7464 3574; 13224 7465 3562;
13225 7466 7465; 13226 7467 3550; 13227 7468 3538; 13228 7469 7468;
13229 7470 3526; 13230 7471 3514; 13231 7473 7504; 13232 7502 7533;
13233 7504 3243; 13234 7533 3279; 13235 7563 3235; 13236 7592 3271;
13237 7650 7680; 13238 7680 7710; 13239 7710 7740; 13240 7740 3229;
13241 7741 3490; 13242 3478 7741; 13243 7742 3478; 13244 7743 3466;
13245 7744 7743; 13246 7745 3454; 13247 7746 3442; 13248 7747 7746;
13249 7748 3430; 13250 7749 3418; 13251 7750 7749; 13252 7751 3406;
13253 7752 3394; 13254 7753 7752; 13255 7754 3382; 13256 7755 3370;
13257 7756 7755; 13258 7757 3358; 13259 7758 3346; 13260 7759 7758;
13261 7760 3334; 13262 7761 3322; 13263 7762 7761; 13264 7763 3310;
13265 7764 3298; 13266 7765 3286; 13267 7766 7765; 13268 7767 3250;
13269 7768 7767; 13270 7798 7828; 13271 7828 3232; 13272 7886 3224;
13273 3077 7932; 13274 3080 7936; 13275 3099 7965; 13276 3102 7969;
13277 7915 7917; 13278 7916 7920; 13279 7917 7918; 13280 7918 3079;
13281 7919 7921; 13282 7920 7922; 13283 7921 7923; 13284 7922 7924;
13285 7923 7925; 13286 7924 8051; 13287 7925 8054; 13288 7926 7928;
13289 7927 7929; 13290 7928 3071; 13291 7929 3077; 13292 7930 3071;
13293 7931 7930; 13294 7932 7931; 13295 7933 3074; 13296 7934 7938;
13297 7935 7933; 13298 7936 7935; 13299 7937 7939; 13300 7938 7940;
13301 7939 7941; 13302 7940 3075; 13303 7941 3081; 13304 7942 7944;
13305 7943 7945; 13306 7944 7946; 13307 7945 7947; 13308 7946 3073;
13309 7947 3079; 13310 7948 7950; 13311 7949 7953; 13312 7950 7951;
13313 7951 3101; 13314 7952 7954; 13315 7953 7955; 13316 7954 7956;
13317 7955 7957; 13318 7956 7958; 13319 7957 8007; 13320 7958 8010;
13321 7959 7961; 13322 7960 7962; 13323 7961 3093; 13324 7962 3099;
13325 7963 3093; 13326 7964 7963; 13327 7965 7964; 13328 7966 3096;
13329 7967 7971; 13330 7968 7966; 13331 7969 7968; 13332 7970 7972;
13333 7971 7973; 13334 7972 7974; 13335 7973 3097; 13336 7974 3103;
13337 7975 7977; 13338 7976 7978; 13339 7977 7979; 13340 7978 7980;
13341 7979 3095; 13342 7980 3101; 13343 7981 2009; 13344 1044 1045;

13345 7982 7983; 13346 7983 3722; 13347 7984 7985; 13348 7985 3080;
13349 3079 7984; 13350 7984 3081; 13351 3079 7983; 13352 7983 7925;
13353 7986 3721; 13354 7987 3074; 13355 3073 7987; 13356 7987 3075;
13357 3073 7986; 13358 7986 7924; 13359 7924 8047; 13360 3075 8070;
13361 7988 7989; 13362 7989 3102; 13363 7990 7991; 13364 7991 3736;
13365 3101 7988; 13366 3103 7988; 13367 3101 7991; 13368 7958 7991;
13369 7992 3096; 13370 7993 3735; 13371 3095 7992; 13372 3097 7992;
13373 3095 7993; 13374 7957 7993; 13375 7958 8005; 13376 3103 8028;
13377 8003 7957; 13378 8004 8003; 13379 8005 8004; 13380 8007 3098;
13381 8010 3104; 13382 8026 3097; 13383 8027 8026; 13384 8028 8027;
13385 8047 8048; 13386 8048 8049; 13387 8049 7925; 13388 8051 3076;
13389 8054 3082; 13390 8070 8071; 13391 8071 8072; 13392 8072 3081;
13393 2038 5418; 13394 679 2038; 13395 435 679; 13396 188 435; 13397 748 2017;
13398 504 748; 13399 258 504; 13400 2017 2099; 13401 2017 5421; 13402 205 8085;
13403 1274 189; 13404 1275 1274; 13405 222 8093; 13406 220 8095;
13407 204 8084; 13408 1567 436; 13409 1568 1567; 13410 466 8103;
13411 451 8105; 13412 468 8109; 13413 1833 680; 13414 1834 1833;
13415 8112 694; 13416 712 8118; 13417 695 8123; 13418 2306 2039;
13419 2307 2306; 13420 7981 8446; 13421 5421 8358; 13422 5420 8681;
13423 5419 8692; 13424 5418 8162; 13425 5422 8605; 13426 5418 8160;
13427 8126 8420; 13428 8129 8630; 13429 8132 8542; 13430 8130 8664;
13431 8126 8425; 13432 8125 8379; 13433 8135 8368; 13434 5420 8383;
13435 5420 8125; 13436 8138 8477; 13437 8127 7981; 13438 7981 8481;
13439 8129 8485; 13440 8128 8600; 13441 8137 8599; 13442 5422 8134;
13443 5422 8595; 13444 5418 8543; 13445 5419 8497; 13446 8130 8486;
13447 8136 8495; 13448 8133 5419; 13449 8140 8631; 13450 8139 8251;
13451 8141 8395; 13452 8142 8279; 13453 8141 8260; 13454 8143 5421;
13455 8145 5421; 13456 8146 8143; 13457 8148 8146; 13458 8150 8148;
13459 8152 8150; 13460 8154 8152; 13461 8156 8154; 13462 8158 8156;
13463 8160 8158; 13464 8162 8548; 13465 8173 8184; 13466 8184 8554;
13467 8195 8206; 13468 8206 8560; 13469 8217 8228; 13470 8228 8239;
13471 8239 8250; 13472 8250 8140; 13473 8251 8252; 13474 8252 8253;
13475 8253 8254; 13476 8254 8255; 13477 8255 8256; 13478 8256 8257;
13479 8257 8258; 13480 8258 8259; 13481 8259 8140; 13482 8260 8263;
13483 8263 8265; 13484 8265 8267; 13485 8267 8269; 13486 8269 8271;
13487 8271 8273; 13488 8273 8275; 13489 8275 8277; 13490 8277 8142;
13491 8279 8290; 13492 8281 8262; 13493 8290 8520; 13494 8292 8406;
13495 8301 8312; 13496 8303 8292; 13497 8312 8526; 13498 8314 8412;
13499 8323 8334; 13500 8325 8314; 13501 8334 8532; 13502 8336 8418;
13503 8345 8356; 13504 8347 8336; 13505 8356 8538; 13506 8358 8424;
13507 8367 5418; 13508 8368 8371; 13509 8370 8135; 13510 8371 8373;
13511 8373 8375; 13512 8375 8131; 13513 8377 8131; 13514 8379 8370;
13515 8383 8733; 13516 8385 8125; 13517 8389 8721; 13518 8391 8385;
13519 8395 8722; 13520 8397 8391; 13521 8262 8141; 13522 8402 8397;
13523 8406 8281; 13524 8408 8402; 13525 8412 8303; 13526 8414 8408;
13527 8418 8325; 13528 8420 8414; 13529 8424 8347; 13530 8425 8426;
13531 8426 8427; 13532 8427 8428; 13533 8428 5421; 13534 8430 8126;
13535 8434 8145; 13536 8436 8430; 13537 8440 8434; 13538 8442 8436;
13539 8446 8440; 13540 8477 8127; 13541 8481 8129; 13542 8482 8138;
13543 8483 8482; 13544 8484 8483; 13545 8485 8484; 13546 8486 8489;
13547 8488 8130; 13548 8489 8491; 13549 8491 8493; 13550 8493 8136;
13551 8495 8501; 13552 8497 8723; 13553 8501 8133; 13554 8503 8683;
13555 8507 8133; 13556 8509 8142; 13557 8513 8507; 13558 8518 8513;
13559 8520 8301; 13560 8524 8518; 13561 8526 8323; 13562 8530 8524;
13563 8532 8345; 13564 8536 8530; 13565 8538 8367; 13566 8542 8536;
13567 8543 8544; 13568 8544 8545; 13569 8545 8546; 13570 8546 8132;
13571 8548 8173; 13572 8552 8132; 13573 8554 8195; 13574 8558 8552;
13575 8560 8217; 13576 8564 8558; 13577 8595 8128; 13578 8599 8134;
13579 8600 8601; 13580 8601 8602; 13581 8602 8603; 13582 8603 8137;
13583 8605 8608; 13584 8606 8128; 13585 8608 8611; 13586 8609 8606;
13587 8611 8614; 13588 8612 8609; 13589 8614 8617; 13590 8615 8612;
13591 8617 8620; 13592 8618 8615; 13593 8620 8623; 13594 8621 8618;
13595 8623 8626; 13596 8624 8621; 13597 8626 8629; 13598 8627 8624;
13599 8629 7981; 13600 8630 8627; 13601 8631 8633; 13602 8633 8635;
13603 8635 5422; 13604 8664 8666; 13605 8665 5419; 13606 8666 8668;
13607 8667 8665; 13608 8668 8670; 13609 8669 8667; 13610 8670 8672;
13611 8671 8669; 13612 8672 8674; 13613 8673 8671; 13614 8674 8676;
13615 8675 8673; 13616 8676 8678; 13617 8677 8675; 13618 8678 8680;
13619 8679 8677; 13620 8680 8131; 13621 8681 8679; 13622 8682 8389;
13623 8683 8695; 13624 2051 8684; 13625 2052 8685; 13626 2063 8687;
13627 2065 8688; 13628 8134 8587; 13629 8587 8581; 13630 8581 8575;
13631 8575 8570; 13632 8570 8564; 13633 8442 8448; 13634 8448 8454;
13635 8454 8459; 13636 8459 8465; 13637 8465 8127; 13638 8692 8503;
13639 8695 8509; 13640 8721 5420; 13641 8722 8682; 13642 8723 8488;
13643 8733 8377;
ELEMENT INCIDENCES SHELL
5862 2 167 3763 1085; 5863 167 1086 3764 3763; 5864 1086 1089 3765 3764;
5865 1089 18 175 3765; 5866 1085 3763 3766 332; 5867 3763 3764 3767 3766;
5868 3764 3765 3768 3767; 5869 3765 175 1091 3768; 5870 332 3766 3769 227;
5871 3768 1091 1092 3770; 5872 227 3769 195 74; 5873 3770 1092 114 1090;
5874 18 240 3771 175; 5875 240 1093 3772 3771; 5876 1093 22 176 3772;
5877 175 3771 3773 1091; 5878 3771 3772 3774 3773; 5879 3772 176 1098 3774;

5880 1091 3773 3775 1092; 5881 3773 3774 3776 3775; 5882 3774 1098 1099 3776;
5883 1092 3775 1094 114; 5884 3775 3776 1096 1094; 5885 3776 1099 116 1096;
5886 22 247 3777 176; 5887 247 1100 3778 3777; 5888 1100 30 182 3778;
5889 176 3777 3779 1098; 5890 3777 3778 3780 3779; 5891 3778 182 1105 3780;
5892 1098 3779 3781 1099; 5893 3779 3780 3782 3781; 5894 3780 1105 1106 3782;
5895 1099 3781 1101 116; 5896 3781 3782 1103 1101; 5897 3782 1106 118 1103;
5898 30 249 3785 182; 5899 249 1109 3786 3785; 5900 1109 34 3783 3786;
5901 182 3785 3787 1105; 5902 3785 3786 3788 3787; 5903 3786 3783 3784 3788;
5904 1105 3787 3789 1106; 5905 3787 3788 3790 3789; 5906 1106 3789 1110 118;
5907 3789 3790 1112 1110; 5908 34 1107 3794 3783; 5909 1107 1115 3795 3794;
5910 1115 38 3791 3795; 5911 3783 3794 3796 3784; 5912 3794 3795 3797 3796;
5913 3795 3791 3792 3797; 5914 3796 3797 3799 3798; 5915 3797 3792 3793 3799;
5916 3798 3799 1118 1116; 5917 3799 3793 122 1118; 5918 38 1114 3803 3791;
5919 1114 1121 3804 3803; 5920 1121 42 3800 3804; 5921 3791 3803 3805 3792;
5922 3803 3804 3806 3805; 5923 3804 3800 3801 3806; 5924 3792 3805 3807 3793;
5925 3805 3806 3808 3807; 5926 3806 3801 3802 3808; 5927 3793 3807 1122 122;
5928 3807 3808 1124 1122; 5929 3808 3802 124 1124; 5930 42 1120 3812 3800;
5931 1120 1127 3813 3812; 5932 1127 46 3809 3813; 5933 3800 3812 3814 3801;
5934 3812 3813 3815 3814; 5935 3813 3809 3810 3815; 5936 3801 3814 3816 3802;
5937 3814 3815 3817 3816; 5938 3815 3810 3811 3817; 5939 3802 3816 1128 124;
5940 3816 3817 1130 1128; 5941 3817 3811 126 1130; 5942 46 1126 3821 3809;
5943 1126 1133 3822 3821; 5944 1133 50 3818 3822; 5945 3809 3821 3823 3810;
5946 3821 3822 3824 3823; 5947 3822 3818 3819 3824; 5948 3810 3823 3825 3811;
5949 3823 3824 3826 3825; 5950 3824 3819 3820 3826; 5951 3811 3825 1134 126;
5952 3825 3826 1136 1134; 5953 3826 3820 128 1136; 5954 50 1132 3830 3818;
5955 1132 1140 3831 3830; 5956 1140 54 3827 3831; 5957 3818 3830 3832 3819;
5958 3830 3831 3833 3832; 5959 3831 3827 3828 3833; 5960 3819 3832 3834 3820;
5961 3832 3833 3835 3834; 5962 3833 3828 3829 3835; 5963 3820 3834 1141 128;
5964 3834 3835 1143 1141; 5965 3835 3829 130 1143; 5966 54 1138 3839 3827;
5967 1138 1146 3840 3839; 5968 1146 58 3836 3840; 5969 3827 3839 3841 3828;
5970 3839 3840 3842 3841; 5971 3840 3836 3837 3842; 5972 3828 3841 3843 3829;
5973 3841 3842 3844 3843; 5974 3842 3837 3838 3844; 5975 3829 3843 1147 130;
5976 3843 3844 1149 1147; 5977 3844 3838 132 1149; 5978 58 1145 3847 3836;
5979 1145 1152 3848 3847; 5980 1152 62 3845 3848; 5981 3836 3847 3849 3837;
5982 3847 3848 3850 3849; 5983 3848 3845 3846 3850; 5984 3837 3849 3851 3838;
5985 3849 3850 3852 3851; 5986 3838 3851 1153 132; 5987 3851 3852 1155 1153;
5988 62 1151 3856 3845; 5989 1151 1158 3857 3856; 5990 1158 66 3853 3857;
5991 3845 3856 3858 3846; 5992 3856 3857 3859 3858; 5993 3857 3853 3854 3859;
5994 3858 3859 3861 3860; 5995 3859 3854 3855 3861; 5996 3860 3861 1161 1159;
5997 3861 3855 136 1161; 5998 66 1157 3865 3853; 5999 1157 1164 3866 3865;
6000 1164 70 3862 3866; 6001 3853 3865 3867 3854; 6002 3865 3866 3868 3867;
6003 3866 3862 3863 3868; 6004 3854 3867 3869 3855; 6005 3867 3868 3870 3869;
6006 3868 3863 3864 3870; 6007 3855 3869 1165 136; 6008 3869 3870 1167 1165;
6009 3870 3864 138 1167; 6010 70 1163 3871 3862; 6011 1163 1169 3872 3871;
6012 1169 26 179 3872; 6013 3862 3871 3873 3863; 6014 3871 3872 3874 3873;
6015 3872 179 1174 3874; 6016 3863 3873 3875 3864; 6017 3873 3874 3876 3875;
6018 3874 1174 1175 3876; 6019 3864 3875 1170 138; 6020 3875 3876 1172 1170;
6021 3876 1175 140 1172; 6022 26 281 3877 179; 6023 281 1176 3878 3877;
6024 1176 1178 3879 3878; 6025 1178 4 168 3879; 6026 179 3877 3880 1174;
6027 3877 3878 3881 3880; 6028 3878 3879 3882 3881; 6029 3879 168 1180 3882;
6030 1174 3880 3883 1175; 6031 3882 1180 1182 3884; 6032 1175 3883 1177 140;
6033 3884 1182 76 282; 6034 76 283 3885 282; 6035 283 284 285 3885;
6036 282 3885 3886 1179; 6037 3885 285 1216 3886; 6038 1179 3886 3887 1177;
6039 3886 1216 999 3887; 6040 1177 3887 1214 140; 6041 3887 999 94 1214;
6042 140 278 3888 277; 6043 278 279 280 3888; 6044 277 3888 3889 1173;
6045 3888 280 1213 3889; 6046 1173 3889 3890 1171; 6047 3889 1213 1212 3890;
6048 1171 3890 3891 138; 6049 3890 1212 275 3891; 6050 116 242 3892 241;
6051 242 1188 1187 3892; 6052 241 3892 3893 1097; 6053 3892 1187 1186 3893;
6054 1097 3893 3894 1095; 6055 3893 1186 199 3894; 6056 1095 3894 239 114;
6057 3894 199 198 239; 6058 118 244 3895 1104; 6059 244 245 246 3895;
6060 1104 3895 3896 1102; 6061 3895 246 1190 3896; 6062 1102 3896 3897 243;
6063 3896 1190 1189 3897; 6064 243 3897 242 116; 6065 3897 1189 1188 242;
6066 120 3898 3899 248; 6067 3898 250 251 3899; 6068 248 3899 3900 1113;
6069 3899 251 1192 3900; 6070 1113 3900 3901 1111; 6071 3900 1192 1191 3901;
6072 1111 3901 244 118; 6073 3901 1191 245 244; 6074 122 3902 3903 1119;
6075 3902 252 253 3903; 6076 1119 3903 3904 1117; 6077 3903 253 1194 3904;
6078 1117 3904 3905 1108; 6079 3904 1194 1193 3905; 6080 1108 3905 3898 120;
6081 3905 1193 250 3898; 6082 124 3906 3907 254; 6083 3906 255 256 3907;
6084 254 3907 3908 1125; 6085 3907 256 1196 3908; 6086 1125 3908 3909 1123;
6087 3908 1196 1195 3909; 6088 1123 3909 3902 122; 6089 3909 1195 252 3902;
6090 126 3910 3911 257; 6091 3910 258 259 3911; 6092 257 3911 3912 1131;
6093 3911 259 1198 3912; 6094 1131 3912 3913 1129; 6095 3912 1198 1197 3913;
6096 1129 3913 3906 124; 6097 3913 1197 255 3906; 6098 128 3914 3915 260;
6099 3914 261 262 3915; 6100 260 3915 3916 1137; 6101 3915 262 1201 3916;
6102 1137 3916 3917 1135; 6103 3916 1201 1200 3917; 6104 1135 3917 3910 126;
6105 3917 1200 258 3910; 6106 130 3918 3919 263; 6107 3918 264 265 3919;
6108 263 3919 3920 1144; 6109 3919 265 1203 3920; 6110 1144 3920 3921 1142;
6111 3920 1203 1202 3921; 6112 1142 3921 3914 128; 6113 3921 1202 261 3914;
6114 132 3922 3923 1150; 6115 3922 266 267 3923; 6116 1150 3923 3924 1148;
6117 3923 267 1205 3924; 6118 1148 3924 3925 1139; 6119 3924 1205 1204 3925;
6120 1139 3925 3918 130; 6121 3925 1204 264 3918; 6122 134 3926 3927 268;
6123 3926 270 271 3927; 6124 268 3927 3928 1156; 6125 3927 271 1207 3928;

6126 1156 3928 3929 1154; 6127 3928 1207 1206 3929; 6128 1154 3929 3922 132;
6129 3929 1206 266 3922; 6130 136 3930 3931 269; 6131 3930 272 273 3931;
6132 269 3931 3932 1162; 6133 3931 273 1209 3932; 6134 1162 3932 3933 1160;
6135 3932 1209 1208 3933; 6136 1160 3933 3926 134; 6137 3933 1208 270 3926;
6138 138 3891 3934 274; 6139 3891 275 276 3934; 6140 274 3934 3935 1168;
6141 3934 276 1211 3935; 6142 1168 3935 3936 1166; 6143 3935 1211 1210 3936;
6144 1166 3936 3930 136; 6145 3936 1210 272 3930; 6146 114 1185 3937 1090;
6147 1185 80 1184 3937; 6148 1090 3937 3938 1088; 6149 3937 1184 826 3938;
6150 1088 3938 3939 195; 6151 3938 826 1183 3939; 6152 195 3939 174 74;
6153 3939 1183 173 174; 6154 206 1087 3940 207; 6155 207 3940 212 88;
6156 174 173 228 3941; 6157 3941 228 229 230; 6158 84 203 3942 1430;
6159 203 827 1232 3942; 6160 1430 3942 3943 1431; 6161 3942 1232 830 3943;
6162 1431 3943 3944 329; 6163 3943 830 829 3944; 6164 329 3944 201 80;
6165 3944 829 825 201; 6166 261 1273 3945 262; 6167 1273 304 3946 3945;
6168 304 189 1274 3946; 6169 262 3945 3947 1201; 6170 1201 3947 3948 1200;
6171 1200 3948 3950 258; 6172 3948 3949 1054 3950; 6173 3949 1276 188 1054;
6174 1000 293 3951 1004; 6175 293 98 330 3951; 6176 1004 3951 3952 1003;
6177 3951 330 1305 3952; 6178 1003 3952 3953 1002; 6179 3952 1305 1306 3953;
6180 1002 3953 1215 998; 6181 3953 1306 94 1215; 6182 100 225 3954 223;
6183 223 3954 286 1181; 6184 287 216 985 3955; 6185 3955 985 284 283;
6186 12 1309 3956 172; 6187 1309 1312 3957 3956; 6188 1312 238 3958 3957;
6189 238 20 1314 3958; 6190 172 3956 3959 1308; 6191 3956 3957 3960 3959;
6192 3957 3958 3961 3960; 6193 3958 1314 1315 3961; 6194 1308 3959 3962 1310;
6195 3961 1315 237 3963; 6196 1310 3962 236 78; 6197 3963 237 112 1313;
6198 20 1316 3964 1314; 6199 1316 323 3965 3964; 6200 323 24 1321 3965;
6201 1314 3964 3966 1315; 6202 3964 3965 3967 3966; 6203 3965 1321 1322 3967;
6204 1315 3966 3968 237; 6205 3966 3967 3969 3968; 6206 3967 1322 322 3969;
6207 237 3968 1317 112; 6208 3968 3969 1319 1317; 6209 3969 322 166 1319;
6210 24 1323 3970 1321; 6211 1323 325 3971 3970; 6212 325 32 1328 3971;
6213 1321 3970 3972 1322; 6214 3970 3971 3973 3972; 6215 3971 1328 1329 3973;
6216 1322 3972 3974 322; 6217 3972 3973 3975 3974; 6218 3973 1329 324 3975;
6219 322 3974 1324 166; 6220 3974 3975 1326 1324; 6221 3975 324 164 1326;
6222 32 1330 3978 1328; 6223 1330 326 3979 3978; 6224 326 36 3976 3979;
6225 1328 3978 3980 1329; 6226 3978 3979 3981 3980; 6227 3979 3976 3977 3981;
6228 1329 3980 3982 324; 6229 3980 3981 3983 3982; 6230 324 3982 1331 164;
6231 3982 3983 1333 1331; 6232 36 1335 3987 3976; 6233 1335 328 3988 3987;
6234 328 40 3984 3988; 6235 3976 3987 3989 3977; 6236 3987 3988 3990 3989;
6237 3988 3984 3985 3990; 6238 3989 3990 3992 3991; 6239 3990 3985 3986 3992;
6240 3991 3992 1338 1336; 6241 3992 3986 160 1338; 6242 40 1340 3996 3984;
6243 1340 327 3997 3996; 6244 327 44 3993 3997; 6245 3984 3996 3998 3985;
6246 3996 3997 3999 3998; 6247 3997 3993 3994 3999; 6248 3985 3998 4000 3986;
6249 3998 3999 4001 4000; 6250 3999 3994 3995 4001; 6251 3986 4000 1341 160;
6252 4000 4001 1343 1341; 6253 4001 3995 158 1343; 6254 44 1345 4005 3993;
6255 1345 311 4006 4005; 6256 311 48 4002 4006; 6257 3993 4005 4007 3994;
6258 4005 4006 4008 4007; 6259 4006 4002 4003 4008; 6260 3994 4007 4009 3995;
6261 4007 4008 4010 4009; 6262 4008 4003 4004 4010; 6263 3995 4009 1346 158;
6264 4009 4010 1348 1346; 6265 4010 4004 156 1348; 6266 48 1350 4014 4002;
6267 1350 309 4015 4014; 6268 309 52 4011 4015; 6269 4002 4014 4016 4003;
6270 4014 4015 4017 4016; 6271 4015 4011 4012 4017; 6272 4003 4016 4018 4004;
6273 4016 4017 4019 4018; 6274 4017 4012 4013 4019; 6275 4004 4018 1351 156;
6276 4018 4019 1353 1351; 6277 4019 4013 154 1353; 6278 52 1355 4023 4011;
6279 1355 307 4024 4023; 6280 307 56 4020 4024; 6281 4011 4023 4025 4012;
6282 4023 4024 4026 4025; 6283 4024 4020 4021 4026; 6284 4012 4025 4027 4013;
6285 4025 4026 4028 4027; 6286 4026 4021 4022 4028; 6287 4013 4027 1356 154;
6288 4027 4028 1358 1356; 6289 4028 4022 152 1358; 6290 56 1360 4032 4020;
6291 1360 305 4033 4032; 6292 305 60 4029 4033; 6293 4020 4032 4034 4021;
6294 4032 4033 4035 4034; 6295 4033 4029 4030 4035; 6296 4021 4034 4036 4022;
6297 4034 4035 4037 4036; 6298 4035 4030 4031 4037; 6299 4022 4036 1361 152;
6300 4036 4037 1363 1361; 6301 4037 4031 150 1363; 6302 60 1365 4040 4029;
6303 1365 302 4041 4040; 6304 302 64 4038 4041; 6305 4029 4040 4042 4030;
6306 4040 4041 4043 4042; 6307 4041 4038 4039 4043; 6308 4030 4042 4044 4031;
6309 4042 4043 4045 4044; 6310 4031 4044 1366 150; 6311 4044 4045 1368 1366;
6312 64 1370 4049 4038; 6313 1370 300 4050 4049; 6314 300 68 4046 4050;
6315 4038 4049 4051 4039; 6316 4049 4050 4052 4051; 6317 4050 4046 4047 4052;
6318 4051 4052 4054 4053; 6319 4052 4047 4048 4054; 6320 4053 4054 1373 1371;
6321 4054 4048 146 1373; 6322 68 1375 4058 4046; 6323 1375 298 4059 4058;
6324 298 72 4055 4059; 6325 4046 4058 4060 4047; 6326 4058 4059 4061 4060;
6327 4059 4055 4056 4061; 6328 4047 4060 4062 4048; 6329 4060 4061 4063 4062;
6330 4061 4056 4057 4063; 6331 4048 4062 1376 146; 6332 4062 4063 1378 1376;
6333 4063 4057 144 1378; 6334 72 1380 4064 4055; 6335 1380 296 4065 4064;
6336 296 28 294 4065; 6337 4055 4064 4066 4056; 6338 4064 4065 4067 4066;
6339 4065 294 1385 4067; 6340 4056 4066 4068 4057; 6341 4066 4067 4069 4068;
6342 4067 1385 1386 4069; 6343 4057 4068 1381 144; 6344 4068 4069 1383 1381;
6345 4069 1386 142 1383; 6346 28 1387 4070 294; 6347 1387 1389 4071 4070;
6348 1389 171 4072 4071; 6349 171 10 1391 4072; 6350 294 4070 4073 1385;
6351 4070 4071 4074 4073; 6352 4071 4072 4075 4074; 6353 4072 1391 331 4075;
6354 1385 4073 4076 1386; 6355 4075 331 292 4077; 6356 1386 4076 1388 142;
6357 4077 292 196 197; 6358 196 170 4078 197; 6359 170 169 1428 4078;
6360 197 4078 4079 1390; 6361 4078 1428 1001 4079; 6362 1390 4079 4080 1388;
6363 4079 1001 1304 4080; 6364 1388 4080 181 142; 6365 4080 1304 98 181;
6366 142 1427 4081 295; 6367 1427 180 200 4081; 6368 295 4081 4082 1384;
6369 4081 200 1426 4082; 6370 1384 4082 4083 1382; 6371 4082 1426 1425 4083;

6372 1382 4083 4084 144; 6373 4083 1425 194 4084; 6374 166 178 4085 320;
6375 178 177 1395 4085; 6376 320 4085 4086 1320; 6377 4085 1395 1394 4086;
6378 1320 4086 4087 1318; 6379 4086 1394 319 4087; 6380 1318 4087 321 112;
6381 4087 319 202 321; 6382 164 184 4088 318; 6383 184 183 1397 4088;
6384 318 4088 4089 1327; 6385 4088 1397 1396 4089; 6386 1327 4089 4090 1325;
6387 4089 1396 317 4090; 6388 1325 4090 178 166; 6389 4090 317 177 178;
6390 162 4091 4092 316; 6391 4091 185 1400 4092; 6392 316 4092 4093 1334;
6393 4092 1400 1399 4093; 6394 1334 4093 4094 1332; 6395 4093 1399 315 4094;
6396 1332 4094 184 164; 6397 4094 315 183 184; 6398 160 4095 4096 314;
6399 4095 186 1403 4096; 6400 314 4096 4097 1339; 6401 4096 1403 1402 4097;
6402 1339 4097 4098 1337; 6403 4097 1402 1398 4098; 6404 1337 4098 4091 162;
6405 4098 1398 185 4091; 6406 158 4099 4100 313; 6407 4099 187 1406 4100;
6408 313 4100 4101 1344; 6409 4100 1406 1405 4101; 6410 1344 4101 4102 1342;
6411 4101 1405 1401 4102; 6412 1342 4102 4095 160; 6413 4102 1401 186 4095;
6414 156 4103 4104 310; 6415 4103 188 1409 4104; 6416 310 4104 4105 1349;
6417 4104 1409 1408 4105; 6418 1349 4105 4106 1347; 6419 4105 1408 1404 4106;
6420 1347 4106 4099 158; 6421 4106 1404 187 4099; 6422 154 4107 4108 308;
6423 4107 189 1274 4108; 6424 308 4108 4109 1354; 6425 4108 1274 1275 4109;
6426 1354 4109 4110 1352; 6427 4109 1275 1276 4110; 6428 1352 4110 4103 156;
6429 4110 1276 188 4103; 6430 152 4111 4112 306; 6431 4111 190 1413 4112;
6432 306 4112 4113 1359; 6433 4112 1413 1412 4113; 6434 1359 4113 4114 1357;
6435 4113 1412 1410 4114; 6436 1357 4114 4107 154; 6437 4114 1410 189 4107;
6438 150 4115 4116 303; 6439 4115 191 1416 4116; 6440 303 4116 4117 1364;
6441 4116 1416 1415 4117; 6442 1364 4117 4118 1362; 6443 4117 1415 1411 4118;
6444 1362 4118 4111 152; 6445 4118 1411 190 4111; 6446 148 4119 4120 301;
6447 4119 192 1419 4120; 6448 301 4120 4121 1369; 6449 4120 1419 1418 4121;
6450 1369 4121 4122 1367; 6451 4121 1418 1414 4122; 6452 1367 4122 4115 150;
6453 4122 1414 191 4115; 6454 146 4123 4124 299; 6455 4123 193 1422 4124;
6456 299 4124 4125 1374; 6457 4124 1422 1421 4125; 6458 1374 4125 4126 1372;
6459 4125 1421 1417 4126; 6460 1372 4126 4119 148; 6461 4126 1417 192 4119;
6462 144 4084 4127 297; 6463 4084 194 1424 4127; 6464 297 4127 4128 1379;
6465 4127 1424 1423 4128; 6466 1379 4128 4129 1377; 6467 4128 1423 1420 4129;
6468 1377 4129 4123 146; 6469 4129 1420 193 4123; 6470 112 1393 4130 1313;
6471 1393 84 1219 4130; 6472 1313 4130 4131 1311; 6473 4130 1219 828 4131;
6474 1311 4131 4132 236; 6475 4131 828 1392 4132; 6476 236 4132 233 78;
6477 4132 1392 232 233; 6478 208 234 4133 209; 6479 209 4133 235 90;
6480 233 232 823 4134; 6481 4134 823 213 214; 6482 102 290 4135 224;
6483 224 4135 1307 291; 6484 226 218 289 4136; 6485 4136 289 169 170;
6486 334 414 4137 1432; 6487 414 1433 4138 4137; 6488 1433 1436 4139 4138;
6489 1436 342 422 4139; 6490 1432 4137 4140 577; 6491 4137 4138 4141 4140;
6492 4138 4139 4142 4141; 6493 4139 422 1438 4142; 6494 577 4140 4143 473;
6495 4142 1438 1439 4144; 6496 473 4143 442 370; 6497 4144 1439 387 1437;
6498 342 486 4145 422; 6499 486 1440 4146 4145; 6500 1440 344 423 4146;
6501 422 4145 4147 1438; 6502 4145 4146 4148 4147; 6503 4146 423 1445 4148;
6504 1438 4147 4149 1439; 6505 4147 4148 4150 4149; 6506 4148 1445 1446 4150;
6507 1439 4149 1441 387; 6508 4149 4150 1443 1441; 6509 4150 1446 388 1443;
6510 344 493 4151 423; 6511 493 1447 4152 4151; 6512 1447 348 429 4152;
6513 423 4151 4153 1445; 6514 4151 4152 4154 4153; 6515 4152 429 1452 4154;
6516 1445 4153 4155 1446; 6517 4153 4154 4156 4155; 6518 4154 1452 1453 4156;
6519 1446 4155 1448 388; 6520 4155 4156 1450 1448; 6521 4156 1453 389 1450;
6522 348 495 4159 429; 6523 495 1456 4160 4159; 6524 1456 350 4157 4160;
6525 429 4159 4161 1452; 6526 4159 4160 4162 4161; 6527 4160 4157 4158 4162;
6528 1452 4161 4163 1453; 6529 4161 4162 4164 4163; 6530 1453 4163 1457 389;
6531 4163 4164 1459 1457; 6532 350 1454 4168 4157; 6533 1454 1462 4169 4168;
6534 1462 352 4165 4169; 6535 4157 4168 4170 4158; 6536 4168 4169 4171 4170;
6537 4169 4165 4166 4171; 6538 4170 4171 4173 4172; 6539 4171 4166 4167 4173;
6540 4172 4173 1465 1463; 6541 4173 4167 391 1465; 6542 352 1461 4177 4165;
6543 1461 1468 4178 4177; 6544 1468 354 4174 4178; 6545 4165 4177 4179 4166;
6546 4177 4178 4180 4179; 6547 4178 4174 4175 4180; 6548 4166 4179 4181 4167;
6549 4179 4180 4182 4181; 6550 4180 4175 4176 4182; 6551 4167 4181 1469 391;
6552 4181 4182 1471 1469; 6553 4182 4176 392 1471; 6554 354 1467 4186 4174;
6555 1467 1474 4187 4186; 6556 1474 356 4183 4187; 6557 4174 4186 4188 4175;
6558 4186 4187 4189 4188; 6559 4187 4183 4184 4189; 6560 4175 4188 4190 4176;
6561 4188 4189 4191 4190; 6562 4189 4184 4185 4191; 6563 4176 4190 1475 392;
6564 4190 4191 1477 1475; 6565 4191 4185 393 1477; 6566 356 1473 4195 4183;
6567 1473 1480 4196 4195; 6568 1480 358 4192 4196; 6569 4183 4195 4197 4184;
6570 4195 4196 4198 4197; 6571 4196 4192 4193 4198; 6572 4184 4197 4199 4185;
6573 4197 4198 4200 4199; 6574 4198 4193 4194 4200; 6575 4185 4199 1481 393;
6576 4199 4200 1483 1481; 6577 4200 4194 394 1483; 6578 358 1479 4204 4192;
6579 1479 1487 4205 4204; 6580 1487 360 4201 4205; 6581 4192 4204 4206 4193;
6582 4204 4205 4207 4206; 6583 4205 4201 4202 4207; 6584 4193 4206 4208 4194;
6585 4206 4207 4209 4208; 6586 4207 4202 4203 4209; 6587 4194 4208 1488 394;
6588 4208 4209 1490 1488; 6589 4209 4203 395 1490; 6590 360 1485 4213 4201;
6591 1485 1493 4214 4213; 6592 1493 362 4210 4214; 6593 4201 4213 4215 4202;
6594 4213 4214 4216 4215; 6595 4214 4210 4211 4216; 6596 4202 4215 4217 4203;
6597 4215 4216 4218 4217; 6598 4216 4211 4212 4218; 6599 4203 4217 1494 395;
6600 4217 4218 1496 1494; 6601 4218 4212 396 1496; 6602 362 1492 4221 4210;
6603 1492 1499 4222 4221; 6604 1499 364 4219 4222; 6605 4210 4221 4223 4211;
6606 4221 4222 4224 4223; 6607 4222 4219 4220 4224; 6608 4211 4223 4225 4212;
6609 4223 4224 4226 4225; 6610 4212 4225 1500 396; 6611 4225 4226 1502 1500;
6612 364 1498 4230 4219; 6613 1498 1505 4231 4230; 6614 1505 366 4227 4231;
6615 4219 4230 4232 4220; 6616 4230 4231 4233 4232; 6617 4231 4227 4228 4233;

6618 4232 4233 4235 4234; 6619 4233 4228 4229 4235; 6620 4234 4235 1508 1506;
6621 4235 4229 398 1508; 6622 366 1504 4239 4227; 6623 1504 1511 4240 4239;
6624 1511 368 4236 4240; 6625 4227 4239 4241 4228; 6626 4239 4240 4242 4241;
6627 4240 4236 4237 4242; 6628 4228 4241 4243 4229; 6629 4241 4242 4244 4243;
6630 4242 4237 4238 4244; 6631 4229 4243 1512 398; 6632 4243 4244 1514 1512;
6633 4244 4238 399 1514; 6634 368 1510 4245 4236; 6635 1510 1516 4246 4245;
6636 1516 346 426 4246; 6637 4236 4245 4247 4237; 6638 4245 4246 4248 4247;
6639 4246 426 1521 4248; 6640 4237 4247 4249 4238; 6641 4247 4248 4250 4249;
6642 4248 1521 1522 4250; 6643 4238 4249 1517 399; 6644 4249 4250 1519 1517;
6645 4250 1522 400 1519; 6646 346 527 4251 426; 6647 527 1523 4252 4251;
6648 1523 1525 4253 4252; 6649 1525 335 415 4253; 6650 426 4251 4254 1521;
6651 4251 4252 4255 4254; 6652 4252 4253 4256 4255; 6653 4253 415 1527 4256;
6654 1521 4254 4257 1522; 6655 4256 1527 1529 4258; 6656 1522 4257 1524 400;
6657 4258 1529 371 528; 6658 371 529 4259 528; 6659 529 530 531 4259;
6660 528 4259 4260 1526; 6661 4259 531 1563 4260; 6662 1526 4260 4261 1524;
6663 4260 1563 1021 4261; 6664 1524 4261 1561 400; 6665 4261 1021 381 1561;
6666 400 524 4262 523; 6667 524 525 526 4262; 6668 523 4262 4263 1520;
6669 4262 526 1560 4263; 6670 1520 4263 4264 1518; 6671 4263 1560 1559 4264;
6672 1518 4264 4265 399; 6673 4264 1559 521 4265; 6674 388 488 4266 487;
6675 488 1535 1534 4266; 6676 487 4266 4267 1444; 6677 4266 1534 1533 4267;
6678 1444 4267 4268 1442; 6679 4267 1533 445 4268; 6680 1442 4268 485 387;
6681 4268 445 444 485; 6682 389 490 4269 1451; 6683 490 491 492 4269;
6684 1451 4269 4270 1449; 6685 4269 492 1537 4270; 6686 1449 4270 4271 489;
6687 4270 1537 1536 4271; 6688 489 4271 488 388; 6689 4271 1536 1535 488;
6690 390 4272 4273 494; 6691 4272 496 497 4273; 6692 494 4273 4274 1460;
6693 4273 497 1539 4274; 6694 1460 4274 4275 1458; 6695 4274 1539 1538 4275;
6696 1458 4275 490 389; 6697 4275 1538 491 490; 6698 391 4276 4277 1466;
6699 4276 498 499 4277; 6700 1466 4277 4278 1464; 6701 4277 499 1541 4278;
6702 1464 4278 4279 1455; 6703 4278 1541 1540 4279; 6704 1455 4279 4272 390;
6705 4279 1540 496 4272; 6706 392 4280 4281 500; 6707 4280 501 502 4281;
6708 500 4281 4282 1472; 6709 4281 502 1543 4282; 6710 1472 4282 4283 1470;
6711 4282 1543 1542 4283; 6712 1470 4283 4276 391; 6713 4283 1542 498 4276;
6714 393 4284 4285 503; 6715 4284 504 505 4285; 6716 503 4285 4286 1478;
6717 4285 505 1545 4286; 6718 1478 4286 4287 1476; 6719 4286 1545 1544 4287;
6720 1476 4287 4280 392; 6721 4287 1544 501 4280; 6722 394 4288 4289 506;
6723 4288 507 508 4289; 6724 506 4289 4290 1484; 6725 4289 508 1548 4290;
6726 1484 4290 4291 1482; 6727 4290 1548 1547 4291; 6728 1482 4291 4284 393;
6729 4291 1547 504 4284; 6730 395 4292 4293 509; 6731 4292 510 511 4293;
6732 509 4293 4294 1491; 6733 4293 511 1550 4294; 6734 1491 4294 4295 1489;
6735 4294 1550 1549 4295; 6736 1489 4295 4288 394; 6737 4295 1549 507 4288;
6738 396 4296 4297 1497; 6739 4296 512 513 4297; 6740 1497 4297 4298 1495;
6741 4297 513 1552 4298; 6742 1495 4298 4299 1486; 6743 4298 1552 1551 4299;
6744 1486 4299 4292 395; 6745 4299 1551 510 4292; 6746 397 4300 4301 514;
6747 4300 516 517 4301; 6748 514 4301 4302 1503; 6749 4301 517 1554 4302;
6750 1503 4302 4303 1501; 6751 4302 1554 1553 4303; 6752 1501 4303 4296 396;
6753 4303 1553 512 4296; 6754 398 4304 4305 515; 6755 4304 518 519 4305;
6756 515 4305 4306 1509; 6757 4305 519 1556 4306; 6758 1509 4306 4307 1507;
6759 4306 1556 1555 4307; 6760 1507 4307 4300 397; 6761 4307 1555 516 4300;
6762 399 4265 4308 520; 6763 4265 521 522 4308; 6764 520 4308 4309 1515;
6765 4308 522 1558 4309; 6766 1515 4309 4310 1513; 6767 4309 1558 1557 4310;
6768 1513 4310 4304 398; 6769 4310 1557 518 4304; 6770 387 1532 4311 1437;
6771 1532 374 1531 4311; 6772 1437 4311 4312 1435; 6773 4311 1531 947 4312;
6774 1435 4312 4313 442; 6775 4312 947 1530 4313; 6776 442 4313 421 370;
6777 4313 1530 420 421; 6778 452 1434 4314 453; 6779 453 4314 458 378;
6780 421 420 474 4315; 6781 4315 474 475 476; 6782 376 449 4316 1696;
6783 449 948 952 4316; 6784 1696 4316 4317 1697; 6785 4316 952 953 4317;
6786 1697 4317 4318 574; 6787 4317 953 954 4318; 6788 574 4318 447 374;
6789 4318 954 946 447; 6790 507 1566 4319 508; 6791 1566 550 4320 4319;
6792 550 436 1567 4320; 6793 508 4319 4321 1548; 6794 1548 4321 4322 1547;
6795 1547 4322 4324 504; 6796 4322 4323 1066 4324; 6797 4323 1569 435 1066;
6798 1018 539 4325 1022; 6799 539 383 575 4325; 6800 1022 4325 4326 1023;
6801 4325 575 1571 4326; 6802 1023 4326 4327 1024; 6803 4326 1571 1572 4327;
6804 1024 4327 1562 1020; 6805 4327 1572 381 1562; 6806 384 471 4328 469;
6807 469 4328 532 1528; 6808 533 462 1014 4329; 6809 4329 1014 530 529;
6810 339 1575 4330 419; 6811 1575 1578 4331 4330; 6812 1578 484 4332 4331;
6813 484 343 1580 4332; 6814 419 4330 4333 1574; 6815 4330 4331 4334 4333;
6816 4331 4332 4335 4334; 6817 4332 1580 1581 4335; 6818 1574 4333 4336 1576;
6819 4335 1581 483 4337; 6820 1576 4336 482 373; 6821 4337 483 386 1579;
6822 343 1582 4338 1580; 6823 1582 568 4339 4338; 6824 568 345 1587 4339;
6825 1580 4338 4340 1581; 6826 4338 4339 4341 4340; 6827 4339 1587 1588 4341;
6828 1581 4340 4342 483; 6829 4340 4341 4343 4342; 6830 4341 1588 567 4343;
6831 483 4342 1583 386; 6832 4342 4343 1585 1583; 6833 4343 567 413 1585;
6834 345 1589 4344 1587; 6835 1589 570 4345 4344; 6836 570 349 1594 4345;
6837 1587 4344 4346 1588; 6838 4344 4345 4347 4346; 6839 4345 1594 1595 4347;
6840 1588 4346 4348 567; 6841 4346 4347 4349 4348; 6842 4347 1595 569 4349;
6843 567 4348 1590 413; 6844 4348 4349 1592 1590; 6845 4349 569 412 1592;
6846 349 1596 4352 1594; 6847 1596 571 4353 4352; 6848 571 351 4350 4353;
6849 1594 4352 4354 1595; 6850 4352 4353 4355 4354; 6851 4353 4350 4351 4355;
6852 1595 4354 4356 569; 6853 4354 4355 4357 4356; 6854 569 4356 1597 412;
6855 4356 4357 1599 1597; 6856 351 1601 4361 4350; 6857 1601 573 4362 4361;
6858 573 353 4358 4362; 6859 4350 4361 4363 4351; 6860 4361 4362 4364 4363;
6861 4362 4358 4359 4364; 6862 4363 4364 4366 4365; 6863 4364 4359 4360 4366;

6864 4365 4366 1604 1602; 6865 4366 4360 410 1604; 6866 353 1606 4370 4358;
6867 1606 572 4371 4370; 6868 572 355 4367 4371; 6869 4358 4370 4372 4359;
6870 4370 4371 4373 4372; 6871 4371 4367 4368 4373; 6872 4359 4372 4374 4360;
6873 4372 4373 4375 4374; 6874 4373 4368 4369 4375; 6875 4360 4374 1607 410;
6876 4374 4375 1609 1607; 6877 4375 4369 409 1609; 6878 355 1611 4379 4367;
6879 1611 557 4380 4379; 6880 557 357 4376 4380; 6881 4367 4379 4381 4368;
6882 4379 4380 4382 4381; 6883 4380 4376 4377 4382; 6884 4368 4381 4383 4369;
6885 4381 4382 4384 4383; 6886 4382 4377 4378 4384; 6887 4369 4383 1612 409;
6888 4383 4384 1614 1612; 6889 4384 4378 408 1614; 6890 357 1616 4388 4376;
6891 1616 555 4389 4388; 6892 555 359 4385 4389; 6893 4376 4388 4390 4377;
6894 4388 4389 4391 4390; 6895 4389 4385 4386 4391; 6896 4377 4390 4392 4378;
6897 4390 4391 4393 4392; 6898 4391 4386 4387 4393; 6899 4378 4392 1617 408;
6900 4392 4393 1619 1617; 6901 4393 4387 407 1619; 6902 359 1621 4397 4385;
6903 1621 553 4398 4397; 6904 553 361 4394 4398; 6905 4385 4397 4399 4386;
6906 4397 4398 4400 4399; 6907 4398 4394 4395 4400; 6908 4386 4399 4401 4387;
6909 4399 4400 4402 4401; 6910 4400 4395 4396 4402; 6911 4387 4401 1622 407;
6912 4401 4402 1624 1622; 6913 4402 4396 406 1624; 6914 361 1626 4406 4394;
6915 1626 551 4407 4406; 6916 551 363 4403 4407; 6917 4394 4406 4408 4395;
6918 4406 4407 4409 4408; 6919 4407 4403 4404 4409; 6920 4395 4408 4410 4396;
6921 4408 4409 4411 4410; 6922 4409 4404 4405 4411; 6923 4396 4410 1627 406;
6924 4410 4411 1629 1627; 6925 4411 4405 405 1629; 6926 363 1631 4414 4403;
6927 1631 548 4415 4414; 6928 548 365 4412 4415; 6929 4403 4414 4416 4404;
6930 4414 4415 4417 4416; 6931 4415 4412 4413 4417; 6932 4404 4416 4418 4405;
6933 4416 4417 4419 4418; 6934 4405 4418 1632 405; 6935 4418 4419 1634 1632;
6936 365 1636 4423 4412; 6937 1636 546 4424 4423; 6938 546 367 4420 4424;
6939 4412 4423 4425 4413; 6940 4423 4424 4426 4425; 6941 4424 4420 4421 4426;
6942 4425 4426 4428 4427; 6943 4426 4421 4422 4428; 6944 4427 4428 1639 1637;
6945 4428 4422 403 1639; 6946 367 1641 4432 4420; 6947 1641 544 4433 4432;
6948 544 369 4429 4433; 6949 4420 4432 4434 4421; 6950 4432 4433 4435 4434;
6951 4433 4429 4430 4435; 6952 4421 4434 4436 4422; 6953 4434 4435 4437 4436;
6954 4435 4430 4431 4437; 6955 4422 4436 1642 403; 6956 4436 4437 1644 1642;
6957 4437 4431 402 1644; 6958 369 1646 4438 4429; 6959 1646 542 4439 4438;
6960 542 347 540 4439; 6961 4429 4438 4440 4430; 6962 4438 4439 4441 4440;
6963 4439 540 1651 4441; 6964 4430 4440 4442 4431; 6965 4440 4441 4443 4442;
6966 4441 1651 1652 4443; 6967 4431 4442 1647 402; 6968 4442 4443 1649 1647;
6969 4443 1652 401 1649; 6970 347 1653 4444 540; 6971 1653 1655 4445 4444;
6972 1655 418 4446 4445; 6973 418 338 1657 4446; 6974 540 4444 4447 1651;
6975 4444 4445 4448 4447; 6976 4445 4446 4449 4448; 6977 4446 1657 576 4449;
6978 1651 4447 4450 1652; 6979 4449 576 538 4451; 6980 1652 4450 1654 401;
6981 4451 538 372 443; 6982 372 417 4452 443; 6983 417 416 1694 4452;
6984 443 4452 4453 1656; 6985 4452 1694 1019 4453; 6986 1656 4453 4454 1654;
6987 4453 1019 1570 4454; 6988 1654 4454 428 401; 6989 4454 1570 383 428;
6990 401 1693 4455 541; 6991 1693 427 446 4455; 6992 541 4455 4456 1650;
6993 4455 446 1692 4456; 6994 1650 4456 4457 1648; 6995 4456 1692 1691 4457;
6996 1648 4457 4458 402; 6997 4457 1691 441 4458; 6998 413 425 4459 565;
6999 425 424 1661 4459; 7000 565 4459 4460 1586; 7001 4459 1661 1660 4460;
7002 1586 4460 4461 1584; 7003 4460 1660 564 4461; 7004 1584 4461 566 386;
7005 4461 564 448 566; 7006 412 431 4462 563; 7007 431 430 1663 4462;
7008 563 4462 4463 1593; 7009 4462 1663 1662 4463; 7010 1593 4463 4464 1591;
7011 4463 1662 562 4464; 7012 1591 4464 425 413; 7013 4464 562 424 425;
7014 411 4465 4466 561; 7015 4465 432 1666 4466; 7016 561 4466 4467 1600;
7017 4466 1666 1665 4467; 7018 1600 4467 4468 1598; 7019 4467 1665 560 4468;
7020 1598 4468 431 412; 7021 4468 560 430 431; 7022 410 4469 4470 559;
7023 4469 433 1669 4470; 7024 559 4470 4471 1605; 7025 4470 1669 1668 4471;
7026 1605 4471 4472 1603; 7027 4471 1668 1664 4472; 7028 1603 4472 4465 411;
7029 4472 1664 432 4465; 7030 409 4473 4474 558; 7031 4473 434 1672 4474;
7032 558 4474 4475 1610; 7033 4474 1672 1671 4475; 7034 1610 4475 4476 1608;
7035 4475 1671 1667 4476; 7036 1608 4476 4469 410; 7037 4476 1667 433 4469;
7038 408 4477 4478 556; 7039 4477 435 1675 4478; 7040 556 4478 4479 1615;
7041 4478 1675 1674 4479; 7042 1615 4479 4480 1613; 7043 4479 1674 1670 4480;
7044 1613 4480 4473 409; 7045 4480 1670 434 4473; 7046 407 4481 4482 554;
7047 4481 436 1567 4482; 7048 554 4482 4483 1620; 7049 4482 1567 1568 4483;
7050 1620 4483 4484 1618; 7051 4483 1568 1569 4484; 7052 1618 4484 4477 408;
7053 4484 1569 435 4477; 7054 406 4485 4486 552; 7055 4485 437 1679 4486;
7056 552 4486 4487 1625; 7057 4486 1679 1678 4487; 7058 1625 4487 4488 1623;
7059 4487 1678 1676 4488; 7060 1623 4488 4481 407; 7061 4488 1676 436 4481;
7062 405 4489 4490 549; 7063 4489 438 1682 4490; 7064 549 4490 4491 1630;
7065 4490 1682 1681 4491; 7066 1630 4491 4492 1628; 7067 4491 1681 1677 4492;
7068 1628 4492 4485 406; 7069 4492 1677 437 4485; 7070 404 4493 4494 547;
7071 4493 439 1685 4494; 7072 547 4494 4495 1635; 7073 4494 1685 1684 4495;
7074 1635 4495 4496 1633; 7075 4495 1684 1680 4496; 7076 1633 4496 4489 405;
7077 4496 1680 438 4489; 7078 403 4497 4498 545; 7079 4497 440 1688 4498;
7080 545 4498 4499 1640; 7081 4498 1688 1687 4499; 7082 1640 4499 4500 1638;
7083 4499 1687 1683 4500; 7084 1638 4500 4493 404; 7085 4500 1683 439 4493;
7086 402 4458 4501 543; 7087 4458 441 1690 4501; 7088 543 4501 4502 1645;
7089 4501 1690 1689 4502; 7090 1645 4502 4503 1643; 7091 4502 1689 1686 4503;
7092 1643 4503 4497 403; 7093 4503 1686 440 4497; 7094 386 1659 4504 1579;
7095 1659 376 1565 4504; 7096 1579 4504 4505 1577; 7097 4504 1565 949 4505;
7098 1577 4505 4506 482; 7099 4505 949 1658 4506; 7100 482 4506 479 373;
7101 4506 1658 478 479; 7102 454 480 4507 455; 7103 455 4507 481 379;
7104 479 478 929 4508; 7105 4508 929 459 460; 7106 385 536 4509 470;
7107 470 4509 1573 537; 7108 472 464 535 4510; 7109 4510 535 416 417;

7110 578 658 4511 1698; 7111 658 1699 4512 4511; 7112 1699 1702 4513 4512;
7113 1702 586 666 4513; 7114 1698 4511 4514 821; 7115 4511 4512 4515 4514;
7116 4512 4513 4516 4515; 7117 4513 666 1704 4516; 7118 821 4514 4517 717;
7119 4516 1704 1705 4518; 7120 717 4517 686 614; 7121 4518 1705 631 1703;
7122 586 730 4519 666; 7123 730 1706 4520 4519; 7124 1706 588 667 4520;
7125 666 4519 4521 1704; 7126 4519 4520 4522 4521; 7127 4520 667 1711 4522;
7128 1704 4521 4523 1705; 7129 4521 4522 4524 4523; 7130 4522 1711 1712 4524;
7131 1705 4523 1707 631; 7132 4523 4524 1709 1707; 7133 4524 1712 632 1709;
7134 588 737 4525 667; 7135 737 1713 4526 4525; 7136 1713 592 673 4526;
7137 667 4525 4527 1711; 7138 4525 4526 4528 4527; 7139 4526 673 1718 4528;
7140 1711 4527 4529 1712; 7141 4527 4528 4530 4529; 7142 4528 1718 1719 4530;
7143 1712 4529 1714 632; 7144 4529 4530 1716 1714; 7145 4530 1719 633 1716;
7146 592 739 4533 673; 7147 739 1722 4534 4533; 7148 1722 594 4531 4534;
7149 673 4533 4535 1718; 7150 4533 4534 4536 4535; 7151 4534 4531 4532 4536;
7152 1718 4535 4537 1719; 7153 4535 4536 4538 4537; 7154 1719 4537 1723 633;
7155 4537 4538 1725 1723; 7156 594 1720 4542 4531; 7157 1720 1728 4543 4542;
7158 1728 596 4539 4543; 7159 4531 4542 4544 4532; 7160 4542 4543 4545 4544;
7161 4543 4539 4540 4545; 7162 4544 4545 4547 4546; 7163 4545 4540 4541 4547;
7164 4546 4547 1731 1729; 7165 4547 4541 635 1731; 7166 596 1727 4551 4539;
7167 1727 1734 4552 4551; 7168 1734 598 4548 4552; 7169 4539 4551 4553 4540;
7170 4551 4552 4554 4553; 7171 4552 4548 4549 4554; 7172 4540 4553 4555 4541;
7173 4553 4554 4556 4555; 7174 4554 4549 4550 4556; 7175 4541 4555 1735 635;
7176 4555 4556 1737 1735; 7177 4556 4550 636 1737; 7178 598 1733 4560 4548;
7179 1733 1740 4561 4560; 7180 1740 600 4557 4561; 7181 4548 4560 4562 4549;
7182 4560 4561 4563 4562; 7183 4561 4557 4558 4563; 7184 4549 4562 4564 4550;
7185 4562 4563 4565 4564; 7186 4563 4558 4559 4565; 7187 4550 4564 1741 636;
7188 4564 4565 1743 1741; 7189 4565 4559 637 1743; 7190 600 1739 4569 4557;
7191 1739 1746 4570 4569; 7192 1746 602 4566 4570; 7193 4557 4569 4571 4558;
7194 4569 4570 4572 4571; 7195 4570 4566 4567 4572; 7196 4558 4571 4573 4559;
7197 4571 4572 4574 4573; 7198 4572 4567 4568 4574; 7199 4559 4573 1747 637;
7200 4573 4574 1749 1747; 7201 4574 4568 638 1749; 7202 602 1745 4578 4566;
7203 1745 1753 4579 4578; 7204 1753 604 4575 4579; 7205 4566 4578 4580 4567;
7206 4578 4579 4581 4580; 7207 4579 4575 4576 4581; 7208 4567 4580 4582 4568;
7209 4580 4581 4583 4582; 7210 4581 4576 4577 4583; 7211 4568 4582 1754 638;
7212 4582 4583 1756 1754; 7213 4583 4577 639 1756; 7214 604 1751 4587 4575;
7215 1751 1759 4588 4587; 7216 1759 606 4584 4588; 7217 4575 4587 4589 4576;
7218 4587 4588 4590 4589; 7219 4588 4584 4585 4590; 7220 4576 4589 4591 4577;
7221 4589 4590 4592 4591; 7222 4590 4585 4586 4592; 7223 4577 4591 1760 639;
7224 4591 4592 1762 1760; 7225 4592 4586 640 1762; 7226 606 1758 4595 4584;
7227 1758 1765 4596 4595; 7228 1765 608 4593 4596; 7229 4584 4595 4597 4585;
7230 4595 4596 4598 4597; 7231 4596 4593 4594 4598; 7232 4585 4597 4599 4586;
7233 4597 4598 4600 4599; 7234 4586 4599 1766 640; 7235 4599 4600 1768 1766;
7236 608 1764 4604 4593; 7237 1764 1771 4605 4604; 7238 1771 610 4601 4605;
7239 4593 4604 4606 4594; 7240 4604 4605 4607 4606; 7241 4605 4601 4602 4607;
7242 4606 4607 4609 4608; 7243 4607 4602 4603 4609; 7244 4608 4609 1774 1772;
7245 4609 4603 642 1774; 7246 610 1770 4613 4601; 7247 1770 1777 4614 4613;
7248 1777 612 4610 4614; 7249 4601 4613 4615 4602; 7250 4613 4614 4616 4615;
7251 4614 4610 4611 4616; 7252 4602 4615 4617 4603; 7253 4615 4616 4618 4617;
7254 4616 4611 4612 4618; 7255 4603 4617 1778 642; 7256 4617 4618 1780 1778;
7257 4618 4612 643 1780; 7258 612 1776 4619 4610; 7259 1776 1782 4620 4619;
7260 1782 590 670 4620; 7261 4610 4619 4621 4611; 7262 4619 4620 4622 4621;
7263 4620 670 1787 4622; 7264 4611 4621 4623 4612; 7265 4621 4622 4624 4623;
7266 4622 1787 1788 4624; 7267 4612 4623 1783 643; 7268 4623 4624 1785 1783;
7269 4624 1788 644 1785; 7270 590 771 4625 670; 7271 771 1789 4626 4625;
7272 1789 1791 4627 4626; 7273 1791 579 659 4627; 7274 670 4625 4628 1787;
7275 4625 4626 4629 4628; 7276 4626 4627 4630 4629; 7277 4627 659 1793 4630;
7278 1787 4628 4631 1788; 7279 4630 1793 1795 4632; 7280 1788 4631 1790 644;
7281 4632 1795 615 772; 7282 615 773 4633 772; 7283 773 774 775 4633;
7284 772 4633 4634 1792; 7285 4633 775 1829 4634; 7286 1792 4634 4635 1790;
7287 4634 1829 1034 4635; 7288 1790 4635 1827 644; 7289 4635 1034 625 1827;
7290 644 768 4636 767; 7291 768 769 770 4636; 7292 767 4636 4637 1786;
7293 4636 770 1826 4637; 7294 1786 4637 4638 1784; 7295 4637 1826 1825 4638;
7296 1784 4638 4639 643; 7297 4638 1825 765 4639; 7298 632 732 4640 731;
7299 732 1801 1800 4640; 7300 731 4640 4641 1710; 7301 4640 1800 1799 4641;
7302 1710 4641 4642 1708; 7303 4641 1799 689 4642; 7304 1708 4642 729 631;
7305 4642 689 688 729; 7306 633 734 4643 1717; 7307 734 735 736 4643;
7308 1717 4643 4644 1715; 7309 4643 736 1803 4644; 7310 1715 4644 4645 733;
7311 4644 1803 1802 4645; 7312 733 4645 732 632; 7313 4645 1802 1801 732;
7314 634 4646 4647 738; 7315 4646 740 741 4647; 7316 738 4647 4648 1726;
7317 4647 741 1805 4648; 7318 1726 4648 4649 1724; 7319 4648 1805 1804 4649;
7320 1724 4649 734 633; 7321 4649 1804 735 734; 7322 635 4650 4651 1732;
7323 4650 742 743 4651; 7324 1732 4651 4652 1730; 7325 4651 743 1807 4652;
7326 1730 4652 4653 1721; 7327 4652 1807 1806 4653; 7328 1721 4653 4646 634;
7329 4653 1806 740 4646; 7330 636 4654 4655 744; 7331 4654 745 746 4655;
7332 744 4655 4656 1738; 7333 4655 746 1809 4656; 7334 1738 4656 4657 1736;
7335 4656 1809 1808 4657; 7336 1736 4657 4650 635; 7337 4657 1808 742 4650;
7338 637 4658 4659 747; 7339 4658 748 749 4659; 7340 747 4659 4660 1744;
7341 4659 749 1811 4660; 7342 1744 4660 4661 1742; 7343 4660 1811 1810 4661;
7344 1742 4661 4654 636; 7345 4661 1810 745 4654; 7346 638 4662 4663 750;
7347 4662 751 752 4663; 7348 750 4663 4664 1750; 7349 4663 752 1814 4664;
7350 1750 4664 4665 1748; 7351 4664 1814 1813 4665; 7352 1748 4665 4658 637;
7353 4665 1813 748 4658; 7354 639 4666 4667 753; 7355 4666 754 755 4667;

7356 753 4667 4668 1757; 7357 4667 755 1816 4668; 7358 1757 4668 4669 1755;
7359 4668 1816 1815 4669; 7360 1755 4669 4662 638; 7361 4669 1815 751 4662;
7362 640 4670 4671 1763; 7363 4670 756 757 4671; 7364 1763 4671 4672 1761;
7365 4671 757 1818 4672; 7366 1761 4672 4673 1752; 7367 4672 1818 1817 4673;
7368 1752 4673 4666 639; 7369 4673 1817 754 4666; 7370 641 4674 4675 758;
7371 4674 760 761 4675; 7372 758 4675 4676 1769; 7373 4675 761 1820 4676;
7374 1769 4676 4677 1767; 7375 4676 1820 1819 4677; 7376 1767 4677 4670 640;
7377 4677 1819 756 4670; 7378 642 4678 4679 759; 7379 4678 762 763 4679;
7380 759 4679 4680 1775; 7381 4679 763 1822 4680; 7382 1775 4680 4681 1773;
7383 4680 1822 1821 4681; 7384 1773 4681 4674 641; 7385 4681 1821 760 4674;
7386 643 4639 4682 764; 7387 4639 765 766 4682; 7388 764 4682 4683 1781;
7389 4682 766 1824 4683; 7390 1781 4683 4684 1779; 7391 4683 1824 1823 4684;
7392 1779 4684 4678 642; 7393 4684 1823 762 4678; 7394 631 1798 4685 1703;
7395 1798 618 1797 4685; 7396 1703 4685 4686 1701; 7397 4685 1797 978 4686;
7398 1701 4686 4687 686; 7399 4686 978 1796 4687; 7400 686 4687 665 614;
7401 4687 1796 664 665; 7402 696 1700 4688 697; 7403 697 4688 702 622;
7404 665 664 718 4689; 7405 4689 718 719 720; 7406 620 693 4690 1962;
7407 693 974 976 4690; 7408 1962 4690 4691 1963; 7409 4690 976 979 4691;
7410 1963 4691 4692 818; 7411 4691 979 980 4692; 7412 818 4692 691 618;
7413 4692 980 977 691; 7414 751 1832 4693 752; 7415 1832 794 4694 4693;
7416 794 680 1833 4694; 7417 752 4693 4695 1814; 7418 1814 4695 4696 1813;
7419 1813 4696 4698 748; 7420 4696 4697 1073 4698; 7421 4697 1835 679 1073;
7422 1031 783 4699 1035; 7423 783 627 819 4699; 7424 1035 4699 4700 1036;
7425 4699 819 1837 4700; 7426 1036 4700 4701 1037; 7427 4700 1837 1838 4701;
7428 1037 4701 1828 1033; 7429 4701 1838 625 1828; 7430 628 715 4702 713;
7431 713 4702 776 1794; 7432 777 706 1027 4703; 7433 4703 1027 774 773;
7434 583 1841 4704 663; 7435 1841 1844 4705 4704; 7436 1844 728 4706 4705;
7437 728 587 1846 4706; 7438 663 4704 4707 1840; 7439 4704 4705 4708 4707;
7440 4705 4706 4709 4708; 7441 4706 1846 1847 4709; 7442 1840 4707 4710 1842;
7443 4709 1847 727 4711; 7444 1842 4710 726 617; 7445 4711 727 630 1845;
7446 587 1848 4712 1846; 7447 1848 812 4713 4712; 7448 812 589 1853 4713;
7449 1846 4712 4714 1847; 7450 4712 4713 4715 4714; 7451 4713 1853 1854 4715;
7452 1847 4714 4716 727; 7453 4714 4715 4717 4716; 7454 4715 1854 811 4717;
7455 727 4716 1849 630; 7456 4716 4717 1851 1849; 7457 4717 811 657 1851;
7458 589 1855 4718 1853; 7459 1855 814 4719 4718; 7460 814 593 1860 4719;
7461 1853 4718 4720 1854; 7462 4718 4719 4721 4720; 7463 4719 1860 1861 4721;
7464 1854 4720 4722 811; 7465 4720 4721 4723 4722; 7466 4721 1861 813 4723;
7467 811 4722 1856 657; 7468 4722 4723 1858 1856; 7469 4723 813 656 1858;
7470 593 1862 4726 1860; 7471 1862 815 4727 4726; 7472 815 595 4724 4727;
7473 1860 4726 4728 1861; 7474 4726 4727 4729 4728; 7475 4727 4724 4725 4729;
7476 1861 4728 4730 813; 7477 4728 4729 4731 4730; 7478 813 4730 1863 656;
7479 4730 4731 1865 1863; 7480 595 1867 4735 4724; 7481 1867 817 4736 4735;
7482 817 597 4732 4736; 7483 4724 4735 4737 4725; 7484 4735 4736 4738 4737;
7485 4736 4732 4733 4738; 7486 4737 4738 4740 4739; 7487 4738 4733 4734 4740;
7488 4739 4740 1870 1868; 7489 4740 4734 654 1870; 7490 597 1872 4744 4732;
7491 1872 816 4745 4744; 7492 816 599 4741 4745; 7493 4732 4744 4746 4733;
7494 4744 4745 4747 4746; 7495 4745 4741 4742 4747; 7496 4733 4746 4748 4734;
7497 4746 4747 4749 4748; 7498 4747 4742 4743 4749; 7499 4734 4748 1873 654;
7500 4748 4749 1875 1873; 7501 4749 4743 653 1875; 7502 599 1877 4753 4741;
7503 1877 801 4754 4753; 7504 801 601 4750 4754; 7505 4741 4753 4755 4742;
7506 4753 4754 4756 4755; 7507 4754 4750 4751 4756; 7508 4742 4755 4757 4743;
7509 4755 4756 4758 4757; 7510 4756 4751 4752 4758; 7511 4743 4757 1878 653;
7512 4757 4758 1880 1878; 7513 4758 4752 652 1880; 7514 601 1882 4762 4750;
7515 1882 799 4763 4762; 7516 799 603 4759 4763; 7517 4750 4762 4764 4751;
7518 4762 4763 4765 4764; 7519 4763 4759 4760 4765; 7520 4751 4764 4766 4752;
7521 4764 4765 4767 4766; 7522 4765 4760 4761 4767; 7523 4752 4766 1883 652;
7524 4766 4767 1885 1883; 7525 4767 4761 651 1885; 7526 603 1887 4771 4759;
7527 1887 797 4772 4771; 7528 797 605 4768 4772; 7529 4759 4771 4773 4760;
7530 4771 4772 4774 4773; 7531 4772 4768 4769 4774; 7532 4760 4773 4775 4761;
7533 4773 4774 4776 4775; 7534 4774 4769 4770 4776; 7535 4761 4775 1888 651;
7536 4775 4776 1890 1888; 7537 4776 4770 650 1890; 7538 605 1892 4780 4768;
7539 1892 795 4781 4780; 7540 795 607 4777 4781; 7541 4768 4780 4782 4769;
7542 4780 4781 4783 4782; 7543 4781 4777 4778 4783; 7544 4769 4782 4784 4770;
7545 4782 4783 4785 4784; 7546 4783 4778 4779 4785; 7547 4770 4784 1893 650;
7548 4784 4785 1895 1893; 7549 4785 4779 649 1895; 7550 607 1897 4788 4777;
7551 1897 792 4789 4788; 7552 792 609 4786 4789; 7553 4777 4788 4790 4778;
7554 4788 4789 4791 4790; 7555 4789 4786 4787 4791; 7556 4778 4790 4792 4779;
7557 4790 4791 4793 4792; 7558 4779 4792 1898 649; 7559 4792 4793 1900 1898;
7560 609 1902 4797 4786; 7561 1902 790 4798 4797; 7562 790 611 4794 4798;
7563 4786 4797 4799 4787; 7564 4797 4798 4800 4799; 7565 4798 4794 4795 4800;
7566 4799 4800 4802 4801; 7567 4800 4795 4796 4802; 7568 4801 4802 1905 1903;
7569 4802 4796 647 1905; 7570 611 1907 4806 4794; 7571 1907 788 4807 4806;
7572 788 613 4803 4807; 7573 4794 4806 4808 4795; 7574 4806 4807 4809 4808;
7575 4807 4803 4804 4809; 7576 4795 4808 4810 4796; 7577 4808 4809 4811 4810;
7578 4809 4804 4805 4811; 7579 4796 4810 1908 647; 7580 4810 4811 1910 1908;
7581 4811 4805 646 1910; 7582 613 1912 4812 4803; 7583 1912 786 4813 4812;
7584 786 591 784 4813; 7585 4803 4812 4814 4804; 7586 4812 4813 4815 4814;
7587 4813 784 1917 4815; 7588 4804 4814 4816 4805; 7589 4814 4815 4817 4816;
7590 4815 1917 1918 4817; 7591 4805 4816 1913 646; 7592 4816 4817 1915 1913;
7593 4817 1918 645 1915; 7594 591 1919 4818 784; 7595 1919 1921 4819 4818;
7596 1921 662 4820 4819; 7597 662 582 1923 4820; 7598 784 4818 4821 1917;
7599 4818 4819 4822 4821; 7600 4819 4820 4823 4822; 7601 4820 1923 820 4823;

7602 1917 4821 4824 1918; 7603 4823 820 782 4825; 7604 1918 4824 1920 645;
7605 4825 782 616 687; 7606 616 661 4826 687; 7607 661 660 1960 4826;
7608 687 4826 4827 1922; 7609 4826 1960 1032 4827; 7610 1922 4827 4828 1920;
7611 4827 1032 1836 4828; 7612 1920 4828 672 645; 7613 4828 1836 627 672;
7614 645 1959 4829 785; 7615 1959 671 690 4829; 7616 785 4829 4830 1916;
7617 4829 690 1958 4830; 7618 1916 4830 4831 1914; 7619 4830 1958 1957 4831;
7620 1914 4831 4832 646; 7621 4831 1957 685 4832; 7622 657 669 4833 809;
7623 669 668 1927 4833; 7624 809 4833 4834 1852; 7625 4833 1927 1926 4834;
7626 1852 4834 4835 1850; 7627 4834 1926 808 4835; 7628 1850 4835 810 630;
7629 4835 808 692 810; 7630 656 675 4836 807; 7631 675 674 1929 4836;
7632 807 4836 4837 1859; 7633 4836 1929 1928 4837; 7634 1859 4837 4838 1857;
7635 4837 1928 806 4838; 7636 1857 4838 669 657; 7637 4838 806 668 669;
7638 655 4839 4840 805; 7639 4839 676 1932 4840; 7640 805 4840 4841 1866;
7641 4840 1932 1931 4841; 7642 1866 4841 4842 1864; 7643 4841 1931 804 4842;
7644 1864 4842 675 656; 7645 4842 804 674 675; 7646 654 4843 4844 803;
7647 4843 677 1935 4844; 7648 803 4844 4845 1871; 7649 4844 1935 1934 4845;
7650 1871 4845 4846 1869; 7651 4845 1934 1930 4846; 7652 1869 4846 4839 655;
7653 4846 1930 676 4839; 7654 653 4847 4848 802; 7655 4847 678 1938 4848;
7656 802 4848 4849 1876; 7657 4848 1938 1937 4849; 7658 1876 4849 4850 1874;
7659 4849 1937 1933 4850; 7660 1874 4850 4843 654; 7661 4850 1933 677 4843;
7662 652 4851 4852 800; 7663 4851 679 1941 4852; 7664 800 4852 4853 1881;
7665 4852 1941 1940 4853; 7666 1881 4853 4854 1879; 7667 4853 1940 1936 4854;
7668 1879 4854 4847 653; 7669 4854 1936 678 4847; 7670 651 4855 4856 798;
7671 4855 680 1833 4856; 7672 798 4856 4857 1886; 7673 4856 1833 1834 4857;
7674 1886 4857 4858 1884; 7675 4857 1834 1835 4858; 7676 1884 4858 4851 652;
7677 4858 1835 679 4851; 7678 650 4859 4860 796; 7679 4859 681 1945 4860;
7680 796 4860 4861 1891; 7681 4860 1945 1944 4861; 7682 1891 4861 4862 1889;
7683 4861 1944 1942 4862; 7684 1889 4862 4855 651; 7685 4862 1942 680 4855;
7686 649 4863 4864 793; 7687 4863 682 1948 4864; 7688 793 4864 4865 1896;
7689 4864 1948 1947 4865; 7690 1896 4865 4866 1894; 7691 4865 1947 1943 4866;
7692 1894 4866 4859 650; 7693 4866 1943 681 4859; 7694 648 4867 4868 791;
7695 4867 683 1951 4868; 7696 791 4868 4869 1901; 7697 4868 1951 1950 4869;
7698 1901 4869 4870 1899; 7699 4869 1950 1946 4870; 7700 1899 4870 4863 649;
7701 4870 1946 682 4863; 7702 647 4871 4872 789; 7703 4871 684 1954 4872;
7704 789 4872 4873 1906; 7705 4872 1954 1953 4873; 7706 1906 4873 4874 1904;
7707 4873 1953 1949 4874; 7708 1904 4874 4867 648; 7709 4874 1949 683 4867;
7710 646 4832 4875 787; 7711 4832 685 1956 4875; 7712 787 4875 4876 1911;
7713 4875 1956 1955 4876; 7714 1911 4876 4877 1909; 7715 4876 1955 1952 4877;
7716 1909 4877 4871 647; 7717 4877 1952 684 4871; 7718 630 1925 4878 1845;
7719 1925 620 1831 4878; 7720 1845 4878 4879 1843; 7721 4878 1831 975 4879;
7722 1843 4879 4880 726; 7723 4879 975 1924 4880; 7724 726 4880 723 617;
7725 4880 1924 722 723; 7726 698 724 4881 699; 7727 699 4881 725 623;
7728 723 722 959 4882; 7729 4882 959 703 704; 7730 629 780 4883 714;
7731 714 4883 1839 781; 7732 716 708 779 4884; 7733 4884 779 660 661;
7734 882 2123 4930 2122; 7735 2123 847 2300 4930; 7736 2261 4932 2299 911;
7737 4932 2449 892 2299; 7738 911 2118 4933 2117; 7739 2118 2119 2120 4933;
7740 2117 4933 4934 2257; 7741 4933 2120 2298 4934; 7742 2257 4934 4935 2255;
7743 4934 2298 2297 4935; 7744 2255 4935 4936 910; 7745 4935 2297 2115 4936;
7746 899 2084 4937 2083; 7747 2084 2274 2273 4937; 7748 2083 4937 4938 2181;
7749 4937 2273 2272 4938; 7750 2181 4938 4939 2179; 7751 4938 2272 2048 4939;
7752 2179 4939 2081 898; 7753 4939 2048 2047 2081; 7754 900 2086 4940 2188;
7755 2086 2087 2088 4940; 7756 2188 4940 4941 2186; 7757 4940 2088 2276 4941;
7758 2186 4941 4942 2085; 7759 4941 2276 2275 4942; 7760 2085 4942 2084 899;
7761 4942 2275 2274 2084; 7762 2090 4944 4945 2197; 7763 4944 2093 2278 4945;
7764 2197 4945 4946 2195; 7765 4945 2278 2277 4946; 7766 2195 4946 2086 900;
7767 4946 2277 2087 2086; 7768 902 4947 4948 2203; 7769 4947 2094 2095 4948;
7770 2203 4948 4949 2201; 7771 4948 2095 2280 4949; 7772 2201 4949 4950 2192;
7773 4949 2280 2279 4950; 7774 903 4951 4952 2096; 7775 4951 2009 2097 4952;
7776 2096 4952 4953 2209; 7777 4952 2097 2282 4953; 7778 2209 4953 4954 2207;
7779 4953 2282 2281 4954; 7780 2207 4954 4947 902; 7781 4954 2281 2094 4947;
7782 904 4955 4956 2098; 7783 4955 2017 2099 4956; 7784 2098 4956 4957 2215;
7785 4956 2099 2284 4957; 7786 2215 4957 4958 2213; 7787 4957 2284 2283 4958;
7788 2213 4958 4951 903; 7789 4958 2283 2009 4951; 7790 905 4959 4960 2100;
7791 4959 2101 2102 4960; 7792 2100 4960 4961 2221; 7793 4960 2102 2286 4961;
7794 2221 4961 4962 2219; 7795 4961 2286 2285 4962; 7796 2219 4962 4955 904;
7797 4962 2285 2017 4955; 7798 906 4963 4964 2103; 7799 4963 2104 2105 4964;
7800 2103 4964 4965 2228; 7801 4964 2105 2288 4965; 7802 2228 4965 4966 2226;
7803 4965 2288 2287 4966; 7804 2226 4966 4959 905; 7805 4966 2287 2101 4959;
7806 907 4967 4968 2234; 7807 4967 2106 2107 4968; 7808 2234 4968 4969 2232;
7809 4968 2107 2290 4969; 7810 2232 4969 4970 2223; 7811 4969 2290 2289 4970;
7812 2223 4970 4963 906; 7813 4970 2289 2104 4963; 7814 2108 4971 4972 2240;
7815 4971 2111 2292 4972; 7816 2240 4972 4973 2238; 7817 4972 2292 2291 4973;
7818 2238 4973 4967 907; 7819 4973 2291 2106 4967; 7820 909 4974 4975 2109;
7821 4974 2112 2113 4975; 7822 2109 4975 4976 2246; 7823 4975 2113 2294 4976;
7824 2246 4976 4977 2244; 7825 4976 2294 2293 4977; 7826 910 4936 4978 2114;
7827 4936 2115 2116 4978; 7828 2114 4978 4979 2252; 7829 4978 2116 2296 4979;
7830 2252 4979 4980 2250; 7831 4979 2296 2295 4980; 7832 2250 4980 4974 909;
7833 4980 2295 2112 4974; 7834 898 2271 4981 2174; 7835 2271 885 2442 4981;
7836 2045 4983 2025 881; 7837 4983 2267 852 2025; 7838 2053 2171 4984 2054;
7839 2054 4984 2057 889; 7840 2025 852 2303 4985; 7841 4985 2303 2072 2073;
7842 887 4886 4986 2439; 7843 4886 4889 4987 4986; 7844 2439 4986 4988 2440;
7845 4986 4987 4989 4988; 7846 2440 4988 4990 2166; 7847 4988 4989 4890 4990;

7848 2166 4990 4885 885; 7849 4990 4890 4888 4885; 7850 2101 2305 4991 2102;
7851 2305 2142 4992 4991; 7852 2142 2039 2306 4992; 7853 2102 4991 4993 2286;
7854 2286 4993 4994 2285; 7855 2285 4994 4996 2017; 7856 4994 4995 4896 4996;
7857 4995 2308 2038 4896; 7858 4892 4887 4997 4895; 7859 4887 894 2456 4997;
7860 4895 4997 4998 4894; 7861 4997 2456 2455 4998; 7862 4894 4998 4999 4893;
7863 4998 2455 2447 4999; 7864 4893 4999 4897 4891; 7865 4999 2447 892 4897;
7866 895 2068 5000 2066; 7867 2066 5000 2125 2265; 7868 2126 2060 2127 5001;
7869 5001 2127 847 2123; 7870 883 2022 5002 2046; 7871 2022 848 2435 5002;
7872 2391 5003 2032 912; 7873 5003 2452 894 2032; 7874 912 2432 5004 2133;
7875 2432 2031 2049 5004; 7876 2133 5004 5005 2387; 7877 5004 2049 2431 5005;
7878 2387 5005 5006 2385; 7879 5005 2431 2430 5006; 7880 2385 5006 5007 913;
7881 5006 2430 2044 5007; 7882 924 2029 5008 2157; 7883 2029 2028 2401 5008;
7884 2157 5008 5009 2323; 7885 5008 2401 2400 5009; 7886 2323 5009 5010 2321;
7887 5009 2400 2156 5010; 7888 2321 5010 2158 897; 7889 5010 2156 2050 2158;
7890 923 2035 5011 2155; 7891 2035 2034 2403 5011; 7892 2155 5011 5012 2330;
7893 5011 2403 2402 5012; 7894 2330 5012 5013 2328; 7895 5012 2402 2154 5013;
7896 2328 5013 2029 924; 7897 5013 2154 2028 2029; 7898 2153 5015 5016 2337;
7899 5015 2406 2405 5016; 7900 2337 5016 5017 2335; 7901 5016 2405 2152 5017;
7902 2335 5017 2035 923; 7903 5017 2152 2034 2035; 7904 921 5018 5019 2151;
7905 5018 2037 2409 5019; 7906 2151 5019 5020 2342; 7907 5019 2409 2408 5020;
7908 2342 5020 5021 2340; 7909 5020 2408 2404 5021; 7910 920 5022 5023 2150;
7911 5022 2011 2412 5023; 7912 2150 5023 5024 2347; 7913 5023 2412 2411 5024;
7914 2347 5024 5025 2345; 7915 5024 2411 2407 5025; 7916 2345 5025 5018 921;
7917 5025 2407 2037 5018; 7918 919 5026 5027 2148; 7919 5026 2038 2414 5027;
7920 2148 5027 5028 2352; 7921 5027 2414 2413 5028; 7922 2352 5028 5029 2350;
7923 5028 2413 2410 5029; 7924 2350 5029 5022 920; 7925 5029 2410 2011 5022;
7926 918 5030 5031 2146; 7927 5030 2039 2306 5031; 7928 2146 5031 5032 2357;
7929 5031 2306 2307 5032; 7930 2357 5032 5033 2355; 7931 5032 2307 2308 5033;
7932 2355 5033 5026 919; 7933 5033 2308 2038 5026; 7934 917 5034 5035 2144;
7935 5034 2040 2418 5035; 7936 2144 5035 5036 2362; 7937 5035 2418 2417 5036;
7938 2362 5036 5037 2360; 7939 5036 2417 2415 5037; 7940 2360 5037 5030 918;
7941 5037 2415 2039 5030; 7942 916 5038 5039 2141; 7943 5038 2041 2421 5039;
7944 2141 5039 5040 2367; 7945 5039 2421 2420 5040; 7946 2367 5040 5041 2365;
7947 5040 2420 2416 5041; 7948 2365 5041 5034 917; 7949 5041 2416 2040 5034;
7950 2139 5043 5044 2372; 7951 5043 2424 2423 5044; 7952 2372 5044 5045 2370;
7953 5044 2423 2419 5045; 7954 2370 5045 5038 916; 7955 5045 2419 2041 5038;
7956 914 5046 5047 2137; 7957 5046 2043 2427 5047; 7958 2137 5047 5048 2377;
7959 5047 2427 2426 5048; 7960 2377 5048 5049 2375; 7961 5048 2426 2422 5049;
7962 913 5007 5050 2135; 7963 5007 2044 2429 5050; 7964 2135 5050 5051 2382;
7965 5050 2429 2428 5051; 7966 2382 5051 5052 2380; 7967 5051 2428 2425 5052;
7968 2380 5052 5046 914; 7969 5052 2425 2043 5046; 7970 897 2399 5053 2316;
7971 2399 887 2445 5053; 7972 2078 5054 2075 884; 7973 5054 2395 851 2075;
7974 2055 2076 5055 2056; 7975 2056 5055 2077 890; 7976 2075 851 2074 5056;
7977 5056 2074 2058 2059; 7978 896 2129 5057 2067; 7979 2067 5057 2309 2130;
7980 2069 2061 2310 5058; 7981 5058 2310 848 2022; 7982 14 835 5059 837;
7983 835 832 833 5059; 7984 837 5059 5060 838; 7985 5059 833 840 5060;
7986 838 5060 5061 839; 7987 5060 840 1218 5061; 7988 839 5061 836 16;
7989 5061 1218 834 836; 7990 340 939 5062 941; 7991 939 930 936 5062;
7992 941 5062 5063 942; 7993 5062 936 937 5063; 7994 942 5063 5064 943;
7995 5063 937 938 5064; 7996 943 5064 940 341; 7997 5064 938 932 940;
7998 584 2008 5065 967; 7999 2008 960 971 5065; 8000 967 5065 5066 972;
8001 5065 971 970 5066; 8002 972 5066 5067 973; 8003 5066 970 964 5067;
8004 973 5067 2007 585; 8005 5067 964 958 2007; 8006 1074 926 5068 1220;
8007 926 925 1221 5068; 8008 1220 5068 5069 1222; 8009 5068 1221 1223 5069;
8010 1222 5069 5070 1224; 8011 5069 1223 1225 5070; 8012 1224 5070 5071 1226;
8013 5070 1225 1227 5071; 8014 1226 5071 5072 1228; 8015 5071 1227 1229 5072;
8016 1228 5072 5073 1230; 8017 5072 1229 1231 5073; 8018 1230 5073 5074 842;
8019 5073 1231 841 5074; 8020 842 5074 839 16; 8021 5074 841 838 839;
8022 830 1232 5075 1233; 8023 1232 827 1234 5075; 8024 1233 5075 5076 1235;
8025 5075 1234 1236 5076; 8026 1235 5076 5077 1237; 8027 5076 1236 1238 5077;
8028 1237 5077 5078 1239; 8029 5077 1238 1240 5078; 8030 1239 5078 5079 1241;
8031 5078 1240 1242 5079; 8032 1241 5079 5080 1243; 8033 5079 1242 1244 5080;
8034 1243 5080 5081 844; 8035 5080 1244 843 5081; 8036 844 5081 837 838;
8037 5081 843 14 837; 8038 825 829 5082 951; 8039 829 830 5083 5082;
8040 951 5082 5084 1975; 8041 5082 5083 5085 5084; 8042 1975 5084 5086 1976;
8043 5084 5085 5087 5086; 8044 1976 5086 5088 1977; 8045 5086 5087 5089 5088;
8046 1977 5088 5090 1978; 8047 5088 5089 5091 5090; 8048 1978 5090 5092 1979;
8049 5090 5091 5093 5092; 8050 1979 5092 5094 1980; 8051 5092 5093 950 5094;
8052 1980 5094 943 341; 8053 5094 950 942 943; 8054 953 952 5095 1964;
8055 952 948 5096 5095; 8056 1964 5095 5097 1965; 8057 5095 5096 1966 5097;
8058 1965 5097 5098 1967; 8059 5097 1966 1968 5098; 8060 1967 5098 5099 1969;
8061 5098 1968 1970 5099; 8062 1969 5099 5100 1971; 8063 5099 1970 1972 5100;
8064 1971 5100 5101 1973; 8065 5100 1972 1974 5101; 8066 1973 5101 5102 956;
8067 5101 1974 955 5102; 8068 956 5102 941 942; 8069 5102 955 340 941;
8070 946 954 5103 5104; 8071 954 953 1994 5103; 8072 5104 5103 5105 1993;
8073 5103 1994 1996 5105; 8074 1993 5105 5106 1995; 8075 5105 1996 1998 5106;
8076 1995 5106 5107 1997; 8077 5106 1998 2000 5107; 8078 1997 5107 5108 1999;
8079 5107 2000 2002 5108; 8080 1999 5108 5109 2001; 8081 5108 2002 2004 5109;
8082 2001 5109 5110 2003; 8083 5109 2004 981 5110; 8084 2003 5110 973 585;
8085 5110 981 972 973; 8086 979 976 5111 1981; 8087 976 974 1982 5111;
8088 1981 5111 5112 1983; 8089 5111 1982 1984 5112; 8090 1983 5112 5113 1985;
8091 5112 1984 1986 5113; 8092 1985 5113 5114 1987; 8093 5113 1986 1988 5114;

8094 1987 5114 5115 1989; 8095 5114 1988 1990 5115; 8096 1989 5115 5116 1991;
8097 5115 1990 1992 5116; 8098 1991 5116 5117 983; 8099 5116 1992 982 5117;
8100 983 5117 967 972; 8101 5117 982 584 967; 8102 1074 1075 1076 926;
8103 926 1076 1077 925; 8104 986 987 5118 991; 8105 987 8 995 5118;
8106 991 5118 5119 993; 8107 5118 995 996 5119; 8108 993 5119 5120 994;
8109 5119 996 997 5120; 8110 994 5120 990 989; 8111 5120 997 6 990;
8112 1013 5121 5122 5123; 8113 5121 337 5124 5122; 8114 5123 5122 5125 1016;
8115 5122 5124 1017 5125; 8116 1016 5125 5126 5127; 8117 5125 1017 5128 5126;
8118 5127 5126 5129 1015; 8119 5126 5128 336 5129; 8120 1026 5130 5131 5132;
8121 5130 581 5133 5131; 8122 5132 5131 5134 1029; 8123 5131 5133 1030 5134;
8124 1029 5134 5135 5136; 8125 5134 1030 5137 5135; 8126 5136 5135 5138 1028;
8127 5135 5137 580 5138; 8128 6 997 5139 1291; 8129 997 996 1292 5139;
8130 1291 5139 5140 1293; 8131 5139 1292 1294 5140; 8132 1293 5140 5141 1295;
8133 5140 1294 1296 5141; 8134 1295 5141 5142 1297; 8135 5141 1296 1298 5142;
8136 1297 5142 5143 1299; 8137 5142 1298 1300 5143; 8138 1299 5143 5144 1301;
8139 5143 1300 1302 5144; 8140 1301 5144 5145 1008; 8141 5144 1302 1010 5145;
8142 1008 5145 1011 1007; 8143 5145 1010 1009 1011; 8144 996 995 5146 1279;
8145 995 8 1280 5146; 8146 1279 5146 5147 1281; 8147 5146 1280 1282 5147;
8148 1281 5147 5148 1283; 8149 5147 1282 1284 5148; 8150 1283 5148 5149 1285;
8151 5148 1284 1286 5149; 8152 1285 5149 5150 1287; 8153 5149 1286 1288 5150;
8154 1287 5150 5151 1289; 8155 5150 1288 1290 5151; 8156 1289 5151 5152 1006;
8157 5151 1290 1005 5152; 8158 1006 5152 1004 1003; 8159 5152 1005 1000 1004;
8160 1017 5124 5153 5154; 8161 5124 337 5155 5153; 8162 5154 5153 5156 5157;
8163 5153 5155 5158 5156; 8164 5157 5156 5159 5160; 8165 5156 5158 5161 5159;
8166 5160 5159 5162 5163; 8167 5159 5161 5164 5162; 8168 5163 5162 5165 5166;
8169 5162 5164 5167 5165; 8170 5166 5165 5168 5169; 8171 5165 5167 5170 5168;
8172 5169 5168 5171 5172; 8173 5168 5170 5173 5171; 8174 5172 5171 1022 1023;
8175 5171 5173 1018 1022; 8176 336 5128 5174 5175; 8177 5128 1017 5176 5174;
8178 5175 5174 5177 5178; 8179 5174 5176 5179 5177; 8180 5178 5177 5180 5181;
8181 5177 5179 5182 5180; 8182 5181 5180 5183 5184; 8183 5180 5182 5185 5183;
8184 5184 5183 5186 5187; 8185 5183 5185 5188 5186; 8186 5187 5186 5189 5190;
8187 5186 5188 5191 5189; 8188 5190 5189 5192 5193; 8189 5189 5191 5194 5192;
8190 5193 5192 1002 998; 8191 5192 5194 1003 1002; 8192 1030 5133 5195 5196;
8193 5133 581 5197 5195; 8194 5196 5195 5198 5199; 8195 5195 5197 5200 5198;
8196 5199 5198 5201 5202; 8197 5198 5200 5203 5201; 8198 5202 5201 5204 5205;
8199 5201 5203 5206 5204; 8200 5205 5204 5207 5208; 8201 5204 5206 5209 5207;
8202 5208 5207 5210 5211; 8203 5207 5209 5212 5210; 8204 5211 5210 5213 5214;
8205 5210 5212 5215 5213; 8206 5214 5213 1035 1036; 8207 5213 5215 1031 1035;
8208 580 5137 5216 5217; 8209 5137 1030 5218 5216; 8210 5217 5216 5219 5220;
8211 5216 5218 5221 5219; 8212 5220 5219 5222 5223; 8213 5219 5221 5224 5222;
8214 5223 5222 5225 5226; 8215 5222 5224 5227 5225; 8216 5226 5225 5228 5229;
8217 5225 5227 5230 5228; 8218 5229 5228 5231 5232; 8219 5228 5230 5233 5231;
8220 5232 5231 5234 5235; 8221 5231 5233 5236 5234; 8222 5235 5234 1024 1020;
8223 5234 5236 1023 1024; 8224 1047 1048 5237 1050; 8225 1048 1039 1043 5237;
8226 1050 5237 5238 1049; 8227 5237 1043 1245 5238; 8228 1049 5238 5239 1046;
8229 5238 1245 1246 5239; 8230 1046 5239 1044 1045; 8231 5239 1246 1041 1044;
8232 1064 5240 5241 5242; 8233 5240 1061 5243 5241; 8234 5242 5241 5244 1063;
8235 5241 5243 5245 5244; 8236 1063 5244 5246 5247; 8237 5244 5245 5248 5246;
8238 5247 5246 5249 1062; 8239 5246 5248 1060 5249; 8240 1071 5250 5251 5252;
8241 5250 1068 5253 5251; 8242 5252 5251 5254 1070; 8243 5251 5253 5255 5254;
8244 1070 5254 5256 5257; 8245 5254 5255 5258 5256; 8246 5257 5256 5259 1069;
8247 5256 5258 1067 5259; 8248 2013 5260 5261 5262; 8249 5260 2012 5263 5261;
8250 5262 5261 5264 2015; 8251 5261 5263 5265 5264; 8252 2015 5264 5266 5267;
8253 5264 5265 5268 5266; 8254 5267 5266 5269 2014; 8255 5266 5268 2010 5269;
8256 1058 1059 5270 1265; 8257 1059 1081 1259 5270; 8258 1265 5270 5271 1266;
8259 5270 1259 1260 5271; 8260 1266 5271 5272 1267; 8261 5271 1260 1261 5272;
8262 1267 5272 5273 1268; 8263 5272 1261 1262 5273; 8264 1268 5273 5274 1269;
8265 5273 1262 1263 5274; 8266 1269 5274 5275 1270; 8267 5274 1263 1264 5275;
8268 1270 5275 5276 1057; 8269 5275 1264 1056 5276; 8270 1057 5276 1050 1049;
8271 5276 1056 1047 1050; 8272 1053 5277 5278 5279; 8273 5277 188 5280 5278;
8274 5279 5278 5281 5282; 8275 5278 5280 5283 5281; 8276 5282 5281 5284 5285;
8277 5281 5283 5286 5284; 8278 5285 5284 5287 5288; 8279 5284 5286 5289 5287;
8280 5288 5287 5290 5291; 8281 5287 5289 5292 5290; 8282 5291 5290 5293 5294;
8283 5290 5292 5295 5293; 8284 5294 5293 5296 5297; 8285 5293 5295 5298 5296;
8286 5297 5296 5242 1063; 8287 5296 5298 1064 5242; 8288 1049 1046 5299 1055;
8289 1046 1045 1052 5299; 8290 1055 5299 5300 1252; 8291 5299 1052 1258 5300;
8292 1252 5300 5301 1251; 8293 5300 1258 1257 5301; 8294 1251 5301 5302 1250;
8295 5301 1257 1256 5302; 8296 1250 5302 5303 1249; 8297 5302 1256 1255 5303;
8298 1249 5303 5304 1248; 8299 5303 1255 1254 5304; 8300 1248 5304 5305 1247;
8301 5304 1254 1253 5305; 8302 1247 5305 1051 1053; 8303 5305 1253 258 1051;
8304 1063 5247 5306 5307; 8305 5247 1062 5308 5306; 8306 5307 5306 5309 5310;
8307 5306 5308 5311 5309; 8308 5310 5309 5312 5313; 8309 5309 5311 5314 5312;
8310 5313 5312 5315 5316; 8311 5312 5314 5317 5315; 8312 5316 5315 5318 5319;
8313 5315 5317 5320 5318; 8314 5319 5318 5321 5322; 8315 5318 5320 5323 5321;
8316 5322 5321 5324 5325; 8317 5321 5323 5326 5324; 8318 5325 5324 5327 1065;
8319 5324 5326 504 5327; 8320 1065 5328 5329 5330; 8321 5328 435 5331 5329;
8322 5330 5329 5332 5333; 8323 5329 5331 5334 5332; 8324 5333 5332 5335 5336;
8325 5332 5334 5337 5335; 8326 5336 5335 5338 5339; 8327 5335 5337 5340 5338;
8328 5339 5338 5341 5342; 8329 5338 5340 5343 5341; 8330 5342 5341 5344 5345;
8331 5341 5343 5346 5344; 8332 5345 5344 5347 5348; 8333 5344 5346 5349 5347;
8334 5348 5347 5252 1070; 8335 5347 5349 1071 5252; 8336 1070 5257 5350 5351;
8337 5257 1069 5352 5350; 8338 5351 5350 5353 5354; 8339 5350 5352 5355 5353;

8340 5354 5353 5356 5357; 8341 5353 5355 5358 5356; 8342 5357 5356 5359 5360;
8343 5356 5358 5361 5359; 8344 5360 5359 5362 5363; 8345 5359 5361 5364 5362;
8346 5363 5362 5365 5366; 8347 5362 5364 5367 5365; 8348 5366 5365 5368 5369;
8349 5365 5367 5370 5368; 8350 5369 5368 5371 1072; 8351 5368 5370 748 5371;
8352 1072 5372 5373 5374; 8353 5372 679 5375 5373; 8354 5374 5373 5376 5377;
8355 5373 5375 5378 5376; 8356 5377 5376 5379 5380; 8357 5376 5378 5381 5379;
8358 5380 5379 5382 5383; 8359 5379 5381 5384 5382; 8360 5383 5382 5385 5386;
8361 5382 5384 5387 5385; 8362 5386 5385 5388 5389; 8363 5385 5387 5390 5388;
8364 5389 5388 5391 5392; 8365 5388 5390 5393 5391; 8366 5392 5391 5262 2015;
8367 5391 5393 2013 5262; 8368 2017 5394 5395 5396; 8369 5394 2016 5397 5395;
8370 5396 5395 5398 5399; 8371 5395 5397 5400 5398; 8372 5399 5398 5401 5402;
8373 5398 5400 5403 5401; 8374 5402 5401 5404 5405; 8375 5401 5403 5406 5404;
8376 5405 5404 5407 5408; 8377 5404 5406 5409 5407; 8378 5408 5407 5410 5411;
8379 5407 5409 5412 5410; 8380 5411 5410 5413 5414; 8381 5410 5412 5415 5413;
8382 5414 5413 5267 2014; 8383 5413 5415 2015 5267; 8384 2459 5423 5424 5425;
8385 5423 5426 5427 5424; 8386 5426 5428 5429 5427; 8387 5428 5430 5431 5429;
8388 5430 5432 5433 5431; 8389 5432 5434 5435 5433; 8390 5434 5436 5437 5435;
8391 5436 5438 5439 5437; 8392 5438 5440 5441 5439; 8393 5440 5442 5443 5441;
8394 5442 5444 5445 5443; 8395 5444 5446 5447 5445; 8396 5446 5448 5449 5447;
8397 5448 5450 5451 5449; 8398 5450 5452 5453 5451; 8399 5452 5454 5455 5453;
8400 5454 5456 5457 5455; 8401 5456 5458 5459 5457; 8402 5458 5460 5461 5459;
8403 5460 5462 5463 5461; 8404 5462 5464 5465 5463; 8405 5464 5466 5467 5465;
8406 5466 5468 5469 5467; 8407 5468 5470 5471 5469; 8408 5470 5472 5473 5471;
8409 5472 5474 5475 5473; 8410 5474 5476 5477 5475; 8411 5476 2766 5478 5477;
8412 2766 5479 5480 5478; 8413 5479 2515 5481 5480; 8414 5425 5424 5482 5483;
8415 5424 5427 5484 5482; 8416 5427 5429 5485 5484; 8417 5429 5431 5486 5485;
8418 5431 5433 5487 5486; 8419 5433 5435 5488 5487; 8420 5435 5437 5489 5488;
8421 5437 5439 5490 5489; 8422 5439 5441 5491 5490; 8423 5441 5443 5492 5491;
8424 5443 5445 5493 5492; 8425 5445 5447 5494 5493; 8426 5447 5449 5495 5494;
8427 5449 5451 5496 5495; 8428 5451 5453 5497 5496; 8429 5453 5455 5498 5497;
8430 5455 5457 5499 5498; 8431 5457 5459 5500 5499; 8432 5459 5461 5501 5500;
8433 5461 5463 5502 5501; 8434 5463 5465 5503 5502; 8435 5465 5467 5504 5503;
8436 5467 5469 5505 5504; 8437 5469 5471 5506 5505; 8438 5471 5473 5507 5506;
8439 5473 5475 5508 5507; 8440 5475 5477 5509 5508; 8441 5477 5478 5510 5509;
8442 5478 5480 5511 5510; 8443 5480 5481 5512 5511; 8444 5483 5482 5513 5514;
8445 5482 5484 5515 5513; 8446 5484 5485 5516 5515; 8447 5485 5486 5517 5516;
8448 5486 5487 5518 5517; 8449 5487 5488 5519 5518; 8450 5488 5489 5520 5519;
8451 5489 5490 5521 5520; 8452 5490 5491 5522 5521; 8453 5491 5492 5523 5522;
8454 5492 5493 5524 5523; 8455 5493 5494 5525 5524; 8456 5494 5495 5526 5525;
8457 5495 5496 5527 5526; 8458 5496 5497 5528 5527; 8459 5497 5498 5529 5528;
8460 5498 5499 5530 5529; 8461 5499 5500 5531 5530; 8462 5500 5501 5532 5531;
8463 5501 5502 5533 5532; 8464 5502 5503 5534 5533; 8465 5503 5504 5535 5534;
8466 5504 5505 5536 5535; 8467 5505 5506 5537 5536; 8468 5506 5507 5538 5537;
8469 5507 5508 5539 5538; 8470 5508 5509 5540 5539; 8471 5509 5510 5541 5540;
8472 5510 5511 5542 5541; 8473 5511 5512 5543 5542; 8474 5514 5513 5544 5545;
8475 5513 5515 5546 5544; 8476 5515 5516 5547 5546; 8477 5516 5517 5548 5547;
8478 5517 5518 5549 5548; 8479 5518 5519 5550 5549; 8480 5519 5520 5551 5550;
8481 5520 5521 5552 5551; 8482 5521 5522 5553 5552; 8483 5522 5523 5554 5553;
8484 5523 5524 5555 5554; 8485 5524 5525 5556 5555; 8486 5525 5526 5557 5556;
8487 5526 5527 5558 5557; 8488 5527 5528 5559 5558; 8489 5528 5529 5560 5559;
8490 5529 5530 5561 5560; 8491 5530 5531 5562 5561; 8492 5531 5532 5563 5562;
8493 5532 5533 5564 5563; 8494 5533 5534 5565 5564; 8495 5534 5535 5566 5565;
8496 5535 5536 5567 5566; 8497 5536 5537 5568 5567; 8498 5537 5538 5569 5568;
8499 5538 5539 5570 5569; 8500 5539 5540 5571 5570; 8501 5540 5541 5572 5571;
8502 5541 5542 5573 5572; 8503 5542 5543 5574 5573; 8504 5545 5544 5575 2467;
8505 5544 5546 5576 5575; 8506 5546 5547 5577 5576; 8507 5547 5548 5578 5577;
8508 5548 5549 5579 5578; 8509 5549 5550 5580 5579; 8510 5550 5551 5581 5580;
8511 5551 5552 5582 5581; 8512 5552 5553 5583 5582; 8513 5553 5554 5584 5583;
8514 5554 5555 5585 5584; 8515 5555 5556 5586 5585; 8516 5556 5557 5587 5586;
8517 5557 5558 5588 5587; 8518 5558 5559 5589 5588; 8519 5559 5560 5590 5589;
8520 5560 5561 5591 5590; 8521 5561 5562 5592 5591; 8522 5562 5563 5593 5592;
8523 5563 5564 5594 5593; 8524 5564 5565 5595 5594; 8525 5565 5566 5596 5595;
8526 5566 5567 5597 5596; 8527 5567 5568 5598 5597; 8528 5568 5569 5599 5598;
8529 5569 5570 5600 5599; 8530 5570 5571 5601 5600; 8531 5571 5572 2772 5601;
8532 5572 5573 5602 2772; 8533 5573 5574 2520 5602; 8534 2467 5575 5603 5604;
8535 5575 5576 5605 5603; 8536 5576 5577 5606 5605; 8537 5577 5578 5607 5606;
8538 5578 5579 5608 5607; 8539 5579 5580 5609 5608; 8540 5580 5581 5610 5609;
8541 5581 5582 5611 5610; 8542 5582 5583 5612 5611; 8543 5583 5584 5613 5612;
8544 5584 5585 5614 5613; 8545 5585 5586 5615 5614; 8546 5586 5587 5616 5615;
8547 5587 5588 5617 5616; 8548 5588 5589 5618 5617; 8549 5589 5590 5619 5618;
8550 5590 5591 5620 5619; 8551 5591 5592 5621 5620; 8552 5592 5593 5622 5621;
8553 5593 5594 5623 5622; 8554 5594 5595 5624 5623; 8555 5595 5596 5625 5624;
8556 5596 5597 5626 5625; 8557 5597 5598 5627 5626; 8558 5598 5599 5628 5627;
8559 5599 5600 5629 5628; 8560 5600 5601 5630 5629; 8561 5601 2772 5631 5630;
8562 2772 5602 5632 5631; 8563 5602 2520 5633 5632; 8564 5604 5603 5634 5635;
8565 5603 5605 5636 5634; 8566 5605 5606 5637 5636; 8567 5606 5607 5638 5637;
8568 5607 5608 5639 5638; 8569 5608 5609 5640 5639; 8570 5609 5610 5641 5640;
8571 5610 5611 5642 5641; 8572 5611 5612 5643 5642; 8573 5612 5613 5644 5643;
8574 5613 5614 5645 5644; 8575 5614 5615 5646 5645; 8576 5615 5616 5647 5646;
8577 5616 5617 5648 5647; 8578 5617 5618 5649 5648; 8579 5618 5619 5650 5649;
8580 5619 5620 5651 5650; 8581 5620 5621 5652 5651; 8582 5621 5622 5653 5652;
8583 5622 5623 5654 5653; 8584 5623 5624 5655 5654; 8585 5624 5625 5656 5655;

8586 5625 5626 5657 5656; 8587 5626 5627 5658 5657; 8588 5627 5628 5659 5658;
8589 5628 5629 5660 5659; 8590 5629 5630 5661 5660; 8591 5630 5631 5662 5661;
8592 5631 5632 5663 5662; 8593 5632 5633 5664 5663; 8594 5635 5634 5665 2470;
8595 5634 5636 5666 5665; 8596 5636 5637 5667 5666; 8597 5637 5638 5668 5667;
8598 5638 5639 5669 5668; 8599 5639 5640 5670 5669; 8600 5640 5641 5671 5670;
8601 5641 5642 5672 5671; 8602 5642 5643 5673 5672; 8603 5643 5644 5674 5673;
8604 5644 5645 5675 5674; 8605 5645 5646 5676 5675; 8606 5646 5647 5677 5676;
8607 5647 5648 5678 5677; 8608 5648 5649 5679 5678; 8609 5649 5650 5680 5679;
8610 5650 5651 5681 5680; 8611 5651 5652 5682 5681; 8612 5652 5653 5683 5682;
8613 5653 5654 5684 5683; 8614 5654 5655 5685 5684; 8615 5655 5656 5686 5685;
8616 5656 5657 5687 5686; 8617 5657 5658 5688 5687; 8618 5658 5659 5689 5688;
8619 5659 5660 5690 5689; 8620 5660 5661 5691 5690; 8621 5661 5662 2777 5691;
8622 5662 5663 5692 2777; 8623 5663 5664 2525 5692; 8624 2470 5665 5693 5694;
8625 5665 5666 5695 5693; 8626 5666 5667 5696 5695; 8627 5667 5668 5697 5696;
8628 5668 5669 5698 5697; 8629 5669 5670 5699 5698; 8630 5670 5671 5700 5699;
8631 5671 5672 5701 5700; 8632 5672 5673 5702 5701; 8633 5673 5674 5703 5702;
8634 5674 5675 5704 5703; 8635 5675 5676 5705 5704; 8636 5676 5677 5706 5705;
8637 5677 5678 5707 5706; 8638 5678 5679 5708 5707; 8639 5679 5680 5709 5708;
8640 5680 5681 5710 5709; 8641 5681 5682 5711 5710; 8642 5682 5683 5712 5711;
8643 5683 5684 5713 5712; 8644 5684 5685 5714 5713; 8645 5685 5686 5715 5714;
8646 5686 5687 5716 5715; 8647 5687 5688 5717 5716; 8648 5688 5689 5718 5717;
8649 5689 5690 5719 5718; 8650 5690 5691 5720 5719; 8651 5691 2777 5721 5720;
8652 2777 5692 5722 5721; 8653 5692 2525 5723 5722; 8654 5694 5693 5724 2460;
8655 5693 5695 5725 5724; 8656 5695 5696 5726 5725; 8657 5696 5697 5727 5726;
8658 5697 5698 5728 5727; 8659 5698 5699 5729 5728; 8660 5699 5700 5730 5729;
8661 5700 5701 5731 5730; 8662 5701 5702 5732 5731; 8663 5702 5703 5733 5732;
8664 5703 5704 5734 5733; 8665 5704 5705 5735 5734; 8666 5705 5706 5736 5735;
8667 5706 5707 5737 5736; 8668 5707 5708 5738 5737; 8669 5708 5709 5739 5738;
8670 5709 5710 5740 5739; 8671 5710 5711 5741 5740; 8672 5711 5712 5742 5741;
8673 5712 5713 5743 5742; 8674 5713 5714 5744 5743; 8675 5714 5715 5745 5744;
8676 5715 5716 5746 5745; 8677 5716 5717 5747 5746; 8678 5717 5718 5748 5747;
8679 5718 5719 5749 5748; 8680 5719 5720 5750 5749; 8681 5720 5721 2767 5750;
8682 5721 5722 5751 2767; 8683 5722 5723 2516 5751; 8684 2515 5752 5753 5481;
8685 5752 2811 5754 5753; 8686 2811 5755 5756 5754; 8687 5755 5757 5758 5756;
8688 5757 5759 5760 5758; 8689 5759 5761 5762 5760; 8690 5761 5763 5764 5762;
8691 5763 5765 5766 5764; 8692 5765 5767 5768 5766; 8693 5767 5769 5770 5768;
8694 5769 5771 5772 5770; 8695 5771 5773 5774 5772; 8696 5773 5775 5776 5774;
8697 5775 5777 5778 5776; 8698 5777 5779 5780 5778; 8699 5779 5781 5782 5780;
8700 5781 5783 5784 5782; 8701 5783 5785 5786 5784; 8702 5785 5787 5788 5786;
8703 5787 5789 5790 5788; 8704 5789 5791 5792 5790; 8705 5791 5793 5794 5792;
8706 5793 5795 5796 5794; 8707 5795 5797 5798 5796; 8708 5797 5799 5800 5798;
8709 5799 5801 5802 5800; 8710 5801 5803 5804 5802; 8711 5803 5805 5806 5804;
8712 5805 5807 5808 5806; 8713 5807 2472 5809 5808; 8714 5481 5753 5810 5512;
8715 5753 5754 5811 5810; 8716 5754 5756 5812 5811; 8717 5756 5758 5813 5812;
8718 5758 5760 5814 5813; 8719 5760 5762 5815 5814; 8720 5762 5764 5816 5815;
8721 5764 5766 5817 5816; 8722 5766 5768 5818 5817; 8723 5768 5770 5819 5818;
8724 5770 5772 5820 5819; 8725 5772 5774 5821 5820; 8726 5774 5776 5822 5821;
8727 5776 5778 5823 5822; 8728 5778 5780 5824 5823; 8729 5780 5782 5825 5824;
8730 5782 5784 5826 5825; 8731 5784 5786 5827 5826; 8732 5786 5788 5828 5827;
8733 5788 5790 5829 5828; 8734 5790 5792 5830 5829; 8735 5792 5794 5831 5830;
8736 5794 5796 5832 5831; 8737 5796 5798 5833 5832; 8738 5798 5800 5834 5833;
8739 5800 5802 5835 5834; 8740 5802 5804 5836 5835; 8741 5804 5806 5837 5836;
8742 5806 5808 5838 5837; 8743 5808 5809 5839 5838; 8744 5512 5810 5840 5543;
8745 5810 5811 5841 5840; 8746 5811 5812 5842 5841; 8747 5812 5813 5843 5842;
8748 5813 5814 5844 5843; 8749 5814 5815 5845 5844; 8750 5815 5816 5846 5845;
8751 5816 5817 5847 5846; 8752 5817 5818 5848 5847; 8753 5818 5819 5849 5848;
8754 5819 5820 5850 5849; 8755 5820 5821 5851 5850; 8756 5821 5822 5852 5851;
8757 5822 5823 5853 5852; 8758 5823 5824 5854 5853; 8759 5824 5825 5855 5854;
8760 5825 5826 5856 5855; 8761 5826 5827 5857 5856; 8762 5827 5828 5858 5857;
8763 5828 5829 5859 5858; 8764 5829 5830 5860 5859; 8765 5830 5831 5861 5860;
8766 5831 5832 5862 5861; 8767 5832 5833 5863 5862; 8768 5833 5834 5864 5863;
8769 5834 5835 5865 5864; 8770 5835 5836 5866 5865; 8771 5836 5837 5867 5866;
8772 5837 5838 5868 5867; 8773 5838 5839 5869 5868; 8774 5543 5840 5870 5574;
8775 5840 5841 5871 5870; 8776 5841 5842 5872 5871; 8777 5842 5843 5873 5872;
8778 5843 5844 5874 5873; 8779 5844 5845 5875 5874; 8780 5845 5846 5876 5875;
8781 5846 5847 5877 5876; 8782 5847 5848 5878 5877; 8783 5848 5849 5879 5878;
8784 5849 5850 5880 5879; 8785 5850 5851 5881 5880; 8786 5851 5852 5882 5881;
8787 5852 5853 5883 5882; 8788 5853 5854 5884 5883; 8789 5854 5855 5885 5884;
8790 5855 5856 5886 5885; 8791 5856 5857 5887 5886; 8792 5857 5858 5888 5887;
8793 5858 5859 5889 5888; 8794 5859 5860 5890 5889; 8795 5860 5861 5891 5890;
8796 5861 5862 5892 5891; 8797 5862 5863 5893 5892; 8798 5863 5864 5894 5893;
8799 5864 5865 5895 5894; 8800 5865 5866 5896 5895; 8801 5866 5867 5897 5896;
8802 5867 5868 5898 5897; 8803 5868 5869 5899 5898; 8804 5574 5870 5900 2520;
8805 5870 5871 2817 5900; 8806 5871 5872 5901 2817; 8807 5872 5873 5902 5901;
8808 5873 5874 5903 5902; 8809 5874 5875 5904 5903; 8810 5875 5876 5905 5904;
8811 5876 5877 5906 5905; 8812 5877 5878 5907 5906; 8813 5878 5879 5908 5907;
8814 5879 5880 5909 5908; 8815 5880 5881 5910 5909; 8816 5881 5882 5911 5910;
8817 5882 5883 5912 5911; 8818 5883 5884 5913 5912; 8819 5884 5885 5914 5913;
8820 5885 5886 5915 5914; 8821 5886 5887 5916 5915; 8822 5887 5888 5917 5916;
8823 5888 5889 5918 5917; 8824 5889 5890 5919 5918; 8825 5890 5891 5920 5919;
8826 5891 5892 5921 5920; 8827 5892 5893 5922 5921; 8828 5893 5894 5923 5922;
8829 5894 5895 5924 5923; 8830 5895 5896 5925 5924; 8831 5896 5897 5926 5925;

8832 5897 5898 5927 5926; 8833 5898 5899 2478 5927; 8834 2520 5900 5928 5633;
8835 5900 2817 5929 5928; 8836 2817 5901 5930 5929; 8837 5901 5902 5931 5930;
8838 5902 5903 5932 5931; 8839 5903 5904 5933 5932; 8840 5904 5905 5934 5933;
8841 5905 5906 5935 5934; 8842 5906 5907 5936 5935; 8843 5907 5908 5937 5936;
8844 5908 5909 5938 5937; 8845 5909 5910 5939 5938; 8846 5910 5911 5940 5939;
8847 5911 5912 5941 5940; 8848 5912 5913 5942 5941; 8849 5913 5914 5943 5942;
8850 5914 5915 5944 5943; 8851 5915 5916 5945 5944; 8852 5916 5917 5946 5945;
8853 5917 5918 5947 5946; 8854 5918 5919 5948 5947; 8855 5919 5920 5949 5948;
8856 5920 5921 5950 5949; 8857 5921 5922 5951 5950; 8858 5922 5923 5952 5951;
8859 5923 5924 5953 5952; 8860 5924 5925 5954 5953; 8861 5925 5926 5955 5954;
8862 5926 5927 5956 5955; 8863 5927 2478 5957 5956; 8864 5633 5928 5958 5664;
8865 5928 5929 5959 5958; 8866 5929 5930 5960 5959; 8867 5930 5931 5961 5960;
8868 5931 5932 5962 5961; 8869 5932 5933 5963 5962; 8870 5933 5934 5964 5963;
8871 5934 5935 5965 5964; 8872 5935 5936 5966 5965; 8873 5936 5937 5967 5966;
8874 5937 5938 5968 5967; 8875 5938 5939 5969 5968; 8876 5939 5940 5970 5969;
8877 5940 5941 5971 5970; 8878 5941 5942 5972 5971; 8879 5942 5943 5973 5972;
8880 5943 5944 5974 5973; 8881 5944 5945 5975 5974; 8882 5945 5946 5976 5975;
8883 5946 5947 5977 5976; 8884 5947 5948 5978 5977; 8885 5948 5949 5979 5978;
8886 5949 5950 5980 5979; 8887 5950 5951 5981 5980; 8888 5951 5952 5982 5981;
8889 5952 5953 5983 5982; 8890 5953 5954 5984 5983; 8891 5954 5955 5985 5984;
8892 5955 5956 5986 5985; 8893 5956 5957 5987 5986; 8894 5664 5958 5988 2525;
8895 5958 5959 2822 5988; 8896 5959 5960 5989 2822; 8897 5960 5961 5990 5989;
8898 5961 5962 5991 5990; 8899 5962 5963 5992 5991; 8900 5963 5964 5993 5992;
8901 5964 5965 5994 5993; 8902 5965 5966 5995 5994; 8903 5966 5967 5996 5995;
8904 5967 5968 5997 5996; 8905 5968 5969 5998 5997; 8906 5969 5970 5999 5998;
8907 5970 5971 6000 5999; 8908 5971 5972 6001 6000; 8909 5972 5973 6002 6001;
8910 5973 5974 6003 6002; 8911 5974 5975 6004 6003; 8912 5975 5976 6005 6004;
8913 5976 5977 6006 6005; 8914 5977 5978 6007 6006; 8915 5978 5979 6008 6007;
8916 5979 5980 6009 6008; 8917 5980 5981 6010 6009; 8918 5981 5982 6011 6010;
8919 5982 5983 6012 6011; 8920 5983 5984 6013 6012; 8921 5984 5985 6014 6013;
8922 5985 5986 6015 6014; 8923 5986 5987 2483 6015; 8924 2525 5988 6016 5723;
8925 5988 2822 6017 6016; 8926 2822 5989 6018 6017; 8927 5989 5990 6019 6018;
8928 5990 5991 6020 6019; 8929 5991 5992 6021 6020; 8930 5992 5993 6022 6021;
8931 5993 5994 6023 6022; 8932 5994 5995 6024 6023; 8933 5995 5996 6025 6024;
8934 5996 5997 6026 6025; 8935 5997 5998 6027 6026; 8936 5998 5999 6028 6027;
8937 5999 6000 6029 6028; 8938 6000 6001 6030 6029; 8939 6001 6002 6031 6030;
8940 6002 6003 6032 6031; 8941 6003 6004 6033 6032; 8942 6004 6005 6034 6033;
8943 6005 6006 6035 6034; 8944 6006 6007 6036 6035; 8945 6007 6008 6037 6036;
8946 6008 6009 6038 6037; 8947 6009 6010 6039 6038; 8948 6010 6011 6040 6039;
8949 6011 6012 6041 6040; 8950 6012 6013 6042 6041; 8951 6013 6014 6043 6042;
8952 6014 6015 6044 6043; 8953 6015 2483 6045 6044; 8954 5723 6016 6046 2516;
8955 6016 6017 2812 6046; 8956 6017 6018 6047 2812; 8957 6018 6019 6048 6047;
8958 6019 6020 6049 6048; 8959 6020 6021 6050 6049; 8960 6021 6022 6051 6050;
8961 6022 6023 6052 6051; 8962 6023 6024 6053 6052; 8963 6024 6025 6054 6053;
8964 6025 6026 6055 6054; 8965 6026 6027 6056 6055; 8966 6027 6028 6057 6056;
8967 6028 6029 6058 6057; 8968 6029 6030 6059 6058; 8969 6030 6031 6060 6059;
8970 6031 6032 6061 6060; 8971 6032 6033 6062 6061; 8972 6033 6034 6063 6062;
8973 6034 6035 6064 6063; 8974 6035 6036 6065 6064; 8975 6036 6037 6066 6065;
8976 6037 6038 6067 6066; 8977 6038 6039 6068 6067; 8978 6039 6040 6069 6068;
8979 6040 6041 6070 6069; 8980 6041 6042 6071 6070; 8981 6042 6043 6072 6071;
8982 6043 6044 6073 6072; 8983 6044 6045 2473 6073; 8984 2472 5807 6074 6075;
8985 5807 5805 6076 6074; 8986 5805 5803 6077 6076; 8987 5803 5801 6078 6077;
8988 5801 5799 6079 6078; 8989 5799 5797 6080 6079; 8990 5797 5795 6081 6080;
8991 5795 5793 6082 6081; 8992 5793 5791 6083 6082; 8993 5791 5789 6084 6083;
8994 5789 5787 6085 6084; 8995 5787 5785 6086 6085; 8996 5785 5783 6087 6086;
8997 5783 5781 6088 6087; 8998 5781 5779 6089 6088; 8999 5779 5777 6090 6089;
9000 5777 5775 6091 6090; 9001 5775 5773 6092 6091; 9002 5773 5771 6093 6092;
9003 5771 5769 6094 6093; 9004 5769 5767 6095 6094; 9005 5767 5765 6096 6095;
9006 5765 5763 6097 6096; 9007 5763 5761 6098 6097; 9008 5761 5759 6099 6098;
9009 5759 5757 6100 6099; 9010 5757 5755 6101 6100; 9011 5755 2811 6102 6101;
9012 2811 5752 6103 6102; 9013 5752 2515 6104 6103; 9014 6075 6074 6105 6106;
9015 6074 6076 6107 6105; 9016 6076 6077 6108 6107; 9017 6077 6078 6109 6108;
9018 6078 6079 6110 6109; 9019 6079 6080 6111 6110; 9020 6080 6081 6112 6111;
9021 6081 6082 6113 6112; 9022 6082 6083 6114 6113; 9023 6083 6084 6115 6114;
9024 6084 6085 6116 6115; 9025 6085 6086 6117 6116; 9026 6086 6087 6118 6117;
9027 6087 6088 6119 6118; 9028 6088 6089 6120 6119; 9029 6089 6090 6121 6120;
9030 6090 6091 6122 6121; 9031 6091 6092 6123 6122; 9032 6092 6093 6124 6123;
9033 6093 6094 6125 6124; 9034 6094 6095 6126 6125; 9035 6095 6096 6127 6126;
9036 6096 6097 6128 6127; 9037 6097 6098 6129 6128; 9038 6098 6099 6130 6129;
9039 6099 6100 6131 6130; 9040 6100 6101 6132 6131; 9041 6101 6102 6133 6132;
9042 6102 6103 6134 6133; 9043 6103 6104 6135 6134; 9044 6106 6105 6136 6137;
9045 6105 6107 6138 6136; 9046 6107 6108 6139 6138; 9047 6108 6109 6140 6139;
9048 6109 6110 6141 6140; 9049 6110 6111 6142 6141; 9050 6111 6112 6143 6142;
9051 6112 6113 6144 6143; 9052 6113 6114 6145 6144; 9053 6114 6115 6146 6145;
9054 6115 6116 6147 6146; 9055 6116 6117 6148 6147; 9056 6117 6118 6149 6148;
9057 6118 6119 6150 6149; 9058 6119 6120 6151 6150; 9059 6120 6121 6152 6151;
9060 6121 6122 6153 6152; 9061 6122 6123 6154 6153; 9062 6123 6124 6155 6154;
9063 6124 6125 6156 6155; 9064 6125 6126 6157 6156; 9065 6126 6127 6158 6157;
9066 6127 6128 6159 6158; 9067 6128 6129 6160 6159; 9068 6129 6130 6161 6160;
9069 6130 6131 6162 6161; 9070 6131 6132 6163 6162; 9071 6132 6133 6164 6163;
9072 6133 6134 6165 6164; 9073 6134 6135 6166 6165; 9074 6137 6136 6167 6168;
9075 6136 6138 6169 6167; 9076 6138 6139 6170 6169; 9077 6139 6140 6171 6170;

9078 6140 6141 6172 6171; 9079 6141 6142 6173 6172; 9080 6142 6143 6174 6173;
9081 6143 6144 6175 6174; 9082 6144 6145 6176 6175; 9083 6145 6146 6177 6176;
9084 6146 6147 6178 6177; 9085 6147 6148 6179 6178; 9086 6148 6149 6180 6179;
9087 6149 6150 6181 6180; 9088 6150 6151 6182 6181; 9089 6151 6152 6183 6182;
9090 6152 6153 6184 6183; 9091 6153 6154 6185 6184; 9092 6154 6155 6186 6185;
9093 6155 6156 6187 6186; 9094 6156 6157 6188 6187; 9095 6157 6158 6189 6188;
9096 6158 6159 6190 6189; 9097 6159 6160 6191 6190; 9098 6160 6161 6192 6191;
9099 6161 6162 6193 6192; 9100 6162 6163 6194 6193; 9101 6163 6164 6195 6194;
9102 6164 6165 6196 6195; 9103 6165 6166 6197 6196; 9104 6168 6167 6198 2480;
9105 6167 6169 6199 6198; 9106 6169 6170 6200 6199; 9107 6170 6171 6201 6200;
9108 6171 6172 6202 6201; 9109 6172 6173 6203 6202; 9110 6173 6174 6204 6203;
9111 6174 6175 6205 6204; 9112 6175 6176 6206 6205; 9113 6176 6177 6207 6206;
9114 6177 6178 6208 6207; 9115 6178 6179 6209 6208; 9116 6179 6180 6210 6209;
9117 6180 6181 6211 6210; 9118 6181 6182 6212 6211; 9119 6182 6183 6213 6212;
9120 6183 6184 6214 6213; 9121 6184 6185 6215 6214; 9122 6185 6186 6216 6215;
9123 6186 6187 6217 6216; 9124 6187 6188 6218 6217; 9125 6188 6189 6219 6218;
9126 6189 6190 6220 6219; 9127 6190 6191 6221 6220; 9128 6191 6192 6222 6221;
9129 6192 6193 6223 6222; 9130 6193 6194 6224 6223; 9131 6194 6195 2819 6224;
9132 6195 6196 6225 2819; 9133 6196 6197 2522 6225; 9134 2480 6198 6226 6227;
9135 6198 6199 6228 6226; 9136 6199 6200 6229 6228; 9137 6200 6201 6230 6229;
9138 6201 6202 6231 6230; 9139 6202 6203 6232 6231; 9140 6203 6204 6233 6232;
9141 6204 6205 6234 6233; 9142 6205 6206 6235 6234; 9143 6206 6207 6236 6235;
9144 6207 6208 6237 6236; 9145 6208 6209 6238 6237; 9146 6209 6210 6239 6238;
9147 6210 6211 6240 6239; 9148 6211 6212 6241 6240; 9149 6212 6213 6242 6241;
9150 6213 6214 6243 6242; 9151 6214 6215 6244 6243; 9152 6215 6216 6245 6244;
9153 6216 6217 6246 6245; 9154 6217 6218 6247 6246; 9155 6218 6219 6248 6247;
9156 6219 6220 6249 6248; 9157 6220 6221 6250 6249; 9158 6221 6222 6251 6250;
9159 6222 6223 6252 6251; 9160 6223 6224 6253 6252; 9161 6224 2819 6254 6253;
9162 2819 6225 6255 6254; 9163 6225 2522 6256 6255; 9164 6227 6226 6257 6258;
9165 6226 6228 6259 6257; 9166 6228 6229 6260 6259; 9167 6229 6230 6261 6260;
9168 6230 6231 6262 6261; 9169 6231 6232 6263 6262; 9170 6232 6233 6264 6263;
9171 6233 6234 6265 6264; 9172 6234 6235 6266 6265; 9173 6235 6236 6267 6266;
9174 6236 6237 6268 6267; 9175 6237 6238 6269 6268; 9176 6238 6239 6270 6269;
9177 6239 6240 6271 6270; 9178 6240 6241 6272 6271; 9179 6241 6242 6273 6272;
9180 6242 6243 6274 6273; 9181 6243 6244 6275 6274; 9182 6244 6245 6276 6275;
9183 6245 6246 6277 6276; 9184 6246 6247 6278 6277; 9185 6247 6248 6279 6278;
9186 6248 6249 6280 6279; 9187 6249 6250 6281 6280; 9188 6250 6251 6282 6281;
9189 6251 6252 6283 6282; 9190 6252 6253 6284 6283; 9191 6253 6254 6285 6284;
9192 6254 6255 6286 6285; 9193 6255 6256 6287 6286; 9194 6258 6257 6288 2484;
9195 6257 6259 6289 6288; 9196 6259 6260 6290 6289; 9197 6260 6261 6291 6290;
9198 6261 6262 6292 6291; 9199 6262 6263 6293 6292; 9200 6263 6264 6294 6293;
9201 6264 6265 6295 6294; 9202 6265 6266 6296 6295; 9203 6266 6267 6297 6296;
9204 6267 6268 6298 6297; 9205 6268 6269 6299 6298; 9206 6269 6270 6300 6299;
9207 6270 6271 6301 6300; 9208 6271 6272 6302 6301; 9209 6272 6273 6303 6302;
9210 6273 6274 6304 6303; 9211 6274 6275 6305 6304; 9212 6275 6276 6306 6305;
9213 6276 6277 6307 6306; 9214 6277 6278 6308 6307; 9215 6278 6279 6309 6308;
9216 6279 6280 6310 6309; 9217 6280 6281 6311 6310; 9218 6281 6282 6312 6311;
9219 6282 6283 6313 6312; 9220 6283 6284 6314 6313; 9221 6284 6285 2823 6314;
9222 6285 6286 6315 2823; 9223 6286 6287 2526 6315; 9224 2484 6288 6316 6317;
9225 6288 6289 6318 6316; 9226 6289 6290 6319 6318; 9227 6290 6291 6320 6319;
9228 6291 6292 6321 6320; 9229 6292 6293 6322 6321; 9230 6293 6294 6323 6322;
9231 6294 6295 6324 6323; 9232 6295 6296 6325 6324; 9233 6296 6297 6326 6325;
9234 6297 6298 6327 6326; 9235 6298 6299 6328 6327; 9236 6299 6300 6329 6328;
9237 6300 6301 6330 6329; 9238 6301 6302 6331 6330; 9239 6302 6303 6332 6331;
9240 6303 6304 6333 6332; 9241 6304 6305 6334 6333; 9242 6305 6306 6335 6334;
9243 6306 6307 6336 6335; 9244 6307 6308 6337 6336; 9245 6308 6309 6338 6337;
9246 6309 6310 6339 6338; 9247 6310 6311 6340 6339; 9248 6311 6312 6341 6340;
9249 6312 6313 6342 6341; 9250 6313 6314 6343 6342; 9251 6314 2823 6344 6343;
9252 2823 6315 6345 6344; 9253 6315 2526 6346 6345; 9254 6317 6316 6347 2474;
9255 6316 6318 6348 6347; 9256 6318 6319 6349 6348; 9257 6319 6320 6350 6349;
9258 6320 6321 6351 6350; 9259 6321 6322 6352 6351; 9260 6322 6323 6353 6352;
9261 6323 6324 6354 6353; 9262 6324 6325 6355 6354; 9263 6325 6326 6356 6355;
9264 6326 6327 6357 6356; 9265 6327 6328 6358 6357; 9266 6328 6329 6359 6358;
9267 6329 6330 6360 6359; 9268 6330 6331 6361 6360; 9269 6331 6332 6362 6361;
9270 6332 6333 6363 6362; 9271 6333 6334 6364 6363; 9272 6334 6335 6365 6364;
9273 6335 6336 6366 6365; 9274 6336 6337 6367 6366; 9275 6337 6338 6368 6367;
9276 6338 6339 6369 6368; 9277 6339 6340 6370 6369; 9278 6340 6341 6371 6370;
9279 6341 6342 6372 6371; 9280 6342 6343 6373 6372; 9281 6343 6344 2813 6373;
9282 6344 6345 6374 2813; 9283 6345 6346 2517 6374; 9284 2515 5479 6375 6104;
9285 5479 2766 6376 6375; 9286 2766 5476 6377 6376; 9287 5476 5474 6378 6377;
9288 5474 5472 6379 6378; 9289 5472 5470 6380 6379; 9290 5470 5468 6381 6380;
9291 5468 5466 6382 6381; 9292 5466 5464 6383 6382; 9293 5464 5462 6384 6383;
9294 5462 5460 6385 6384; 9295 5460 5458 6386 6385; 9296 5458 5456 6387 6386;
9297 5456 5454 6388 6387; 9298 5454 5452 6389 6388; 9299 5452 5450 6390 6389;
9300 5450 5448 6391 6390; 9301 5448 5446 6392 6391; 9302 5446 5444 6393 6392;
9303 5444 5442 6394 6393; 9304 5442 5440 6395 6394; 9305 5440 5438 6396 6395;
9306 5438 5436 6397 6396; 9307 5436 5434 6398 6397; 9308 5434 5432 6399 6398;
9309 5432 5430 6400 6399; 9310 5430 5428 6401 6400; 9311 5428 5426 6402 6401;
9312 5426 5423 6403 6402; 9313 5423 2459 6404 6403; 9314 6104 6375 6405 6135;
9315 6375 6376 6406 6405; 9316 6376 6377 6407 6406; 9317 6377 6378 6408 6407;
9318 6378 6379 6409 6408; 9319 6379 6380 6410 6409; 9320 6380 6381 6411 6410;
9321 6381 6382 6412 6411; 9322 6382 6383 6413 6412; 9323 6383 6384 6414 6413;

9324 6384 6385 6415 6414; 9325 6385 6386 6416 6415; 9326 6386 6387 6417 6416;
9327 6387 6388 6418 6417; 9328 6388 6389 6419 6418; 9329 6389 6390 6420 6419;
9330 6390 6391 6421 6420; 9331 6391 6392 6422 6421; 9332 6392 6393 6423 6422;
9333 6393 6394 6424 6423; 9334 6394 6395 6425 6424; 9335 6395 6396 6426 6425;
9336 6396 6397 6427 6426; 9337 6397 6398 6428 6427; 9338 6398 6399 6429 6428;
9339 6399 6400 6430 6429; 9340 6400 6401 6431 6430; 9341 6401 6402 6432 6431;
9342 6402 6403 6433 6432; 9343 6403 6404 6434 6433; 9344 6135 6405 6435 6166;
9345 6405 6406 6436 6435; 9346 6406 6407 6437 6436; 9347 6407 6408 6438 6437;
9348 6408 6409 6439 6438; 9349 6409 6410 6440 6439; 9350 6410 6411 6441 6440;
9351 6411 6412 6442 6441; 9352 6412 6413 6443 6442; 9353 6413 6414 6444 6443;
9354 6414 6415 6445 6444; 9355 6415 6416 6446 6445; 9356 6416 6417 6447 6446;
9357 6417 6418 6448 6447; 9358 6418 6419 6449 6448; 9359 6419 6420 6450 6449;
9360 6420 6421 6451 6450; 9361 6421 6422 6452 6451; 9362 6422 6423 6453 6452;
9363 6423 6424 6454 6453; 9364 6424 6425 6455 6454; 9365 6425 6426 6456 6455;
9366 6426 6427 6457 6456; 9367 6427 6428 6458 6457; 9368 6428 6429 6459 6458;
9369 6429 6430 6460 6459; 9370 6430 6431 6461 6460; 9371 6431 6432 6462 6461;
9372 6432 6433 6463 6462; 9373 6433 6434 6464 6463; 9374 6166 6435 6465 6197;
9375 6435 6436 6466 6465; 9376 6436 6437 6467 6466; 9377 6437 6438 6468 6467;
9378 6438 6439 6469 6468; 9379 6439 6440 6470 6469; 9380 6440 6441 6471 6470;
9381 6441 6442 6472 6471; 9382 6442 6443 6473 6472; 9383 6443 6444 6474 6473;
9384 6444 6445 6475 6474; 9385 6445 6446 6476 6475; 9386 6446 6447 6477 6476;
9387 6447 6448 6478 6477; 9388 6448 6449 6479 6478; 9389 6449 6450 6480 6479;
9390 6450 6451 6481 6480; 9391 6451 6452 6482 6481; 9392 6452 6453 6483 6482;
9393 6453 6454 6484 6483; 9394 6454 6455 6485 6484; 9395 6455 6456 6486 6485;
9396 6456 6457 6487 6486; 9397 6457 6458 6488 6487; 9398 6458 6459 6489 6488;
9399 6459 6460 6490 6489; 9400 6460 6461 6491 6490; 9401 6461 6462 6492 6491;
9402 6462 6463 6493 6492; 9403 6463 6464 6494 6493; 9404 6197 6465 6495 2522;
9405 6465 6466 2774 6495; 9406 6466 6467 6496 2774; 9407 6467 6468 6497 6496;
9408 6468 6469 6498 6497; 9409 6469 6470 6499 6498; 9410 6470 6471 6500 6499;
9411 6471 6472 6501 6500; 9412 6472 6473 6502 6501; 9413 6473 6474 6503 6502;
9414 6474 6475 6504 6503; 9415 6475 6476 6505 6504; 9416 6476 6477 6506 6505;
9417 6477 6478 6507 6506; 9418 6478 6479 6508 6507; 9419 6479 6480 6509 6508;
9420 6480 6481 6510 6509; 9421 6481 6482 6511 6510; 9422 6482 6483 6512 6511;
9423 6483 6484 6513 6512; 9424 6484 6485 6514 6513; 9425 6485 6486 6515 6514;
9426 6486 6487 6516 6515; 9427 6487 6488 6517 6516; 9428 6488 6489 6518 6517;
9429 6489 6490 6519 6518; 9430 6490 6491 6520 6519; 9431 6491 6492 6521 6520;
9432 6492 6493 6522 6521; 9433 6493 6494 2468 6522; 9434 2522 6495 6523 6256;
9435 6495 2774 6524 6523; 9436 2774 6496 6525 6524; 9437 6496 6497 6526 6525;
9438 6497 6498 6527 6526; 9439 6498 6499 6528 6527; 9440 6499 6500 6529 6528;
9441 6500 6501 6530 6529; 9442 6501 6502 6531 6530; 9443 6502 6503 6532 6531;
9444 6503 6504 6533 6532; 9445 6504 6505 6534 6533; 9446 6505 6506 6535 6534;
9447 6506 6507 6536 6535; 9448 6507 6508 6537 6536; 9449 6508 6509 6538 6537;
9450 6509 6510 6539 6538; 9451 6510 6511 6540 6539; 9452 6511 6512 6541 6540;
9453 6512 6513 6542 6541; 9454 6513 6514 6543 6542; 9455 6514 6515 6544 6543;
9456 6515 6516 6545 6544; 9457 6516 6517 6546 6545; 9458 6517 6518 6547 6546;
9459 6518 6519 6548 6547; 9460 6519 6520 6549 6548; 9461 6520 6521 6550 6549;
9462 6521 6522 6551 6550; 9463 6522 2468 6552 6551; 9464 6256 6523 6553 6287;
9465 6523 6524 6554 6553; 9466 6524 6525 6555 6554; 9467 6525 6526 6556 6555;
9468 6526 6527 6557 6556; 9469 6527 6528 6558 6557; 9470 6528 6529 6559 6558;
9471 6529 6530 6560 6559; 9472 6530 6531 6561 6560; 9473 6531 6532 6562 6561;
9474 6532 6533 6563 6562; 9475 6533 6534 6564 6563; 9476 6534 6535 6565 6564;
9477 6535 6536 6566 6565; 9478 6536 6537 6567 6566; 9479 6537 6538 6568 6567;
9480 6538 6539 6569 6568; 9481 6539 6540 6570 6569; 9482 6540 6541 6571 6570;
9483 6541 6542 6572 6571; 9484 6542 6543 6573 6572; 9485 6543 6544 6574 6573;
9486 6544 6545 6575 6574; 9487 6545 6546 6576 6575; 9488 6546 6547 6577 6576;
9489 6547 6548 6578 6577; 9490 6548 6549 6579 6578; 9491 6549 6550 6580 6579;
9492 6550 6551 6581 6580; 9493 6551 6552 6582 6581; 9494 6287 6553 6583 2526;
9495 6553 6554 2778 6583; 9496 6554 6555 6584 2778; 9497 6555 6556 6585 6584;
9498 6556 6557 6586 6585; 9499 6557 6558 6587 6586; 9500 6558 6559 6588 6587;
9501 6559 6560 6589 6588; 9502 6560 6561 6590 6589; 9503 6561 6562 6591 6590;
9504 6562 6563 6592 6591; 9505 6563 6564 6593 6592; 9506 6564 6565 6594 6593;
9507 6565 6566 6595 6594; 9508 6566 6567 6596 6595; 9509 6567 6568 6597 6596;
9510 6568 6569 6598 6597; 9511 6569 6570 6599 6598; 9512 6570 6571 6600 6599;
9513 6571 6572 6601 6600; 9514 6572 6573 6602 6601; 9515 6573 6574 6603 6602;
9516 6574 6575 6604 6603; 9517 6575 6576 6605 6604; 9518 6576 6577 6606 6605;
9519 6577 6578 6607 6606; 9520 6578 6579 6608 6607; 9521 6579 6580 6609 6608;
9522 6580 6581 6610 6609; 9523 6581 6582 2471 6610; 9524 2526 6583 6611 6346;
9525 6583 2778 6612 6611; 9526 2778 6584 6613 6612; 9527 6584 6585 6614 6613;
9528 6585 6586 6615 6614; 9529 6586 6587 6616 6615; 9530 6587 6588 6617 6616;
9531 6588 6589 6618 6617; 9532 6589 6590 6619 6618; 9533 6590 6591 6620 6619;
9534 6591 6592 6621 6620; 9535 6592 6593 6622 6621; 9536 6593 6594 6623 6622;
9537 6594 6595 6624 6623; 9538 6595 6596 6625 6624; 9539 6596 6597 6626 6625;
9540 6597 6598 6627 6626; 9541 6598 6599 6628 6627; 9542 6599 6600 6629 6628;
9543 6600 6601 6630 6629; 9544 6601 6602 6631 6630; 9545 6602 6603 6632 6631;
9546 6603 6604 6633 6632; 9547 6604 6605 6634 6633; 9548 6605 6606 6635 6634;
9549 6606 6607 6636 6635; 9550 6607 6608 6637 6636; 9551 6608 6609 6638 6637;
9552 6609 6610 6639 6638; 9553 6610 2471 6640 6639; 9554 6346 6611 6641 2517;
9555 6611 6612 2768 6641; 9556 6612 6613 6642 2768; 9557 6613 6614 6643 6642;
9558 6614 6615 6644 6643; 9559 6615 6616 6645 6644; 9560 6616 6617 6646 6645;
9561 6617 6618 6647 6646; 9562 6618 6619 6648 6647; 9563 6619 6620 6649 6648;
9564 6620 6621 6650 6649; 9565 6621 6622 6651 6650; 9566 6622 6623 6652 6651;
9567 6623 6624 6653 6652; 9568 6624 6625 6654 6653; 9569 6625 6626 6655 6654;

9570 6626 6627 6656 6655; 9571 6627 6628 6657 6656; 9572 6628 6629 6658 6657;
9573 6629 6630 6659 6658; 9574 6630 6631 6660 6659; 9575 6631 6632 6661 6660;
9576 6632 6633 6662 6661; 9577 6633 6634 6663 6662; 9578 6634 6635 6664 6663;
9579 6635 6636 6665 6664; 9580 6636 6637 6666 6665; 9581 6637 6638 6667 6666;
9582 6638 6639 6668 6667; 9583 6639 6640 2463 6668; 9584 3223 6669 6670 6671;
9585 6669 6672 6673 6670; 9586 6672 6674 6675 6673; 9587 6674 6676 6677 6675;
9588 6676 6678 6679 6677; 9589 6678 6680 6681 6679; 9590 6680 6682 6683 6681;
9591 6682 6684 6685 6683; 9592 6684 6686 6687 6685; 9593 6686 6688 6689 6687;
9594 6688 6690 6691 6689; 9595 6690 6692 6693 6691; 9596 6692 6694 6695 6693;
9597 6694 6696 6697 6695; 9598 6696 6698 6699 6697; 9599 6698 6700 6701 6699;
9600 6700 6702 6703 6701; 9601 6702 6704 6705 6703; 9602 6704 6706 6707 6705;
9603 6706 6708 6709 6707; 9604 6708 6710 6711 6709; 9605 6710 6712 6713 6711;
9606 6712 6714 6715 6713; 9607 6714 6716 6717 6715; 9608 6716 6718 6719 6717;
9609 6718 6720 6721 6719; 9610 6720 6722 6723 6721; 9611 6722 3474 6724 6723;
9612 3474 6725 6726 6724; 9613 6725 3270 6727 6726; 9614 6671 6670 6728 6729;
9615 6670 6673 6730 6728; 9616 6673 6675 6731 6730; 9617 6675 6677 6732 6731;
9618 6677 6679 6733 6732; 9619 6679 6681 6734 6733; 9620 6681 6683 6735 6734;
9621 6683 6685 6736 6735; 9622 6685 6687 6737 6736; 9623 6687 6689 6738 6737;
9624 6689 6691 6739 6738; 9625 6691 6693 6740 6739; 9626 6693 6695 6741 6740;
9627 6695 6697 6742 6741; 9628 6697 6699 6743 6742; 9629 6699 6701 6744 6743;
9630 6701 6703 6745 6744; 9631 6703 6705 6746 6745; 9632 6705 6707 6747 6746;
9633 6707 6709 6748 6747; 9634 6709 6711 6749 6748; 9635 6711 6713 6750 6749;
9636 6713 6715 6751 6750; 9637 6715 6717 6752 6751; 9638 6717 6719 6753 6752;
9639 6719 6721 6754 6753; 9640 6721 6723 6755 6754; 9641 6723 6724 6756 6755;
9642 6724 6726 6757 6756; 9643 6726 6727 6758 6757; 9644 6729 6728 6759 6760;
9645 6728 6730 6761 6759; 9646 6730 6731 6762 6761; 9647 6731 6732 6763 6762;
9648 6732 6733 6764 6763; 9649 6733 6734 6765 6764; 9650 6734 6735 6766 6765;
9651 6735 6736 6767 6766; 9652 6736 6737 6768 6767; 9653 6737 6738 6769 6768;
9654 6738 6739 6770 6769; 9655 6739 6740 6771 6770; 9656 6740 6741 6772 6771;
9657 6741 6742 6773 6772; 9658 6742 6743 6774 6773; 9659 6743 6744 6775 6774;
9660 6744 6745 6776 6775; 9661 6745 6746 6777 6776; 9662 6746 6747 6778 6777;
9663 6747 6748 6779 6778; 9664 6748 6749 6780 6779; 9665 6749 6750 6781 6780;
9666 6750 6751 6782 6781; 9667 6751 6752 6783 6782; 9668 6752 6753 6784 6783;
9669 6753 6754 6785 6784; 9670 6754 6755 6786 6785; 9671 6755 6756 6787 6786;
9672 6756 6757 6788 6787; 9673 6757 6758 6789 6788; 9674 6760 6759 6790 6791;
9675 6759 6761 6792 6790; 9676 6761 6762 6793 6792; 9677 6762 6763 6794 6793;
9678 6763 6764 6795 6794; 9679 6764 6765 6796 6795; 9680 6765 6766 6797 6796;
9681 6766 6767 6798 6797; 9682 6767 6768 6799 6798; 9683 6768 6769 6800 6799;
9684 6769 6770 6801 6800; 9685 6770 6771 6802 6801; 9686 6771 6772 6803 6802;
9687 6772 6773 6804 6803; 9688 6773 6774 6805 6804; 9689 6774 6775 6806 6805;
9690 6775 6776 6807 6806; 9691 6776 6777 6808 6807; 9692 6777 6778 6809 6808;
9693 6778 6779 6810 6809; 9694 6779 6780 6811 6810; 9695 6780 6781 6812 6811;
9696 6781 6782 6813 6812; 9697 6782 6783 6814 6813; 9698 6783 6784 6815 6814;
9699 6784 6785 6816 6815; 9700 6785 6786 6817 6816; 9701 6786 6787 6818 6817;
9702 6787 6788 6819 6818; 9703 6788 6789 6820 6819; 9704 6791 6790 6821 3230;
9705 6790 6792 6822 6821; 9706 6792 6793 6823 6822; 9707 6793 6794 6824 6823;
9708 6794 6795 6825 6824; 9709 6795 6796 6826 6825; 9710 6796 6797 6827 6826;
9711 6797 6798 6828 6827; 9712 6798 6799 6829 6828; 9713 6799 6800 6830 6829;
9714 6800 6801 6831 6830; 9715 6801 6802 6832 6831; 9716 6802 6803 6833 6832;
9717 6803 6804 6834 6833; 9718 6804 6805 6835 6834; 9719 6805 6806 6836 6835;
9720 6806 6807 6837 6836; 9721 6807 6808 6838 6837; 9722 6808 6809 6839 6838;
9723 6809 6810 6840 6839; 9724 6810 6811 6841 6840; 9725 6811 6812 6842 6841;
9726 6812 6813 6843 6842; 9727 6813 6814 6844 6843; 9728 6814 6815 6845 6844;
9729 6815 6816 6846 6845; 9730 6816 6817 6847 6846; 9731 6817 6818 3480 6847;
9732 6818 6819 6848 3480; 9733 6819 6820 3276 6848; 9734 3230 6821 6849 6850;
9735 6821 6822 6851 6849; 9736 6822 6823 6852 6851; 9737 6823 6824 6853 6852;
9738 6824 6825 6854 6853; 9739 6825 6826 6855 6854; 9740 6826 6827 6856 6855;
9741 6827 6828 6857 6856; 9742 6828 6829 6858 6857; 9743 6829 6830 6859 6858;
9744 6830 6831 6860 6859; 9745 6831 6832 6861 6860; 9746 6832 6833 6862 6861;
9747 6833 6834 6863 6862; 9748 6834 6835 6864 6863; 9749 6835 6836 6865 6864;
9750 6836 6837 6866 6865; 9751 6837 6838 6867 6866; 9752 6838 6839 6868 6867;
9753 6839 6840 6869 6868; 9754 6840 6841 6870 6869; 9755 6841 6842 6871 6870;
9756 6842 6843 6872 6871; 9757 6843 6844 6873 6872; 9758 6844 6845 6874 6873;
9759 6845 6846 6875 6874; 9760 6846 6847 6876 6875; 9761 6847 3480 6877 6876;
9762 3480 6848 6878 6877; 9763 6848 3276 6879 6878; 9764 6850 6849 6880 6881;
9765 6849 6851 6882 6880; 9766 6851 6852 6883 6882; 9767 6852 6853 6884 6883;
9768 6853 6854 6885 6884; 9769 6854 6855 6886 6885; 9770 6855 6856 6887 6886;
9771 6856 6857 6888 6887; 9772 6857 6858 6889 6888; 9773 6858 6859 6890 6889;
9774 6859 6860 6891 6890; 9775 6860 6861 6892 6891; 9776 6861 6862 6893 6892;
9777 6862 6863 6894 6893; 9778 6863 6864 6895 6894; 9779 6864 6865 6896 6895;
9780 6865 6866 6897 6896; 9781 6866 6867 6898 6897; 9782 6867 6868 6899 6898;
9783 6868 6869 6900 6899; 9784 6869 6870 6901 6900; 9785 6870 6871 6902 6901;
9786 6871 6872 6903 6902; 9787 6872 6873 6904 6903; 9788 6873 6874 6905 6904;
9789 6874 6875 6906 6905; 9790 6875 6876 6907 6906; 9791 6876 6877 6908 6907;
9792 6877 6878 6909 6908; 9793 6878 6879 6910 6909; 9794 6881 6880 6911 3233;
9795 6880 6882 6912 6911; 9796 6882 6883 6913 6912; 9797 6883 6884 6914 6913;
9798 6884 6885 6915 6914; 9799 6885 6886 6916 6915; 9800 6886 6887 6917 6916;
9801 6887 6888 6918 6917; 9802 6888 6889 6919 6918; 9803 6889 6890 6920 6919;
9804 6890 6891 6921 6920; 9805 6891 6892 6922 6921; 9806 6892 6893 6923 6922;
9807 6893 6894 6924 6923; 9808 6894 6895 6925 6924; 9809 6895 6896 6926 6925;
9810 6896 6897 6927 6926; 9811 6897 6898 6928 6927; 9812 6898 6899 6929 6928;
9813 6899 6900 6930 6929; 9814 6900 6901 6931 6930; 9815 6901 6902 6932 6931;

9816 6902 6903 6933 6932; 9817 6903 6904 6934 6933; 9818 6904 6905 6935 6934;
9819 6905 6906 6936 6935; 9820 6906 6907 6937 6936; 9821 6907 6908 3484 6937;
9822 6908 6909 6938 3484; 9823 6909 6910 3280 6938; 9824 3233 6911 6939 6940;
9825 6911 6912 6941 6939; 9826 6912 6913 6942 6941; 9827 6913 6914 6943 6942;
9828 6914 6915 6944 6943; 9829 6915 6916 6945 6944; 9830 6916 6917 6946 6945;
9831 6917 6918 6947 6946; 9832 6918 6919 6948 6947; 9833 6919 6920 6949 6948;
9834 6920 6921 6950 6949; 9835 6921 6922 6951 6950; 9836 6922 6923 6952 6951;
9837 6923 6924 6953 6952; 9838 6924 6925 6954 6953; 9839 6925 6926 6955 6954;
9840 6926 6927 6956 6955; 9841 6927 6928 6957 6956; 9842 6928 6929 6958 6957;
9843 6929 6930 6959 6958; 9844 6930 6931 6960 6959; 9845 6931 6932 6961 6960;
9846 6932 6933 6962 6961; 9847 6933 6934 6963 6962; 9848 6934 6935 6964 6963;
9849 6935 6936 6965 6964; 9850 6936 6937 6966 6965; 9851 6937 3484 6967 6966;
9852 3484 6938 6968 6967; 9853 6938 3280 6969 6968; 9854 6940 6939 6970 3227;
9855 6939 6941 6971 6970; 9856 6941 6942 6972 6971; 9857 6942 6943 6973 6972;
9858 6943 6944 6974 6973; 9859 6944 6945 6975 6974; 9860 6945 6946 6976 6975;
9861 6946 6947 6977 6976; 9862 6947 6948 6978 6977; 9863 6948 6949 6979 6978;
9864 6949 6950 6980 6979; 9865 6950 6951 6981 6980; 9866 6951 6952 6982 6981;
9867 6952 6953 6983 6982; 9868 6953 6954 6984 6983; 9869 6954 6955 6985 6984;
9870 6955 6956 6986 6985; 9871 6956 6957 6987 6986; 9872 6957 6958 6988 6987;
9873 6958 6959 6989 6988; 9874 6959 6960 6990 6989; 9875 6960 6961 6991 6990;
9876 6961 6962 6992 6991; 9877 6962 6963 6993 6992; 9878 6963 6964 6994 6993;
9879 6964 6965 6995 6994; 9880 6965 6966 6996 6995; 9881 6966 6967 3476 6996;
9882 6967 6968 6997 3476; 9883 6968 6969 3272 6997; 9884 3270 6998 6999 6727;
9885 6998 3510 7000 6999; 9886 3510 7001 7002 7000; 9887 7001 7003 7004 7002;
9888 7003 7005 7006 7004; 9889 7005 7007 7008 7006; 9890 7007 7009 7010 7008;
9891 7009 7011 7012 7010; 9892 7011 7013 7014 7012; 9893 7013 7015 7016 7014;
9894 7015 7017 7018 7016; 9895 7017 7019 7020 7018; 9896 7019 7021 7022 7020;
9897 7021 7023 7024 7022; 9898 7023 7025 7026 7024; 9899 7025 7027 7028 7026;
9900 7027 7029 7030 7028; 9901 7029 7031 7032 7030; 9902 7031 7033 7034 7032;
9903 7033 7035 7036 7034; 9904 7035 7037 7038 7036; 9905 7037 7039 7040 7038;
9906 7039 7041 7042 7040; 9907 7041 7043 7044 7042; 9908 7043 7045 7046 7044;
9909 7045 7047 7048 7046; 9910 7047 7049 7050 7048; 9911 7049 7051 7052 7050;
9912 7051 7053 7054 7052; 9913 7053 3234 7055 7054; 9914 6727 6999 7056 6758;
9915 6999 7000 7057 7056; 9916 7000 7002 7058 7057; 9917 7002 7004 7059 7058;
9918 7004 7006 7060 7059; 9919 7006 7008 7061 7060; 9920 7008 7010 7062 7061;
9921 7010 7012 7063 7062; 9922 7012 7014 7064 7063; 9923 7014 7016 7065 7064;
9924 7016 7018 7066 7065; 9925 7018 7020 7067 7066; 9926 7020 7022 7068 7067;
9927 7022 7024 7069 7068; 9928 7024 7026 7070 7069; 9929 7026 7028 7071 7070;
9930 7028 7030 7072 7071; 9931 7030 7032 7073 7072; 9932 7032 7034 7074 7073;
9933 7034 7036 7075 7074; 9934 7036 7038 7076 7075; 9935 7038 7040 7077 7076;
9936 7040 7042 7078 7077; 9937 7042 7044 7079 7078; 9938 7044 7046 7080 7079;
9939 7046 7048 7081 7080; 9940 7048 7050 7082 7081; 9941 7050 7052 7083 7082;
9942 7052 7054 7084 7083; 9943 7054 7055 7085 7084; 9944 6758 7056 7086 6789;
9945 7056 7057 7087 7086; 9946 7057 7058 7088 7087; 9947 7058 7059 7089 7088;
9948 7059 7060 7090 7089; 9949 7060 7061 7091 7090; 9950 7061 7062 7092 7091;
9951 7062 7063 7093 7092; 9952 7063 7064 7094 7093; 9953 7064 7065 7095 7094;
9954 7065 7066 7096 7095; 9955 7066 7067 7097 7096; 9956 7067 7068 7098 7097;
9957 7068 7069 7099 7098; 9958 7069 7070 7100 7099; 9959 7070 7071 7101 7100;
9960 7071 7072 7102 7101; 9961 7072 7073 7103 7102; 9962 7073 7074 7104 7103;
9963 7074 7075 7105 7104; 9964 7075 7076 7106 7105; 9965 7076 7077 7107 7106;
9966 7077 7078 7108 7107; 9967 7078 7079 7109 7108; 9968 7079 7080 7110 7109;
9969 7080 7081 7111 7110; 9970 7081 7082 7112 7111; 9971 7082 7083 7113 7112;
9972 7083 7084 7114 7113; 9973 7084 7085 7115 7114; 9974 6789 7086 7116 6820;
9975 7086 7087 7117 7116; 9976 7087 7088 7118 7117; 9977 7088 7089 7119 7118;
9978 7089 7090 7120 7119; 9979 7090 7091 7121 7120; 9980 7091 7092 7122 7121;
9981 7092 7093 7123 7122; 9982 7093 7094 7124 7123; 9983 7094 7095 7125 7124;
9984 7095 7096 7126 7125; 9985 7096 7097 7127 7126; 9986 7097 7098 7128 7127;
9987 7098 7099 7129 7128; 9988 7099 7100 7130 7129; 9989 7100 7101 7131 7130;
9990 7101 7102 7132 7131; 9991 7102 7103 7133 7132; 9992 7103 7104 7134 7133;
9993 7104 7105 7135 7134; 9994 7105 7106 7136 7135; 9995 7106 7107 7137 7136;
9996 7107 7108 7138 7137; 9997 7108 7109 7139 7138; 9998 7109 7110 7140 7139;
9999 7110 7111 7141 7140; 10000 7111 7112 7142 7141; 10001 7112 7113 7143 7142;
10002 7113 7114 7144 7143; 10003 7114 7115 7145 7144;
10004 6820 7116 7146 3276; 10005 7116 7117 3516 7146;
10006 7117 7118 7147 3516; 10007 7118 7119 7148 7147;
10008 7119 7120 7149 7148; 10009 7120 7121 7150 7149;
10010 7121 7122 7151 7150; 10011 7122 7123 7152 7151;
10012 7123 7124 7153 7152; 10013 7124 7125 7154 7153;
10014 7125 7126 7155 7154; 10015 7126 7127 7156 7155;
10016 7127 7128 7157 7156; 10017 7128 7129 7158 7157;
10018 7129 7130 7159 7158; 10019 7130 7131 7160 7159;
10020 7131 7132 7161 7160; 10021 7132 7133 7162 7161;
10022 7133 7134 7163 7162; 10023 7134 7135 7164 7163;
10024 7135 7136 7165 7164; 10025 7136 7137 7166 7165;
10026 7137 7138 7167 7166; 10027 7138 7139 7168 7167;
10028 7139 7140 7169 7168; 10029 7140 7141 7170 7169;
10030 7141 7142 7171 7170; 10031 7142 7143 7172 7171;
10032 7143 7144 7173 7172; 10033 7144 7145 3240 7173;
10034 3276 7146 7174 6879; 10035 7146 3516 7175 7174;
10036 3516 7147 7176 7175; 10037 7147 7148 7177 7176;
10038 7148 7149 7178 7177; 10039 7149 7150 7179 7178;
10040 7150 7151 7180 7179; 10041 7151 7152 7181 7180;

10042 7152 7153 7182 7181; 10043 7153 7154 7183 7182;
10044 7154 7155 7184 7183; 10045 7155 7156 7185 7184;
10046 7156 7157 7186 7185; 10047 7157 7158 7187 7186;
10048 7158 7159 7188 7187; 10049 7159 7160 7189 7188;
10050 7160 7161 7190 7189; 10051 7161 7162 7191 7190;
10052 7162 7163 7192 7191; 10053 7163 7164 7193 7192;
10054 7164 7165 7194 7193; 10055 7165 7166 7195 7194;
10056 7166 7167 7196 7195; 10057 7167 7168 7197 7196;
10058 7168 7169 7198 7197; 10059 7169 7170 7199 7198;
10060 7170 7171 7200 7199; 10061 7171 7172 7201 7200;
10062 7172 7173 7202 7201; 10063 7173 3240 7203 7202;
10064 6879 7174 7204 6910; 10065 7174 7175 7205 7204;
10066 7175 7176 7206 7205; 10067 7176 7177 7207 7206;
10068 7177 7178 7208 7207; 10069 7178 7179 7209 7208;
10070 7179 7180 7210 7209; 10071 7180 7181 7211 7210;
10072 7181 7182 7212 7211; 10073 7182 7183 7213 7212;
10074 7183 7184 7214 7213; 10075 7184 7185 7215 7214;
10076 7185 7186 7216 7215; 10077 7186 7187 7217 7216;
10078 7187 7188 7218 7217; 10079 7188 7189 7219 7218;
10080 7189 7190 7220 7219; 10081 7190 7191 7221 7220;
10082 7191 7192 7222 7221; 10083 7192 7193 7223 7222;
10084 7193 7194 7224 7223; 10085 7194 7195 7225 7224;
10086 7195 7196 7226 7225; 10087 7196 7197 7227 7226;
10088 7197 7198 7228 7227; 10089 7198 7199 7229 7228;
10090 7199 7200 7230 7229; 10091 7200 7201 7231 7230;
10092 7201 7202 7232 7231; 10093 7202 7203 7233 7232;
10094 6910 7204 7234 3280; 10095 7204 7205 3520 7234;
10096 7205 7206 7235 3520; 10097 7206 7207 7236 7235;
10098 7207 7208 7237 7236; 10099 7208 7209 7238 7237;
10100 7209 7210 7239 7238; 10101 7210 7211 7240 7239;
10102 7211 7212 7241 7240; 10103 7212 7213 7242 7241;
10104 7213 7214 7243 7242; 10105 7214 7215 7244 7243;
10106 7215 7216 7245 7244; 10107 7216 7217 7246 7245;
10108 7217 7218 7247 7246; 10109 7218 7219 7248 7247;
10110 7219 7220 7249 7248; 10111 7220 7221 7250 7249;
10112 7221 7222 7251 7250; 10113 7222 7223 7252 7251;
10114 7223 7224 7253 7252; 10115 7224 7225 7254 7253;
10116 7225 7226 7255 7254; 10117 7226 7227 7256 7255;
10118 7227 7228 7257 7256; 10119 7228 7229 7258 7257;
10120 7229 7230 7259 7258; 10121 7230 7231 7260 7259;
10122 7231 7232 7261 7260; 10123 7232 7233 3244 7261;
10124 3280 7234 7262 6969; 10125 7234 3520 7263 7262;
10126 3520 7235 7264 7263; 10127 7235 7236 7265 7264;
10128 7236 7237 7266 7265; 10129 7237 7238 7267 7266;
10130 7238 7239 7268 7267; 10131 7239 7240 7269 7268;
10132 7240 7241 7270 7269; 10133 7241 7242 7271 7270;
10134 7242 7243 7272 7271; 10135 7243 7244 7273 7272;
10136 7244 7245 7274 7273; 10137 7245 7246 7275 7274;
10138 7246 7247 7276 7275; 10139 7247 7248 7277 7276;
10140 7248 7249 7278 7277; 10141 7249 7250 7279 7278;
10142 7250 7251 7280 7279; 10143 7251 7252 7281 7280;
10144 7252 7253 7282 7281; 10145 7253 7254 7283 7282;
10146 7254 7255 7284 7283; 10147 7255 7256 7285 7284;
10148 7256 7257 7286 7285; 10149 7257 7258 7287 7286;
10150 7258 7259 7288 7287; 10151 7259 7260 7289 7288;
10152 7260 7261 7290 7289; 10153 7261 3244 7291 7290;
10154 6969 7262 7292 3272; 10155 7262 7263 3512 7292;
10156 7263 7264 7293 3512; 10157 7264 7265 7294 7293;
10158 7265 7266 7295 7294; 10159 7266 7267 7296 7295;
10160 7267 7268 7297 7296; 10161 7268 7269 7298 7297;
10162 7269 7270 7299 7298; 10163 7270 7271 7300 7299;
10164 7271 7272 7301 7300; 10165 7272 7273 7302 7301;
10166 7273 7274 7303 7302; 10167 7274 7275 7304 7303;
10168 7275 7276 7305 7304; 10169 7276 7277 7306 7305;
10170 7277 7278 7307 7306; 10171 7278 7279 7308 7307;
10172 7279 7280 7309 7308; 10173 7280 7281 7310 7309;
10174 7281 7282 7311 7310; 10175 7282 7283 7312 7311;
10176 7283 7284 7313 7312; 10177 7284 7285 7314 7313;
10178 7285 7286 7315 7314; 10179 7286 7287 7316 7315;
10180 7287 7288 7317 7316; 10181 7288 7289 7318 7317;
10182 7289 7290 7319 7318; 10183 7290 7291 3236 7319;
10184 3234 7053 7320 7321; 10185 7053 7051 7322 7320;
10186 7051 7049 7323 7322; 10187 7049 7047 7324 7323;
10188 7047 7045 7325 7324; 10189 7045 7043 7326 7325;
10190 7043 7041 7327 7326; 10191 7041 7039 7328 7327;
10192 7039 7037 7329 7328; 10193 7037 7035 7330 7329;
10194 7035 7033 7331 7330; 10195 7033 7031 7332 7331;
10196 7031 7029 7333 7332; 10197 7029 7027 7334 7333;
10198 7027 7025 7335 7334; 10199 7025 7023 7336 7335;
10200 7023 7021 7337 7336; 10201 7021 7019 7338 7337;
10202 7019 7017 7339 7338; 10203 7017 7015 7340 7339;
10204 7015 7013 7341 7340; 10205 7013 7011 7342 7341;

10206 7011 7009 7343 7342; 10207 7009 7007 7344 7343;
10208 7007 7005 7345 7344; 10209 7005 7003 7346 7345;
10210 7003 7001 7347 7346; 10211 7001 3510 7348 7347;
10212 3510 6998 7349 7348; 10213 6998 3270 7350 7349;
10214 7321 7320 7351 7352; 10215 7320 7322 7353 7351;
10216 7322 7323 7354 7353; 10217 7323 7324 7355 7354;
10218 7324 7325 7356 7355; 10219 7325 7326 7357 7356;
10220 7326 7327 7358 7357; 10221 7327 7328 7359 7358;
10222 7328 7329 7360 7359; 10223 7329 7330 7361 7360;
10224 7330 7331 7362 7361; 10225 7331 7332 7363 7362;
10226 7332 7333 7364 7363; 10227 7333 7334 7365 7364;
10228 7334 7335 7366 7365; 10229 7335 7336 7367 7366;
10230 7336 7337 7368 7367; 10231 7337 7338 7369 7368;
10232 7338 7339 7370 7369; 10233 7339 7340 7371 7370;
10234 7340 7341 7372 7371; 10235 7341 7342 7373 7372;
10236 7342 7343 7374 7373; 10237 7343 7344 7375 7374;
10238 7344 7345 7376 7375; 10239 7345 7346 7377 7376;
10240 7346 7347 7378 7377; 10241 7347 7348 7379 7378;
10242 7348 7349 7380 7379; 10243 7349 7350 7381 7380;
10244 7352 7351 7382 7383; 10245 7351 7353 7384 7382;
10246 7353 7354 7385 7384; 10247 7354 7355 7386 7385;
10248 7355 7356 7387 7386; 10249 7356 7357 7388 7387;
10250 7357 7358 7389 7388; 10251 7358 7359 7390 7389;
10252 7359 7360 7391 7390; 10253 7360 7361 7392 7391;
10254 7361 7362 7393 7392; 10255 7362 7363 7394 7393;
10256 7363 7364 7395 7394; 10257 7364 7365 7396 7395;
10258 7365 7366 7397 7396; 10259 7366 7367 7398 7397;
10260 7367 7368 7399 7398; 10261 7368 7369 7400 7399;
10262 7369 7370 7401 7400; 10263 7370 7371 7402 7401;
10264 7371 7372 7403 7402; 10265 7372 7373 7404 7403;
10266 7373 7374 7405 7404; 10267 7374 7375 7406 7405;
10268 7375 7376 7407 7406; 10269 7376 7377 7408 7407;
10270 7377 7378 7409 7408; 10271 7378 7379 7410 7409;
10272 7379 7380 7411 7410; 10273 7380 7381 7412 7411;
10274 7383 7382 7413 7414; 10275 7382 7384 7415 7413;
10276 7384 7385 7416 7415; 10277 7385 7386 7417 7416;
10278 7386 7387 7418 7417; 10279 7387 7388 7419 7418;
10280 7388 7389 7420 7419; 10281 7389 7390 7421 7420;
10282 7390 7391 7422 7421; 10283 7391 7392 7423 7422;
10284 7392 7393 7424 7423; 10285 7393 7394 7425 7424;
10286 7394 7395 7426 7425; 10287 7395 7396 7427 7426;
10288 7396 7397 7428 7427; 10289 7397 7398 7429 7428;
10290 7398 7399 7430 7429; 10291 7399 7400 7431 7430;
10292 7400 7401 7432 7431; 10293 7401 7402 7433 7432;
10294 7402 7403 7434 7433; 10295 7403 7404 7435 7434;
10296 7404 7405 7436 7435; 10297 7405 7406 7437 7436;
10298 7406 7407 7438 7437; 10299 7407 7408 7439 7438;
10300 7408 7409 7440 7439; 10301 7409 7410 7441 7440;
10302 7410 7411 7442 7441; 10303 7411 7412 7443 7442;
10304 7414 7413 7444 3238; 10305 7413 7415 7445 7444;
10306 7415 7416 7446 7445; 10307 7416 7417 7447 7446;
10308 7417 7418 7448 7447; 10309 7418 7419 7449 7448;
10310 7419 7420 7450 7449; 10311 7420 7421 7451 7450;
10312 7421 7422 7452 7451; 10313 7422 7423 7453 7452;
10314 7423 7424 7454 7453; 10315 7424 7425 7455 7454;
10316 7425 7426 7456 7455; 10317 7426 7427 7457 7456;
10318 7427 7428 7458 7457; 10319 7428 7429 7459 7458;
10320 7429 7430 7460 7459; 10321 7430 7431 7461 7460;
10322 7431 7432 7462 7461; 10323 7432 7433 7463 7462;
10324 7433 7434 7464 7463; 10325 7434 7435 7465 7464;
10326 7435 7436 7466 7465; 10327 7436 7437 7467 7466;
10328 7437 7438 7468 7467; 10329 7438 7439 7469 7468;
10330 7439 7440 7470 7469; 10331 7440 7441 3514 7470;
10332 7441 7442 7471 3514; 10333 7442 7443 3274 7471;
10334 3238 7444 7472 7473; 10335 7444 7445 7474 7472;
10336 7445 7446 7475 7474; 10337 7446 7447 7476 7475;
10338 7447 7448 7477 7476; 10339 7448 7449 7478 7477;
10340 7449 7450 7479 7478; 10341 7450 7451 7480 7479;
10342 7451 7452 7481 7480; 10343 7452 7453 7482 7481;
10344 7453 7454 7483 7482; 10345 7454 7455 7484 7483;
10346 7455 7456 7485 7484; 10347 7456 7457 7486 7485;
10348 7457 7458 7487 7486; 10349 7458 7459 7488 7487;
10350 7459 7460 7489 7488; 10351 7460 7461 7490 7489;
10352 7461 7462 7491 7490; 10353 7462 7463 7492 7491;
10354 7463 7464 7493 7492; 10355 7464 7465 7494 7493;
10356 7465 7466 7495 7494; 10357 7466 7467 7496 7495;
10358 7467 7468 7497 7496; 10359 7468 7469 7498 7497;
10360 7469 7470 7499 7498; 10361 7470 3514 7500 7499;
10362 3514 7471 7501 7500; 10363 7471 3274 7502 7501;
10364 7473 7472 7503 7504; 10365 7472 7474 7505 7503;
10366 7474 7475 7506 7505; 10367 7475 7476 7507 7506;
10368 7476 7477 7508 7507; 10369 7477 7478 7509 7508;

10370 7478 7479 7510 7509; 10371 7479 7480 7511 7510;
10372 7480 7481 7512 7511; 10373 7481 7482 7513 7512;
10374 7482 7483 7514 7513; 10375 7483 7484 7515 7514;
10376 7484 7485 7516 7515; 10377 7485 7486 7517 7516;
10378 7486 7487 7518 7517; 10379 7487 7488 7519 7518;
10380 7488 7489 7520 7519; 10381 7489 7490 7521 7520;
10382 7490 7491 7522 7521; 10383 7491 7492 7523 7522;
10384 7492 7493 7524 7523; 10385 7493 7494 7525 7524;
10386 7494 7495 7526 7525; 10387 7495 7496 7527 7526;
10388 7496 7497 7528 7527; 10389 7497 7498 7529 7528;
10390 7498 7499 7530 7529; 10391 7499 7500 7531 7530;
10392 7500 7501 7532 7531; 10393 7501 7502 7533 7532;
10394 7504 7503 7534 3243; 10395 7503 7505 7535 7534;
10396 7505 7506 7536 7535; 10397 7506 7507 7537 7536;
10398 7507 7508 7538 7537; 10399 7508 7509 7539 7538;
10400 7509 7510 7540 7539; 10401 7510 7511 7541 7540;
10402 7511 7512 7542 7541; 10403 7512 7513 7543 7542;
10404 7513 7514 7544 7543; 10405 7514 7515 7545 7544;
10406 7515 7516 7546 7545; 10407 7516 7517 7547 7546;
10408 7517 7518 7548 7547; 10409 7518 7519 7549 7548;
10410 7519 7520 7550 7549; 10411 7520 7521 7551 7550;
10412 7521 7522 7552 7551; 10413 7522 7523 7553 7552;
10414 7523 7524 7554 7553; 10415 7524 7525 7555 7554;
10416 7525 7526 7556 7555; 10417 7526 7527 7557 7556;
10418 7527 7528 7558 7557; 10419 7528 7529 7559 7558;
10420 7529 7530 7560 7559; 10421 7530 7531 3519 7560;
10422 7531 7532 7561 3519; 10423 7532 7533 3279 7561;
10424 3243 7534 7562 7563; 10425 7534 7535 7564 7562;
10426 7535 7536 7565 7564; 10427 7536 7537 7566 7565;
10428 7537 7538 7567 7566; 10429 7538 7539 7568 7567;
10430 7539 7540 7569 7568; 10431 7540 7541 7570 7569;
10432 7541 7542 7571 7570; 10433 7542 7543 7572 7571;
10434 7543 7544 7573 7572; 10435 7544 7545 7574 7573;
10436 7545 7546 7575 7574; 10437 7546 7547 7576 7575;
10438 7547 7548 7577 7576; 10439 7548 7549 7578 7577;
10440 7549 7550 7579 7578; 10441 7550 7551 7580 7579;
10442 7551 7552 7581 7580; 10443 7552 7553 7582 7581;
10444 7553 7554 7583 7582; 10445 7554 7555 7584 7583;
10446 7555 7556 7585 7584; 10447 7556 7557 7586 7585;
10448 7557 7558 7587 7586; 10449 7558 7559 7588 7587;
10450 7559 7560 7589 7588; 10451 7560 3519 7590 7589;
10452 3519 7561 7591 7590; 10453 7561 3279 7592 7591;
10454 7563 7562 7593 3235; 10455 7562 7564 7594 7593;
10456 7564 7565 7595 7594; 10457 7565 7566 7596 7595;
10458 7566 7567 7597 7596; 10459 7567 7568 7598 7597;
10460 7568 7569 7599 7598; 10461 7569 7570 7600 7599;
10462 7570 7571 7601 7600; 10463 7571 7572 7602 7601;
10464 7572 7573 7603 7602; 10465 7573 7574 7604 7603;
10466 7574 7575 7605 7604; 10467 7575 7576 7606 7605;
10468 7576 7577 7607 7606; 10469 7577 7578 7608 7607;
10470 7578 7579 7609 7608; 10471 7579 7580 7610 7609;
10472 7580 7581 7611 7610; 10473 7581 7582 7612 7611;
10474 7582 7583 7613 7612; 10475 7583 7584 7614 7613;
10476 7584 7585 7615 7614; 10477 7585 7586 7616 7615;
10478 7586 7587 7617 7616; 10479 7587 7588 7618 7617;
10480 7588 7589 7619 7618; 10481 7589 7590 3511 7619;
10482 7590 7591 7620 3511; 10483 7591 7592 3271 7620;
10484 3270 6725 7621 7350; 10485 6725 3474 7622 7621;
10486 3474 6722 7623 7622; 10487 6722 6720 7624 7623;
10488 6720 6718 7625 7624; 10489 6718 6716 7626 7625;
10490 6716 6714 7627 7626; 10491 6714 6712 7628 7627;
10492 6712 6710 7629 7628; 10493 6710 6708 7630 7629;
10494 6708 6706 7631 7630; 10495 6706 6704 7632 7631;
10496 6704 6702 7633 7632; 10497 6702 6700 7634 7633;
10498 6700 6698 7635 7634; 10499 6698 6696 7636 7635;
10500 6696 6694 7637 7636; 10501 6694 6692 7638 7637;
10502 6692 6690 7639 7638; 10503 6690 6688 7640 7639;
10504 6688 6686 7641 7640; 10505 6686 6684 7642 7641;
10506 6684 6682 7643 7642; 10507 6682 6680 7644 7643;
10508 6680 6678 7645 7644; 10509 6678 6676 7646 7645;
10510 6676 6674 7647 7646; 10511 6674 6672 7648 7647;
10512 6672 6669 7649 7648; 10513 6669 3223 7650 7649;
10514 7350 7621 7651 7381; 10515 7621 7622 7652 7651;
10516 7622 7623 7653 7652; 10517 7623 7624 7654 7653;
10518 7624 7625 7655 7654; 10519 7625 7626 7656 7655;
10520 7626 7627 7657 7656; 10521 7627 7628 7658 7657;
10522 7628 7629 7659 7658; 10523 7629 7630 7660 7659;
10524 7630 7631 7661 7660; 10525 7631 7632 7662 7661;
10526 7632 7633 7663 7662; 10527 7633 7634 7664 7663;
10528 7634 7635 7665 7664; 10529 7635 7636 7666 7665;
10530 7636 7637 7667 7666; 10531 7637 7638 7668 7667;
10532 7638 7639 7669 7668; 10533 7639 7640 7670 7669;

10534 7640 7641 7671 7670; 10535 7641 7642 7672 7671;
10536 7642 7643 7673 7672; 10537 7643 7644 7674 7673;
10538 7644 7645 7675 7674; 10539 7645 7646 7676 7675;
10540 7646 7647 7677 7676; 10541 7647 7648 7678 7677;
10542 7648 7649 7679 7678; 10543 7649 7650 7680 7679;
10544 7381 7651 7681 7412; 10545 7651 7652 7682 7681;
10546 7652 7653 7683 7682; 10547 7653 7654 7684 7683;
10548 7654 7655 7685 7684; 10549 7655 7656 7686 7685;
10550 7656 7657 7687 7686; 10551 7657 7658 7688 7687;
10552 7658 7659 7689 7688; 10553 7659 7660 7690 7689;
10554 7660 7661 7691 7690; 10555 7661 7662 7692 7691;
10556 7662 7663 7693 7692; 10557 7663 7664 7694 7693;
10558 7664 7665 7695 7694; 10559 7665 7666 7696 7695;
10560 7666 7667 7697 7696; 10561 7667 7668 7698 7697;
10562 7668 7669 7699 7698; 10563 7669 7670 7700 7699;
10564 7670 7671 7701 7700; 10565 7671 7672 7702 7701;
10566 7672 7673 7703 7702; 10567 7673 7674 7704 7703;
10568 7674 7675 7705 7704; 10569 7675 7676 7706 7705;
10570 7676 7677 7707 7706; 10571 7677 7678 7708 7707;
10572 7678 7679 7709 7708; 10573 7679 7680 7710 7709;
10574 7412 7681 7711 7443; 10575 7681 7682 7712 7711;
10576 7682 7683 7713 7712; 10577 7683 7684 7714 7713;
10578 7684 7685 7715 7714; 10579 7685 7686 7716 7715;
10580 7686 7687 7717 7716; 10581 7687 7688 7718 7717;
10582 7688 7689 7719 7718; 10583 7689 7690 7720 7719;
10584 7690 7691 7721 7720; 10585 7691 7692 7722 7721;
10586 7692 7693 7723 7722; 10587 7693 7694 7724 7723;
10588 7694 7695 7725 7724; 10589 7695 7696 7726 7725;
10590 7696 7697 7727 7726; 10591 7697 7698 7728 7727;
10592 7698 7699 7729 7728; 10593 7699 7700 7730 7729;
10594 7700 7701 7731 7730; 10595 7701 7702 7732 7731;
10596 7702 7703 7733 7732; 10597 7703 7704 7734 7733;
10598 7704 7705 7735 7734; 10599 7705 7706 7736 7735;
10600 7706 7707 7737 7736; 10601 7707 7708 7738 7737;
10602 7708 7709 7739 7738; 10603 7709 7710 7740 7739;
10604 7443 7711 7741 3274; 10605 7711 7712 3478 7741;
10606 7712 7713 7742 3478; 10607 7713 7714 7743 7742;
10608 7714 7715 7744 7743; 10609 7715 7716 7745 7744;
10610 7716 7717 7746 7745; 10611 7717 7718 7747 7746;
10612 7718 7719 7748 7747; 10613 7719 7720 7749 7748;
10614 7720 7721 7750 7749; 10615 7721 7722 7751 7750;
10616 7722 7723 7752 7751; 10617 7723 7724 7753 7752;
10618 7724 7725 7754 7753; 10619 7725 7726 7755 7754;
10620 7726 7727 7756 7755; 10621 7727 7728 7757 7756;
10622 7728 7729 7758 7757; 10623 7729 7730 7759 7758;
10624 7730 7731 7760 7759; 10625 7731 7732 7761 7760;
10626 7732 7733 7762 7761; 10627 7733 7734 7763 7762;
10628 7734 7735 7764 7763; 10629 7735 7736 7765 7764;
10630 7736 7737 7766 7765; 10631 7737 7738 7767 7766;
10632 7738 7739 7768 7767; 10633 7739 7740 3229 7768;
10634 3274 7741 7769 7502; 10635 7741 3478 7770 7769;
10636 3478 7742 7771 7770; 10637 7742 7743 7772 7771;
10638 7743 7744 7773 7772; 10639 7744 7745 7774 7773;
10640 7745 7746 7775 7774; 10641 7746 7747 7776 7775;
10642 7747 7748 7777 7776; 10643 7748 7749 7778 7777;
10644 7749 7750 7779 7778; 10645 7750 7751 7780 7779;
10646 7751 7752 7781 7780; 10647 7752 7753 7782 7781;
10648 7753 7754 7783 7782; 10649 7754 7755 7784 7783;
10650 7755 7756 7785 7784; 10651 7756 7757 7786 7785;
10652 7757 7758 7787 7786; 10653 7758 7759 7788 7787;
10654 7759 7760 7789 7788; 10655 7760 7761 7790 7789;
10656 7761 7762 7791 7790; 10657 7762 7763 7792 7791;
10658 7763 7764 7793 7792; 10659 7764 7765 7794 7793;
10660 7765 7766 7795 7794; 10661 7766 7767 7796 7795;
10662 7767 7768 7797 7796; 10663 7768 3229 7798 7797;
10664 7502 7769 7799 7533; 10665 7769 7770 7800 7799;
10666 7770 7771 7801 7800; 10667 7771 7772 7802 7801;
10668 7772 7773 7803 7802; 10669 7773 7774 7804 7803;
10670 7774 7775 7805 7804; 10671 7775 7776 7806 7805;
10672 7776 7777 7807 7806; 10673 7777 7778 7808 7807;
10674 7778 7779 7809 7808; 10675 7779 7780 7810 7809;
10676 7780 7781 7811 7810; 10677 7781 7782 7812 7811;
10678 7782 7783 7813 7812; 10679 7783 7784 7814 7813;
10680 7784 7785 7815 7814; 10681 7785 7786 7816 7815;
10682 7786 7787 7817 7816; 10683 7787 7788 7818 7817;
10684 7788 7789 7819 7818; 10685 7789 7790 7820 7819;
10686 7790 7791 7821 7820; 10687 7791 7792 7822 7821;
10688 7792 7793 7823 7822; 10689 7793 7794 7824 7823;
10690 7794 7795 7825 7824; 10691 7795 7796 7826 7825;
10692 7796 7797 7827 7826; 10693 7797 7798 7828 7827;
10694 7533 7799 7829 3279; 10695 7799 7800 3483 7829;
10696 7800 7801 7830 3483; 10697 7801 7802 7831 7830;

10698 7802 7803 7832 7831; 10699 7803 7804 7833 7832;
10700 7804 7805 7834 7833; 10701 7805 7806 7835 7834;
10702 7806 7807 7836 7835; 10703 7807 7808 7837 7836;
10704 7808 7809 7838 7837; 10705 7809 7810 7839 7838;
10706 7810 7811 7840 7839; 10707 7811 7812 7841 7840;
10708 7812 7813 7842 7841; 10709 7813 7814 7843 7842;
10710 7814 7815 7844 7843; 10711 7815 7816 7845 7844;
10712 7816 7817 7846 7845; 10713 7817 7818 7847 7846;
10714 7818 7819 7848 7847; 10715 7819 7820 7849 7848;
10716 7820 7821 7850 7849; 10717 7821 7822 7851 7850;
10718 7822 7823 7852 7851; 10719 7823 7824 7853 7852;
10720 7824 7825 7854 7853; 10721 7825 7826 7855 7854;
10722 7826 7827 7856 7855; 10723 7827 7828 3232 7856;
10724 3279 7829 7857 7592; 10725 7829 3483 7858 7857;
10726 3483 7830 7859 7858; 10727 7830 7831 7860 7859;
10728 7831 7832 7861 7860; 10729 7832 7833 7862 7861;
10730 7833 7834 7863 7862; 10731 7834 7835 7864 7863;
10732 7835 7836 7865 7864; 10733 7836 7837 7866 7865;
10734 7837 7838 7867 7866; 10735 7838 7839 7868 7867;
10736 7839 7840 7869 7868; 10737 7840 7841 7870 7869;
10738 7841 7842 7871 7870; 10739 7842 7843 7872 7871;
10740 7843 7844 7873 7872; 10741 7844 7845 7874 7873;
10742 7845 7846 7875 7874; 10743 7846 7847 7876 7875;
10744 7847 7848 7877 7876; 10745 7848 7849 7878 7877;
10746 7849 7850 7879 7878; 10747 7850 7851 7880 7879;
10748 7851 7852 7881 7880; 10749 7852 7853 7882 7881;
10750 7853 7854 7883 7882; 10751 7854 7855 7884 7883;
10752 7855 7856 7885 7884; 10753 7856 3232 7886 7885;
10754 7592 7857 7887 3271; 10755 7857 7858 3475 7887;
10756 7858 7859 7888 3475; 10757 7859 7860 7889 7888;
10758 7860 7861 7890 7889; 10759 7861 7862 7891 7890;
10760 7862 7863 7892 7891; 10761 7863 7864 7893 7892;
10762 7864 7865 7894 7893; 10763 7865 7866 7895 7894;
10764 7866 7867 7896 7895; 10765 7867 7868 7897 7896;
10766 7868 7869 7898 7897; 10767 7869 7870 7899 7898;
10768 7870 7871 7900 7899; 10769 7871 7872 7901 7900;
10770 7872 7873 7902 7901; 10771 7873 7874 7903 7902;
10772 7874 7875 7904 7903; 10773 7875 7876 7905 7904;
10774 7876 7877 7906 7905; 10775 7877 7878 7907 7906;
10776 7878 7879 7908 7907; 10777 7879 7880 7909 7908;
10778 7880 7881 7910 7909; 10779 7881 7882 7911 7910;
10780 7882 7883 7912 7911; 10781 7883 7884 7913 7912;
10782 7884 7885 7914 7913; 10783 7885 7886 3224 7914;
10784 1058 1078 1079 1059; 10785 1059 1079 1080 1081;
10786 1009 1084 1083 1011; 10787 1011 1083 1082 1007;
10788 3095 7948 7994 7949; 10789 7948 7950 7995 7994;
10790 7950 7951 7996 7995; 10791 7951 3101 7952 7996;
10792 7949 7994 7997 7953; 10793 7994 7995 7998 7997;
10794 7995 7996 7999 7998; 10795 7996 7952 7954 7999;
10796 7953 7997 8000 7955; 10797 7997 7998 8001 8000;
10798 7998 7999 8002 8001; 10799 7999 7954 7956 8002;
10800 7955 8000 8003 7957; 10801 8000 8001 8004 8003;
10802 8001 8002 8005 8004; 10803 8002 7956 7958 8005;
10804 7957 8003 8006 8007; 10805 8003 8004 8008 8006;
10806 8004 8005 8009 8008; 10807 8005 7958 8010 8009;
10808 8007 8006 8011 7959; 10809 8006 8008 8012 8011;
10810 8008 8009 8013 8012; 10811 8009 8010 7960 8013;
10812 7959 8011 8014 7961; 10813 8011 8012 8015 8014;
10814 8012 8013 8016 8015; 10815 8013 7960 7962 8016;
10816 7961 8014 7963 3093; 10817 8014 8015 7964 7963;
10818 8015 8016 7965 7964; 10819 8016 7962 3099 7965;
10820 3095 7948 8017 7979; 10821 7948 7950 8018 8017;
10822 7950 7951 8019 8018; 10823 7951 3101 7980 8019;
10824 7979 8017 8020 7977; 10825 8017 8018 8021 8020;
10826 8018 8019 8022 8021; 10827 8019 7980 7978 8022;
10828 7977 8020 8023 7975; 10829 8020 8021 8024 8023;
10830 8021 8022 8025 8024; 10831 8022 7978 7976 8025;
10832 7975 8023 8026 3097; 10833 8023 8024 8027 8026;
10834 8024 8025 8028 8027; 10835 8025 7976 3103 8028;
10836 3097 8026 8029 7973; 10837 8026 8027 8030 8029;
10838 8027 8028 8031 8030; 10839 8028 3103 7974 8031;
10840 7973 8029 8032 7971; 10841 8029 8030 8033 8032;
10842 8030 8031 8034 8033; 10843 8031 7974 7972 8034;
10844 7971 8032 8035 7967; 10845 8032 8033 8036 8035;
10846 8033 8034 8037 8036; 10847 8034 7972 7970 8037;
10848 7967 8035 7966 3096; 10849 8035 8036 7968 7966;
10850 8036 8037 7969 7968; 10851 8037 7970 3102 7969;
10852 3073 7915 8038 7916; 10853 7915 7917 8039 8038;
10854 7917 7918 8040 8039; 10855 7918 3079 7919 8040;
10856 7916 8038 8041 7920; 10857 8038 8039 8042 8041;
10858 8039 8040 8043 8042; 10859 8040 7919 7921 8043;
10860 7920 8041 8044 7922; 10861 8041 8042 8045 8044;

10862 8042 8043 8046 8045; 10863 8043 7921 7923 8046;
10864 7922 8044 8047 7924; 10865 8044 8045 8048 8047;
10866 8045 8046 8049 8048; 10867 8046 7923 7925 8049;
10868 7924 8047 8050 8051; 10869 8047 8048 8052 8050;
10870 8048 8049 8053 8052; 10871 8049 7925 8054 8053;
10872 8051 8050 8055 7926; 10873 8050 8052 8056 8055;
10874 8052 8053 8057 8056; 10875 8053 8054 7927 8057;
10876 7926 8055 8058 7928; 10877 8055 8056 8059 8058;
10878 8056 8057 8060 8059; 10879 8057 7927 7929 8060;
10880 7928 8058 7930 3071; 10881 8058 8059 7931 7930;
10882 8059 8060 7932 7931; 10883 8060 7929 3077 7932;
10884 3073 7915 8061 7946; 10885 7915 7917 8062 8061;
10886 7917 7918 8063 8062; 10887 7918 3079 7947 8063;
10888 7946 8061 8064 7944; 10889 8061 8062 8065 8064;
10890 8062 8063 8066 8065; 10891 8063 7947 7945 8066;
10892 7944 8064 8067 7942; 10893 8064 8065 8068 8067;
10894 8065 8066 8069 8068; 10895 8066 7945 7943 8069;
10896 7942 8067 8070 3075; 10897 8067 8068 8071 8070;
10898 8068 8069 8072 8071; 10899 8069 7943 3081 8072;
10900 3075 8070 8073 7940; 10901 8070 8071 8074 8073;
10902 8071 8072 8075 8074; 10903 8072 3081 7941 8075;
10904 7940 8073 8076 7938; 10905 8073 8074 8077 8076;
10906 8074 8075 8078 8077; 10907 8075 7941 7939 8078;
10908 7938 8076 8079 7934; 10909 8076 8077 8080 8079;
10910 8077 8078 8081 8080; 10911 8078 7939 7937 8081;
10912 7934 8079 7933 3074; 10913 8079 8080 7935 7933;
10914 8080 8081 7936 7935; 10915 8081 7937 3080 7936; 10916 8082 120 1112;
10917 8082 1112 3790; 10918 8082 3790 3788; 10919 8082 3788 3784;
10920 8082 3784 3796; 10921 8082 3796 3798; 10922 8082 3798 1116;
10923 8082 1116 120; 10924 8083 1088 195; 10925 8083 195 3769;
10926 8083 3769 3766; 10927 8083 3766 3767; 10928 8083 3767 3768;
10929 8083 3768 3770; 10930 8083 3770 1090; 10931 8083 1090 1088;
10932 8084 3941 230; 10933 8084 230 1217; 10934 8084 1217 212;
10935 8084 212 3940; 10936 8084 3940 1087; 10937 8084 1087 74;
10938 8084 74 174; 10939 8084 174 3941; 10940 8085 4133 235;
10941 8085 235 1429; 10942 8085 1429 214; 10943 8085 214 4134;
10944 8085 4134 233; 10945 8085 233 78; 10946 8085 78 234; 10947 8085 234 4133;
10948 8086 3960 3959; 10949 8086 3959 3962; 10950 8086 3962 236;
10951 8086 236 1311; 10952 8086 1311 1313; 10953 8086 1313 3963;
10954 8086 3963 3961; 10955 8086 3961 3960; 10956 8087 3977 3981;
10957 8087 3981 3983; 10958 8087 3983 1333; 10959 8087 1333 162;
10960 8087 162 1336; 10961 8087 1336 3991; 10962 8087 3991 3989;
10963 8087 3989 3977; 10964 3946 1274 1275 8088; 10965 8088 1275 1276 3949;
10966 8089 8088 3949; 10967 8089 3949 3948; 10968 8089 3948 3947;
10969 8089 3947 3945; 10970 8089 3945 3946; 10971 8089 3946 8088;
10972 8090 134 1155; 10973 8090 1155 3852; 10974 8090 3852 3850;
10975 8090 3850 3846; 10976 8090 3846 3858; 10977 8090 3858 3860;
10978 8090 3860 1159; 10979 8090 1159 134; 10980 8091 4039 4043;
10981 8091 4043 4045; 10982 8091 4045 1368; 10983 8091 1368 148;
10984 8091 148 1371; 10985 8091 1371 4053; 10986 8091 4053 4051;
10987 8091 4051 4039; 10988 8092 4074 4073; 10989 8092 4073 4076;
10990 8092 4076 1388; 10991 8092 1388 1390; 10992 8092 1390 197;
10993 8092 197 4077; 10994 8092 4077 4075; 10995 8092 4075 4074;
10996 8093 4135 1307; 10997 8093 1307 196; 10998 8093 196 170;
10999 8093 170 4136; 11000 8093 4136 226; 11001 8093 226 221;
11002 8093 221 290; 11003 8093 290 4135; 11004 8094 1179 1177;
11005 8094 1177 3883; 11006 8094 3883 3880; 11007 8094 3880 3881;
11008 8094 3881 3882; 11009 8094 3882 3884; 11010 8094 3884 282;
11011 8094 282 1179; 11012 8095 3955 283; 11013 8095 283 76; 11014 8095 76 286;
11015 8095 286 3954; 11016 8095 3954 225; 11017 8095 225 219;
11018 8095 219 287; 11019 8095 287 3955; 11020 4320 1567 1568 8096;
11021 8096 1568 1569 4323; 11022 8097 390 1459; 11023 8097 1459 4164;
11024 8097 4164 4162; 11025 8097 4162 4158; 11026 8097 4158 4170;
11027 8097 4170 4172; 11028 8097 4172 1463; 11029 8097 1463 390;
11030 8098 1435 442; 11031 8098 442 4143; 11032 8098 4143 4140;
11033 8098 4140 4141; 11034 8098 4141 4142; 11035 8098 4142 4144;
11036 8098 4144 1437; 11037 8098 1437 1435; 11038 8099 4315 476;
11039 8099 476 1564; 11040 8099 1564 458; 11041 8099 458 4314;
11042 8099 4314 1434; 11043 8099 1434 370; 11044 8099 370 421;
11045 8099 421 4315; 11046 8100 8096 4323; 11047 8100 4323 4322;
11048 8100 4322 4321; 11049 8100 4321 4319; 11050 8100 4319 4320;
11051 8100 4320 8096; 11052 8101 397 1502; 11053 8101 1502 4226;
11054 8101 4226 4224; 11055 8101 4224 4220; 11056 8101 4220 4232;
11057 8101 4232 4234; 11058 8101 4234 1506; 11059 8101 1506 397;
11060 8102 1526 1524; 11061 8102 1524 4257; 11062 8102 4257 4254;
11063 8102 4254 4255; 11064 8102 4255 4256; 11065 8102 4256 4258;
11066 8102 4258 528; 11067 8102 528 1526; 11068 8103 4329 529;
11069 8103 529 371; 11070 8103 371 532; 11071 8103 532 4328;
11072 8103 4328 471; 11073 8103 471 465; 11074 8103 465 533;
11075 8103 533 4329; 11076 8104 4334 4333; 11077 8104 4333 4336;
11078 8104 4336 482; 11079 8104 482 1577; 11080 8104 1577 1579;
11081 8104 1579 4337; 11082 8104 4337 4335; 11083 8104 4335 4334;

11084 8105 4507 481; 11085 8105 481 1695; 11086 8105 1695 460;
11087 8105 460 4508; 11088 8105 4508 479; 11089 8105 479 373;
11090 8105 373 480; 11091 8105 480 4507; 11092 8106 4351 4355;
11093 8106 4355 4357; 11094 8106 4357 1599; 11095 8106 1599 411;
11096 8106 411 1602; 11097 8106 1602 4365; 11098 8106 4365 4363;
11099 8106 4363 4351; 11100 8107 4413 4417; 11101 8107 4417 4419;
11102 8107 4419 1634; 11103 8107 1634 404; 11104 8107 404 1637;
11105 8107 1637 4427; 11106 8107 4427 4425; 11107 8107 4425 4413;
11108 8108 4448 4447; 11109 8108 4447 4450; 11110 8108 4450 1654;
11111 8108 1654 1656; 11112 8108 1656 443; 11113 8108 443 4451;
11114 8108 4451 4449; 11115 8108 4449 4448; 11116 8109 4509 1573;
11117 8109 1573 372; 11118 8109 372 417; 11119 8109 417 4510;
11120 8109 4510 472; 11121 8109 472 467; 11122 8109 467 536;
11123 8109 536 4509; 11124 4694 1833 1834 8110; 11125 8110 1834 1835 4697;
11126 8111 1701 686; 11127 8111 686 4517; 11128 8111 4517 4514;
11129 8111 4514 4515; 11130 8111 4515 4516; 11131 8111 4516 4518;
11132 8111 4518 1703; 11133 8111 1703 1701; 11134 8112 4689 720;
11135 8112 720 1830; 11136 8112 1830 702; 11137 8112 702 4688;
11138 8112 4688 1700; 11139 8112 1700 614; 11140 8112 614 665;
11141 8112 665 4689; 11142 8113 634 1725; 11143 8113 1725 4538;
11144 8113 4538 4536; 11145 8113 4536 4532; 11146 8113 4532 4544;
11147 8113 4544 4546; 11148 8113 4546 1729; 11149 8113 1729 634;
11150 8114 8110 4697; 11151 8114 4697 4696; 11152 8114 4696 4695;
11153 8114 4695 4693; 11154 8114 4693 4694; 11155 8114 4694 8110;
11156 8115 641 1768; 11157 8115 1768 4600; 11158 8115 4600 4598;
11159 8115 4598 4594; 11160 8115 4594 4606; 11161 8115 4606 4608;
11162 8115 4608 1772; 11163 8115 1772 641; 11164 8116 1792 1790;
11165 8116 1790 4631; 11166 8116 4631 4628; 11167 8116 4628 4629;
11168 8116 4629 4630; 11169 8116 4630 4632; 11170 8116 4632 772;
11171 8116 772 1792; 11172 8117 4703 773; 11173 8117 773 615;
11174 8117 615 776; 11175 8117 776 4702; 11176 8117 4702 715;
11177 8117 715 709; 11178 8117 709 777; 11179 8117 777 4703;
11180 8118 616 661; 11181 8118 661 4884; 11182 8118 4884 716;
11183 8118 716 711; 11184 8118 711 780; 11185 8118 780 4883;
11186 8118 4883 1839; 11187 8118 1839 616; 11188 8119 4822 4821;
11189 8119 4821 4824; 11190 8119 4824 1920; 11191 8119 1920 1922;
11192 8119 1922 687; 11193 8119 687 4825; 11194 8119 4825 4823;
11195 8119 4823 4822; 11196 8120 4787 4791; 11197 8120 4791 4793;
11198 8120 4793 1900; 11199 8120 1900 648; 11200 8120 648 1903;
11201 8120 1903 4801; 11202 8120 4801 4799; 11203 8120 4799 4787;
11204 8121 4725 4729; 11205 8121 4729 4731; 11206 8121 4731 1865;
11207 8121 1865 655; 11208 8121 655 1868; 11209 8121 1868 4739;
11210 8121 4739 4737; 11211 8121 4737 4725; 11212 8122 4708 4707;
11213 8122 4707 4710; 11214 8122 4710 726; 11215 8122 726 1843;
11216 8122 1843 1845; 11217 8122 1845 4711; 11218 8122 4711 4709;
11219 8122 4709 4708; 11220 8123 1961 704; 11221 8123 704 4882;
11222 8123 4882 723; 11223 8123 723 617; 11224 8123 617 724;
11225 8123 724 4881; 11226 8123 4881 725; 11227 8123 725 1961;
11228 4992 2306 2307 8124; 11229 8124 2307 2308 4995;
11230 5421 8143 8144 8145; 11231 8143 8146 8147 8144;
11232 8146 8148 8149 8147; 11233 8148 8150 8151 8149;
11234 8150 8152 8153 8151; 11235 8152 8154 8155 8153;
11236 8154 8156 8157 8155; 11237 8156 8158 8159 8157;
11238 8158 8160 8161 8159; 11239 8160 5418 8162 8161;
11240 8145 8144 8163 8164; 11241 8144 8147 8165 8163;
11242 8147 8149 8166 8165; 11243 8149 8151 8167 8166;
11244 8151 8153 8168 8167; 11245 8153 8155 8169 8168;
11246 8155 8157 8170 8169; 11247 8157 8159 8171 8170;
11248 8159 8161 8172 8171; 11249 8161 8162 8173 8172;
11250 8164 8163 8174 8175; 11251 8163 8165 8176 8174;
11252 8165 8166 8177 8176; 11253 8166 8167 8178 8177;
11254 8167 8168 8179 8178; 11255 8168 8169 8180 8179;
11256 8169 8170 8181 8180; 11257 8170 8171 8182 8181;
11258 8171 8172 8183 8182; 11259 8172 8173 8184 8183;
11260 8175 8174 8185 8186; 11261 8174 8176 8187 8185;
11262 8176 8177 8188 8187; 11263 8177 8178 8189 8188;
11264 8178 8179 8190 8189; 11265 8179 8180 8191 8190;
11266 8180 8181 8192 8191; 11267 8181 8182 8193 8192;
11268 8182 8183 8194 8193; 11269 8183 8184 8195 8194;
11270 8186 8185 8196 8197; 11271 8185 8187 8198 8196;
11272 8187 8188 8199 8198; 11273 8188 8189 8200 8199;
11274 8189 8190 8201 8200; 11275 8190 8191 8202 8201;
11276 8191 8192 8203 8202; 11277 8192 8193 8204 8203;
11278 8193 8194 8205 8204; 11279 8194 8195 8206 8205;
11280 8197 8196 8207 8208; 11281 8196 8198 8209 8207;
11282 8198 8199 8210 8209; 11283 8199 8200 8211 8210;
11284 8200 8201 8212 8211; 11285 8201 8202 8213 8212;
11286 8202 8203 8214 8213; 11287 8203 8204 8215 8214;
11288 8204 8205 8216 8215; 11289 8205 8206 8217 8216;
11290 8208 8207 8218 8219; 11291 8207 8209 8220 8218;
11292 8209 8210 8221 8220; 11293 8210 8211 8222 8221;
11294 8211 8212 8223 8222; 11295 8212 8213 8224 8223;

11296 8213 8214 8225 8224; 11297 8214 8215 8226 8225;
11298 8215 8216 8227 8226; 11299 8216 8217 8228 8227;
11300 8219 8218 8229 8230; 11301 8218 8220 8231 8229;
11302 8220 8221 8232 8231; 11303 8221 8222 8233 8232;
11304 8222 8223 8234 8233; 11305 8223 8224 8235 8234;
11306 8224 8225 8236 8235; 11307 8225 8226 8237 8236;
11308 8226 8227 8238 8237; 11309 8227 8228 8239 8238;
11310 8230 8229 8240 8241; 11311 8229 8231 8242 8240;
11312 8231 8232 8243 8242; 11313 8232 8233 8244 8243;
11314 8233 8234 8245 8244; 11315 8234 8235 8246 8245;
11316 8235 8236 8247 8246; 11317 8236 8237 8248 8247;
11318 8237 8238 8249 8248; 11319 8238 8239 8250 8249;
11320 8241 8240 8251 8139; 11321 8240 8242 8252 8251;
11322 8242 8243 8253 8252; 11323 8243 8244 8254 8253;
11324 8244 8245 8255 8254; 11325 8245 8246 8256 8255;
11326 8246 8247 8257 8256; 11327 8247 8248 8258 8257;
11328 8248 8249 8259 8258; 11329 8249 8250 8140 8259;
11330 8141 8260 8261 8262; 11331 8260 8263 8264 8261;
11332 8263 8265 8266 8264; 11333 8265 8267 8268 8266;
11334 8267 8269 8270 8268; 11335 8269 8271 8272 8270;
11336 8271 8273 8274 8272; 11337 8273 8275 8276 8274;
11338 8275 8277 8278 8276; 11339 8277 8142 8279 8278;
11340 8262 8261 8280 8281; 11341 8261 8264 8282 8280;
11342 8264 8266 8283 8282; 11343 8266 8268 8284 8283;
11344 8268 8270 8285 8284; 11345 8270 8272 8286 8285;
11346 8272 8274 8287 8286; 11347 8274 8276 8288 8287;
11348 8276 8278 8289 8288; 11349 8278 8279 8290 8289;
11350 8281 8280 8291 8292; 11351 8280 8282 8293 8291;
11352 8282 8283 8294 8293; 11353 8283 8284 8295 8294;
11354 8284 8285 8296 8295; 11355 8285 8286 8297 8296;
11356 8286 8287 8298 8297; 11357 8287 8288 8299 8298;
11358 8288 8289 8300 8299; 11359 8289 8290 8301 8300;
11360 8292 8291 8302 8303; 11361 8291 8293 8304 8302;
11362 8293 8294 8305 8304; 11363 8294 8295 8306 8305;
11364 8295 8296 8307 8306; 11365 8296 8297 8308 8307;
11366 8297 8298 8309 8308; 11367 8298 8299 8310 8309;
11368 8299 8300 8311 8310; 11369 8300 8301 8312 8311;
11370 8303 8302 8313 8314; 11371 8302 8304 8315 8313;
11372 8304 8305 8316 8315; 11373 8305 8306 8317 8316;
11374 8306 8307 8318 8317; 11375 8307 8308 8319 8318;
11376 8308 8309 8320 8319; 11377 8309 8310 8321 8320;
11378 8310 8311 8322 8321; 11379 8311 8312 8323 8322;
11380 8314 8313 8324 8325; 11381 8313 8315 8326 8324;
11382 8315 8316 8327 8326; 11383 8316 8317 8328 8327;
11384 8317 8318 8329 8328; 11385 8318 8319 8330 8329;
11386 8319 8320 8331 8330; 11387 8320 8321 8332 8331;
11388 8321 8322 8333 8332; 11389 8322 8323 8334 8333;
11390 8325 8324 8335 8336; 11391 8324 8326 8337 8335;
11392 8326 8327 8338 8337; 11393 8327 8328 8339 8338;
11394 8328 8329 8340 8339; 11395 8329 8330 8341 8340;
11396 8330 8331 8342 8341; 11397 8331 8332 8343 8342;
11398 8332 8333 8344 8343; 11399 8333 8334 8345 8344;
11400 8336 8335 8346 8347; 11401 8335 8337 8348 8346;
11402 8337 8338 8349 8348; 11403 8338 8339 8350 8349;
11404 8339 8340 8351 8350; 11405 8340 8341 8352 8351;
11406 8341 8342 8353 8352; 11407 8342 8343 8354 8353;
11408 8343 8344 8355 8354; 11409 8344 8345 8356 8355;
11410 8347 8346 8357 8358; 11411 8346 8348 8359 8357;
11412 8348 8349 8360 8359; 11413 8349 8350 8361 8360;
11414 8350 8351 8362 8361; 11415 8351 8352 8363 8362;
11416 8352 8353 8364 8363; 11417 8353 8354 8365 8364;
11418 8354 8355 8366 8365; 11419 8355 8356 8367 8366;
11420 8358 8357 8143 5421; 11421 8357 8359 8146 8143;
11422 8359 8360 8148 8146; 11423 8360 8361 8150 8148;
11424 8361 8362 8152 8150; 11425 8362 8363 8154 8152;
11426 8363 8364 8156 8154; 11427 8364 8365 8158 8156;
11428 8365 8366 8160 8158; 11429 8366 8367 5418 8160;
11430 8135 8368 8369 8370; 11431 8368 8371 8372 8369;
11432 8371 8373 8374 8372; 11433 8373 8375 8376 8374;
11434 8375 8131 8377 8376; 11435 8370 8369 8378 8379;
11436 8369 8372 8380 8378; 11437 8372 8374 8381 8380;
11438 8374 8376 8382 8381; 11439 8376 8377 8383 8382;
11440 8379 8378 8384 8385; 11441 8378 8380 8386 8384;
11442 8380 8381 8387 8386; 11443 8381 8382 8388 8387;
11444 8382 8383 8389 8388; 11445 8385 8384 8390 8391;
11446 8384 8386 8392 8390; 11447 8386 8387 8393 8392;
11448 8387 8388 8394 8393; 11449 8388 8389 8395 8394;
11450 8391 8390 8396 8397; 11451 8390 8392 8398 8396;
11452 8392 8393 8399 8398; 11453 8393 8394 8400 8399;
11454 8394 8395 8262 8400; 11455 8397 8396 8401 8402;
11456 8396 8398 8403 8401; 11457 8398 8399 8404 8403;
11458 8399 8400 8405 8404; 11459 8400 8262 8406 8405;

11460 8402 8401 8407 8408; 11461 8401 8403 8409 8407;
11462 8403 8404 8410 8409; 11463 8404 8405 8411 8410;
11464 8405 8406 8412 8411; 11465 8408 8407 8413 8414;
11466 8407 8409 8415 8413; 11467 8409 8410 8416 8415;
11468 8410 8411 8417 8416; 11469 8411 8412 8418 8417;
11470 8414 8413 8419 8420; 11471 8413 8415 8421 8419;
11472 8415 8416 8422 8421; 11473 8416 8417 8423 8422;
11474 8417 8418 8424 8423; 11475 8420 8419 8425 8126;
11476 8419 8421 8426 8425; 11477 8421 8422 8427 8426;
11478 8422 8423 8428 8427; 11479 8423 8424 5421 8428;
11480 8126 8425 8429 8430; 11481 8425 8426 8431 8429;
11482 8426 8427 8432 8431; 11483 8427 8428 8433 8432;
11484 8428 5421 8434 8433; 11485 8430 8429 8435 8436;
11486 8429 8431 8437 8435; 11487 8431 8432 8438 8437;
11488 8432 8433 8439 8438; 11489 8433 8434 8440 8439;
11490 8436 8435 8441 8442; 11491 8435 8437 8443 8441;
11492 8437 8438 8444 8443; 11493 8438 8439 8445 8444;
11494 8439 8440 8446 8445; 11495 8442 8441 8447 8448;
11496 8441 8443 8449 8447; 11497 8443 8444 8450 8449;
11498 8444 8445 8451 8450; 11499 8445 8446 8452 8451;
11500 8448 8447 8453 8454; 11501 8447 8449 8455 8453;
11502 8449 8450 8456 8455; 11503 8450 8451 8457 8456;
11504 8451 8452 8241 8457; 11505 8454 8453 8458 8459;
11506 8453 8455 8460 8458; 11507 8455 8456 8461 8460;
11508 8456 8457 8462 8461; 11509 8457 8241 8463 8462;
11510 8459 8458 8464 8465; 11511 8458 8460 8466 8464;
11512 8460 8461 8467 8466; 11513 8461 8462 8468 8467;
11514 8462 8463 8469 8468; 11515 8465 8464 8470 8471;
11516 8464 8466 8472 8470; 11517 8466 8467 8473 8472;
11518 8467 8468 8474 8473; 11519 8468 8469 8475 8474;
11520 8471 8470 8476 8477; 11521 8470 8472 8478 8476;
11522 8472 8473 8479 8478; 11523 8473 8474 8480 8479;
11524 8474 8475 8481 8480; 11525 8477 8476 8482 8138;
11526 8476 8478 8483 8482; 11527 8478 8479 8484 8483;
11528 8479 8480 8485 8484; 11529 8480 8481 8129 8485;
11530 8130 8486 8487 8488; 11531 8486 8489 8490 8487;
11532 8489 8491 8492 8490; 11533 8491 8493 8494 8492;
11534 8493 8136 8495 8494; 11535 8488 8487 8496 8497;
11536 8487 8490 8498 8496; 11537 8490 8492 8499 8498;
11538 8492 8494 8500 8499; 11539 8494 8495 8501 8500;
11540 8497 8496 8502 8503; 11541 8496 8498 8504 8502;
11542 8498 8499 8505 8504; 11543 8499 8500 8506 8505;
11544 8500 8501 8507 8506; 11545 8503 8502 8508 8509;
11546 8502 8504 8510 8508; 11547 8504 8505 8511 8510;
11548 8505 8506 8512 8511; 11549 8506 8507 8513 8512;
11550 8509 8508 8514 8279; 11551 8508 8510 8515 8514;
11552 8510 8511 8516 8515; 11553 8511 8512 8517 8516;
11554 8512 8513 8518 8517; 11555 8279 8514 8519 8520;
11556 8514 8515 8521 8519; 11557 8515 8516 8522 8521;
11558 8516 8517 8523 8522; 11559 8517 8518 8524 8523;
11560 8520 8519 8525 8526; 11561 8519 8521 8527 8525;
11562 8521 8522 8528 8527; 11563 8522 8523 8529 8528;
11564 8523 8524 8530 8529; 11565 8526 8525 8531 8532;
11566 8525 8527 8533 8531; 11567 8527 8528 8534 8533;
11568 8528 8529 8535 8534; 11569 8529 8530 8536 8535;
11570 8532 8531 8537 8538; 11571 8531 8533 8539 8537;
11572 8533 8534 8540 8539; 11573 8534 8535 8541 8540;
11574 8535 8536 8542 8541; 11575 8538 8537 8543 5418;
11576 8537 8539 8544 8543; 11577 8539 8540 8545 8544;
11578 8540 8541 8546 8545; 11579 8541 8542 8132 8546;
11580 5418 8543 8547 8548; 11581 8543 8544 8549 8547;
11582 8544 8545 8550 8549; 11583 8545 8546 8551 8550;
11584 8546 8132 8552 8551; 11585 8548 8547 8553 8554;
11586 8547 8549 8555 8553; 11587 8549 8550 8556 8555;
11588 8550 8551 8557 8556; 11589 8551 8552 8558 8557;
11590 8554 8553 8559 8560; 11591 8553 8555 8561 8559;
11592 8555 8556 8562 8561; 11593 8556 8557 8563 8562;
11594 8557 8558 8564 8563; 11595 8560 8559 8565 8566;
11596 8559 8561 8567 8565; 11597 8561 8562 8568 8567;
11598 8562 8563 8569 8568; 11599 8563 8564 8570 8569;
11600 8566 8565 8571 8250; 11601 8565 8567 8572 8571;
11602 8567 8568 8573 8572; 11603 8568 8569 8574 8573;
11604 8569 8570 8575 8574; 11605 8250 8571 8576 8577;
11606 8571 8572 8578 8576; 11607 8572 8573 8579 8578;
11608 8573 8574 8580 8579; 11609 8574 8575 8581 8580;
11610 8577 8576 8582 8583; 11611 8576 8578 8584 8582;
11612 8578 8579 8585 8584; 11613 8579 8580 8586 8585;
11614 8580 8581 8587 8586; 11615 8583 8582 8588 8589;
11616 8582 8584 8590 8588; 11617 8584 8585 8591 8590;
11618 8585 8586 8592 8591; 11619 8586 8587 8593 8592;
11620 8589 8588 8594 8595; 11621 8588 8590 8596 8594;
11622 8590 8591 8597 8596; 11623 8591 8592 8598 8597;

11624 8592 8593 8599 8598; 11625 8595 8594 8600 8128;
11626 8594 8596 8601 8600; 11627 8596 8597 8602 8601;
11628 8597 8598 8603 8602; 11629 8598 8599 8137 8603;
11630 5422 8595 8604 8605; 11631 8595 8128 8606 8604;
11632 8605 8604 8607 8608; 11633 8604 8606 8609 8607;
11634 8608 8607 8610 8611; 11635 8607 8609 8612 8610;
11636 8611 8610 8613 8614; 11637 8610 8612 8615 8613;
11638 8614 8613 8616 8617; 11639 8613 8615 8618 8616;
11640 8617 8616 8619 8620; 11641 8616 8618 8621 8619;
11642 8620 8619 8622 8623; 11643 8619 8621 8624 8622;
11644 8623 8622 8625 8626; 11645 8622 8624 8627 8625;
11646 8626 8625 8628 8629; 11647 8625 8627 8630 8628;
11648 8629 8628 8481 7981; 11649 8628 8630 8129 8481;
11650 8140 8631 8632 8259; 11651 8631 8633 8634 8632;
11652 8633 8635 8636 8634; 11653 8635 5422 8605 8636;
11654 8259 8632 8637 8258; 11655 8632 8634 8638 8637;
11656 8634 8636 8639 8638; 11657 8636 8605 8608 8639;
11658 8258 8637 8640 8257; 11659 8637 8638 8641 8640;
11660 8638 8639 8642 8641; 11661 8639 8608 8611 8642;
11662 8257 8640 8643 8256; 11663 8640 8641 8644 8643;
11664 8641 8642 8645 8644; 11665 8642 8611 8614 8645;
11666 8256 8643 8646 8255; 11667 8643 8644 8647 8646;
11668 8644 8645 8648 8647; 11669 8645 8614 8617 8648;
11670 8255 8646 8649 8254; 11671 8646 8647 8650 8649;
11672 8647 8648 8651 8650; 11673 8648 8617 8620 8651;
11674 8254 8649 8652 8253; 11675 8649 8650 8653 8652;
11676 8650 8651 8654 8653; 11677 8651 8620 8623 8654;
11678 8253 8652 8655 8252; 11679 8652 8653 8656 8655;
11680 8653 8654 8657 8656; 11681 8654 8623 8626 8657;
11682 8252 8655 8658 8251; 11683 8655 8656 8659 8658;
11684 8656 8657 8660 8659; 11685 8657 8626 8629 8660;
11686 8251 8658 8661 8139; 11687 8658 8659 8662 8661;
11688 8659 8660 8663 8662; 11689 8660 8629 7981 8663; 11690 8684 4985 2073;
11691 8684 2073 2302; 11692 8684 2302 2057; 11693 8684 2057 4984;
11694 8684 4984 2171; 11695 8684 2171 881; 11696 8684 881 2025;
11697 8684 2025 4985; 11698 8685 2437 2059; 11699 8685 2059 5056;
11700 8685 5056 2075; 11701 8685 2075 884; 11702 8685 884 2076;
11703 8685 2076 5055; 11704 8685 5055 2077; 11705 8685 2077 2437;
11706 8686 8124 4995; 11707 8686 4995 4994; 11708 8686 4994 4993;
11709 8686 4993 4991; 11710 8686 4991 4992; 11711 8686 4992 8124;
11712 8687 5001 2123; 11713 8687 2123 882; 11714 8687 882 2125;
11715 8687 2125 5000; 11716 8687 5000 2068; 11717 8687 2068 2062;
11718 8687 2062 2126; 11719 8687 2126 5001; 11720 8688 883 2022;
11721 8688 2022 5058; 11722 8688 5058 2069; 11723 8688 2069 2064;
11724 8688 2064 2129; 11725 8688 2129 5057; 11726 8688 5057 2309;
11727 8688 2309 883; 11728 4931 4932 2261; 11729 4931 2261 2263;
11730 4931 2263 2122; 11731 4931 2122 4930; 11732 4931 4930 2300;
11733 4931 2300 2454; 11734 4931 2454 2449; 11735 4931 2449 4932;
11736 8689 5003 2452; 11737 8689 2452 2433; 11738 8689 2433 2435;
11739 8689 2435 5002; 11740 8689 5002 2046; 11741 8689 2046 2393;
11742 8689 2393 2391; 11743 8689 2391 5003; 11744 4982 2269 2267;
11745 4982 2267 4983; 11746 4982 4983 2045; 11747 4982 2045 2172;
11748 4982 2172 2174; 11749 4982 2174 4981; 11750 4982 4981 2442;
11751 4982 2442 2269; 11752 8690 2314 2078; 11753 8690 2078 5054;
11754 8690 5054 2395; 11755 8690 2395 2397; 11756 8690 2397 2445;
11757 8690 2445 5053; 11758 8690 5053 2316; 11759 8690 2316 2314;
11760 4943 2092 2093; 11761 4943 2093 4944; 11762 4943 4944 2090;
11763 4943 2090 901; 11764 4943 901 2192; 11765 4943 2192 4950;
11766 4943 4950 2279; 11767 4943 2279 2092; 11768 5014 922 2153;
11769 5014 2153 5015; 11770 5014 5015 2406; 11771 5014 2406 2036;
11772 5014 2036 2404; 11773 5014 2404 5021; 11774 5014 5021 2340;
11775 5014 2340 922; 11776 8691 2110 2111; 11777 8691 2111 4971;
11778 8691 4971 2108; 11779 8691 2108 908; 11780 8691 908 2244;
11781 8691 2244 4977; 11782 8691 4977 2293; 11783 8691 2293 2110;
11784 5042 915 2139; 11785 5042 2139 5043; 11786 5042 5043 2424;
11787 5042 2424 2042; 11788 5042 2042 2422; 11789 5042 2422 5049;
11790 5042 5049 2375; 11791 5042 2375 915; 11792 5419 8692 8693 8665;
11793 8692 8683 8694 8693; 11794 8683 8695 8696 8694;
11795 8695 8142 8277 8696; 11796 8665 8693 8697 8667;
11797 8693 8694 8698 8697; 11798 8694 8696 8699 8698;
11799 8696 8277 8275 8699; 11800 8667 8697 8700 8669;
11801 8697 8698 8701 8700; 11802 8698 8699 8702 8701;
11803 8699 8275 8273 8702; 11804 8669 8700 8703 8671;
11805 8700 8701 8704 8703; 11806 8701 8702 8705 8704;
11807 8702 8273 8271 8705; 11808 8671 8703 8706 8673;
11809 8703 8704 8707 8706; 11810 8704 8705 8708 8707;
11811 8705 8271 8269 8708; 11812 8673 8706 8709 8675;
11813 8706 8707 8710 8709; 11814 8707 8708 8711 8710;
11815 8708 8269 8267 8711; 11816 8675 8709 8712 8677;
11817 8709 8710 8713 8712; 11818 8710 8711 8714 8713;
11819 8711 8267 8265 8714; 11820 8677 8712 8715 8679;
11821 8712 8713 8716 8715; 11822 8713 8714 8717 8716;

```
11823 8714 8265 8263 8717; 11824 8679 8715 8718 8681;
11825 8715 8716 8719 8718; 11826 8716 8717 8720 8719;
11827 8717 8263 8260 8720; 11828 8681 8718 8721 5420;
11829 8718 8719 8682 8721; 11830 8719 8720 8722 8682;
11831 8720 8260 8141 8722; 11832 8130 8723 8724 8664;
11833 8723 5419 8665 8724; 11834 8664 8724 8725 8666;
11835 8724 8665 8667 8725; 11836 8666 8725 8726 8668;
11837 8725 8667 8669 8726; 11838 8668 8726 8727 8670;
11839 8726 8669 8671 8727; 11840 8670 8727 8728 8672;
11841 8727 8671 8673 8728; 11842 8672 8728 8729 8674;
11843 8728 8673 8675 8729; 11844 8674 8729 8730 8676;
11845 8729 8675 8677 8730; 11846 8676 8730 8731 8678;
11847 8730 8677 8679 8731; 11848 8678 8731 8732 8680;
11849 8731 8679 8681 8732; 11850 8680 8732 8733 8131;
11851 8732 8681 5420 8733;
ELEMENT PROPERTY
7982 TO 8336 THICKNESS 0.12
8337 TO 8351 8354 TO 8383 THICKNESS 0.12
8384 TO 9492 THICKNESS 0.03
9493 TO 10628 THICKNESS 0.03
10629 TO 10783 THICKNESS 0.03
10784 TO 10787 THICKNESS 0.12
10788 TO 10851 THICKNESS 0.03
10852 TO 10915 THICKNESS 0.03
5862 TO 6485 10916 TO 11019 THICKNESS 0.12
6486 TO 7109 11020 TO 11123 THICKNESS 0.12
7110 TO 7733 8352 8353 11124 TO 11227 THICKNESS 0.12
11430 TO 11565 THICKNESS 0.12
11566 TO 11689 THICKNESS 0.12
11784 TO 11791 THICKNESS 0.12
7734 TO 7981 11228 11229 11690 TO 11783 THICKNESS 0.12
11792 TO 11831 THICKNESS 0.12
11832 TO 11851 THICKNESS 0.12
11230 TO 11429 THICKNESS 0.24
DEFINE MATERIAL START
ISOTROPIC CONCRETE
E 2.21467e+009
POISSON 0.17
DENSITY 2400
ALPHA 1e-005
DAMP 0.05
ISOTROPIC STEEL
E 2.09042e+010
POISSON 0.3
DENSITY 7833.41
ALPHA 1.2e-005
DAMP 0.03
END DEFINE MATERIAL
MEMBER PROPERTY AMERICAN
84 87 116 117 123 124 132 133 151 153 155 156 158 161 TO 163 168 171 174 177 -
182 183 188 191 194 195 205 206 208 209 211 212 214 215 217 219 221 222 224 -
225 227 228 231 232 234 236 238 240 242 244 245 247 327 330 359 360 366 367 -
375 376 388 390 392 393 395 398 TO 400 405 408 411 414 419 420 425 428 431 -
432 442 443 445 446 448 449 451 452 454 456 458 459 461 462 464 465 468 469 -
471 473 475 477 479 481 482 484 563 566 595 596 602 603 611 612 624 626 628 -
629 631 634 TO 636 641 644 647 650 655 656 661 664 667 668 678 679 681 682 -
684 685 687 688 690 692 694 695 697 698 700 701 704 705 707 709 711 713 715 -
717 718 720 977 980 TO 984 988 TO 991 995 TO 998 1002 TO 1045 1049 TO 1054 -
1064 1066 1068 1071 1073 1075 1078 1080 1082 1084 1086 1088 1090 1092 1094 -
1096 1098 1100 1102 TO 1105 1107 1109 1111 1113 1115 1117 1119 1121 1123 -
1125 1127 1129 1131 1133 1144 1189 1288 1291 1293 TO 1297 1301 TO 1304 1308 -
1309 TO 1311 1315 TO 1364 1371 1373 1375 1378 1380 1382 1386 1388 1390 1393 -
1395 1397 1400 1402 1404 1407 1409 1411 1414 1416 1417 1419 1421 1423 1426 -
1428 PRIS YD 0.4 ZD 0.2
1430 1433 1435 1437 1440 1442 1444 1446 1448 1450 1452 1454 1456 1465 1475 -
1478 TO 1482 1486 TO 1489 1493 TO 1496 PRIS YD 0.4 ZD 0.2
5552 TO 5564 5566 5568 PRIS YD 0.4 ZD 0.2
1500 TO 1543 1547 TO 1552 1562 1564 1566 1569 1571 1573 1576 1578 1580 1582 -
1584 1586 1588 1590 1592 1594 1596 1598 1600 TO 1603 1605 1607 1609 1611 -
1613 1615 1617 1619 1621 1623 1625 1627 1629 1631 1642 1650 1667 1670 1672 -
1673 TO 1676 1680 TO 1683 1687 TO 1690 1694 TO 1743 1750 1752 1754 1757 1759 -
1761 1765 1767 1769 1772 1774 1776 1779 1781 1783 1786 1788 1790 1793 1795 -
1796 1798 1800 1802 1805 1807 1809 1812 1814 1816 1819 1821 1823 1825 1827 -
1829 1831 1833 1835 1844 1853 1856 TO 1860 1864 TO 1867 1871 TO 1874 1878 -
1879 TO 1921 1925 TO 1930 1940 1942 1944 1947 1949 1951 1954 1956 1958 1960 -
1962 1964 1966 1968 1970 1972 1974 1976 1978 TO 1981 1983 1985 1987 1989 -
1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2020 2028 2045 2048 2050 -
2051 TO 2054 2058 TO 2061 2065 TO 2068 2072 TO 2121 2128 2130 2132 2135 2137 -
2139 2143 2145 2147 2150 2152 2154 2157 2159 2161 2164 2166 2168 2171 2173 -
2174 2176 2178 2180 2183 2185 2187 2190 2192 2194 2197 2199 2201 2203 2205 -
2207 2209 2211 2213 2222 2327 2330 2359 2360 2364 2365 2373 2374 2386 2388 -
2390 2393 2396 PRIS YD 0.4 ZD 0.2
```

2397 2398 2403 2406 2408 2411 2416 2417 2422 2425 2428 2429 2438 2439 2441 -
2442 2444 2445 2447 2448 2450 2452 2454 2455 2457 2458 2460 2461 2464 2465 -
2467 2469 2475 2477 2478 2480 2488 2491 TO 2495 2499 TO 2502 2506 TO 2509 -
5594 TO 5606 PRIS YD 0.4 ZD 0.2
5608 5610 5634 TO 5646 5648 5650 PRIS YD 0.4 ZD 0.2
2513 TO 2556 2560 TO 2565 2574 2576 2578 2581 2583 2585 2588 2590 2592 2594 -
2596 2598 2600 2602 2604 2606 2608 2610 2612 TO 2615 2617 2619 2621 2623 -
2625 2627 2629 2631 2633 2635 2637 2639 2641 2643 2652 2658 2667 2670 2672 -
2673 TO 2676 2680 TO 2683 2687 TO 2690 2694 TO 2743 2749 2751 2753 2756 2758 -
2760 2764 2766 2768 2771 2773 2775 2777 2779 2781 2784 2786 2788 2790 2792 -
2793 2795 2797 2799 2802 2804 2806 2809 2811 2813 2816 2818 2820 2822 2824 -
2826 2828 2830 2832 2840 3544 TO 3547 3549 3550 3553 3555 3556 3558 3559 -
3562 3564 3565 3567 3568 3570 3571 3573 3574 3576 3577 3579 3580 3582 3583 -
3585 3586 3588 3589 3591 3592 3594 3595 3597 3598 3600 3601 3603 3604 3606 -
3607 3609 3610 3612 3613 3615 3616 3618 3619 3621 3622 3624 3625 3627 3628 -
3630 3631 3633 3634 3636 3637 3639 3640 3642 3643 3645 3646 3648 3649 3651 -
3652 TO 3654 4264 4266 TO 4271 4273 4274 4276 4279 TO 4292 4294 TO 4299 4605 -
4612 4615 4616 4619 4620 4622 4624 4625 4627 4628 4631 4632 4634 TO 4665 -
5690 5691 5695 5699 5703 5707 5711 5712 5716 5720 5724 5728 5737 5739 -
5741 PRIS YD 0.4 ZD 0.2
127 TO 129 136 TO 138 147 200 203 370 TO 372 379 TO 381 384 437 440 -
606 TO 608 615 TO 617 620 673 676 1143 1145 1188 1190 1287 1289 1466 1641 -
1643 1649 1651 1666 1668 1845 2019 2021 2027 2029 2044 2046 2223 -
2368 TO 2370 2377 TO 2379 2382 2434 2437 2651 2653 2657 2659 2666 2668 2841 -
5578 5583 5618 5623 5658 5663 5748 5752 PRIS YD 0.3 ZD 0.2
125 126 134 135 368 369 377 378 604 605 613 614 1141 1186 1286 1463 1639 1647 -
1665 1842 2017 2025 2043 2220 2366 2367 2375 2376 2649 2655 2665 -
2838 PRIS YD 0.3 ZD 0.2
85 86 88 TO 115 120 145 149 150 152 154 157 159 165 167 169 173 175 178 180 -
184 186 189 192 196 198 199 207 210 213 216 218 220 223 226 229 230 239 241 -
243 246 248 TO 251 976 978 979 985 TO 987 992 TO 994 999 TO 1001 -
1046 TO 1048 1055 TO 1058 1062 1063 1070 1077 1135 1136 1140 1142 1187 1228 -
1229 TO 1230 1232 1234 1280 1281 1283 1285 1292 1298 TO 1300 1305 TO 1307 -
1312 TO 1314 1365 TO 1367 1377 1384 1458 1459 1464 1468 TO 1470 5570 5576 -
5577 5579 TO 5582 5584 TO 5593 PRIS YD 0.5 ZD 0.25
118 119 160 164 166 176 179 181 185 187 190 193 233 235 237 1065 1067 1069 -
1072 1074 1076 1079 1081 1083 1085 1087 1089 1091 1093 1095 1106 1108 1110 -
1112 1114 1116 1118 1120 1122 1124 1126 1128 1130 1132 1134 1233 1372 1374 -
1376 1379 1381 1383 1385 1387 1389 1391 1392 1394 1396 1398 1399 1401 1403 -
1405 1406 1408 1410 1412 1413 1415 1418 1420 1422 1424 1425 1427 1429 1431 -
1432 1434 1436 1438 1439 1441 1443 1445 1447 1449 1451 1453 1455 1457 2317 -
5565 5567 5569 5573 13403 13404 PRIS YD 0.5 ZD 0.15
121 122 130 131 146 148 197 201 202 204 252 253 727 728 730 731 866 867 878 -
879 1059 TO 1061 1137 TO 1139 1146 1152 1153 1191 1279 1284 1290 -
1368 TO 1370 1460 TO 1462 1467 PRIS YD 0.4 ZD 0.2
MEMBER PROPERTY AMERICAN
361 362 397 401 403 413 416 418 422 424 427 430 470 472 474 1563 1565 1567 -
1570 1572 1574 1577 1579 1581 1583 1585 1587 1589 1591 1593 1604 1606 1608 -
1610 1612 1614 1616 1618 1620 1622 1624 1626 1628 1630 1632 1654 1751 1753 -
1755 1758 1760 1762 1764 1766 1768 1770 1771 1773 1775 1777 1780 1782 1792 -
1794 1797 1799 1801 1803 1804 1806 1808 1810 1811 1813 1815 1817 1818 1820 -
1822 1824 1826 1828 1830 1832 1834 1836 5607 5609 5611 5613 13408 -
13409 PRIS YD 0.5 ZD 0.15
364 365 373 374 383 385 434 438 439 441 489 490 819 821 833 834 887 889 904 -
905 1557 TO 1559 1635 TO 1637 1644 TO 1646 1652 1658 1663 1669 1747 TO 1749 -
1839 TO 1841 1846 PRIS YD 0.4 ZD 0.2
328 329 331 333 TO 358 382 386 387 394 396 402 404 406 410 412 415 417 421 -
423 426 429 433 435 436 444 447 450 453 455 457 460 463 466 467 476 478 480 -
483 486 TO 488 1474 1476 1477 1490 TO 1492 1497 TO 1499 1544 TO 1546 1553 -
1554 TO 1556 1568 1575 1633 1634 1638 1640 1648 1653 1655 1659 1660 1662 1664 -
1671 1684 TO 1686 1691 TO 1693 1744 TO 1746 1756 1763 1837 1838 1843 5612 -
5616 5617 5619 5621 5625 TO 5631 5633 PRIS YD 0.5 ZD 0.25
600 601 619 621 725 726 843 845 859 861 1935 TO 1937 2022 TO 2024 -
2125 TO 2127 2224 5498 5499 PRIS YD 0.4 ZD 0.2
597 598 633 637 639 643 645 649 652 654 658 660 663 666 706 708 710 1941 1943 -
1945 1948 1950 1952 1955 1957 1959 1961 1963 1965 1967 1969 1971 1973 1975 -
1977 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 -
2010 2032 2129 2131 2133 2136 2138 2140 2142 2144 2146 2148 2149 2151 2153 -
2155 2156 2158 2160 2162 2163 2165 2167 2169 2170 2172 2175 2177 2179 2181 -
2182 2184 2186 2188 2189 2191 2193 2195 2196 2198 2200 2202 2204 2206 2208 -
2210 2212 2214 2323 2325 5647 5649 5651 5653 5654 13413 -
13414 PRIS YD 0.5 ZD 0.15
564 565 567 TO 594 599 618 622 623 625 627 630 632 638 640 642 646 648 651 -
653 657 659 662 665 669 671 672 680 683 686 689 691 693 696 699 702 703 712 -
714 716 719 721 TO 724 1852 1854 1855 1861 TO 1863 1868 TO 1870 1875 TO 1877 -
1922 TO 1924 1931 TO 1934 1938 1939 1946 1953 2011 2012 2016 2018 2026 2031 -
2033 2037 2038 2040 2042 2049 2055 TO 2057 2062 TO 2064 2069 TO 2071 2122 -
2123 TO 2124 2134 2141 2215 2216 2221 2225 2227 2228 5652 5656 5657 -
5659 TO 5662 5664 TO 5673 PRIS YD 0.5 ZD 0.2
2328 2329 2331 TO 2358 2363 2380 2384 2385 2387 2389 2391 2392 2394 2400 2402 -
2404 2407 2409 2412 2414 2418 2420 2423 2426 2430 2432 2433 2440 2443 2446 -
2449 2451 2453 2456 2459 2462 2463 2471 TO 2474 2476 2479 2481 TO 2484 2487 -

```
2489 2490 2496 TO 2498 2503 TO 2505 2510 TO 2512 2557 TO 2559 2566 TO 2569 -
2572 2573 2580 2587 2645 2646 2648 2650 2656 2661 2663 2664 2671 -
2677 TO 2679 2684 TO 2686 2691 TO 2693 2744 TO 2746 2755 2762 2834 2835 2839 -
2843 TO 2845 2860 2875 TO 2877 3551 3561 4260 TO 4262 4265 4272 4275 4606 -
4607 TO 4611 4617 4618 4621 4623 4626 4629 4630 5743 5746 5747 5749 TO 5751 -
5753 TO 5762 PRIS YD 0.5 ZD 0.25
2381 2383 2485 2486 2570 2571 2654 2747 2748 2842 2846 TO 2859 4263 4277 4278 -
4293 4300 4301 5674 5675 5677 5678 PRIS YD 0.4 ZD 0.2
2361 2362 2395 2399 2401 2405 2410 2413 2415 2419 2421 2424 2427 2466 2468 -
2470 2575 2577 2579 2582 2584 2586 2589 2591 2593 2595 2597 2599 2601 2603 -
2605 2607 2609 2611 2616 2618 2620 2622 2624 2626 2628 2630 2632 2634 2636 -
2638 2640 2642 2644 2662 2750 2752 2754 2757 2759 2761 2763 2765 2767 2769 -
2770 2772 2774 2776 2778 2780 2782 2783 2785 2787 2789 2791 2794 2796 2798 -
2800 2801 2803 2805 2807 2808 2810 2812 2814 2815 2817 2819 2821 2823 2825 -
2827 2829 2831 2833 5738 5740 5742 5744 5745 12837 12839 13400 13418 -
13419 PRIS YD 0.5 ZD 0.15
139 TO 144 PRIS YD 0.3 ZD 0.2
1 2 5 6 9 TO 39 56 TO 83 254 PRIS YD 0.45 ZD 0.3
52 TO 55 PRIS YD 0.4 ZD 0.2
3 4 7 8 40 TO 51 935 PRIS YD 0.4 ZD 0.3
729 732 TO 739 817 818 868 TO 877 880 881 933 1147 TO 1151 1154 1155 1236 -
1237 TO 1246 1261 1277 1282 1471 TO 1473 5571 5572 5763 -
5764 PRIS YD 0.3 ZD 0.15
936 TO 940 942 1192 TO 1197 1199 1235 2312 5575 12748 13344 PRIS YD 0.3 ZD 0.15
2313 2314 PRIS YD 0.4 ZD 0.3
258 260 262 266 268 270 272 274 276 290 299 323 TO 326 PRIS YD 0.45 ZD 0.3
291 TO 298 PRIS YD 0.4 ZD 0.3
823 TO 832 837 TO 840 890 892 TO 901 906 907 947 TO 949 951 952 954 955 1656 -
1657 1661 1848 1851 2242 TO 2251 5615 5773 TO 5778 5841 TO 5847 -
12775 PRIS YD 0.3 ZD 0.15
820 822 888 891 2316 2318 PRIS YD 0.3 ZD 0.15
527 TO 534 PRIS YD 0.4 ZD 0.3
255 TO 257 259 261 263 TO 265 267 269 271 273 275 277 TO 289 300 TO 322 491 -
492 TO 526 535 TO 562 PRIS YD 0.45 ZD 0.3
844 846 TO 858 860 862 911 913 TO 917 919 TO 922 924 929 930 2035 2039 2226 -
2229 2274 2288 TO 2300 5779 5781 5783 5784 PRIS YD 0.3 ZD 0.15
958 TO 962 965 966 2034 2320 2322 5655 5848 TO 5854 12804 -
12805 PRIS YD 0.3 ZD 0.15
780 TO 787 PRIS YD 0.4 ZD 0.3
2301 TO 2305 2878 2879 5681 5855 TO 5861 PRIS YD 0.3 ZD 0.15
744 TO 779 788 TO 815 PRIS YD 0.45 ZD 0.3
MEMBER PROPERTY AMERICAN
5520 TO 5529 13393 TO 13399 13401 PRIS YD 0.4 ZD 0.3
332 363 389 391 485 1483 TO 1485 1560 1561 1677 TO 1679 1847 1849 1850 5620 -
5622 5624 5632 PRIS YD 0.5 ZD 0.25
407 409 1595 1597 1599 1778 1784 1785 1787 1789 1791 2319 2321 -
5614 PRIS YD 0.5 ZD 0.15
170 172 934 1097 1099 1101 1206 TO 1208 2315 5574 PRIS YD 0.5 ZD 0.15
918 923 5780 5782 PRIS YD 0.3 ZD 0.15
609 610 670 674 675 677 910 912 927 928 2013 TO 2015 2030 2036 2041 2047 2217 -
2218 TO 2219 2371 2372 2431 2435 2436 2647 2660 2669 2836 2837 2861 TO 2874 -
4613 4614 4633 4666 TO 4668 5509 TO 5514 5676 5679 5680 -
5682 PRIS YD 0.4 ZD 0.2
MEMBER PROPERTY AMERICAN
2324 2326 PRIS YD 0.3 ZD 0.15
3504 TO 3509 3511 3515 3517 4448 TO 4455 5500 TO 5508 5535 5536 5538 5540 -
5542 5543 PRIS YD 0.3 ZD 0.15
3522 TO 3527 3529 3533 3535 5032 TO 5037 5039 5546 5548 5550 5551 12834 -
12835 PRIS YD 0.3 ZD 0.15
5038 PRIS YD 0.3 ZD 0.15
5515 TO 5519 PRIS YD 0.3 ZD 0.15
3510 3516 5534 5539 PRIS YD 0.3 ZD 0.15
3528 3534 12832 12833 PRIS YD 0.3 ZD 0.15
MEMBER PROPERTY AMERICAN
12836 12838 12840 13343 PRIS YD 0.4 ZD 0.3
MEMBER PROPERTY AMERICAN
740 TO 743 816 835 836 841 842 863 TO 865 882 TO 886 902 903 908 909 925 926 -
931 932 941 943 TO 946 950 953 956 957 963 964 967 TO 975 1156 TO 1185 1198 -
1200 TO 1205 1209 TO 1227 1231 1247 TO 1260 1262 TO 1276 1278 2230 TO 2241 -
2252 TO 2273 2275 TO 2287 2306 TO 2311 5530 5531 5765 TO 5772 5785 TO 5840 -
12749 TO 12774 12776 TO 12803 12806 TO 12831 PRIS YD 0.2 ZD 0.15
MEMBER PROPERTY AMERICAN
3479 TO 3502 3540 3541 3548 3552 3554 3557 3560 3563 3566 3569 3572 3575 3578 -
3581 3584 3587 3590 3593 3596 3599 3602 3605 3608 3611 3614 3617 3620 3623 -
3626 3629 3632 3635 3638 3641 3644 3647 3650 3655 3656 4256 4443 TO 4447 -
4462 4463 5008 TO 5031 5046 5683 TO 5689 5692 TO 5694 5696 TO 5698 -
5700 TO 5702 5704 TO 5706 5708 TO 5710 5713 TO 5715 5717 TO 5719 -
5721 TO 5723 5725 TO 5727 5729 TO 5736 PRIS YD 0.3 ZD 0.2
MEMBER PROPERTY JAPANESE
2881 TO 2885 2888 TO 2898 2901 TO 2908 2910 TO 2912 2915 TO 2922 2924 TO 2926 -
2929 TO 2936 2938 TO 2940 2943 TO 2950 2952 TO 2954 2957 TO 2964 -
2966 TO 2968 2971 TO 2978 2980 TO 2982 2985 TO 2992 2994 TO 2996 -
```

```
2999 TO 3006 3008 TO 3010 3013 TO 3020 3022 TO 3024 3027 TO 3034 -
3036 TO 3038 3041 TO 3048 3050 TO 3052 3055 TO 3062 3064 TO 3066 -
3069 TO 3076 3078 TO 3080 3083 TO 3090 3092 TO 3094 3097 TO 3104 -
3106 TO 3108 3111 TO 3118 3120 TO 3122 3125 TO 3132 3134 TO 3136 -
3139 TO 3146 3148 TO 3150 3153 TO 3160 3162 TO 3164 3167 TO 3174 -
3176 TO 3178 3181 TO 3188 3190 TO 3192 3195 TO 3202 3204 TO 3206 -
3209 TO 3216 3218 TO 3220 3223 TO 3230 3232 TO 3234 3237 TO 3244 -
3246 TO 3248 3251 TO 3258 3260 TO 3262 3265 TO 3272 3274 TO 3276 -
3279 TO 3286 3288 TO 3290 3293 TO 3300 3302 TO 3304 3307 TO 3314 -
3316 TO 3318 3321 TO 3328 3330 TO 3332 3335 TO 3342 3344 TO 3346 -
3349 TO 3356 3358 TO 3360 3363 TO 3370 3372 TO 3374 3377 TO 3384 -
3386 TO 3388 3391 TO 3398 3400 TO 3402 3405 TO 3412 3414 TO 3416 -
3419 TO 3429 3432 TO 3442 3445 TO 3478 3658 TO 3662 3665 TO 3675 -
3678 TO 3685 3687 TO 3689 3692 TO 3699 3701 TO 3703 3706 TO 3713 -
3715 TO 3717 3720 TO 3727 3729 TO 3731 3734 TO 3741 3743 TO 3745 -
3748 TO 3755 3757 TO 3759 3762 TABLE ST I125X75X6
12841 TO 12879 12913 12941 TO 12944 13018 13019 13051 13052 13056 13129 13130 -
13194 TO 13202 13237 TO 13240 TABLE ST I125X75X6
3763 TO 3769 3771 TO 3773 3776 TO 3783 3785 TO 3787 3790 TO 3797 3799 TO 3801 -
3804 TO 3811 3813 TO 3815 3818 TO 3825 3827 TO 3829 3832 TO 3839 -
3841 TO 3843 3846 TO 3853 3855 TO 3857 3860 TO 3867 3869 TO 3871 -
3874 TO 3881 3883 TO 3885 3888 TO 3895 3897 TO 3899 3902 TO 3909 -
3911 TO 3913 3916 TO 3923 3925 TO 3927 3930 TO 3937 3939 TO 3941 -
3944 TO 3951 3953 TO 3955 3958 TO 3965 3967 TO 3969 3972 TO 3979 -
3981 TO 3983 3986 TO 3993 3995 TO 3997 4000 TO 4007 4009 TO 4011 -
4014 TO 4021 4023 TO 4025 4028 TO 4035 4037 TO 4039 4042 TO 4049 -
4051 TO 4053 4056 TO 4063 4065 TO 4067 4070 TO 4077 4079 TO 4081 -
4084 TO 4091 4093 TO 4095 4098 TO 4105 4107 TO 4109 4112 TO 4119 -
4121 TO 4123 4126 TO 4133 4135 TO 4137 4140 TO 4147 4149 TO 4151 -
4154 TO 4161 4163 TO 4165 4168 TO 4175 4177 TO 4179 4182 TO 4189 -
4191 TO 4193 4196 TO 4206 4209 TO 4219 4222 TO 4255 4302 TO 4442 -
4464 TO 4604 4669 TO 5007 5047 TO 5497 12880 TO 12912 12914 TO 12940 12945 -
12946 TO 13017 13020 TO 13050 13053 TO 13055 13057 TO 13128 13131 TO 13193 -
13203 TO 13236 13241 TO 13272 TABLE ST I125X75X6
2880 2886 2887 2899 2900 2909 2913 2914 2923 2927 2928 2937 2941 2942 2951 -
2955 2956 2965 2969 2970 2979 2983 2984 2993 2997 2998 3007 3011 3012 3021 -
3025 3026 3035 3039 3040 3049 3053 3054 3063 3067 3068 3077 3081 3082 3091 -
3095 3096 3105 3109 3110 3119 3123 3124 3133 3137 3138 3147 3151 3152 3161 -
3165 3166 3175 3179 3180 3189 3193 3194 3203 3207 3208 3217 3221 3222 3231 -
3235 3236 3245 3249 3250 3259 3263 3264 3273 3277 3278 3287 3291 3292 3301 -
3305 3306 3315 3319 3320 3329 3333 3334 3343 3347 3348 3357 3361 3362 3371 -
3375 3376 3385 3389 3390 3399 3403 3404 3413 3417 3418 3430 3431 3443 3444 -
3503 3542 3543 3657 3663 3664 3676 3677 3686 3690 3691 3700 3704 3705 3714 -
3718 3719 3728 3732 3733 3742 3746 3747 3756 3760 3761 3770 3774 3775 3784 -
3788 3789 3798 3802 3803 3812 3816 3817 3826 3830 3831 3840 3844 3845 3854 -
3858 3859 3868 3872 3873 3882 3886 3887 3896 3900 3901 3910 3914 3915 3924 -
3928 3929 3938 3942 3943 3952 3956 3957 3966 3970 3971 3980 3984 3985 3994 -
3998 3999 4008 4012 4013 4022 4026 4027 4036 4040 4041 4050 4054 4055 4064 -
4068 4069 4078 4082 4083 4092 4096 4097 4106 4110 4111 4120 4124 4125 4134 -
4138 4139 4148 4152 4153 4162 4166 4167 4176 4180 4181 4190 4194 4195 4207 -
4208 4220 4221 4257 TO 4259 TABLE ST H125X60X6
3512 TO 3514 3518 TO 3521 3530 TO 3532 3536 TO 3539 4456 TO 4461 5040 TO 5045 -
13277 TO 13291 13296 13299 TO 13324 13329 13332 TO 13342 13345 TO 13348 -
13353 13354 13361 TO 13364 13369 13370 13380 13381 13388 -
13389 TABLE ST I125X75X6
5532 5533 5537 5541 5544 5545 5547 5549 TABLE ST H150X75X5
13273 13274 13292 TO 13295 13297 13298 TABLE ST I125X75X6
13275 13276 13325 TO 13328 13330 13331 TABLE ST I125X75X6
MEMBER PROPERTY JAPANESE
13365 TO 13368 13371 TO 13374 TABLE ST I125X75X6
13349 TO 13352 13355 TO 13358 TABLE ST I125X75X6
13359 13360 13385 TO 13387 13390 TO 13392 TABLE ST I125X75X6
13375 TO 13379 13382 TO 13384 TABLE ST I125X75X6
MEMBER PROPERTY JAPANESE
13427 TO 13430 13432 13433 13436 13439 TO 13441 13446 13447 13508 TO 13512 -
13514 13516 13518 13520 13522 13524 13526 13528 13534 13536 13538 13540 -
13542 TO 13546 13548 TO 13551 13553 13555 13557 13558 13560 13562 13564 -
13566 13572 13574 13576 13578 TO 13582 13584 13586 13588 13590 13592 13594 -
13596 13598 13600 13604 13606 13608 13610 13612 13614 13616 13618 -
13620 PRIS YD 0.3 ZD 0.2
13420 TO 13426 13431 13434 13435 13437 13438 13442 TO 13445 13448 13449 13451 -
13452 13454 TO 13472 13491 TO 13507 13513 13515 13517 13519 13521 13523 -
13525 13527 13529 TO 13533 13535 13537 13539 13541 13547 13552 13554 13556 -
13559 13561 13563 13565 13567 TO 13571 13573 13575 13577 13583 13585 13587 -
13589 13591 13593 13595 13597 13599 13601 TO 13603 13605 13607 13609 13611 -
13613 13615 13617 13619 13621 TO 13623 13638 TO 13643 PRIS YD 0.3 ZD 0.25
MEMBER PROPERTY JAPANESE
13450 13453 13473 TO 13490 PRIS YD 0.3 ZD 0.2
13402 13405 TO 13407 13410 TO 13412 13415 TO 13417 13624 TO 13626 -
13627 PRIS YD 0.15 ZD 0.1
MEMBER PROPERTY JAPANESE
13628 TO 13632 PRIS YD 0.3 ZD 0.2
```

```
13633 TO 13637 PRIS YD 0.3 ZD 0.2
CONSTANTS
MATERIAL CONCRETE MEMB 84 TO 138 145 TO 253 327 330 359 360 366 TO 372 375 -
376 TO 381 384 388 390 392 393 395 398 TO 400 405 408 411 414 419 420 425 -
428 431 432 437 440 442 443 445 446 448 449 451 452 454 456 458 459 461 462 -
464 465 468 469 471 473 475 477 479 481 482 484 563 566 595 596 602 TO 608 -
611 TO 617 620 624 626 628 629 631 634 TO 636 641 644 647 650 655 656 661 -
664 667 668 673 676 678 679 681 682 684 685 687 688 690 692 694 695 697 698 -
700 701 704 705 707 709 711 713 715 717 718 720 727 728 730 731 866 867 878 -
879 976 TO 1146 1152 1153 1186 TO 1191 1228 TO 1230 1232 TO 1234 -
1279 TO 1281 1283 TO 1470 1475 1478 TO 1482 1486 TO 1489 1493 TO 1496 1500 -
1501 TO 1543 1547 TO 1552 1562 1564 1566 1569 1571 1573 1576 1578 1580 1582 -
1584 1586 1588 1590 1592 1594 1596 1598 1600 TO 1603 1605 1607 1609 1611 -
1613 1615 1617 1619 1621 1623 1625 13403 13404
MATERIAL CONCRETE MEMB 1627 1629 1631 1639 1641 TO 1643 1647 1649 TO 1651 -
1665 TO 1668 1670 1672 TO 1676 1680 TO 1683 1687 TO 1690 1694 TO 1743 1750 -
1752 1754 1757 1759 1761 1765 1767 1769 1772 1774 1776 1779 1781 1783 1786 -
1788 1790 1793 1795 1796 1798 1800 1802 1805 1807 1809 1812 1814 1816 1819 -
1821 1823 1825 1827 1829 1831 1833 1835 1842 1844 1845 1853 1856
MATERIAL CONCRETE MEMB 934 5565 5567 5569 5574 5578 5583 5594 TO 5606 5608 -
5610 5618 5623 5658
MATERIAL CONCRETE MEMB 1857 TO 1860 1864 TO 1867 1871 TO 1874 1878 TO 1921 -
1925 TO 1930 1940 1942 1944 1947 1949 1951 1954 1956 1958 1960 1962 1964 -
1966 1968 1970 1972 1974 1976 1978 TO 1981 1983 1985 1987 1989 1991 1993 -
1995 1997 1999 2001 2003 2005 2007 2009 2017 2019 TO 2021 2025 2027 TO 2029 -
2043 TO 2046 2048 2050 TO 2054 2058 TO 2061 2065 TO 2068 2072 TO 2121 2128 -
2130 2132 2135 2137 2139 2143 2145 2147 2150 2152 2154 2157 2159 2161 2164 -
2166 2168 2171 2173 2174 2176 2178 2180 2183 2185 2187 2190 2192 2194 2197 -
2199 2201 2203 2205 2207 2209 2211 2213 2220 2222 2223 2317 2327 2330 2359 -
2360 2364 TO 2370 2373 TO 2379 2382 2386 2388 2390 2391 2393 2396 TO 2398 -
2403 2406 2408 2411 2416 2417 2422 2425 2428 2429 2434 2437 TO 2439 2441 -
2442 2444 2445 2447 2448 2450 2452 2454 2455 2457 2458 2460 2461 2464 2465 -
2467 2469 2471 2473 2475 2477 2478 2480 2488 2491 TO 2495 2499 TO 2502 2506 -
2507 TO 2509 2513 TO 2556 2560 TO 2565 2574 2576 2578 2581 2583 2585 2588 -
2590 2592 2594 2596 2598 2600 2602 2604 2606 2608 2610 2612 TO 2615 2617 -
2619 2621 2623 2625 2627 2629
MATERIAL CONCRETE MEMB 2631 2633 2635 2637 2639 2641 2643 2649 2651 TO 2653 -
2655 2657 TO 2659 2665 TO 2668 2670 2672 TO 2676 2680 TO 2683 2687 TO 2690 -
2694 TO 2743 2749 2751 2753 2756 2758 2760 2764 2766 2768 2771 2773 2775 -
2777
MATERIAL CONCRETE MEMB 5634 TO 5646 5648 5650 5663 5690 5691 5695 5699 5703 -
5707 5711 5712 5716 5720 5724 5728 5737 5739 5741 5748
MATERIAL CONCRETE MEMB 1 2 5 6 9 TO 40 42 44 45 47 49 TO 83 139 TO 144 254 -
255 TO 326 328 329 331 TO 358 361 TO 365 373 374 382 383 385 TO 387 389 391 -
394 396 397 401 TO 404 406 409 410 412 413 415 TO 418 421 TO 424 426 427 -
429 430 433 TO 436 438 439 441 444 447 450 453 455 457 460 463 466 467 470 -
472 474 476 478 480 483 485 TO 562 564 565 567 TO 594 597 TO 601 609 610 -
618 619 621 TO 623 625 627 630 632 633 637 TO 640 642 643 645 646 648 649 -
651 TO 654 657 TO 660 662 663 665 666 669 TO 672 674 675 677 680 683 686 -
689 691 693 696 699 702 703 706 708 710 712 714 716 719 721 TO 726 729 732 -
733 TO 739 744 TO 815 817 TO 834 837 TO 840 843 TO 862 868 TO 877 880 881 -
887 TO 901 904 TO 907 910 TO 917 919 TO 922 924 927 TO 930 933 936 TO 940 -
942 947 TO 949 951 952 954 955 958 TO 962 965 966 1147 TO 1151 1154 1155 -
1192 TO 1197 1199 1235 TO 1246 1261 1277 1282 1471 TO 1474 1476 1477 1483 -
1484 TO 1485 1490 TO 1492 1497 TO 1499 1544 TO 1546 1553 TO 1560 1563 1565 -
1567 1568 1570 1572 1574 1575 1577 1579 1581 1583 1585 1587 1589 1591 1593 -
1595 1597 1599 1604 1606 1608 1610 1612 1614
MATERIAL CONCRETE MEMB 5575 5612 5614 TO 5617 5619 5620 5622 5630 5633 5652 -
5655 TO 5657 5659 5660 5662 5670 5673 5773 TO 5779 5781 5783 5784 -
5841 TO 5854 12748 12804
MATERIAL CONCRETE MEMB 1616 1618 1620 1622 1624 1626 1628 1630 1632 TO 1638 -
1640 1644 TO 1646 1648 1652 TO 1664 1669 1671 1677 TO 1679 1684 TO 1686 1691 -
1692 TO 1693 1744 TO 1749 1751 1753 1755 1756 1758 1760 1762 TO 1764 1766 -
1768 1770 1771 1773 1775 1777 1778 1780 1782 1784 1785 1789 1791 1792 1794 -
1797 1799 1801 1803 1804 1806 1808 1810 1811 1813 1815 1817 1818 1820 1822 -
1824 1826 1828 1830 1832 1834 1836 TO 1841 1843 1846 TO 1852 1854 1855 1861 -
1862 TO 1863 1868 TO 1870 1875 TO 1877 1922 TO 1924 1931 TO 1939 1941 1943 -
1945 1946 1948 1950 1952 1953 1955 1957 1959 1961 1963 1965 1967 1969 1971 -
1973 1975 1977 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 -
2006 2008 2010 TO 2016 2018 2022 TO 2024 2026 2030 TO 2042 2047 2049 2055 -
2056 TO 2057 2062 TO 2064 2069 TO 2071 2122 TO 2127 2129 2131 2133 2134 2136 -
2138 2140 TO 2142 2144 2146 2148 2149 2151 2153 2155 2156 2158 2160 2162 -
2163 2165 2167 2169 2170 2172 2175 2177 2179 2181 2182 2184 2186 2188 2189 -
2191 2193 2195 2196 2198 2200 2202 2204 2206 2208 2210 2212 2214 TO 2219 -
2221 2224 TO 2229 2242 TO 2251 2274 2288 TO 2305 2312 TO 2314 2316 2318 2320 -
2321 TO 2323 2325 2328 2329 2331 TO 2358 2361 TO 2363 2371 2372 2380 2381 -
2383 TO 2385 2387 2389 2392 2394 2395 5607 5609 13344 13408 13409 13413 -
13414
MATERIAL CONCRETE MEMB 5611 5613 5621 5624 TO 5629 5631 5632 5647 5649 5651 -
5653 5654 5661 5664 TO 5669 5671 5672 5746 5751 5762 5855 TO 5861 12775 -
12805
MATERIAL CONCRETE MEMB 918 923 1206 TO 1208 1561 1787 2315 2319 2324 2326 -
```

```
2399 TO 2402 2404 2405 2407 2409 2410 2412 TO 2415 2418 TO 2421 2423 2424 -
2426 2427 2430 TO 2433 2435 2436 2440 2443 2446 2449 2451 2453 2456 2459 -
2462 2463 2466 2468 2470 2472 2474 2476 2479 2481 TO 2487 2489 2490 2496 -
2497 TO 2498 2503 TO 2505 2510 TO 2512 2557 TO 2559 2566 TO 2573 2575 2577 -
2579 2580 2582 2584 2586 2587 2589 2591 2593 2595 2597 2599 2601 2603 2605 -
2607 2609 2611 2616 2618 2620 2622 2624 2626 2628 2630 2632 2634 2636 2638 -
2640 2642 2644 TO 2648 2650 2654 2656 2660 TO 2664 2669 2671 2677 TO 2679 -
2684 TO 2686 2691 TO 2693 2744 TO 2748 2750 2752 2754 2755 2757 2759 2761 -
2762 TO 2763 2765 2767 2769 2770 2772 2774 2776 2778 TO 2879 3485 -
3504 TO 3511 3515 TO 3517 3522 TO 3529 3533 TO 3535 3544 TO 3547 -
3549 TO 3551 3553 3555 3556 3558 TO 3562 3564 3565 3567 3568 3570 3571 3573 -
3574 3576 3577 3579 3580 3582 3583 3585 3586 3588 3589 3591 3592 3594 3595 -
3597 3598 3600 3601 3603 3604 3606 3607 3609 3610 3612 3613 3615 3616 3618 -
3619 3621 3622 3624 3625 3627 3628 3630 3631 3633 3634 3636 3637 3639 3640 -
3642 3643 3645 3646 3648 3649 3651 TO 3654 4260 TO 4301 4448 TO 4455 4605 -
4606 TO 4668 5032 TO 5039 5498 TO 5521 5524 TO 5529 5534 TO 5536 5538 TO 5540 -
5542 13418 13419
MATERIAL CONCRETE MEMB 12837 12839
MATERIAL CONCRETE MEMB 5543 5546 5548 5550 TO 5564 5566 5568 5570 TO 5572 -
5576 5577 5579 TO 5582 5584 TO 5593 5674 TO 5682 5738 5740 5742 TO 5745 5747 -
5749 5862 TO 7762
MATERIAL CONCRETE MEMB 7763 TO 7773
MATERIAL CONCRETE MEMB 5750 5752 7774 TO 8283
MATERIAL CONCRETE MEMB 5753 TO 5761 5763 5764 5780 5782 13400
MATERIAL CONCRETE MEMB 3 4 7 8 41 43 46 48 740 TO 743 816 835 836 841 842 -
863 TO 865 882 TO 886 902 903 908 909 925 926 931 932 935 941 943 TO 946 -
950 953 956 957 963 964 967 TO 975 1156 TO 1185 1198 1200 TO 1205 -
1209 TO 1227 1231 1247 TO 1260 1262 TO 1276 1278 2230 TO 2241 2252 TO 2273 -
2275 TO 2287 2306 TO 2311 3479 TO 3484 3486 TO 3502 3540 3541 3548 3552 3554 -
3557 3563 3566 3569 3572 3575 3578 3581 3584 3587 3590 3593 3596 3599 3602 -
3605 3608 3611 3614 3617 3620 3623 3626 3629 3632 3635 3638 3641 3644 3647 -
3650 3655 3656 4256 4443 TO 4447 4462 4463 5008 TO 5031 5046 5522 5523 5530 -
5531 5683 TO 5689 5692 TO 5694 5696 TO 5698 5700 TO 5702 5704 TO 5706 5708 -
5709 TO 5710 5713 TO 5715 5717 TO 5719 5721 TO 5723 5725 TO 5727 5729 TO 5736 -
5765 TO 5772 5785 TO 5840 12749 TO 12774 12776 TO 12802
MATERIAL CONCRETE MEMB 8284 TO 8691 12803 12806 TO 12812 13393 TO 13399 13401
MATERIAL CONCRETE MEMB 8692 TO 9853
MATERIAL CONCRETE MEMB 9854 TO 10783 12813
MATERIAL CONCRETE MEMB 407 5573 10784 TO 11719 12814 TO 12836 12838 12840 -
13343 13420 TO 13449 13451 13452 13454 TO 13472 13491 TO 13623
MATERIAL CONCRETE MEMB 11720 TO 11851 13402 13405 TO 13407 13410 TO 13412 -
13415 TO 13417 13450 13453 13473 TO 13490 13624 TO 13643
MATERIAL STEEL MEMB 2880 TO 3478 3503 3512 TO 3514 3518 TO 3521 3530 TO 3532 -
3536 TO 3539 3542 3543 3657 TO 4255 4257 TO 4259 4302 TO 4442 4456 TO 4461 -
4464 TO 4604 4669 TO 5007 5040 TO 5045 5047 TO 5497 5532 5533 5537 5541 5544 -
5545 5547 5549 12841 TO 13342 13345 TO 13392
SUPPORTS
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 -
55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 101 -
103 105 107 109 111 113 115 117 119 121 123 125 127 129 131 133 135 137 139 -
141 143 145 147 149 151 153 155 157 159 161 163 165 333 1040 1042 2018 2019 -
3749 TO 3752 FIXED
1075 1078 1082 PINNED
1077 1080 1084 PINNED
MEMBER TRUSS
2888 TO 2895 2901 TO 2908 2915 TO 2922 2929 TO 2936 2943 TO 2950 2957 TO 2964 -
2971 TO 2978 2985 TO 2992 2999 TO 3006 3013 TO 3020 3027 TO 3034 -
3041 TO 3048 3055 TO 3062 3069 TO 3076 3083 TO 3090 3097 TO 3104 -
3111 TO 3118 3125 TO 3132 3139 TO 3146 3153 TO 3160 3167 TO 3174 -
3181 TO 3188 3195 TO 3202 3209 TO 3216 3223 TO 3230 3237 TO 3244 -
3251 TO 3258 3265 TO 3272 3279 TO 3286 3293 TO 3300 3307 TO 3314 -
3321 TO 3328 3335 TO 3342 3349 TO 3356 3363 TO 3370 3377 TO 3384 -
3391 TO 3398 3405 TO 3412 3419 TO 3426 3432 TO 3439 3445 TO 3452 -
3665 TO 3672 3678 TO 3685 3692 TO 3699 3706 TO 3713 3720 TO 3727 -
3734 TO 3741 3748 TO 3755 3762 TO 3769 3776 TO 3783 3790 TO 3797 -
3804 TO 3811 3818 TO 3825 3832 TO 3839 3846 TO 3853 3860 TO 3867 -
3874 TO 3881 3888 TO 3895 3902 TO 3909 3916 TO 3923 3930 TO 3937 -
3944 TO 3951 3958 TO 3965 3972 TO 3979 3986 TO 3993 4000 TO 4007 -
4014 TO 4021 4028 TO 4035 4042 TO 4049 4056 TO 4063 4070 TO 4077 -
4084 TO 4091 4098 TO 4105 4112 TO 4119 4126 TO 4133 4140 TO 4147 -
4154 TO 4161 4168 TO 4175 4182 TO 4189 4196 TO 4203 4209 TO 4216 -
4222 TO 4229
MEMBER TRUSS
13349 TO 13352 13355 TO 13358
MEMBER TRUSS
13365 TO 13368 13371 TO 13374
LOAD 1 BEBAN MATI
ELEMENT LOAD
5862 TO 6485 10916 TO 11019 PR GY -450
7982 TO 7989 8006 TO 8037 8102 TO 8111 8128 TO 8159 10786 10787 PR GY -8982.52
8224 TO 8231 8256 TO 8271 8288 TO 8303 10784 10785 PR GY -9156.02
6486 TO 7109 11020 TO 11123 PR GY -450
```

```
7990 TO 7997 8040 TO 8069 8112 TO 8119 8160 TO 8189 PR GY -8982.52
8232 TO 8239 8274 TO 8287 8304 TO 8319 PR GY -9156.02
7110 TO 7733 11124 TO 11227 PR GY -450
7998 TO 8005 8072 TO 8101 8120 TO 8127 8192 TO 8221 PR GY -8982.52
8240 TO 8247 8322 TO 8351 PR GY -9156.02
7734 TO 7981 8368 8369 11228 11229 11690 TO 11791 PR GY -438
8248 TO 8255 8352 TO 8383 PR GY -9156.02
*BEBAN AIR DALAM TANDON
11230 TO 11429 PR GY -20000
LOAD 2 BEBAN HIDUP
ELEMENT LOAD
5862 TO 6485 10964 10965 PR GY -250
7982 TO 7989 8006 TO 8037 8102 TO 8111 8128 TO 8159 8224 TO 8231 8256 TO 8271 -
8288 TO 8303 10784 TO 10787 PR GY -300
6486 TO 7109 11020 11021 PR GY -250
7990 TO 7997 8038 TO 8069 8112 TO 8119 8160 TO 8191 8232 TO 8239 8272 TO 8287 -
8304 TO 8319 PR GY -300
7110 TO 7733 11124 11125 PR GY -250
8248 TO 8255 8352 TO 8383 PR GY -300
7734 TO 7981 11228 11229 PR GY -150
LOAD 3 BEBAN GEMPA U-B
JOINT LOAD
8082 8087 8090 8091 FX 1066.16 FZ 3553.88
8083 8086 8092 8094 FX 211.38 FZ 704.61
8084 8085 8093 8095 FX 53.52 FZ 178.41
8089 FX 642.47 FZ 2141.58
8097 8101 8106 8107 FX 2069.61 FZ 6898.71
8098 8102 8104 8108 FX 410.33 FZ 1367.77
8099 8103 8105 8109 FX 103.9 FZ 346.32
8100 FX 878.13 FZ 2927.1
8113 8115 8120 8121 FX 3035.55 FZ 10118.5
8111 8116 8119 8122 FX 601.84 FZ 2006.13
8112 8117 8118 8123 FX 152.39 FZ 507.95
8114 FX 1287.97 FZ 4293.24
4943 5014 5042 8691 FX 4023.68 FZ 13412.3
4931 4982 8689 8690 FX 797.75 FZ 2659.17
8684 8685 8687 8688 FX 201.24 FZ 673.31
8686 FX 1707.24 FZ 5690.78
LOAD 4 BEBAN GEMPA S-T
JOINT LOAD
8082 8087 8090 8091 FX -1066.16 FZ -3553.88
8083 8086 8092 8094 FX -211.38 FZ -704.61
8084 8085 8093 8095 FX -53.52 FZ -178.41
8089 FX -642.47 FZ -2141.58
8097 8101 8106 8107 FX -2069.61 FZ -6898.71
8098 8102 8104 8108 FX -410.33 FZ -1367.77
8099 8103 8105 8109 FX -103.9 FZ -346.32
8100 FX -878.13 FZ -2927.1
8113 8115 8120 8121 FX -3035.55 FZ -10118.5
8111 8116 8119 8122 FX -601.84 FZ -2006.13
8112 8117 8118 8123 FX -152.39 FZ -507.95
8114 FX -1287.97 FZ -4293.24
4943 5014 5042 8691 FX -4023.68 FZ -13412.3
4931 4982 8689 8690 FX -797.75 FZ -2659.17
8684 8685 8687 8688 FX -201.24 FZ -673.31
8686 FX -1707.24 FZ -5690.78
LOAD 5 BEBAN ANGIN U-S
ELEMENT LOAD
8984 TO 9583 10184 TO 10783 PR 65.433
8384 TO 8983 9584 TO 10183 PR -37.39
LOAD 6 BEBAN ANGIN B-T
ELEMENT LOAD
10788 TO 10819 10852 TO 10883 PR 81.85
10820 TO 10851 10884 TO 10915 PR 38.976
LOAD COMB 7 KOM.1 (1.4 D)
1 1.4
LOAD COMB 8 KOM.2 (1.2 D + 1.6 L)
1 1.2 2 1.6
LOAD COMB 9 KOM.3 (1.2 D + 1.0 L + 1.6 ANGIN U-S)
1 1.2 2 1.0 5 1.6
LOAD COMB 10 KOM.4 (1.2 D + 1.0 L + 1.6 ANGIN B-T)
1 1.2 2 1.0 6 1.6
LOAD COMB 11 KOM.5 (0.9 D + 1.6 ANGIN U-S)
1 0.9 5 1.6
LOAD COMB 12 KOM.6 (0.9 D + 1.6 ANGIN B-T)
1 0.9 6 1.6
LOAD COMB 13 KOM.7 (1.2 D + 1.0 L + 1.0 GEMPA U-B)
1 1.2 2 1.0
LOAD COMB 14 KOM.8 (1.2 D + 1.0 L - 1.0 GEMPA U-B)
1 1.2 2 1.0
LOAD COMB 15 KOM.9 (1.2 D + 1.0 L + 1.0 GEMPA S-T)
1 1.2 2 1.0
```

```
LOAD COMB 16 KOM.10 (1.2 D + 1.0 L - 1.0 GEMPA S-T)
1 1.2 2 1.0
LOAD COMB 17 KOM.11 (0.9 D + 1.0  GEMPA U-B)
1 0.9
LOAD COMB 18 KOM.12 (0.9 D - 1.0  GEMPA U-B)
1 0.9
LOAD COMB 19 KOM.13 (0.9 D + 1.0  GEMPA S-T)
1 0.9
LOAD COMB 20 KOM.14 (0.9 D - 1.0  GEMPA S-T)
1 0.9
PERFORM ANALYSIS
LOAD LIST 1 7 TO 20
FINISH
```

Reactions

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
1	1:BEBAN MAT	352.767	1.02E 3	-634.698	-1.27E 3	-47.428	-952.373
	2:BEBAN HIDL	82.988	3.24E 3	25.012	25.113	-1.901	-136.818
	3:BEBAN GEM	-605.671	-5.43E 3	-1.63E 3	-4.03E 3	2.305	1.73E 3
	4:BEBAN GEM	605.671	5.43E 3	1.63E 3	4.03E 3	-2.305	-1.73E 3
	5:BEBAN ANG	-1.954	-740.658	-195.821	-483.818	0.116	5.817
	6:BEBAN ANG	-4.011	-7.381	0.125	0.108	-0.013	11.665
	7:KOM.1 (1.4 [	493.873	1.43E 3	-888.577	-1.77E 3	-66.399	-1.33E 3
	8:KOM.2 (1.2 [	556.100	6.41E 3	-721.617	-1.48E 3	-59.956	-1.36E 3
	9:KOM.3 (1.2 [	503.181	3.28E 3	-1.05E 3	-2.27E 3	-58.630	-1.27E 3
	10:KOM.4 (1.2	499.891	4.45E 3	-736.425	-1.49E 3	-58.837	-1.26E 3
	11:KOM.5 (0.9	314.363	-268.128	-884.542	-1.91E 3	-42.500	-847.828
	12:KOM.6 (0.9	311.073	905.115	-571.028	-1.14E 3	-42.707	-838.472
	13:KOM.7 (1.2	506.308	4.47E 3	-736.625	-1.49E 3	-58.815	-1.28E 3
	14:KOM.8 (1.2	506.308	4.47E 3	-736.625	-1.49E 3	-58.815	-1.28E 3
	15:KOM.9 (1.2	506.308	4.47E 3	-736.625	-1.49E 3	-58.815	-1.28E 3
	16:KOM.10 (1.:	506.308	4.47E 3	-736.625	-1.49E 3	-58.815	-1.28E 3
	17:KOM.11 (0.!	317.490	916.925	-571.228	-1.14E 3	-42.685	-857.135
	18:KOM.12 (0.!	317.490	916.925	-571.228	-1.14E 3	-42.685	-857.135
	19:KOM.13 (0.!	317.490	916.925	-571.228	-1.14E 3	-42.685	-857.135
	20:KOM.14 (0.!	317.490	916.925	-571.228	-1.14E 3	-42.685	-857.135
3	1:BEBAN MAT	67.531	-147.360	-541.377	-1.07E 3	41.599	-408.017
	2:BEBAN HIDL	-69.015	3.2E 3	27.797	31.072	1.792	93.851
	3:BEBAN GEM	-618.327	-4.36E 3	-1.79E 3	-4.36E 3	2.496	1.76E 3
	4:BEBAN GEM	618.327	4.36E 3	1.79E 3	4.36E 3	-2.496	-1.76E 3
	5:BEBAN ANG	-7.154	-746.593	-210.742	-520.214	0.964	19.084
	6:BEBAN ANG	-3.999	6.403	-0.159	-0.177	-0.014	11.640
	7:KOM.1 (1.4 [	94.543	-206.304	-757.927	-1.5E 3	58.239	-571.224
	8:KOM.2 (1.2 [	-29.387	4.94E 3	-605.177	-1.24E 3	52.787	-339.459
	9:KOM.3 (1.2 [	0.576	1.82E 3	-959.042	-2.09E 3	53.254	-365.236
	10:KOM.4 (1.2	5.623	3.03E 3	-622.110	-1.26E 3	51.689	-377.146
	11:KOM.5 (0.9	49.331	-1.33E 3	-824.426	-1.8E 3	38.982	-336.681
	12:KOM.6 (0.9	54.379	-122.379	-487.494	-966.805	37.417	-348.592
	13:KOM.7 (1.2	12.022	3.02E 3	-621.855	-1.26E 3	51.711	-395.770
	14:KOM.8 (1.2	12.022	3.02E 3	-621.855	-1.26E 3	51.711	-395.770
	15:KOM.9 (1.2	12.022	3.02E 3	-621.855	-1.26E 3	51.711	-395.770
	16:KOM.10 (1.:	12.022	3.02E 3	-621.855	-1.26E 3	51.711	-395.770
	17:KOM.11 (0.!	60.778	-132.624	-487.239	-966.521	37.439	-367.215
	18:KOM.12 (0.!	60.778	-132.624	-487.239	-966.521	37.439	-367.215
	19:KOM.13 (0.!	60.778	-132.624	-487.239	-966.521	37.439	-367.215
	20:KOM.14 (0.!	60.778	-132.624	-487.239	-966.521	37.439	-367.215
5	1:BEBAN MAT	-114.703	15.4E 3	-38.100	-202.933	1.705	430.483
	2:BEBAN HIDL	-9.469	1.37E 3	-4.856	-23.738	0.021	41.213
	3:BEBAN GEM	-56.521	311.675	-140.348	-993.536	-1.473	413.952
	4:BEBAN GEM	56.521	-311.675	140.348	993.536	1.473	-413.952
	5:BEBAN ANG	1.151	52.027	-21.663	-152.889	-0.498	-4.674
	6:BEBAN ANG	-0.291	26.245	0.127	0.604	-0.116	2.750
	7:KOM.1 (1.4 [	-160.585	21.6E 3	-53.340	-284.106	2.388	602.676
	8:KOM.2 (1.2 [	-152.794	20.7E 3	-53.489	-281.500	2.081	582.520
	9:KOM.3 (1.2 [	-145.271	20E 3	-85.235	-511.880	1.271	550.314

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	10:KOM.4 (1.2	-147.578	19.9E 3	-50.372	-266.291	1.882	562.192
	11:KOM.5 (0.9	-101.391	14E 3	-68.950	-427.263	0.738	379.957
	12:KOM.6 (0.9	-103.698	13.9E 3	-34.086	-181.674	1.349	391.834
	13:KOM.7 (1.2	-147.113	19.9E 3	-50.575	-267.257	2.068	557.792
	14:KOM.8 (1.2	-147.113	19.9E 3	-50.575	-267.257	2.068	557.792
	15:KOM.9 (1.2	-147.113	19.9E 3	-50.575	-267.257	2.068	557.792
	16:KOM.10 (1.:	-147.113	19.9E 3	-50.575	-267.257	2.068	557.792
	17:KOM.11 (0.!	-103.233	13.9E 3	-34.290	-182.640	1.535	387.435
	18:KOM.12 (0.!	-103.233	13.9E 3	-34.290	-182.640	1.535	387.435
	19:KOM.13 (0.!	-103.233	13.9E 3	-34.290	-182.640	1.535	387.435
	20:KOM.14 (0.!	-103.233	13.9E 3	-34.290	-182.640	1.535	387.435
7	1:BEBAN MAT	-203.151	22.8E 3	9.935	21.065	-0.070	845.640
	2:BEBAN HIDU	-9.751	1.39E 3	3.932	17.244	-0.078	42.633
	3:BEBAN GEM	-71.755	456.066	-139.156	-987.980	-1.215	480.634
	4:BEBAN GEM	71.755	-456.066	139.156	987.980	1.215	-480.634
	5:BEBAN ANG	-2.072	9.542	-21.550	-152.366	-0.496	9.419
	6:BEBAN ANG	-0.297	26.733	-0.122	-0.564	0.112	2.782
	7:KOM.1 (1.4 D	-284.411	31.9E 3	13.909	29.491	-0.099	1.18E 3
	8:KOM.2 (1.2 D	-259.383	29.6E 3	18.214	52.869	-0.209	1.08E 3
	9:KOM.3 (1.2 D	-256.848	28.8E 3	-18.626	-201.263	-0.956	1.07E 3
	10:KOM.4 (1.2	-254.007	28.8E 3	15.660	41.619	0.017	1.06E 3
	11:KOM.5 (0.9	-186.152	20.5E 3	-25.539	-224.827	-0.857	776.146
	12:KOM.6 (0.9	-183.311	20.6E 3	8.747	18.055	0.116	765.528
	13:KOM.7 (1.2	-253.532	28.8E 3	15.854	42.522	-0.162	1.06E 3
	14:KOM.8 (1.2	-253.532	28.8E 3	15.854	42.522	-0.162	1.06E 3
	15:KOM.9 (1.2	-253.532	28.8E 3	15.854	42.522	-0.162	1.06E 3
	16:KOM.10 (1.:	-253.532	28.8E 3	15.854	42.522	-0.162	1.06E 3
	17:KOM.11 (0.!	-182.836	20.5E 3	8.942	18.958	-0.063	761.076
	18:KOM.12 (0.!	-182.836	20.5E 3	8.942	18.958	-0.063	761.076
	19:KOM.13 (0.!	-182.836	20.5E 3	8.942	18.958	-0.063	761.076
	20:KOM.14 (0.!	-182.836	20.5E 3	8.942	18.958	-0.063	761.076
9	1:BEBAN MAT	174.769	349.178	-112.397	-447.412	29.372	-674.566
	2:BEBAN HIDU	-69.365	3.23E 3	-50.401	-83.385	0.310	93.323
	3:BEBAN GEM	-519.320	5.48E 3	-1.73E 3	-4.28E 3	3.689	1.51E 3
	4:BEBAN GEM	519.320	-5.48E 3	1.73E 3	4.28E 3	-3.689	-1.51E 3
	5:BEBAN ANG	8.821	892.759	-210.054	-519.047	0.790	-22.255
	6:BEBAN ANG	-4.066	6.262	0.268	0.431	0.004	11.802
	7:KOM.1 (1.4 D	244.676	488.849	-157.355	-626.377	41.121	-944.393
	8:KOM.2 (1.2 D	98.739	5.59E 3	-215.518	-670.310	35.743	-660.162
	9:KOM.3 (1.2 D	154.472	5.08E 3	-521.363	-1.45E 3	36.820	-751.765
	10:KOM.4 (1.2	133.852	3.66E 3	-184.847	-619.590	35.563	-697.273
	11:KOM.5 (0.9	171.406	1.74E 3	-437.243	-1.23E 3	27.698	-642.718
	12:KOM.6 (0.9	150.786	324.280	-100.727	-401.981	26.441	-588.226
	13:KOM.7 (1.2	140.358	3.65E 3	-185.277	-620.279	35.557	-716.156
	14:KOM.8 (1.2	140.358	3.65E 3	-185.277	-620.279	35.557	-716.156
	15:KOM.9 (1.2	140.358	3.65E 3	-185.277	-620.279	35.557	-716.156
	16:KOM.10 (1.:	140.358	3.65E 3	-185.277	-620.279	35.557	-716.156
	17:KOM.11 (0.!	157.292	314.260	-101.157	-402.671	26.435	-607.110
	18:KOM.12 (0.!	157.292	314.260	-101.157	-402.671	26.435	-607.110

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	19:KOM.13 (0.!	157.292	314.260	-101.157	-402.671	26.435	-607.110
	20:KOM.14 (0.!	157.292	314.260	-101.157	-402.671	26.435	-607.110
11	1:BEBAN MAT	90.775	1.63E 3	-141.197	-548.478	-36.824	-291.050
	2:BEBAN HIDL	75.906	3.28E 3	-52.239	-88.310	-0.684	-118.719
	3:BEBAN GEN	-557.998	4.19E 3	-1.68E 3	-4.1E 3	7.253	1.59E 3
	4:BEBAN GEN	557.998	-4.19E 3	1.68E 3	4.1E 3	-7.253	-1.59E 3
	5:BEBAN ANG	1.146	881.213	-195.185	-482.610	0.406	-3.385
	6:BEBAN ANG	-4.077	-7.117	-0.274	-0.459	0.004	11.824
	7:KOM.1 (1.4 D	127.085	2.29E 3	-197.676	-767.869	-51.554	-407.470
	8:KOM.2 (1.2 D	230.380	7.21E 3	-253.019	-799.470	-45.283	-539.211
	9:KOM.3 (1.2 D	186.669	6.65E 3	-533.972	-1.52E 3	-44.222	-473.395
	10:KOM.4 (1.2	178.314	5.23E 3	-222.114	-747.219	-44.867	-449.061
	11:KOM.5 (0.9	83.531	2.88E 3	-439.374	-1.27E 3	-32.492	-267.361
	12:KOM.6 (0.9	75.175	1.46E 3	-127.516	-494.365	-33.136	-243.027
	13:KOM.7 (1.2	184.836	5.24E 3	-221.675	-746.484	-44.873	-467.979
	14:KOM.8 (1.2	184.836	5.24E 3	-221.675	-746.484	-44.873	-467.979
	15:KOM.9 (1.2	184.836	5.24E 3	-221.675	-746.484	-44.873	-467.979
	16:KOM.10 (1.:	184.836	5.24E 3	-221.675	-746.484	-44.873	-467.979
	17:KOM.11 (0.!	81.698	1.47E 3	-127.077	-493.630	-33.142	-261.945
	18:KOM.12 (0.!	81.698	1.47E 3	-127.077	-493.630	-33.142	-261.945
	19:KOM.13 (0.!	81.698	1.47E 3	-127.077	-493.630	-33.142	-261.945
	20:KOM.14 (0.!	81.698	1.47E 3	-127.077	-493.630	-33.142	-261.945
13	1:BEBAN MAT	289.625	22.8E 3	8.045	4.148	-2.888	-1.46E 3
	2:BEBAN HIDL	11.946	1.38E 3	3.882	16.704	-0.076	-58.503
	3:BEBAN GEN	-53.714	-72.361	-133.280	-942.702	6.433	397.970
	4:BEBAN GEN	53.714	72.361	133.280	942.702	-6.433	-397.970
	5:BEBAN ANG	1.672	-20.104	-20.485	-144.682	1.361	-7.758
	6:BEBAN ANG	-0.204	19.896	-0.053	-0.252	0.112	2.350
	7:KOM.1 (1.4 D	405.474	31.9E 3	11.263	5.808	-4.043	-2.05E 3
	8:KOM.2 (1.2 D	366.663	29.6E 3	15.866	31.705	-3.586	-1.85E 3
	9:KOM.3 (1.2 D	362.171	28.7E 3	-19.240	-209.809	-1.363	-1.83E 3
	10:KOM.4 (1.2	359.169	28.8E 3	13.453	21.280	-3.361	-1.81E 3
	11:KOM.5 (0.9	263.337	20.5E 3	-25.536	-227.758	-0.421	-1.33E 3
	12:KOM.6 (0.9	260.335	20.5E 3	7.157	3.331	-2.419	-1.31E 3
	13:KOM.7 (1.2	359.495	28.7E 3	13.537	21.683	-3.541	-1.81E 3
	14:KOM.8 (1.2	359.495	28.7E 3	13.537	21.683	-3.541	-1.81E 3
	15:KOM.9 (1.2	359.495	28.7E 3	13.537	21.683	-3.541	-1.81E 3
	16:KOM.10 (1.:	359.495	28.7E 3	13.537	21.683	-3.541	-1.81E 3
	17:KOM.11 (0.!	260.662	20.5E 3	7.241	3.734	-2.599	-1.32E 3
	18:KOM.12 (0.!	260.662	20.5E 3	7.241	3.734	-2.599	-1.32E 3
	19:KOM.13 (0.!	260.662	20.5E 3	7.241	3.734	-2.599	-1.32E 3
	20:KOM.14 (0.!	260.662	20.5E 3	7.241	3.734	-2.599	-1.32E 3
15	1:BEBAN MAT	203.203	15.7E 3	-42.223	-230.297	-3.939	-1.06E 3
	2:BEBAN HIDL	11.734	1.36E 3	-6.057	-24.995	-0.096	-57.615
	3:BEBAN GEN	-67.385	41.054	-131.939	-936.474	6.045	463.549
	4:BEBAN GEN	67.385	-41.054	131.939	936.474	-6.045	-463.549
	5:BEBAN ANG	-1.206	72.639	-20.625	-145.333	1.358	6.038
	6:BEBAN ANG	-0.194	20.749	0.044	0.189	-0.117	2.299
	7:KOM.1 (1.4 D	284.484	21.9E 3	-59.113	-322.416	-5.514	-1.48E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	8:KOM.2 (1.2 [	262.618	21E 3	-58.759	-316.349	-4.881	-1.36E 3
	9:KOM.3 (1.2 [	253.649	20.3E 3	-88.725	-533.885	-2.650	-1.32E 3
	10:KOM.4 (1.2	255.267	20.2E 3	-55.655	-301.049	-5.009	-1.32E 3
	11:KOM.5 (0.9	180.953	14.2E 3	-71.001	-439.801	-1.372	-943.077
	12:KOM.6 (0.9	182.572	14.1E 3	-37.931	-206.965	-3.731	-949.060
	13:KOM.7 (1.2	255.578	20.2E 3	-55.725	-301.352	-4.823	-1.33E 3
	14:KOM.8 (1.2	255.578	20.2E 3	-55.725	-301.352	-4.823	-1.33E 3
	15:KOM.9 (1.2	255.578	20.2E 3	-55.725	-301.352	-4.823	-1.33E 3
	16:KOM.10 (1.:	255.578	20.2E 3	-55.725	-301.352	-4.823	-1.33E 3
	17:KOM.11 (0.!	182.882	14.1E 3	-38.001	-207.268	-3.545	-952.738
	18:KOM.12 (0.!	182.882	14.1E 3	-38.001	-207.268	-3.545	-952.738
	19:KOM.13 (0.!	182.882	14.1E 3	-38.001	-207.268	-3.545	-952.738
	20:KOM.14 (0.!	182.882	14.1E 3	-38.001	-207.268	-3.545	-952.738
17	1:BEBAN MAT	310.054	10.9E 3	-95.221	-376.943	-43.340	-676.757
	2:BEBAN HIDL	1.573	6.76E 3	105.178	145.763	-1.630	-18.224
	3:BEBAN GEN	-716.783	-5.37E 3	-1.68E 3	-4.11E 3	1.140	1.89E 3
	4:BEBAN GEN	716.783	5.37E 3	1.68E 3	4.11E 3	-1.140	-1.89E 3
	5:BEBAN ANG	-1.270	-628.374	-198.471	-487.717	-0.100	4.526
	6:BEBAN ANG	-4.847	-2.658	-0.060	-0.141	-0.009	12.883
	7:KOM.1 (1.4 [	434.075	15.2E 3	-133.309	-530.520	-60.675	-1.23E 3
	8:KOM.2 (1.2 [	374.582	23.9E 3	54.020	-221.511	-54.616	-1.08E 3
	9:KOM.3 (1.2 [	371.606	18.8E 3	-326.641	-1.09E 3	-53.798	-1.07E 3
	10:KOM.4 (1.2	365.883	19.8E 3	-9.183	-309.195	-53.651	-1.05E 3
	11:KOM.5 (0.9	277.017	8.78E 3	-403.253	-1.12E 3	-39.166	-783.639
	12:KOM.6 (0.9	271.293	9.78E 3	-85.795	-341.274	-39.019	-770.268
	13:KOM.7 (1.2	373.638	19.8E 3	-9.087	-308.969	-53.638	-1.07E 3
	14:KOM.8 (1.2	373.638	19.8E 3	-9.087	-308.969	-53.638	-1.07E 3
	15:KOM.9 (1.2	373.638	19.8E 3	-9.087	-308.969	-53.638	-1.07E 3
	16:KOM.10 (1.:	373.638	19.8E 3	-9.087	-308.969	-53.638	-1.07E 3
	17:KOM.11 (0.!	279.049	9.79E 3	-85.698	-341.049	-39.006	-790.881
	18:KOM.12 (0.!	279.049	9.79E 3	-85.698	-341.049	-39.006	-790.881
	19:KOM.13 (0.!	279.049	9.79E 3	-85.698	-341.049	-39.006	-790.881
	20:KOM.14 (0.!	279.049	9.79E 3	-85.698	-341.049	-39.006	-790.881
19	1:BEBAN MAT	35.817	11.3E 3	-450.138	-911.115	-36.588	-225.480
	2:BEBAN HIDL	-5.811	6.8E 3	-123.953	-190.826	-0.733	-0.691
	3:BEBAN GEN	-675.460	4.95E 3	-1.69E 3	-4.12E 3	4.529	1.77E 3
	4:BEBAN GEN	675.460	-4.95E 3	1.69E 3	4.12E 3	-4.529	-1.77E 3
	5:BEBAN ANG	0.360	890.126	-198.971	-488.804	0.204	-1.926
	6:BEBAN ANG	-4.919	-2.391	-0.066	-0.153	-0.002	13.050
	7:KOM.1 (1.4 [	50.143	15.9E 3	-630.193	-1.28E 3	-51.223	-315.672
	8:KOM.2 (1.2 [	33.683	24.5E 3	-738.490	-1.4E 3	-45.078	-271.682
	9:KOM.3 (1.2 [	37.745	21.8E 3	-982.472	-2.07E 3	-44.312	-274.348
	10:KOM.4 (1.2	29.299	20.4E 3	-664.224	-1.28E 3	-44.642	-250.387
	11:KOM.5 (0.9	32.810	11.6E 3	-723.478	-1.6E 3	-32.602	-206.013
	12:KOM.6 (0.9	24.365	10.2E 3	-405.230	-820.248	-32.932	-182.051
	13:KOM.7 (1.2	37.169	20.4E 3	-664.119	-1.28E 3	-44.638	-271.267
	14:KOM.8 (1.2	37.169	20.4E 3	-664.119	-1.28E 3	-44.638	-271.267
	15:KOM.9 (1.2	37.169	20.4E 3	-664.119	-1.28E 3	-44.638	-271.267
	16:KOM.10 (1.:	37.169	20.4E 3	-664.119	-1.28E 3	-44.638	-271.267

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg m)	MY (kg m)	MZ (kg m)
	17:KOM.11 (0.	32.235	10.2E 3	-405.124	-820.004	-32.929	-202.932
	18:KOM.12 (0.	32.235	10.2E 3	-405.124	-820.004	-32.929	-202.932
	19:KOM.13 (0.	32.235	10.2E 3	-405.124	-820.004	-32.929	-202.932
	20:KOM.14 (0.	32.235	10.2E 3	-405.124	-820.004	-32.929	-202.932
21	1:BEBAN MAT	298.207	11.3E 3	59.739	-83.316	-33.390	-840.593
	2:BEBAN HIDU	11.465	6.61E 3	117.943	167.245	-1.336	-31.341
	3:BEBAN GEM	-719.293	-5.96E 3	-1.72E 3	-4.17E 3	0.582	1.89E 3
	4:BEBAN GEM	719.293	5.96E 3	1.72E 3	4.17E 3	-0.582	-1.89E 3
	5:BEBAN ANG	-1.170	-751.753	-201.952	-492.358	-0.288	4.065
	6:BEBAN ANG	-4.886	-0.006	-0.064	-0.133	-0.006	12.947
	7:KOM.1 (1.4	417.490	15.8E 3	83.635	-116.642	-46.746	-1.18E 3
	8:KOM.2 (1.2	376.192	24.1E 3	260.396	167.613	-42.205	-1.06E 3
	9:KOM.3 (1.2	367.442	19E 3	-133.494	-720.506	-41.865	-1.03E 3
	10:KOM.4 (1.2	361.496	20.2E 3	189.528	67.054	-41.414	-1.02E 3
	11:KOM.5 (0.9	266.515	8.96E 3	-269.358	-862.756	-30.512	-750.029
	12:KOM.6 (0.9	260.569	10.2E 3	53.663	-75.196	-30.061	-735.818
	13:KOM.7 (1.2	369.313	20.2E 3	189.630	67.266	-41.404	-1.04E 3
	14:KOM.8 (1.2	369.313	20.2E 3	189.630	67.266	-41.404	-1.04E 3
	15:KOM.9 (1.2	369.313	20.2E 3	189.630	67.266	-41.404	-1.04E 3
	16:KOM.10 (1.	369.313	20.2E 3	189.630	67.266	-41.404	-1.04E 3
	17:KOM.11 (0.	268.387	10.2E 3	53.765	-74.984	-30.051	-756.534
	18:KOM.12 (0.	268.387	10.2E 3	53.765	-74.984	-30.051	-756.534
	19:KOM.13 (0.	268.387	10.2E 3	53.765	-74.984	-30.051	-756.534
	20:KOM.14 (0.	268.387	10.2E 3	53.765	-74.984	-30.051	-756.534
23	1:BEBAN MAT	76.333	12.1E 3	-458.977	-864.962	-27.987	-309.135
	2:BEBAN HIDU	6.464	6.66E 3	-132.075	-201.929	-0.275	-18.957
	3:BEBAN GEM	-684.649	5.93E 3	-1.72E 3	-4.18E 3	2.157	1.78E 3
	4:BEBAN GEM	684.649	-5.93E 3	1.72E 3	4.18E 3	-2.157	-1.78E 3
	5:BEBAN ANG	-0.090	1.02E 3	-202.874	-494.467	-0.147	-0.772
	6:BEBAN ANG	-4.957	0.281	-0.040	-0.109	-0.004	13.111
	7:KOM.1 (1.4	106.866	16.9E 3	-642.568	-1.21E 3	-39.182	-432.788
	8:KOM.2 (1.2	101.943	25.2E 3	-762.092	-1.36E 3	-34.025	-401.292
	9:KOM.3 (1.2	97.920	22.8E 3	-1.01E 3	-2.03E 3	-34.096	-391.153
	10:KOM.4 (1.2	90.133	21.2E 3	-682.910	-1.24E 3	-33.866	-368.940
	11:KOM.5 (0.9	68.555	12.5E 3	-737.678	-1.57E 3	-25.424	-279.455
	12:KOM.6 (0.9	60.768	10.9E 3	-413.143	-778.639	-25.195	-257.243
	13:KOM.7 (1.2	98.064	21.2E 3	-682.847	-1.24E 3	-33.860	-389.918
	14:KOM.8 (1.2	98.064	21.2E 3	-682.847	-1.24E 3	-33.860	-389.918
	15:KOM.9 (1.2	98.064	21.2E 3	-682.847	-1.24E 3	-33.860	-389.918
	16:KOM.10 (1.	98.064	21.2E 3	-682.847	-1.24E 3	-33.860	-389.918
	17:KOM.11 (0.	68.700	10.9E 3	-413.079	-778.465	-25.188	-278.221
	18:KOM.12 (0.	68.700	10.9E 3	-413.079	-778.465	-25.188	-278.221
	19:KOM.13 (0.	68.700	10.9E 3	-413.079	-778.465	-25.188	-278.221
	20:KOM.14 (0.	68.700	10.9E 3	-413.079	-778.465	-25.188	-278.221
25	1:BEBAN MAT	215.112	11E 3	-27.276	-235.587	37.876	-631.433
	2:BEBAN HIDU	6.983	6.89E 3	118.333	166.684	1.601	-16.743
	3:BEBAN GEM	-744.023	-5.24E 3	-1.77E 3	-4.32E 3	5.159	1.94E 3
	4:BEBAN GEM	744.023	5.24E 3	1.77E 3	4.32E 3	-5.159	-1.94E 3
	5:BEBAN ANG	-9.258	-669.134	-210.972	-518.281	1.183	22.373

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg m)	MY (kg m)	MZ (kg m)
	6:BEBAN ANG	-4.828	1.947	0.025	0.071	-0.009	12.846
	7:KOM.1 (1.4 D	301.157	15.3E 3	-38.186	-329.822	53.026	-884.007
	8:KOM.2 (1.2 D	269.308	24.2E 3	156.601	-16.010	48.012	-784.509
	9:KOM.3 (1.2 D	250.305	19E 3	-251.953	-945.270	48.944	-738.666
	10:KOM.4 (1.2	257.394	20E 3	85.642	-115.907	47.037	-753.909
	11:KOM.5 (0.9	178.788	8.8E 3	-362.103	-1.04E 3	35.981	-532.493
	12:KOM.6 (0.9	185.877	9.87E 3	-24.508	-211.915	34.074	-547.736
	13:KOM.7 (1.2	265.118	20E 3	85.602	-116.021	47.052	-774.463
	14:KOM.8 (1.2	265.118	20E 3	85.602	-116.021	47.052	-774.463
	15:KOM.9 (1.2	265.118	20E 3	85.602	-116.021	47.052	-774.463
	16:KOM.10 (1.:	265.118	20E 3	85.602	-116.021	47.052	-774.463
	17:KOM.11 (0.!	193.601	9.87E 3	-24.548	-212.029	34.088	-568.290
	18:KOM.12 (0.!	193.601	9.87E 3	-24.548	-212.029	34.088	-568.290
	19:KOM.13 (0.!	193.601	9.87E 3	-24.548	-212.029	34.088	-568.290
	20:KOM.14 (0.!	193.601	9.87E 3	-24.548	-212.029	34.088	-568.290
27	1:BEBAN MAT	317.769	11.2E 3	-431.231	-843.203	28.663	-867.143
	2:BEBAN HIDU	6.489	6.92E 3	-133.984	-204.192	0.264	-16.111
	3:BEBAN GEM	-618.649	5.56E 3	-1.77E 3	-4.32E 3	4.974	1.65E 3
	4:BEBAN GEM	618.649	-5.56E 3	1.77E 3	4.32E 3	-4.974	-1.65E 3
	5:BEBAN ANG	10.834	931.781	-211.277	-518.932	1.038	-25.531
	6:BEBAN ANG	-4.901	1.810	0.060	0.126	-0.002	13.019
	7:KOM.1 (1.4 D	444.877	15.7E 3	-603.723	-1.18E 3	40.128	-1.21E 3
	8:KOM.2 (1.2 D	391.705	24.5E 3	-731.851	-1.34E 3	34.817	-1.07E 3
	9:KOM.3 (1.2 D	405.146	21.8E 3	-989.504	-2.05E 3	36.319	-1.1E 3
	10:KOM.4 (1.2	379.970	20.4E 3	-651.365	-1.22E 3	34.656	-1.04E 3
	11:KOM.5 (0.9	303.326	11.6E 3	-726.150	-1.59E 3	27.456	-821.278
	12:KOM.6 (0.9	278.150	10.1E 3	-388.011	-758.681	25.793	-759.599
	13:KOM.7 (1.2	387.812	20.4E 3	-651.461	-1.22E 3	34.659	-1.06E 3
	14:KOM.8 (1.2	387.812	20.4E 3	-651.461	-1.22E 3	34.659	-1.06E 3
	15:KOM.9 (1.2	387.812	20.4E 3	-651.461	-1.22E 3	34.659	-1.06E 3
	16:KOM.10 (1.:	387.812	20.4E 3	-651.461	-1.22E 3	34.659	-1.06E 3
	17:KOM.11 (0.!	285.992	10.1E 3	-388.107	-758.883	25.796	-780.429
	18:KOM.12 (0.!	285.992	10.1E 3	-388.107	-758.883	25.796	-780.429
	19:KOM.13 (0.!	285.992	10.1E 3	-388.107	-758.883	25.796	-780.429
	20:KOM.14 (0.!	285.992	10.1E 3	-388.107	-758.883	25.796	-780.429
29	1:BEBAN MAT	287.510	11.4E 3	118.481	53.077	-23.807	-804.963
	2:BEBAN HIDU	10.793	6.54E 3	121.747	174.666	-0.725	-28.670
	3:BEBAN GEM	-712.988	-5.85E 3	-1.73E 3	-4.17E 3	0.019	1.88E 3
	4:BEBAN GEM	712.988	5.85E 3	1.73E 3	4.17E 3	-0.019	-1.88E 3
	5:BEBAN ANG	-0.730	-779.061	-202.147	-491.964	-0.360	3.398
	6:BEBAN ANG	-4.884	0.081	-0.023	-0.064	-0.004	12.951
	7:KOM.1 (1.4 D	402.514	15.9E 3	165.873	74.308	-33.329	-1.13E 3
	8:KOM.2 (1.2 D	362.281	24.1E 3	336.972	343.159	-29.728	-1.01E 3
	9:KOM.3 (1.2 D	354.637	18.9E 3	-59.512	-548.783	-29.869	-989.189
	10:KOM.4 (1.2	347.990	20.2E 3	263.887	238.256	-29.299	-973.904
	11:KOM.5 (0.9	257.591	8.98E 3	-216.803	-739.373	-22.002	-719.030
	12:KOM.6 (0.9	250.944	10.2E 3	106.596	47.666	-21.432	-703.746
	13:KOM.7 (1.2	355.805	20.2E 3	263.924	238.359	-29.293	-994.625
	14:KOM.8 (1.2	355.805	20.2E 3	263.924	238.359	-29.293	-994.625

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	15:KOM.9 (1.2	355.805	20.2E 3	263.924	238.359	-29.293	-994.625
	16:KOM.10 (1.:	355.805	20.2E 3	263.924	238.359	-29.293	-994.625
	17:KOM.11 (0.9	258.759	10.2E 3	106.633	47.769	-21.426	-724.466
	18:KOM.12 (0.9	258.759	10.2E 3	106.633	47.769	-21.426	-724.466
	19:KOM.13 (0.9	258.759	10.2E 3	106.633	47.769	-21.426	-724.466
	20:KOM.14 (0.9	258.759	10.2E 3	106.633	47.769	-21.426	-724.466
31	1:BEBAN MAT	109.607	12.3E 3	-411.593	-750.204	-21.618	-378.681
	2:BEBAN HIDU	7.409	6.59E 3	-133.651	-203.745	-0.316	-19.958
	3:BEBAN GEM	-690.639	5.88E 3	-1.74E 3	-4.2E 3	0.386	1.8E 3
	4:BEBAN GEM	690.639	-5.88E 3	1.74E 3	4.2E 3	-0.386	-1.8E 3
	5:BEBAN ANG	-0.612	1.04E 3	-203.271	-494.517	-0.320	0.136
	6:BEBAN ANG	-4.953	0.355	-0.060	-0.131	-0.005	13.107
	7:KOM.1 (1.4 D	153.449	17.2E 3	-576.231	-1.05E 3	-30.266	-530.153
	8:KOM.2 (1.2 D	143.382	25.3E 3	-707.753	-1.23E 3	-26.448	-486.350
	9:KOM.3 (1.2 D	137.958	23E 3	-952.796	-1.9E 3	-26.770	-474.158
	10:KOM.4 (1.2	131.012	21.4E 3	-627.659	-1.1E 3	-26.266	-453.403
	11:KOM.5 (0.9	97.667	12.7E 3	-695.667	-1.47E 3	-19.968	-340.596
	12:KOM.6 (0.9	90.722	11.1E 3	-370.531	-675.392	-19.464	-319.841
	13:KOM.7 (1.2	138.937	21.4E 3	-627.563	-1.1E 3	-26.258	-474.375
	14:KOM.8 (1.2	138.937	21.4E 3	-627.563	-1.1E 3	-26.258	-474.375
	15:KOM.9 (1.2	138.937	21.4E 3	-627.563	-1.1E 3	-26.258	-474.375
	16:KOM.10 (1.:	138.937	21.4E 3	-627.563	-1.1E 3	-26.258	-474.375
	17:KOM.11 (0.9	98.646	11.1E 3	-370.434	-675.183	-19.456	-340.813
	18:KOM.12 (0.9	98.646	11.1E 3	-370.434	-675.183	-19.456	-340.813
	19:KOM.13 (0.9	98.646	11.1E 3	-370.434	-675.183	-19.456	-340.813
	20:KOM.14 (0.9	98.646	11.1E 3	-370.434	-675.183	-19.456	-340.813
33	1:BEBAN MAT	263.045	10.9E 3	89.214	43.964	-14.794	-752.904
	2:BEBAN HIDU	11.752	5.66E 3	72.106	102.892	-0.078	-28.367
	3:BEBAN GEM	-701.360	-5.41E 3	-1.72E 3	-4.16E 3	-2.197	1.86E 3
	4:BEBAN GEM	701.360	5.41E 3	1.72E 3	4.16E 3	2.197	-1.86E 3
	5:BEBAN ANG	-0.902	-781.841	-200.488	-488.789	-0.360	3.875
	6:BEBAN ANG	-4.822	0.299	-0.016	-0.047	-0.003	12.863
	7:KOM.1 (1.4 D	368.263	15.3E 3	124.899	61.550	-20.711	-1.05E 3
	8:KOM.2 (1.2 D	334.457	22.1E 3	222.426	217.384	-17.877	-948.872
	9:KOM.3 (1.2 D	325.962	17.5E 3	-141.618	-626.413	-18.406	-925.652
	10:KOM.4 (1.2	319.690	18.7E 3	179.138	155.573	-17.835	-911.271
	11:KOM.5 (0.9	235.296	8.55E 3	-240.488	-742.494	-13.890	-671.413
	12:KOM.6 (0.9	229.025	9.8E 3	80.268	39.492	-13.319	-657.033
	13:KOM.7 (1.2	327.405	18.7E 3	179.162	155.649	-17.830	-931.852
	14:KOM.8 (1.2	327.405	18.7E 3	179.162	155.649	-17.830	-931.852
	15:KOM.9 (1.2	327.405	18.7E 3	179.162	155.649	-17.830	-931.852
	16:KOM.10 (1.:	327.405	18.7E 3	179.162	155.649	-17.830	-931.852
	17:KOM.11 (0.9	236.740	9.8E 3	80.292	39.568	-13.314	-677.613
	18:KOM.12 (0.9	236.740	9.8E 3	80.292	39.568	-13.314	-677.613
	19:KOM.13 (0.9	236.740	9.8E 3	80.292	39.568	-13.314	-677.613
	20:KOM.14 (0.9	236.740	9.8E 3	80.292	39.568	-13.314	-677.613
35	1:BEBAN MAT	123.431	11.8E 3	-304.696	-559.786	-15.580	-417.098
	2:BEBAN HIDU	9.330	5.71E 3	-82.730	-128.718	-0.480	-21.961
	3:BEBAN GEM	-683.891	5.46E 3	-1.73E 3	-4.19E 3	-2.537	1.79E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	4:BEBAN GEM	683.891	-5.46E 3	1.73E 3	4.19E 3	2.537	-1.79E 3
	5:BEBAN ANG	-0.313	1.05E 3	-201.637	-491.409	-0.366	-0.585
	6:BEBAN ANG	-4.887	0.543	-0.049	-0.105	-0.005	13.011
	7:KOM.1 (1.4 [	172.804	16.6E 3	-426.574	-783.701	-21.812	-583.937
	8:KOM.2 (1.2 [	163.045	23.4E 3	-498.004	-877.691	-19.465	-535.655
	9:KOM.3 (1.2 [	156.947	21.6E 3	-770.984	-1.59E 3	-19.762	-523.414
	10:KOM.4 (1.2	149.629	19.9E 3	-448.445	-800.630	-19.184	-501.660
	11:KOM.5 (0.9	110.588	12.3E 3	-596.845	-1.29E 3	-14.608	-376.324
	12:KOM.6 (0.9	103.269	10.7E 3	-274.306	-503.976	-14.030	-354.570
	13:KOM.7 (1.2	157.447	19.9E 3	-448.365	-800.461	-19.176	-522.478
	14:KOM.8 (1.2	157.447	19.9E 3	-448.365	-800.461	-19.176	-522.478
	15:KOM.9 (1.2	157.447	19.9E 3	-448.365	-800.461	-19.176	-522.478
	16:KOM.10 (1.:	157.447	19.9E 3	-448.365	-800.461	-19.176	-522.478
	17:KOM.11 (0.!	111.088	10.7E 3	-274.226	-503.807	-14.022	-375.388
	18:KOM.12 (0.!	111.088	10.7E 3	-274.226	-503.807	-14.022	-375.388
	19:KOM.13 (0.!	111.088	10.7E 3	-274.226	-503.807	-14.022	-375.388
	20:KOM.14 (0.!	111.088	10.7E 3	-274.226	-503.807	-14.022	-375.388
37	1:BEBAN MAT	230.389	10.5E 3	88.659	62.333	-7.472	-693.669
	2:BEBAN HIDL	8.347	6.41E 3	96.238	137.699	0.420	-22.306
	3:BEBAN GEM	-698.511	-5.82E 3	-1.7E 3	-4.12E 3	-4.303	1.85E 3
	4:BEBAN GEM	698.511	5.82E 3	1.7E 3	4.12E 3	4.303	-1.85E 3
	5:BEBAN ANG	-1.247	-769.052	-198.347	-484.951	-0.310	4.849
	6:BEBAN ANG	-4.815	-0.490	-0.003	-0.024	-0.003	12.852
	7:KOM.1 (1.4 [	322.544	14.8E 3	124.122	87.267	-10.460	-971.136
	8:KOM.2 (1.2 [	289.822	22.9E 3	260.372	295.118	-8.293	-868.091
	9:KOM.3 (1.2 [	282.818	17.8E 3	-114.726	-563.422	-9.041	-846.949
	10:KOM.4 (1.2	277.110	19.1E 3	202.625	212.460	-8.550	-834.144
	11:KOM.5 (0.9	205.355	8.26E 3	-237.563	-719.821	-7.220	-616.543
	12:KOM.6 (0.9	199.646	9.49E 3	79.789	56.062	-6.729	-603.738
	13:KOM.7 (1.2	284.814	19.1E 3	202.629	212.499	-8.546	-854.708
	14:KOM.8 (1.2	284.814	19.1E 3	202.629	212.499	-8.546	-854.708
	15:KOM.9 (1.2	284.814	19.1E 3	202.629	212.499	-8.546	-854.708
	16:KOM.10 (1.:	284.814	19.1E 3	202.629	212.499	-8.546	-854.708
	17:KOM.11 (0.!	207.350	9.49E 3	79.793	56.100	-6.725	-624.302
	18:KOM.12 (0.!	207.350	9.49E 3	79.793	56.100	-6.725	-624.302
	19:KOM.13 (0.!	207.350	9.49E 3	79.793	56.100	-6.725	-624.302
	20:KOM.14 (0.!	207.350	9.49E 3	79.793	56.100	-6.725	-624.302
39	1:BEBAN MAT	122.303	11.3E 3	-252.753	-459.646	-10.265	-431.754
	2:BEBAN HIDL	6.264	6.45E 3	-106.013	-161.640	-0.623	-16.896
	3:BEBAN GEM	-681.619	5.74E 3	-1.71E 3	-4.15E 3	-4.248	1.79E 3
	4:BEBAN GEM	681.619	-5.74E 3	1.71E 3	4.15E 3	4.248	-1.79E 3
	5:BEBAN ANG	0.266	1.03E 3	-199.297	-487.302	-0.303	-2.137
	6:BEBAN ANG	-4.876	-0.320	-0.043	-0.088	-0.004	12.993
	7:KOM.1 (1.4 [	171.224	15.9E 3	-353.854	-643.504	-14.371	-604.455
	8:KOM.2 (1.2 [	156.785	23.9E 3	-472.924	-810.198	-13.316	-545.138
	9:KOM.3 (1.2 [	153.453	21.7E 3	-728.191	-1.49E 3	-13.426	-538.419
	10:KOM.4 (1.2	145.225	20E 3	-409.386	-713.355	-12.948	-514.211
	11:KOM.5 (0.9	110.499	11.8E 3	-546.353	-1.19E 3	-9.724	-391.997
	12:KOM.6 (0.9	102.271	10.2E 3	-227.547	-413.821	-9.245	-367.789

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
	13:KOM.7 (1.2	153.027	20E 3	-409.316	-713.214	-12.942	-535.000
	14:KOM.8 (1.2	153.027	20E 3	-409.316	-713.214	-12.942	-535.000
	15:KOM.9 (1.2	153.027	20E 3	-409.316	-713.214	-12.942	-535.000
	16:KOM.10 (1.:	153.027	20E 3	-409.316	-713.214	-12.942	-535.000
	17:KOM.11 (0.!	110.073	10.2E 3	-227.478	-413.681	-9.239	-388.578
	18:KOM.12 (0.!	110.073	10.2E 3	-227.478	-413.681	-9.239	-388.578
	19:KOM.13 (0.!	110.073	10.2E 3	-227.478	-413.681	-9.239	-388.578
	20:KOM.14 (0.!	110.073	10.2E 3	-227.478	-413.681	-9.239	-388.578
41	1:BEBAN MAT	240.814	6.28E 3	-75.546	-169.876	-0.632	-703.358
	2:BEBAN HIDL	5.878	6.59E 3	95.066	135.025	0.527	-18.662
	3:BEBAN GEN	-706.900	-5.37E 3	-1.63E 3	-4.02E 3	-4.659	1.87E 3
	4:BEBAN GEN	706.900	5.37E 3	1.63E 3	4.02E 3	4.659	-1.87E 3
	5:BEBAN ANG	-2.647	-694.286	-192.162	-475.329	-0.306	7.737
	6:BEBAN ANG	-4.814	0.069	0.062	0.074	-0.005	12.850
	7:KOM.1 (1.4 D	337.140	8.79E 3	-105.764	-237.826	-0.885	-984.701
	8:KOM.2 (1.2 D	298.382	18.1E 3	61.451	12.189	0.085	-873.888
	9:KOM.3 (1.2 D	290.620	13E 3	-303.048	-829.353	-0.720	-850.311
	10:KOM.4 (1.2	287.153	14.1E 3	4.510	-68.708	-0.239	-842.131
	11:KOM.5 (0.9	212.498	4.54E 3	-375.450	-913.415	-1.058	-620.643
	12:KOM.6 (0.9	209.030	5.65E 3	-67.893	-152.770	-0.577	-612.462
	13:KOM.7 (1.2	294.855	14.1E 3	4.411	-68.826	-0.231	-862.691
	14:KOM.8 (1.2	294.855	14.1E 3	4.411	-68.826	-0.231	-862.691
	15:KOM.9 (1.2	294.855	14.1E 3	4.411	-68.826	-0.231	-862.691
	16:KOM.10 (1.:	294.855	14.1E 3	4.411	-68.826	-0.231	-862.691
	17:KOM.11 (0.!	216.733	5.65E 3	-67.991	-152.888	-0.569	-633.022
	18:KOM.12 (0.!	216.733	5.65E 3	-67.991	-152.888	-0.569	-633.022
	19:KOM.13 (0.!	216.733	5.65E 3	-67.991	-152.888	-0.569	-633.022
	20:KOM.14 (0.!	216.733	5.65E 3	-67.991	-152.888	-0.569	-633.022
43	1:BEBAN MAT	153.511	7.03E 3	-63.214	-168.481	-4.825	-492.250
	2:BEBAN HIDL	3.652	6.63E 3	-104.663	-158.623	-0.420	-13.134
	3:BEBAN GEN	-669.353	5.36E 3	-1.66E 3	-4.06E 3	-2.089	1.76E 3
	4:BEBAN GEN	669.353	-5.36E 3	1.66E 3	4.06E 3	2.089	-1.76E 3
	5:BEBAN ANG	2.111	916.742	-192.723	-477.269	-0.099	-5.953
	6:BEBAN ANG	-4.873	0.016	-0.088	-0.146	-0.000	12.984
	7:KOM.1 (1.4 D	214.916	9.84E 3	-88.499	-235.874	-6.755	-689.150
	8:KOM.2 (1.2 D	190.057	19E 3	-243.317	-455.974	-6.462	-611.715
	9:KOM.3 (1.2 D	191.243	16.5E 3	-488.877	-1.12E 3	-6.368	-613.359
	10:KOM.4 (1.2	180.070	15.1E 3	-180.661	-361.034	-6.211	-583.060
	11:KOM.5 (0.9	141.537	7.79E 3	-365.250	-915.263	-4.500	-452.550
	12:KOM.6 (0.9	130.364	6.32E 3	-57.034	-151.867	-4.343	-422.251
	13:KOM.7 (1.2	187.866	15.1E 3	-180.519	-360.801	-6.210	-603.834
	14:KOM.8 (1.2	187.866	15.1E 3	-180.519	-360.801	-6.210	-603.834
	15:KOM.9 (1.2	187.866	15.1E 3	-180.519	-360.801	-6.210	-603.834
	16:KOM.10 (1.:	187.866	15.1E 3	-180.519	-360.801	-6.210	-603.834
	17:KOM.11 (0.!	138.160	6.32E 3	-56.892	-151.633	-4.342	-443.025
	18:KOM.12 (0.!	138.160	6.32E 3	-56.892	-151.633	-4.342	-443.025
	19:KOM.13 (0.!	138.160	6.32E 3	-56.892	-151.633	-4.342	-443.025
	20:KOM.14 (0.!	138.160	6.32E 3	-56.892	-151.633	-4.342	-443.025
45	1:BEBAN MAT	254.953	7.4E 3	73.980	46.652	1.359	-731.451

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	2:BEBAN HIDL	8.106	6.74E 3	96.821	136.949	0.108	-23.066
	3:BEBAN GEN	-726.872	-5.14E 3	-1.7E 3	-4.12E 3	-2.743	1.91E 3
	4:BEBAN GEN	726.872	5.14E 3	1.7E 3	4.12E 3	2.743	-1.91E 3
	5:BEBAN ANG	-5.035	-673.488	-200.468	-487.123	0.417	13.015
	6:BEBAN ANG	-4.819	-1.388	-0.010	-0.027	-0.041	12.853
	7:KOM.1 (1.4 D	356.934	10.4E 3	103.572	65.313	1.903	-1.02E 3
	8:KOM.2 (1.2 D	318.913	19.7E 3	243.690	275.101	1.804	-914.646
	9:KOM.3 (1.2 D	305.993	14.5E 3	-135.152	-586.466	2.406	-879.982
	10:KOM.4 (1.2	306.339	15.6E 3	185.582	192.888	1.673	-880.242
	11:KOM.5 (0.9	221.401	5.58E 3	-254.167	-737.411	1.891	-637.481
	12:KOM.6 (0.9	221.747	6.66E 3	66.566	41.943	1.157	-637.741
	13:KOM.7 (1.2	314.049	15.6E 3	185.597	192.932	1.739	-900.807
	14:KOM.8 (1.2	314.049	15.6E 3	185.597	192.932	1.739	-900.807
	15:KOM.9 (1.2	314.049	15.6E 3	185.597	192.932	1.739	-900.807
	16:KOM.10 (1.2	314.049	15.6E 3	185.597	192.932	1.739	-900.807
	17:KOM.11 (0.9	229.457	6.66E 3	66.582	41.987	1.223	-658.306
	18:KOM.12 (0.9	229.457	6.66E 3	66.582	41.987	1.223	-658.306
	19:KOM.13 (0.9	229.457	6.66E 3	66.582	41.987	1.223	-658.306
	20:KOM.14 (0.9	229.457	6.66E 3	66.582	41.987	1.223	-658.306
47	1:BEBAN MAT	175.350	8.33E 3	-226.296	-402.494	-3.019	-536.493
	2:BEBAN HIDL	4.927	6.77E 3	-108.080	-163.307	-0.071	-15.530
	3:BEBAN GEN	-653.351	4.92E 3	-1.72E 3	-4.16E 3	6.112	1.72E 3
	4:BEBAN GEN	653.351	-4.92E 3	1.72E 3	4.16E 3	-6.112	-1.72E 3
	5:BEBAN ANG	4.133	942.932	-202.569	-491.629	0.128	-10.351
	6:BEBAN ANG	-4.874	-1.177	-0.021	-0.043	0.038	12.980
	7:KOM.1 (1.4 D	245.490	11.7E 3	-316.814	-563.491	-4.226	-751.090
	8:KOM.2 (1.2 D	218.303	20.8E 3	-444.484	-744.283	-3.736	-668.640
	9:KOM.3 (1.2 D	221.959	18.3E 3	-703.746	-1.43E 3	-3.489	-675.883
	10:KOM.4 (1.2	207.549	16.8E 3	-379.669	-646.368	-3.633	-638.563
	11:KOM.5 (0.9	164.427	9E 3	-527.777	-1.15E 3	-2.512	-499.405
	12:KOM.6 (0.9	150.017	7.49E 3	-203.700	-362.313	-2.656	-462.075
	13:KOM.7 (1.2	215.347	16.8E 3	-379.635	-646.299	-3.694	-659.322
	14:KOM.8 (1.2	215.347	16.8E 3	-379.635	-646.299	-3.694	-659.322
	15:KOM.9 (1.2	215.347	16.8E 3	-379.635	-646.299	-3.694	-659.322
	16:KOM.10 (1.2	215.347	16.8E 3	-379.635	-646.299	-3.694	-659.322
	17:KOM.11 (0.9	157.815	7.5E 3	-203.666	-362.244	-2.717	-482.844
	18:KOM.12 (0.9	157.815	7.5E 3	-203.666	-362.244	-2.717	-482.844
	19:KOM.13 (0.9	157.815	7.5E 3	-203.666	-362.244	-2.717	-482.844
	20:KOM.14 (0.9	157.815	7.5E 3	-203.666	-362.244	-2.717	-482.844
49	1:BEBAN MAT	275.249	10.5E 3	130.814	138.103	-3.282	-774.664
	2:BEBAN HIDL	10.373	6.75E 3	99.243	141.201	-0.640	-27.919
	3:BEBAN GEN	-748.015	-5.07E 3	-1.73E 3	-4.18E 3	4.109	1.96E 3
	4:BEBAN GEN	748.015	5.07E 3	1.73E 3	4.18E 3	-4.109	-1.96E 3
	5:BEBAN ANG	-7.706	-662.892	-203.738	-493.723	1.135	18.671
	6:BEBAN ANG	-4.815	1.023	-0.016	-0.033	-0.041	12.847
	7:KOM.1 (1.4 D	385.349	14.7E 3	183.139	193.345	-4.594	-1.08E 3
	8:KOM.2 (1.2 D	346.896	23.4E 3	315.765	391.646	-4.962	-974.266
	9:KOM.3 (1.2 D	328.343	18.3E 3	-69.761	-483.032	-2.761	-927.641
	10:KOM.4 (1.2	332.968	19.4E 3	256.193	306.873	-4.644	-936.960

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	11:KOM.5 (0.9	235.395	8.39E 3	-208.248	-665.664	-1.137	-667.323
	12:KOM.6 (0.9	240.021	9.46E 3	117.707	124.241	-3.020	-676.643
	13:KOM.7 (1.2	340.672	19.4E 3	256.219	306.925	-4.578	-957.515
	14:KOM.8 (1.2	340.672	19.4E 3	256.219	306.925	-4.578	-957.515
	15:KOM.9 (1.2	340.672	19.4E 3	256.219	306.925	-4.578	-957.515
	16:KOM.10 (1.:	340.672	19.4E 3	256.219	306.925	-4.578	-957.515
	17:KOM.11 (0.!	247.724	9.45E 3	117.732	124.293	-2.954	-697.197
	18:KOM.12 (0.!	247.724	9.45E 3	117.732	124.293	-2.954	-697.197
	19:KOM.13 (0.!	247.724	9.45E 3	117.732	124.293	-2.954	-697.197
	20:KOM.14 (0.!	247.724	9.45E 3	117.732	124.293	-2.954	-697.197
51	1:BEBAN MAT	191.372	11.3E 3	-267.882	-461.997	-0.984	-572.012
	2:BEBAN HIDL	5.717	6.79E 3	-109.785	-166.106	0.364	-17.359
	3:BEBAN GEN	-631.753	5.16E 3	-1.73E 3	-4.18E 3	10.295	1.68E 3
	4:BEBAN GEN	631.753	-5.16E 3	1.73E 3	4.18E 3	-10.295	-1.68E 3
	5:BEBAN ANG	6.660	946.727	-204.054	-494.378	0.525	-15.763
	6:BEBAN ANG	-4.873	1.163	-0.002	-0.010	0.037	12.981
	7:KOM.1 (1.4 D	267.920	15.8E 3	-375.034	-646.796	-1.377	-800.817
	8:KOM.2 (1.2 D	238.794	24.4E 3	-497.113	-820.167	-0.599	-714.189
	9:KOM.3 (1.2 D	246.019	21.8E 3	-757.729	-1.51E 3	0.023	-728.994
	10:KOM.4 (1.2	227.566	20.3E 3	-431.245	-720.518	-0.759	-683.004
	11:KOM.5 (0.9	182.891	11.6E 3	-567.580	-1.21E 3	-0.046	-540.032
	12:KOM.6 (0.9	164.437	10.1E 3	-241.096	-415.813	-0.827	-494.042
	13:KOM.7 (1.2	235.363	20.3E 3	-431.242	-720.503	-0.817	-703.774
	14:KOM.8 (1.2	235.363	20.3E 3	-431.242	-720.503	-0.817	-703.774
	15:KOM.9 (1.2	235.363	20.3E 3	-431.242	-720.503	-0.817	-703.774
	16:KOM.10 (1.:	235.363	20.3E 3	-431.242	-720.503	-0.817	-703.774
	17:KOM.11 (0.!	172.234	10.1E 3	-241.093	-415.797	-0.885	-514.811
	18:KOM.12 (0.!	172.234	10.1E 3	-241.093	-415.797	-0.885	-514.811
	19:KOM.13 (0.!	172.234	10.1E 3	-241.093	-415.797	-0.885	-514.811
	20:KOM.14 (0.!	172.234	10.1E 3	-241.093	-415.797	-0.885	-514.811
53	1:BEBAN MAT	278.251	10.8E 3	156.962	184.398	-2.164	-783.593
	2:BEBAN HIDL	11.812	6.6E 3	106.788	153.858	-0.898	-30.571
	3:BEBAN GEN	-754.919	-6.04E 3	-1.72E 3	-4.18E 3	10.086	1.97E 3
	4:BEBAN GEN	754.919	6.04E 3	1.72E 3	4.18E 3	-10.086	-1.97E 3
	5:BEBAN ANG	-8.818	-786.757	-200.934	-491.884	1.192	21.056
	6:BEBAN ANG	-4.811	0.697	-0.032	-0.053	-0.004	12.843
	7:KOM.1 (1.4 D	389.551	15.1E 3	219.747	258.157	-3.029	-1.1E 3
	8:KOM.2 (1.2 D	352.800	23.5E 3	359.215	467.451	-4.033	-989.225
	9:KOM.3 (1.2 D	331.604	18.3E 3	-26.351	-411.878	-1.588	-937.192
	10:KOM.4 (1.2	338.016	19.6E 3	295.091	375.050	-3.501	-950.333
	11:KOM.5 (0.9	236.317	8.47E 3	-180.228	-621.056	-0.040	-671.543
	12:KOM.6 (0.9	242.729	9.73E 3	141.215	165.873	-1.954	-684.684
	13:KOM.7 (1.2	345.713	19.6E 3	295.142	375.136	-3.494	-970.882
	14:KOM.8 (1.2	345.713	19.6E 3	295.142	375.136	-3.494	-970.882
	15:KOM.9 (1.2	345.713	19.6E 3	295.142	375.136	-3.494	-970.882
	16:KOM.10 (1.:	345.713	19.6E 3	295.142	375.136	-3.494	-970.882
	17:KOM.11 (0.!	250.426	9.72E 3	141.266	165.958	-1.947	-705.233
	18:KOM.12 (0.!	250.426	9.72E 3	141.266	165.958	-1.947	-705.233
	19:KOM.13 (0.!	250.426	9.72E 3	141.266	165.958	-1.947	-705.233

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	20:KOM.14 (0.!	250.426	9.72E 3	141.266	165.958	-1.947	-705.233
55	1:BEBAN MAT	206.196	11.6E 3	-288.190	-498.976	5.469	-608.848
	2:BEBAN HIDU	6.479	6.64E 3	-116.407	-176.991	0.734	-18.720
	3:BEBAN GEM	-614.266	6.1E 3	-1.71E 3	-4.16E 3	9.679	1.64E 3
	4:BEBAN GEM	614.266	-6.1E 3	1.71E 3	4.16E 3	-9.679	-1.64E 3
	5:BEBAN ANG	8.931	1.03E 3	-200.345	-490.549	1.052	-20.803
	6:BEBAN ANG	-4.871	0.826	0.026	0.037	-0.001	12.983
	7:KOM.1 (1.4 D	288.675	16.3E 3	-403.466	-698.566	7.656	-852.387
	8:KOM.2 (1.2 D	257.803	24.6E 3	-532.080	-881.957	7.737	-760.570
	9:KOM.3 (1.2 D	268.204	22.2E 3	-782.768	-1.56E 3	8.980	-782.622
	10:KOM.4 (1.2	246.121	20.6E 3	-462.195	-775.703	7.294	-728.566
	11:KOM.5 (0.9	199.866	12.1E 3	-579.924	-1.23E 3	6.605	-581.248
	12:KOM.6 (0.9	177.783	10.5E 3	-259.330	-449.018	4.919	-527.191
	13:KOM.7 (1.2	253.915	20.6E 3	-462.236	-775.763	7.297	-749.338
	14:KOM.8 (1.2	253.915	20.6E 3	-462.236	-775.763	7.297	-749.338
	15:KOM.9 (1.2	253.915	20.6E 3	-462.236	-775.763	7.297	-749.338
	16:KOM.10 (1.:	253.915	20.6E 3	-462.236	-775.763	7.297	-749.338
	17:KOM.11 (0.!	185.577	10.5E 3	-259.371	-449.078	4.922	-547.963
	18:KOM.12 (0.!	185.577	10.5E 3	-259.371	-449.078	4.922	-547.963
	19:KOM.13 (0.!	185.577	10.5E 3	-259.371	-449.078	4.922	-547.963
	20:KOM.14 (0.!	185.577	10.5E 3	-259.371	-449.078	4.922	-547.963
57	1:BEBAN MAT	276.385	10.9E 3	154.343	179.203	3.776	-776.864
	2:BEBAN HIDU	7.111	6.35E 3	101.306	147.216	-0.509	-23.015
	3:BEBAN GEM	-755.304	-5.96E 3	-1.75E 3	-4.25E 3	10.552	1.97E 3
	4:BEBAN GEM	755.304	5.96E 3	1.75E 3	4.25E 3	-10.552	-1.97E 3
	5:BEBAN ANG	-9.291	-799.490	-205.040	-500.168	1.246	22.150
	6:BEBAN ANG	-4.811	0.514	-0.010	-0.018	-0.003	12.842
	7:KOM.1 (1.4 D	386.939	15.3E 3	216.081	250.884	5.286	-1.09E 3
	8:KOM.2 (1.2 D	343.039	23.3E 3	347.302	450.589	3.717	-969.060
	9:KOM.3 (1.2 D	323.907	18.2E 3	-41.545	-438.010	6.017	-919.811
	10:KOM.4 (1.2	331.076	19.5E 3	286.503	362.231	4.018	-934.703
	11:KOM.5 (0.9	233.881	8.55E 3	-189.154	-638.987	5.393	-663.737
	12:KOM.6 (0.9	241.050	9.83E 3	138.894	161.254	3.394	-678.630
	13:KOM.7 (1.2	338.773	19.5E 3	286.518	362.259	4.022	-955.251
	14:KOM.8 (1.2	338.773	19.5E 3	286.518	362.259	4.022	-955.251
	15:KOM.9 (1.2	338.773	19.5E 3	286.518	362.259	4.022	-955.251
	16:KOM.10 (1.:	338.773	19.5E 3	286.518	362.259	4.022	-955.251
	17:KOM.11 (0.!	248.746	9.83E 3	138.909	161.283	3.398	-699.177
	18:KOM.12 (0.!	248.746	9.83E 3	138.909	161.283	3.398	-699.177
	19:KOM.13 (0.!	248.746	9.83E 3	138.909	161.283	3.398	-699.177
	20:KOM.14 (0.!	248.746	9.83E 3	138.909	161.283	3.398	-699.177
59	1:BEBAN MAT	226.080	11.7E 3	-301.936	-531.983	8.623	-653.312
	2:BEBAN HIDU	1.723	6.39E 3	-110.668	-169.813	0.546	-11.226
	3:BEBAN GEM	-605.405	6.04E 3	-1.74E 3	-4.23E 3	11.067	1.62E 3
	4:BEBAN GEM	605.405	-6.04E 3	1.74E 3	4.23E 3	-11.067	-1.62E 3
	5:BEBAN ANG	10.548	1.06E 3	-204.304	-498.522	1.317	-24.461
	6:BEBAN ANG	-4.875	0.573	0.018	0.034	-0.004	12.989
	7:KOM.1 (1.4 D	316.512	16.4E 3	-422.711	-744.776	12.072	-914.636
	8:KOM.2 (1.2 D	274.053	24.3E 3	-539.392	-910.081	11.221	-801.935

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
	9:KOM.3 (1.2 D	289.896	22.2E 3	-799.878	-1.61E 3	13.001	-834.337
	10:KOM.4 (1.2	265.220	20.5E 3	-472.963	-808.138	10.887	-774.417
	11:KOM.5 (0.9	220.348	12.3E 3	-598.629	-1.28E 3	9.867	-627.118
	12:KOM.6 (0.9	195.673	10.6E 3	-271.715	-478.730	7.754	-567.197
	13:KOM.7 (1.2	273.019	20.5E 3	-472.991	-808.193	10.893	-795.200
	14:KOM.8 (1.2	273.019	20.5E 3	-472.991	-808.193	10.893	-795.200
	15:KOM.9 (1.2	273.019	20.5E 3	-472.991	-808.193	10.893	-795.200
	16:KOM.10 (1.:	273.019	20.5E 3	-472.991	-808.193	10.893	-795.200
	17:KOM.11 (0.!	203.472	10.6E 3	-271.743	-478.785	7.760	-587.980
	18:KOM.12 (0.!	203.472	10.6E 3	-271.743	-478.785	7.760	-587.980
	19:KOM.13 (0.!	203.472	10.6E 3	-271.743	-478.785	7.760	-587.980
	20:KOM.14 (0.!	203.472	10.6E 3	-271.743	-478.785	7.760	-587.980
61	1:BEBAN MAT	266.684	11.2E 3	140.522	145.175	11.225	-753.461
	2:BEBAN HIDU	9.024	5.77E 3	85.209	124.144	0.099	-24.235
	3:BEBAN GEM	-752.683	-5.6E 3	-1.78E 3	-4.3E 3	8.393	1.97E 3
	4:BEBAN GEM	752.683	5.6E 3	1.78E 3	4.3E 3	-8.393	-1.97E 3
	5:BEBAN ANG	-9.625	-810.754	-208.077	-506.974	1.287	22.910
	6:BEBAN ANG	-4.807	-0.168	-0.000	0.001	-0.003	12.835
	7:KOM.1 (1.4 D	373.358	15.7E 3	196.731	203.245	15.715	-1.05E 3
	8:KOM.2 (1.2 D	334.460	22.7E 3	304.960	372.841	13.629	-942.929
	9:KOM.3 (1.2 D	313.646	18E 3	-79.088	-512.804	15.628	-891.732
	10:KOM.4 (1.2	321.353	19.3E 3	253.835	298.356	13.564	-907.852
	11:KOM.5 (0.9	224.616	8.81E 3	-206.453	-680.501	12.162	-641.459
	12:KOM.6 (0.9	232.324	10.1E 3	126.470	130.660	10.097	-657.579
	13:KOM.7 (1.2	329.045	19.3E 3	253.835	298.355	13.569	-928.388
	14:KOM.8 (1.2	329.045	19.3E 3	253.835	298.355	13.569	-928.388
	15:KOM.9 (1.2	329.045	19.3E 3	253.835	298.355	13.569	-928.388
	16:KOM.10 (1.:	329.045	19.3E 3	253.835	298.355	13.569	-928.388
	17:KOM.11 (0.!	240.016	10.1E 3	126.470	130.658	10.103	-678.115
	18:KOM.12 (0.!	240.016	10.1E 3	126.470	130.658	10.103	-678.115
	19:KOM.13 (0.!	240.016	10.1E 3	126.470	130.658	10.103	-678.115
	20:KOM.14 (0.!	240.016	10.1E 3	126.470	130.658	10.103	-678.115
63	1:BEBAN MAT	245.848	12E 3	-325.129	-584.556	12.261	-698.771
	2:BEBAN HIDU	4.117	5.82E 3	-94.790	-147.352	0.237	-13.640
	3:BEBAN GEM	-602.286	5.6E 3	-1.77E 3	-4.29E 3	9.515	1.62E 3
	4:BEBAN GEM	602.286	-5.6E 3	1.77E 3	4.29E 3	-9.515	-1.62E 3
	5:BEBAN ANG	11.496	1.08E 3	-207.605	-505.927	1.459	-26.674
	6:BEBAN ANG	-4.875	-0.201	0.024	0.053	-0.005	12.990
	7:KOM.1 (1.4 D	344.187	16.8E 3	-455.181	-818.378	17.166	-978.279
	8:KOM.2 (1.2 D	301.605	23.7E 3	-541.819	-937.230	15.093	-860.349
	9:KOM.3 (1.2 D	317.528	22E 3	-817.113	-1.66E 3	17.285	-894.844
	10:KOM.4 (1.2	291.335	20.2E 3	-484.906	-848.734	14.944	-831.381
	11:KOM.5 (0.9	239.657	12.5E 3	-624.784	-1.34E 3	13.370	-671.573
	12:KOM.6 (0.9	213.464	10.8E 3	-292.578	-526.015	11.028	-608.110
	13:KOM.7 (1.2	299.135	20.2E 3	-484.945	-848.819	14.951	-852.165
	14:KOM.8 (1.2	299.135	20.2E 3	-484.945	-848.819	14.951	-852.165
	15:KOM.9 (1.2	299.135	20.2E 3	-484.945	-848.819	14.951	-852.165
	16:KOM.10 (1.:	299.135	20.2E 3	-484.945	-848.819	14.951	-852.165
	17:KOM.11 (0.!	221.263	10.8E 3	-292.616	-526.100	11.035	-628.894

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg'm)	MY (kg'm)	MZ (kg'm)
	18:KOM.12 (0.!	221.263	10.8E 3	-292.616	-526.100	11.035	-628.894
	19:KOM.13 (0.!	221.263	10.8E 3	-292.616	-526.100	11.035	-628.894
	20:KOM.14 (0.!	221.263	10.8E 3	-292.616	-526.100	11.035	-628.894
65	1:BEBAN MAT	255.025	11.2E 3	108.984	70.548	19.819	-723.027
	2:BEBAN HIDL	11.597	6.38E 3	101.019	146.406	0.766	-26.102
	3:BEBAN GEN	-748.143	-6.04E 3	-1.79E 3	-4.33E 3	5.737	1.95E 3
	4:BEBAN GEN	748.143	6.04E 3	1.79E 3	4.33E 3	-5.737	-1.95E 3
	5:BEBAN ANG	-9.758	-813.000	-211.082	-513.768	1.293	23.258
	6:BEBAN ANG	-4.800	0.124	0.011	0.025	-0.005	12.820
	7:KOM.1 (1.4 D	357.035	15.7E 3	152.577	98.767	27.746	-1.01E 3
	8:KOM.2 (1.2 D	324.585	23.6E 3	292.410	318.907	25.041	-909.396
	9:KOM.3 (1.2 D	302.015	18.5E 3	-105.932	-590.965	26.637	-856.521
	10:KOM.4 (1.2	309.948	19.8E 3	231.817	231.103	24.561	-873.223
	11:KOM.5 (0.9	213.910	8.77E 3	-239.645	-758.535	19.905	-613.511
	12:KOM.6 (0.9	221.843	10.1E 3	98.103	63.533	17.829	-630.213
	13:KOM.7 (1.2	317.627	19.8E 3	231.799	231.063	24.569	-893.735
	14:KOM.8 (1.2	317.627	19.8E 3	231.799	231.063	24.569	-893.735
	15:KOM.9 (1.2	317.627	19.8E 3	231.799	231.063	24.569	-893.735
	16:KOM.10 (1.:	317.627	19.8E 3	231.799	231.063	24.569	-893.735
	17:KOM.11 (0.!	229.523	10.1E 3	98.085	63.493	17.837	-650.724
	18:KOM.12 (0.!	229.523	10.1E 3	98.085	63.493	17.837	-650.724
	19:KOM.13 (0.!	229.523	10.1E 3	98.085	63.493	17.837	-650.724
	20:KOM.14 (0.!	229.523	10.1E 3	98.085	63.493	17.837	-650.724
67	1:BEBAN MAT	269.969	11.9E 3	-355.693	-654.790	16.573	-752.404
	2:BEBAN HIDL	7.514	6.42E 3	-111.315	-171.579	-0.053	-17.548
	3:BEBAN GEN	-602.780	6.07E 3	-1.79E 3	-4.33E 3	7.336	1.62E 3
	4:BEBAN GEN	602.780	-6.07E 3	1.79E 3	4.33E 3	-7.336	-1.62E 3
	5:BEBAN ANG	11.923	1.07E 3	-211.027	-513.663	1.484	-27.677
	6:BEBAN ANG	-4.870	0.058	0.031	0.072	-0.004	12.982
	7:KOM.1 (1.4 D	377.956	16.7E 3	-497.970	-916.706	23.202	-1.05E 3
	8:KOM.2 (1.2 D	335.985	24.6E 3	-604.935	-1.06E 3	19.803	-930.961
	9:KOM.3 (1.2 D	350.553	22.4E 3	-875.790	-1.78E 3	22.210	-964.716
	10:KOM.4 (1.2	323.684	20.7E 3	-538.096	-957.213	19.828	-899.661
	11:KOM.5 (0.9	262.049	12.4E 3	-657.767	-1.41E 3	17.291	-721.447
	12:KOM.6 (0.9	235.180	10.7E 3	-320.073	-589.196	14.909	-656.392
	13:KOM.7 (1.2	331.476	20.7E 3	-538.146	-957.327	19.835	-920.433
	14:KOM.8 (1.2	331.476	20.7E 3	-538.146	-957.327	19.835	-920.433
	15:KOM.9 (1.2	331.476	20.7E 3	-538.146	-957.327	19.835	-920.433
	16:KOM.10 (1.:	331.476	20.7E 3	-538.146	-957.327	19.835	-920.433
	17:KOM.11 (0.!	242.972	10.7E 3	-320.123	-589.311	14.916	-677.163
	18:KOM.12 (0.!	242.972	10.7E 3	-320.123	-589.311	14.916	-677.163
	19:KOM.13 (0.!	242.972	10.7E 3	-320.123	-589.311	14.916	-677.163
	20:KOM.14 (0.!	242.972	10.7E 3	-320.123	-589.311	14.916	-677.163
69	1:BEBAN MAT	224.160	11.2E 3	58.331	-48.394	28.702	-661.746
	2:BEBAN HIDL	-1.365	6.45E 3	96.535	137.811	1.416	-5.667
	3:BEBAN GEN	-742.284	-6.17E 3	-1.79E 3	-4.35E 3	5.143	1.94E 3
	4:BEBAN GEN	742.284	6.17E 3	1.79E 3	4.35E 3	-5.143	-1.94E 3
	5:BEBAN ANG	-9.367	-786.038	-212.660	-518.458	1.272	22.709
	6:BEBAN ANG	-4.797	-0.134	0.032	0.066	-0.007	12.809

Reactions Cont...

Node	L/C	Horizontal FX (kg)	Vertical FY (kg)	Horizontal FZ (kg)	Moment MX (kg-m)	Moment MY (kg-m)	Moment MZ (kg-m)
	7:KOM.1 (1.4 [	313.825	15.6E 3	81.663	-67.752	40.183	-926.444
	8:KOM.2 (1.2 [	266.809	23.7E 3	224.453	162.424	36.707	-803.162
	9:KOM.3 (1.2 [	252.640	18.6E 3	-173.725	-749.794	37.893	-763.427
	10:KOM.4 (1.2	259.953	19.8E 3	166.584	79.844	35.847	-779.267
	11:KOM.5 (0.9	186.757	8.79E 3	-287.759	-873.087	27.867	-559.236
	12:KOM.6 (0.9	194.069	10E 3	52.550	-43.449	25.821	-575.076
	13:KOM.7 (1.2	267.628	19.8E 3	166.532	79.738	35.858	-799.762
	14:KOM.8 (1.2	267.628	19.8E 3	166.532	79.738	35.858	-799.762
	15:KOM.9 (1.2	267.628	19.8E 3	166.532	79.738	35.858	-799.762
	16:KOM.10 (1.:	267.628	19.8E 3	166.532	79.738	35.858	-799.762
	17:KOM.11 (0.!	201.744	10E 3	52.498	-43.555	25.832	-595.571
	18:KOM.12 (0.!	201.744	10E 3	52.498	-43.555	25.832	-595.571
	19:KOM.13 (0.!	201.744	10E 3	52.498	-43.555	25.832	-595.571
	20:KOM.14 (0.!	201.744	10E 3	52.498	-43.555	25.832	-595.571
71	1:BEBAN MAT	279.621	11.7E 3	-392.562	-742.393	21.173	-787.493
	2:BEBAN HIDL	-3.951	6.48E 3	-108.409	-167.023	-0.219	-0.484
	3:BEBAN GEN	-608.926	6.17E 3	-1.8E 3	-4.35E 3	6.444	1.63E 3
	4:BEBAN GEN	608.926	-6.17E 3	1.8E 3	4.35E 3	-6.444	-1.63E 3
	5:BEBAN ANG	11.434	1.05E 3	-212.941	-519.113	1.372	-26.882
	6:BEBAN ANG	-4.870	-0.243	0.029	0.076	-0.003	12.979
	7:KOM.1 (1.4 [	391.469	16.4E 3	-549.586	-1.04E 3	29.643	-1.1E 3
	8:KOM.2 (1.2 [	329.223	24.4E 3	-644.528	-1.16E 3	25.058	-945.767
	9:KOM.3 (1.2 [	349.887	22.2E 3	-920.188	-1.89E 3	27.384	-988.487
	10:KOM.4 (1.2	323.801	20.6E 3	-579.435	-1.06E 3	25.184	-924.710
	11:KOM.5 (0.9	269.953	12.2E 3	-694.010	-1.5E 3	21.251	-751.755
	12:KOM.6 (0.9	243.866	10.6E 3	-353.258	-668.032	19.051	-687.978
	13:KOM.7 (1.2	331.593	20.6E 3	-579.483	-1.06E 3	25.189	-945.476
	14:KOM.8 (1.2	331.593	20.6E 3	-579.483	-1.06E 3	25.189	-945.476
	15:KOM.9 (1.2	331.593	20.6E 3	-579.483	-1.06E 3	25.189	-945.476
	16:KOM.10 (1.:	331.593	20.6E 3	-579.483	-1.06E 3	25.189	-945.476
	17:KOM.11 (0.!	251.659	10.6E 3	-353.305	-668.154	19.056	-708.744
	18:KOM.12 (0.!	251.659	10.6E 3	-353.305	-668.154	19.056	-708.744
	19:KOM.13 (0.!	251.659	10.6E 3	-353.305	-668.154	19.056	-708.744
	20:KOM.14 (0.!	251.659	10.6E 3	-353.305	-668.154	19.056	-708.744
73	1:BEBAN MAT	-253.918	86.8E 3	1.86E 3	2.36E 3	-52.681	156.160
	2:BEBAN HIDL	54.781	8.99E 3	80.689	106.065	-1.865	-87.229
	3:BEBAN GEN	-743.800	-3.16E 3	-2.11E 3	-4.72E 3	3.578	1.92E 3
	4:BEBAN GEN	743.800	3.16E 3	2.11E 3	4.72E 3	-3.578	-1.92E 3
	5:BEBAN ANG	-12.665	-161.811	-242.275	-551.485	0.263	21.099
	6:BEBAN ANG	-4.433	-0.088	-0.625	-0.985	-0.010	12.328
	7:KOM.1 (1.4 [	-355.485	121E 3	2.6E 3	3.31E 3	-73.753	218.623
	8:KOM.2 (1.2 [	-217.051	119E 3	2.36E 3	3E 3	-66.201	47.824
	9:KOM.3 (1.2 [	-270.185	113E 3	1.92E 3	2.06E 3	-64.661	133.921
	10:KOM.4 (1.2	-257.013	113E 3	2.31E 3	2.94E 3	-65.098	119.887
	11:KOM.5 (0.9	-248.791	77.8E 3	1.28E 3	1.24E 3	-46.992	174.302
	12:KOM.6 (0.9	-235.619	78.1E 3	1.67E 3	2.12E 3	-47.429	160.269
	13:KOM.7 (1.2	-249.920	113E 3	2.31E 3	2.94E 3	-65.082	100.162
	14:KOM.8 (1.2	-249.920	113E 3	2.31E 3	2.94E 3	-65.082	100.162
	15:KOM.9 (1.2	-249.920	113E 3	2.31E 3	2.94E 3	-65.082	100.162

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	16:KOM.10 (1.:	-249.920	113E 3	2.31E 3	2.94E 3	-65.082	100.162
	17:KOM.11 (0.!	-228.526	78.1E 3	1.67E 3	2.12E 3	-47.413	140.544
	18:KOM.12 (0.!	-228.526	78.1E 3	1.67E 3	2.12E 3	-47.413	140.544
	19:KOM.13 (0.!	-228.526	78.1E 3	1.67E 3	2.12E 3	-47.413	140.544
	20:KOM.14 (0.!	-228.526	78.1E 3	1.67E 3	2.12E 3	-47.413	140.544
75	1:BEBAN MAT	680.761	84.5E 3	1.81E 3	2.35E 3	47.116	-1.5E 3
	2:BEBAN HIDU	-39.517	8.92E 3	80.371	107.536	1.732	42.741
	3:BEBAN GEM	-566.396	-350.054	-2.07E 3	-4.78E 3	3.444	1.66E 3
	4:BEBAN GEM	566.396	350.054	2.07E 3	4.78E 3	-3.444	-1.66E 3
	5:BEBAN ANG	8.060	-215.623	-259.943	-591.920	0.880	-8.170
	6:BEBAN ANG	-4.387	1.870	0.675	1.039	-0.010	12.255
	7:KOM.1 (1.4 D	953.066	118E 3	2.53E 3	3.29E 3	65.962	-2.1E 3
	8:KOM.2 (1.2 D	753.686	116E 3	2.3E 3	2.99E 3	59.310	-1.73E 3
	9:KOM.3 (1.2 D	790.292	110E 3	1.83E 3	1.98E 3	59.678	-1.77E 3
	10:KOM.4 (1.2	770.377	110E 3	2.25E 3	2.93E 3	58.255	-1.74E 3
	11:KOM.5 (0.9	625.591	75.7E 3	1.21E 3	1.17E 3	43.812	-1.36E 3
	12:KOM.6 (0.9	605.666	76E 3	1.63E 3	2.11E 3	42.388	-1.33E 3
	13:KOM.7 (1.2	777.396	110E 3	2.25E 3	2.92E 3	58.271	-1.76E 3
	14:KOM.8 (1.2	777.396	110E 3	2.25E 3	2.92E 3	58.271	-1.76E 3
	15:KOM.9 (1.2	777.396	110E 3	2.25E 3	2.92E 3	58.271	-1.76E 3
	16:KOM.10 (1.:	777.396	110E 3	2.25E 3	2.92E 3	58.271	-1.76E 3
	17:KOM.11 (0.!	612.685	76E 3	1.63E 3	2.11E 3	42.404	-1.35E 3
	18:KOM.12 (0.!	612.685	76E 3	1.63E 3	2.11E 3	42.404	-1.35E 3
	19:KOM.13 (0.!	612.685	76E 3	1.63E 3	2.11E 3	42.404	-1.35E 3
	20:KOM.14 (0.!	612.685	76E 3	1.63E 3	2.11E 3	42.404	-1.35E 3
77	1:BEBAN MAT	-94.984	86.3E 3	-2.58E 3	-4.11E 3	-50.147	-218.002
	2:BEBAN HIDU	58.492	8.92E 3	-101.037	-159.702	-1.410	-98.003
	3:BEBAN GEM	-569.650	890.005	-1.96E 3	-4.51E 3	6.481	1.64E 3
	4:BEBAN GEM	569.650	-890.005	1.96E 3	4.51E 3	-6.481	-1.64E 3
	5:BEBAN ANG	7.842	387.749	-243.548	-553.102	0.478	-11.340
	6:BEBAN ANG	-4.463	-1.115	0.470	0.625	-0.000	12.385
	7:KOM.1 (1.4 D	-132.977	121E 3	-3.61E 3	-5.75E 3	-70.205	-305.203
	8:KOM.2 (1.2 D	-20.394	118E 3	-3.25E 3	-5.19E 3	-62.432	-418.408
	9:KOM.3 (1.2 D	-42.941	113E 3	-3.58E 3	-5.98E 3	-60.821	-377.749
	10:KOM.4 (1.2	-62.630	112E 3	-3.19E 3	-5.09E 3	-61.586	-339.789
	11:KOM.5 (0.9	-72.938	78.3E 3	-2.71E 3	-4.58E 3	-44.367	-214.346
	12:KOM.6 (0.9	-92.627	77.7E 3	-2.32E 3	-3.7E 3	-45.132	-176.386
	13:KOM.7 (1.2	-55.489	112E 3	-3.19E 3	-5.09E 3	-61.586	-359.606
	14:KOM.8 (1.2	-55.489	112E 3	-3.19E 3	-5.09E 3	-61.586	-359.606
	15:KOM.9 (1.2	-55.489	112E 3	-3.19E 3	-5.09E 3	-61.586	-359.606
	16:KOM.10 (1.:	-55.489	112E 3	-3.19E 3	-5.09E 3	-61.586	-359.606
	17:KOM.11 (0.!	-85.485	77.7E 3	-2.32E 3	-3.7E 3	-45.132	-196.202
	18:KOM.12 (0.!	-85.485	77.7E 3	-2.32E 3	-3.7E 3	-45.132	-196.202
	19:KOM.13 (0.!	-85.485	77.7E 3	-2.32E 3	-3.7E 3	-45.132	-196.202
	20:KOM.14 (0.!	-85.485	77.7E 3	-2.32E 3	-3.7E 3	-45.132	-196.202
79	1:BEBAN MAT	-3.56E 3	92E 3	118.893	-49.748	6.839	5.1E 3
	2:BEBAN HIDU	-183.129	7.59E 3	1.340	-5.722	0.823	262.818
	3:BEBAN GEM	-216.863	-756.166	-1.8E 3	-4.09E 3	-11.552	911.191
	4:BEBAN GEM	216.863	756.166	1.8E 3	4.09E 3	11.552	-911.191

Reactions Cont...

Node	L/C	Horizontal FX (kg)	Vertical FY (kg)	Horizontal FZ (kg)	Moment MX (kg·m)	MY (kg·m)	MZ (kg·m)
	5:BEBAN ANG	33.527	-215.737	-214.242	-488.642	-1.231	-46.101
	6:BEBAN ANG	-3.445	28.278	0.041	0.012	-0.014	9.174
	7:KOM.1 (1.4 [	-4.99E 3	129E 3	166.451	-69.647	9.575	7.14E 3
	8:KOM.2 (1.2 [	-4.57E 3	123E 3	144.817	-68.852	9.524	6.54E 3
	9:KOM.3 (1.2 [	-4.4E 3	118E 3	-198.774	-847.247	7.060	6.31E 3
	10:KOM.4 (1.2	-4.46E 3	118E 3	144.078	-65.399	9.008	6.39E 3
	11:KOM.5 (0.9	-3.15E 3	82.5E 3	-235.783	-826.600	4.185	4.51E 3
	12:KOM.6 (0.9	-3.21E 3	82.9E 3	107.070	-44.753	6.133	4.6E 3
	13:KOM.7 (1.2	-4.46E 3	118E 3	144.012	-65.419	9.030	6.38E 3
	14:KOM.8 (1.2	-4.46E 3	118E 3	144.012	-65.419	9.030	6.38E 3
	15:KOM.9 (1.2	-4.46E 3	118E 3	144.012	-65.419	9.030	6.38E 3
	16:KOM.10 (1.:	-4.46E 3	118E 3	144.012	-65.419	9.030	6.38E 3
	17:KOM.11 (0.!	-3.21E 3	82.8E 3	107.004	-44.773	6.155	4.59E 3
	18:KOM.12 (0.!	-3.21E 3	82.8E 3	107.004	-44.773	6.155	4.59E 3
	19:KOM.13 (0.!	-3.21E 3	82.8E 3	107.004	-44.773	6.155	4.59E 3
	20:KOM.14 (0.!	-3.21E 3	82.8E 3	107.004	-44.773	6.155	4.59E 3
81	1:BEBAN MAT	33.939	-2.26E 3	-37.760	-210.513	-2.748	-269.532
	2:BEBAN HIDL	2.154	-49.446	-3.124	-15.997	-0.250	-12.955
	3:BEBAN GEN	-52.709	-461.912	-120.257	-879.928	6.855	395.177
	4:BEBAN GEN	52.709	461.912	120.257	879.928	-6.855	-395.177
	5:BEBAN ANG	0.447	-1.897	-18.779	-136.281	1.151	-1.652
	6:BEBAN ANG	-0.659	-23.147	-0.112	-0.541	0.178	4.470
	7:KOM.1 (1.4 [	47.515	-3.16E 3	-52.865	-294.718	-3.847	-377.345
	8:KOM.2 (1.2 [	44.173	-2.79E 3	-50.310	-278.211	-3.697	-344.166
	9:KOM.3 (1.2 [	43.595	-2.76E 3	-78.483	-486.661	-1.706	-339.037
	10:KOM.4 (1.2	41.826	-2.8E 3	-48.616	-269.477	-3.262	-329.241
	11:KOM.5 (0.9	31.260	-2.04E 3	-64.031	-407.510	-0.632	-245.222
	12:KOM.6 (0.9	29.491	-2.07E 3	-34.164	-190.326	-2.188	-235.426
	13:KOM.7 (1.2	42.881	-2.76E 3	-48.436	-268.612	-3.547	-336.393
	14:KOM.8 (1.2	42.881	-2.76E 3	-48.436	-268.612	-3.547	-336.393
	15:KOM.9 (1.2	42.881	-2.76E 3	-48.436	-268.612	-3.547	-336.393
	16:KOM.10 (1.:	42.881	-2.76E 3	-48.436	-268.612	-3.547	-336.393
	17:KOM.11 (0.!	30.545	-2.03E 3	-33.984	-189.461	-2.473	-242.579
	18:KOM.12 (0.!	30.545	-2.03E 3	-33.984	-189.461	-2.473	-242.579
	19:KOM.13 (0.!	30.545	-2.03E 3	-33.984	-189.461	-2.473	-242.579
	20:KOM.14 (0.!	30.545	-2.03E 3	-33.984	-189.461	-2.473	-242.579
83	1:BEBAN MAT	-3.2E 3	98.5E 3	-678.518	-1.22E 3	25.752	4.34E 3
	2:BEBAN HIDL	-157.471	7.57E 3	-21.512	-39.700	0.065	217.896
	3:BEBAN GEN	-765.728	2.82E 3	-1.82E 3	-4.12E 3	24.836	1.69E 3
	4:BEBAN GEN	765.728	-2.82E 3	1.82E 3	4.12E 3	-24.836	-1.69E 3
	5:BEBAN ANG	-36.901	273.367	-214.744	-490.085	3.123	54.756
	6:BEBAN ANG	-3.355	27.954	-0.168	-0.296	0.009	9.033
	7:KOM.1 (1.4 [	-4.47E 3	138E 3	-949.925	-1.71E 3	36.053	6.07E 3
	8:KOM.2 (1.2 [	-4.09E 3	130E 3	-848.640	-1.53E 3	31.006	5.55E 3
	9:KOM.3 (1.2 [	-4.05E 3	126E 3	-1.18E 3	-2.29E 3	35.963	5.51E 3
	10:KOM.4 (1.2	-4E 3	126E 3	-836.001	-1.5E 3	30.981	5.44E 3
	11:KOM.5 (0.9	-2.93E 3	89.1E 3	-954.256	-1.88E 3	28.173	3.99E 3
	12:KOM.6 (0.9	-2.88E 3	88.7E 3	-610.934	-1.1E 3	23.191	3.92E 3
	13:KOM.7 (1.2	-3.99E 3	126E 3	-835.733	-1.5E 3	30.967	5.42E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg˙m)	MY (kg˙m)	MZ (kg˙m)
	14:KOM.8 (1.2	-3.99E 3	126E 3	-835.733	-1.5E 3	30.967	5.42E 3
	15:KOM.9 (1.2	-3.99E 3	126E 3	-835.733	-1.5E 3	30.967	5.42E 3
	16:KOM.10 (1.:	-3.99E 3	126E 3	-835.733	-1.5E 3	30.967	5.42E 3
	17:KOM.11 (0.!	-2.88E 3	88.7E 3	-610.666	-1.1E 3	23.177	3.9E 3
	18:KOM.12 (0.!	-2.88E 3	88.7E 3	-610.666	-1.1E 3	23.177	3.9E 3
	19:KOM.13 (0.!	-2.88E 3	88.7E 3	-610.666	-1.1E 3	23.177	3.9E 3
	20:KOM.14 (0.!	-2.88E 3	88.7E 3	-610.666	-1.1E 3	23.177	3.9E 3
85	1:BEBAN MAT	32.239	-2.54E 3	7.785	1.832	-0.461	-262.346
	2:BEBAN HIDU	2.097	-48.382	2.027	8.012	0.078	-12.591
	3:BEBAN GEM	-57.380	-197.188	-122.803	-891.745	4.519	414.981
	4:BEBAN GEM	57.380	197.188	122.803	891.745	-4.519	-414.981
	5:BEBAN ANG	-0.682	-12.886	-18.775	-136.261	1.140	3.205
	6:BEBAN ANG	-0.660	-23.107	0.104	0.479	-0.183	4.478
	7:KOM.1 (1.4 D	45.135	-3.56E 3	10.900	2.565	-0.645	-367.285
	8:KOM.2 (1.2 D	42.042	-3.13E 3	12.585	15.019	-0.428	-334.961
	9:KOM.3 (1.2 D	39.692	-3.12E 3	-18.670	-207.806	1.350	-322.278
	10:KOM.4 (1.2	39.727	-3.13E 3	11.536	10.977	-0.767	-320.242
	11:KOM.5 (0.9	27.924	-2.31E 3	-23.033	-216.368	1.410	-230.984
	12:KOM.6 (0.9	27.959	-2.32E 3	7.173	2.415	-0.707	-228.947
	13:KOM.7 (1.2	40.784	-3.1E 3	11.369	10.211	-0.475	-327.406
	14:KOM.8 (1.2	40.784	-3.1E 3	11.369	10.211	-0.475	-327.406
	15:KOM.9 (1.2	40.784	-3.1E 3	11.369	10.211	-0.475	-327.406
	16:KOM.10 (1.:	40.784	-3.1E 3	11.369	10.211	-0.475	-327.406
	17:KOM.11 (0.!	29.015	-2.29E 3	7.007	1.649	-0.415	-236.112
	18:KOM.12 (0.!	29.015	-2.29E 3	7.007	1.649	-0.415	-236.112
	19:KOM.13 (0.!	29.015	-2.29E 3	7.007	1.649	-0.415	-236.112
	20:KOM.14 (0.!	29.015	-2.29E 3	7.007	1.649	-0.415	-236.112
87	1:BEBAN MAT	-182.730	3.1E 3	-79.627	-462.878	-37.130	42.627
	2:BEBAN HIDU	9.170	1.13E 3	0.249	-11.403	-1.426	-21.746
	3:BEBAN GEM	-404.305	-4.31E 3	-1.26E 3	-3.31E 3	5.284	1.18E 3
	4:BEBAN GEM	404.305	4.31E 3	1.26E 3	3.31E 3	-5.284	-1.18E 3
	5:BEBAN ANG	-1.508	-397.190	-142.443	-383.529	0.598	4.650
	6:BEBAN ANG	-2.664	-19.094	-0.406	-0.667	-0.016	8.000
	7:KOM.1 (1.4 D	-255.822	4.34E 3	-111.477	-648.030	-51.982	59.678
	8:KOM.2 (1.2 D	-204.605	5.53E 3	-95.153	-573.700	-46.837	16.359
	9:KOM.3 (1.2 D	-212.520	4.22E 3	-323.212	-1.18E 3	-45.025	36.846
	10:KOM.4 (1.2	-214.368	4.82E 3	-95.953	-567.925	-46.006	42.206
	11:KOM.5 (0.9	-166.870	2.15E 3	-299.574	-1.03E 3	-32.460	45.803
	12:KOM.6 (0.9	-168.719	2.76E 3	-72.314	-417.658	-33.442	51.164
	13:KOM.7 (1.2	-210.106	4.85E 3	-95.303	-566.858	-45.981	29.406
	14:KOM.8 (1.2	-210.106	4.85E 3	-95.303	-566.858	-45.981	29.406
	15:KOM.9 (1.2	-210.106	4.85E 3	-95.303	-566.858	-45.981	29.406
	16:KOM.10 (1.:	-210.106	4.85E 3	-95.303	-566.858	-45.981	29.406
	17:KOM.11 (0.!	-164.457	2.79E 3	-71.664	-416.591	-33.417	38.364
	18:KOM.12 (0.!	-164.457	2.79E 3	-71.664	-416.591	-33.417	38.364
	19:KOM.13 (0.!	-164.457	2.79E 3	-71.664	-416.591	-33.417	38.364
	20:KOM.14 (0.!	-164.457	2.79E 3	-71.664	-416.591	-33.417	38.364
89	1:BEBAN MAT	-205.214	3.06E 3	-586.276	-1.21E 3	-42.870	123.110
	2:BEBAN HIDU	10.486	1.14E 3	-23.138	-45.947	-1.083	-22.691

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	3:BEBAN GEN	-380.842	491.699	-1.17E 3	-3.16E 3	10.099	1.11E 3
	4:BEBAN GEN	380.842	-491.699	1.17E 3	3.16E 3	-10.099	-1.11E 3
	5:BEBAN ANG	0.059	409.022	-142.770	-383.619	0.778	-0.951
	6:BEBAN ANG	-2.689	-19.011	0.286	0.366	0.009	8.059
	7:KOM.1 (1.4 D	-287.300	4.28E 3	-820.786	-1.69E 3	-60.018	172.354
	8:KOM.2 (1.2 D	-229.479	5.49E 3	-740.552	-1.53E 3	-53.177	111.426
	9:KOM.3 (1.2 D	-235.677	5.46E 3	-955.101	-2.11E 3	-51.283	123.518
	10:KOM.4 (1.2	-240.073	4.78E 3	-726.211	-1.5E 3	-52.513	137.936
	11:KOM.5 (0.9	-184.599	3.41E 3	-756.080	-1.7E 3	-37.339	109.277
	12:KOM.6 (0.9	-188.995	2.72E 3	-527.190	-1.09E 3	-38.569	123.694
	13:KOM.7 (1.2	-235.771	4.81E 3	-726.669	-1.5E 3	-52.527	125.040
	14:KOM.8 (1.2	-235.771	4.81E 3	-726.669	-1.5E 3	-52.527	125.040
	15:KOM.9 (1.2	-235.771	4.81E 3	-726.669	-1.5E 3	-52.527	125.040
	16:KOM.10 (1.:	-235.771	4.81E 3	-726.669	-1.5E 3	-52.527	125.040
	17:KOM.11 (0.!	-184.693	2.75E 3	-527.648	-1.09E 3	-38.583	110.799
	18:KOM.12 (0.!	-184.693	2.75E 3	-527.648	-1.09E 3	-38.583	110.799
	19:KOM.13 (0.!	-184.693	2.75E 3	-527.648	-1.09E 3	-38.583	110.799
	20:KOM.14 (0.!	-184.693	2.75E 3	-527.648	-1.09E 3	-38.583	110.799
91	1:BEBAN MAT	46.475	-2.77E 3	-30.953	-169.801	-1.496	-320.877
	2:BEBAN HIDU	0.022	-65.452	-2.856	-14.400	-0.025	-3.029
	3:BEBAN GEN	-58.609	161.230	-130.399	-946.722	0.658	423.608
	4:BEBAN GEN	58.609	-161.230	130.399	946.722	-0.658	-423.608
	5:BEBAN ANG	-0.922	3.832	-19.957	-144.789	-0.094	4.977
	6:BEBAN ANG	-0.878	41.124	0.292	1.373	0.181	5.492
	7:KOM.1 (1.4 D	65.065	-3.88E 3	-43.334	-237.722	-2.094	-449.227
	8:KOM.2 (1.2 D	55.805	-3.43E 3	-41.713	-226.801	-1.835	-389.898
	9:KOM.3 (1.2 D	54.317	-3.38E 3	-71.930	-449.823	-1.970	-380.117
	10:KOM.4 (1.2	54.387	-3.32E 3	-39.532	-215.965	-1.531	-379.294
	11:KOM.5 (0.9	40.353	-2.49E 3	-59.788	-384.483	-1.496	-280.826
	12:KOM.6 (0.9	40.422	-2.43E 3	-27.391	-150.624	-1.058	-280.002
	13:KOM.7 (1.2	55.792	-3.39E 3	-39.999	-218.161	-1.820	-388.080
	14:KOM.8 (1.2	55.792	-3.39E 3	-39.999	-218.161	-1.820	-388.080
	15:KOM.9 (1.2	55.792	-3.39E 3	-39.999	-218.161	-1.820	-388.080
	16:KOM.10 (1.:	55.792	-3.39E 3	-39.999	-218.161	-1.820	-388.080
	17:KOM.11 (0.!	41.827	-2.49E 3	-27.857	-152.821	-1.346	-288.789
	18:KOM.12 (0.!	41.827	-2.49E 3	-27.857	-152.821	-1.346	-288.789
	19:KOM.13 (0.!	41.827	-2.49E 3	-27.857	-152.821	-1.346	-288.789
	20:KOM.14 (0.!	41.827	-2.49E 3	-27.857	-152.821	-1.346	-288.789
93	1:BEBAN MAT	3.91E 3	93.6E 3	173.577	66.992	-18.342	-6.11E 3
	2:BEBAN HIDU	194.625	7.55E 3	3.727	-0.890	-1.340	-295.045
	3:BEBAN GEN	-787.480	-3.12E 3	-1.9E 3	-4.32E 3	22.584	1.72E 3
	4:BEBAN GEN	787.480	3.12E 3	1.9E 3	4.32E 3	-22.584	-1.72E 3
	5:BEBAN ANG	-38.307	-261.427	-227.509	-518.818	2.787	55.628
	6:BEBAN ANG	-3.404	-20.128	-0.042	-0.031	-0.013	9.110
	7:KOM.1 (1.4 D	5.48E 3	131E 3	243.008	93.788	-25.678	-8.55E 3
	8:KOM.2 (1.2 D	5.01E 3	124E 3	214.256	78.966	-24.153	-7.8E 3
	9:KOM.3 (1.2 D	4.83E 3	119E 3	-151.994	-750.608	-18.890	-7.53E 3
	10:KOM.4 (1.2	4.88E 3	120E 3	211.952	79.450	-23.370	-7.61E 3
	11:KOM.5 (0.9	3.46E 3	83.8E 3	-207.794	-769.816	-12.048	-5.41E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	12:KOM.6 (0.9	3.52E 3	84.2E 3	156.152	60.242	-16.528	-5.48E 3
	13:KOM.7 (1.2	4.89E 3	120E 3	212.020	79.500	-23.349	-7.62E 3
	14:KOM.8 (1.2	4.89E 3	120E 3	212.020	79.500	-23.349	-7.62E 3
	15:KOM.9 (1.2	4.89E 3	120E 3	212.020	79.500	-23.349	-7.62E 3
	16:KOM.10 (1.:	4.89E 3	120E 3	212.020	79.500	-23.349	-7.62E 3
	17:KOM.11 (0.!	3.52E 3	84.2E 3	156.220	60.292	-16.507	-5.49E 3
	18:KOM.12 (0.!	3.52E 3	84.2E 3	156.220	60.292	-16.507	-5.49E 3
	19:KOM.13 (0.!	3.52E 3	84.2E 3	156.220	60.292	-16.507	-5.49E 3
	20:KOM.14 (0.!	3.52E 3	84.2E 3	156.220	60.292	-16.507	-5.49E 3
95	1:BEBAN MAT	46.930	-3.06E 3	7.569	9.876	-0.182	-320.089
	2:BEBAN HIDL	-0.004	-63.738	2.040	8.431	-0.103	-2.805
	3:BEBAN GEN	-51.135	404.822	-127.657	-933.982	-1.190	384.565
	4:BEBAN GEN	51.135	-404.822	127.657	933.982	1.190	-384.565
	5:BEBAN ANG	0.824	-16.877	-19.940	-144.710	-0.104	-4.071
	6:BEBAN ANG	-0.879	41.106	-0.286	-1.332	-0.185	5.498
	7:KOM.1 (1.4 D	65.701	-4.29E 3	10.597	13.827	-0.255	-448.124
	8:KOM.2 (1.2 D	56.309	-3.78E 3	12.347	25.341	-0.384	-388.594
	9:KOM.3 (1.2 D	57.630	-3.77E 3	-20.781	-211.253	-0.488	-393.424
	10:KOM.4 (1.2	54.905	-3.67E 3	10.665	18.152	-0.618	-378.113
	11:KOM.5 (0.9	43.555	-2.78E 3	-25.092	-222.646	-0.330	-294.593
	12:KOM.6 (0.9	40.830	-2.69E 3	6.354	6.758	-0.460	-279.282
	13:KOM.7 (1.2	56.312	-3.74E 3	11.123	20.282	-0.322	-386.911
	14:KOM.8 (1.2	56.312	-3.74E 3	11.123	20.282	-0.322	-386.911
	15:KOM.9 (1.2	56.312	-3.74E 3	11.123	20.282	-0.322	-386.911
	16:KOM.10 (1.:	56.312	-3.74E 3	11.123	20.282	-0.322	-386.911
	17:KOM.11 (0.!	42.237	-2.76E 3	6.812	8.889	-0.164	-288.080
	18:KOM.12 (0.!	42.237	-2.76E 3	6.812	8.889	-0.164	-288.080
	19:KOM.13 (0.!	42.237	-2.76E 3	6.812	8.889	-0.164	-288.080
	20:KOM.14 (0.!	42.237	-2.76E 3	6.812	8.889	-0.164	-288.080
97	1:BEBAN MAT	3.47E 3	99.5E 3	-645.382	-1.13E 3	-42.135	-5.2E 3
	2:BEBAN HIDL	165.782	7.51E 3	-20.785	-37.453	-0.724	-243.533
	3:BEBAN GEN	-134.489	988.405	-1.89E 3	-4.31E 3	-11.656	743.187
	4:BEBAN GEN	134.489	-988.405	1.89E 3	4.31E 3	11.656	-743.187
	5:BEBAN ANG	41.424	309.309	-227.851	-520.014	-1.864	-62.992
	6:BEBAN ANG	-3.318	-19.817	0.127	0.219	0.007	8.977
	7:KOM.1 (1.4 D	4.86E 3	139E 3	-903.535	-1.59E 3	-58.989	-7.27E 3
	8:KOM.2 (1.2 D	4.43E 3	131E 3	-807.715	-1.42E 3	-51.721	-6.63E 3
	9:KOM.3 (1.2 D	4.4E 3	127E 3	-1.16E 3	-2.23E 3	-54.270	-6.58E 3
	10:KOM.4 (1.2	4.33E 3	127E 3	-795.041	-1.4E 3	-51.275	-6.46E 3
	11:KOM.5 (0.9	3.19E 3	90.1E 3	-945.405	-1.85E 3	-40.905	-4.78E 3
	12:KOM.6 (0.9	3.12E 3	89.5E 3	-580.641	-1.02E 3	-37.910	-4.66E 3
	13:KOM.7 (1.2	4.33E 3	127E 3	-795.244	-1.4E 3	-51.287	-6.48E 3
	14:KOM.8 (1.2	4.33E 3	127E 3	-795.244	-1.4E 3	-51.287	-6.48E 3
	15:KOM.9 (1.2	4.33E 3	127E 3	-795.244	-1.4E 3	-51.287	-6.48E 3
	16:KOM.10 (1.:	4.33E 3	127E 3	-795.244	-1.4E 3	-51.287	-6.48E 3
	17:KOM.11 (0.!	3.13E 3	89.6E 3	-580.844	-1.02E 3	-37.922	-4.68E 3
	18:KOM.12 (0.!	3.13E 3	89.6E 3	-580.844	-1.02E 3	-37.922	-4.68E 3
	19:KOM.13 (0.!	3.13E 3	89.6E 3	-580.844	-1.02E 3	-37.922	-4.68E 3
	20:KOM.14 (0.!	3.13E 3	89.6E 3	-580.844	-1.02E 3	-37.922	-4.68E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg m)	MY (kg m)	MZ (kg m)
99	1:BEBAN MAT	439.542	-33.716	-87.546	-420.621	32.832	-934.307
	2:BEBAN HIDL	-0.769	1.05E 3	0.355	-9.395	1.301	-6.400
	3:BEBAN GEN	-402.232	-497.875	-1.24E 3	-3.37E 3	-2.278	1.18E 3
	4:BEBAN GEN	402.232	497.875	1.24E 3	3.37E 3	2.278	-1.18E 3
	5:BEBAN ANG	-3.030	-390.566	-153.690	-413.842	0.286	7.955
	6:BEBAN ANG	-2.643	17.002	0.401	0.644	-0.016	7.966
	7:KOM.1 (1.4 D	615.359	-47.202	-122.564	-588.870	45.965	-1.31E 3
	8:KOM.2 (1.2 D	526.220	1.64E 3	-104.487	-519.778	41.479	-1.13E 3
	9:KOM.3 (1.2 D	521.834	388.035	-350.604	-1.18E 3	41.157	-1.11E 3
	10:KOM.4 (1.2	522.452	1.04E 3	-104.058	-513.111	40.673	-1.11E 3
	11:KOM.5 (0.9	390.740	-655.249	-324.695	-1.04E 3	30.007	-828.148
	12:KOM.6 (0.9	391.359	-3.141	-78.149	-377.529	29.523	-828.131
	13:KOM.7 (1.2	526.681	1.01E 3	-104.700	-514.141	40.699	-1.13E 3
	14:KOM.8 (1.2	526.681	1.01E 3	-104.700	-514.141	40.699	-1.13E 3
	15:KOM.9 (1.2	526.681	1.01E 3	-104.700	-514.141	40.699	-1.13E 3
	16:KOM.10 (1.2	526.681	1.01E 3	-104.700	-514.141	40.699	-1.13E 3
	17:KOM.11 (0.9	395.588	-30.344	-78.791	-378.559	29.549	-840.876
	18:KOM.12 (0.9	395.588	-30.344	-78.791	-378.559	29.549	-840.876
	19:KOM.13 (0.9	395.588	-30.344	-78.791	-378.559	29.549	-840.876
	20:KOM.14 (0.9	395.588	-30.344	-78.791	-378.559	29.549	-840.876
101	1:BEBAN MAT	380.350	-164.039	-482.569	-999.153	35.951	-804.388
	2:BEBAN HIDL	-6.110	1.06E 3	-19.454	-38.285	0.800	4.092
	3:BEBAN GEN	-349.024	4.35E 3	-1.34E 3	-3.52E 3	-0.089	1.05E 3
	4:BEBAN GEN	349.024	-4.35E 3	1.34E 3	3.52E 3	0.089	-1.05E 3
	5:BEBAN ANG	4.893	413.721	-154.304	-414.481	0.159	-11.540
	6:BEBAN ANG	-2.670	16.981	-0.311	-0.420	0.009	8.029
	7:KOM.1 (1.4 D	532.491	-229.654	-675.597	-1.4E 3	50.331	-1.13E 3
	8:KOM.2 (1.2 D	446.645	1.5E 3	-610.210	-1.26E 3	44.421	-958.718
	9:KOM.3 (1.2 D	458.139	1.52E 3	-845.424	-1.9E 3	44.195	-979.638
	10:KOM.4 (1.2	446.038	888.256	-599.035	-1.24E 3	43.955	-948.327
	11:KOM.5 (0.9	350.144	514.318	-681.199	-1.56E 3	32.610	-742.413
	12:KOM.6 (0.9	338.043	-120.465	-434.810	-899.909	32.370	-711.102
	13:KOM.7 (1.2	450.311	861.087	-598.537	-1.24E 3	43.941	-961.174
	14:KOM.8 (1.2	450.311	861.087	-598.537	-1.24E 3	43.941	-961.174
	15:KOM.9 (1.2	450.311	861.087	-598.537	-1.24E 3	43.941	-961.174
	16:KOM.10 (1.2	450.311	861.087	-598.537	-1.24E 3	43.941	-961.174
	17:KOM.11 (0.9	342.315	-147.635	-434.312	-899.237	32.356	-723.949
	18:KOM.12 (0.9	342.315	-147.635	-434.312	-899.237	32.356	-723.949
	19:KOM.13 (0.9	342.315	-147.635	-434.312	-899.237	32.356	-723.949
	20:KOM.14 (0.9	342.315	-147.635	-434.312	-899.237	32.356	-723.949
103	1:BEBAN MAT	31.734	4.314	-14.699	-40.657	-8.811	-91.368
	2:BEBAN HIDL	1.037	-30.683	2.024	1.427	-0.210	-2.978
	3:BEBAN GEN	-84.757	535.048	-492.616	-1.15E 3	26.072	240.759
	4:BEBAN GEN	84.757	-535.048	492.616	1.15E 3	-26.072	-240.759
	5:BEBAN ANG	0.719	75.506	-59.198	-138.216	-0.041	-2.010
	6:BEBAN ANG	-0.660	-0.605	-0.002	-0.006	0.191	1.876
	7:KOM.1 (1.4 D	44.427	6.040	-20.578	-56.920	-12.336	-127.915
	8:KOM.2 (1.2 D	39.739	-43.916	-14.401	-46.506	-10.909	-114.406
	9:KOM.3 (1.2 D	40.267	95.303	-110.331	-268.507	-10.849	-115.836

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
	10:KOM.4 (1.2	38.061	-26.475	-15.618	-47.371	-10.477	-109.617
	11:KOM.5 (0.9	29.710	124.692	-107.945	-257.737	-7.996	-85.448
	12:KOM.6 (0.9	27.504	2.914	-13.232	-36.601	-7.624	-79.229
	13:KOM.7 (1.2	39.117	-25.506	-15.615	-47.362	-10.783	-112.620
	14:KOM.8 (1.2	39.117	-25.506	-15.615	-47.362	-10.783	-112.620
	15:KOM.9 (1.2	39.117	-25.506	-15.615	-47.362	-10.783	-112.620
	16:KOM.10 (1.:	39.117	-25.506	-15.615	-47.362	-10.783	-112.620
	17:KOM.11 (0.!	28.560	3.883	-13.229	-36.592	-7.930	-82.231
	18:KOM.12 (0.!	28.560	3.883	-13.229	-36.592	-7.930	-82.231
	19:KOM.13 (0.!	28.560	3.883	-13.229	-36.592	-7.930	-82.231
	20:KOM.14 (0.!	28.560	3.883	-13.229	-36.592	-7.930	-82.231
105	1:BEBAN MAT	31.731	-71.757	-13.049	-37.894	-9.891	-91.371
	2:BEBAN HIDL	1.035	-33.194	2.022	1.344	-0.297	-2.976
	3:BEBAN GEN	-84.717	688.999	-493.837	-1.16E 3	24.603	240.689
	4:BEBAN GEN	84.717	-688.999	493.837	1.16E 3	-24.603	-240.689
	5:B≡BAN ANG	0.724	74.073	-59.311	-138.534	-0.204	-2.019
	6:BEBAN ANG	-0.660	0.611	-0.003	-0.008	0.191	1.876
	7:KOM.1 (1.4 [	44.423	-100.460	-18.269	-53.051	-13.848	-127.920
	8:KOM.2 (1.2 [	39.732	-139.219	-12.423	-43.322	-12.345	-114.407
	9:KOM.3 (1.2 [	40.269	-0.786	-108.534	-265.783	-12.493	-115.852
	10:KOM.4 (1.2	38.055	-118.324	-13.642	-44.141	-11.861	-109.620
	11:KOM.5 (0.9	29.716	53.936	-106.641	-255.758	-9.229	-85.465
	12:KOM.6 (0.9	27.501	-63.603	-11.750	-34.117	-8.596	-79.232
	13:KOM.7 (1.2	39.111	-119.302	-13.637	-44.129	-12.167	-112.622
	14:KOM.8 (1.2	39.111	-119.302	-13.637	-44.129	-12.167	-112.622
	15:KOM.9 (1.2	39.111	-119.302	-13.637	-44.129	-12.167	-112.622
	16:KOM.10 (1.:	39.111	-119.302	-13.637	-44.129	-12.167	-112.622
	17:KOM.11 (0.!	28.558	-64.581	-11.744	-34.104	-8.902	-82.234
	18:KOM.12 (0.!	28.558	-64.581	-11.744	-34.104	-8.902	-82.234
	19:KOM.13 (0.!	28.558	-64.581	-11.744	-34.104	-8.902	-82.234
	20:KOM.14 (0.!	28.558	-64.581	-11.744	-34.104	-8.902	-82.234
107	1:BEBAN MAT	42.403	-124.378	-23.641	-48.415	11.813	-121.181
	2:BEBAN HIDL	1.486	-36.870	-4.829	-7.958	0.418	-4.224
	3:BEBAN GEN	-99.388	-520.622	-493.296	-1.16E 3	-27.611	281.656
	4:BEBAN GEN	99.388	520.622	493.296	1.16E 3	27.611	-281.656
	5:BEBAN ANG	-1.086	-73.165	-59.052	-138.104	-0.152	3.030
	6:BEBAN ANG	-0.653	0.599	-0.002	-0.004	-0.190	1.856
	7:KOM.1 (1.4 [	59.365	-174.130	-33.097	-67.782	16.538	-169.654
	8:KOM.2 (1.2 [	53.262	-208.247	-36.095	-70.831	14.844	-152.177
	9:KOM.3 (1.2 [	50.633	-303.188	-127.681	-287.024	14.350	-144.793
	10:KOM.4 (1.2	51.326	-185.166	-33.200	-66.063	14.289	-146.672
	11:KOM.5 (0.9	36.425	-229.004	-115.760	-264.541	10.388	-104.214
	12:KOM.6 (0.9	37.118	-110.982	-21.279	-43.580	10.327	-106.093
	13:KOM.7 (1.2	52.370	-186.125	-33.198	-66.057	14.593	-149.642
	14:KOM.8 (1.2	52.370	-186.125	-33.198	-66.057	14.593	-149.642
	15:KOM.9 (1.2	52.370	-186.125	-33.198	-66.057	14.593	-149.642
	16:KOM.10 (1.:	52.370	-186.125	-33.198	-66.057	14.593	-149.642
	17:KOM.11 (0.!	38.163	-111.941	-21.276	-43.574	10.632	-109.063
	18:KOM.12 (0.!	38.163	-111.941	-21.276	-43.574	10.632	-109.063

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	19:KOM.13 (0.!	38.163	-111.941	-21.276	-43.574	10.632	-109.063
	20:KOM.14 (0.!	38.163	-111.941	-21.276	-43.574	10.632	-109.063
109	1:BEBAN MAT	42.355	-31.498	-24.670	-52.104	10.397	-121.100
	2:BEBAN HIDU	1.481	-33.610	-4.927	-8.288	0.238	-4.216
	3:BEBAN GEN	-99.361	-701.437	-489.843	-1.15E 3	-25.899	281.603
	4:BEBAN GEN	99.361	701.437	489.843	1.15E 3	25.899	-281.603
	5:BEBAN ANG	-1.079	-75.046	-58.607	-136.973	0.041	3.018
	6:BEBAN ANG	-0.653	-0.607	-0.005	-0.012	-0.190	1.856
	7:KOM.1 (1.4 [	59.297	-44.098	-34.539	-72.945	14.555	-169.540
	8:KOM.2 (1.2 [	53.197	-91.574	-37.487	-75.785	12.856	-152.066
	9:KOM.3 (1.2 [	50.582	-191.482	-128.302	-289.970	12.780	-144.707
	10:KOM.4 (1.2	51.263	-72.379	-34.540	-70.831	12.409	-146.566
	11:KOM.5 (0.9	36.394	-148.423	-115.974	-266.050	9.423	-104.161
	12:KOM.6 (0.9	37.075	-29.319	-22.212	-46.912	9.053	-106.020
	13:KOM.7 (1.2	52.308	-71.408	-34.531	-70.812	12.714	-149.536
	14:KOM.8 (1.2	52.308	-71.408	-34.531	-70.812	12.714	-149.536
	15:KOM.9 (1.2	52.308	-71.408	-34.531	-70.812	12.714	-149.536
	16:KOM.10 (1.:	52.308	-71.408	-34.531	-70.812	12.714	-149.536
	17:KOM.11 (0.!	38.120	-28.349	-22.203	-46.893	9.357	-108.990
	18:KOM.12 (0.!	38.120	-28.349	-22.203	-46.893	9.357	-108.990
	19:KOM.13 (0.!	38.120	-28.349	-22.203	-46.893	9.357	-108.990
	20:KOM.14 (0.!	38.120	-28.349	-22.203	-46.893	9.357	-108.990
111	1:BEBAN MAT	-247.851	40E 3	-447.868	-904.773	-35.308	1.502
	2:BEBAN HIDU	-1.426	10.6E 3	41.860	51.426	-0.702	-10.909
	3:BEBAN GEN	-773.127	5.93E 3	-2.04E 3	-4.63E 3	5.316	1.93E 3
	4:BEBAN GEN	773.127	-5.93E 3	2.04E 3	4.63E 3	-5.316	-1.93E 3
	5:BEBAN ANG	-8.714	1.15E 3	-241.306	-550.665	0.327	12.052
	6:BEBAN ANG	-5.011	5.025	-0.132	-0.250	-0.001	13.176
	7:KOM.1 (1.4 [	-346.991	56E 3	-627.015	-1.27E 3	-49.431	2.102
	8:KOM.2 (1.2 [	-299.702	65E 3	-470.465	-1E 3	-43.492	-15.653
	9:KOM.3 (1.2 [	-312.789	60.5E 3	-881.671	-1.92E 3	-42.549	10.176
	10:KOM.4 (1.2	-306.864	58.7E 3	-495.793	-1.03E 3	-43.073	11.974
	11:KOM.5 (0.9	-237.008	37.8E 3	-789.171	-1.7E 3	-31.255	20.635
	12:KOM.6 (0.9	-231.083	36E 3	-403.292	-814.695	-31.779	22.433
	13:KOM.7 (1.2	-298.847	58.7E 3	-495.581	-1.03E 3	-43.071	-9.107
	14:KOM.8 (1.2	-298.847	58.7E 3	-495.581	-1.03E 3	-43.071	-9.107
	15:KOM.9 (1.2	-298.847	58.7E 3	-495.581	-1.03E 3	-43.071	-9.107
	16:KOM.10 (1.:	-298.847	58.7E 3	-495.581	-1.03E 3	-43.071	-9.107
	17:KOM.11 (0.!	-223.066	36E 3	-403.081	-814.295	-31.777	1.352
	18:KOM.12 (0.!	-223.066	36E 3	-403.081	-814.295	-31.777	1.352
	19:KOM.13 (0.!	-223.066	36E 3	-403.081	-814.295	-31.777	1.352
	20:KOM.14 (0.!	-223.066	36E 3	-403.081	-814.295	-31.777	1.352
113	1:BEBAN MAT	-407.374	34.6E 3	-174.185	-493.770	-45.174	379.012
	2:BEBAN HIDU	-11.621	10.6E 3	-62.307	-98.752	-1.729	9.084
	3:BEBAN GEN	-659.687	-5.66E 3	-2.03E 3	-4.61E 3	1.017	1.8E 3
	4:BEBAN GEN	659.687	5.66E 3	2.03E 3	4.61E 3	-1.017	-1.8E 3
	5:BEBAN ANG	6.607	-882.389	-241.333	-550.271	-0.095	-6.488
	6:BEBAN ANG	-5.009	4.839	-0.003	-0.057	-0.010	13.162
	7:KOM.1 (1.4 [	-570.323	48.5E 3	-243.859	-691.278	-63.243	530.617

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
	8:KOM.2 (1.2 D	-507.442	58.5E 3	-308.713	-750.528	-56.974	469.349
	9:KOM.3 (1.2 D	-489.898	50.7E 3	-657.462	-1.57E 3	-56.088	453.517
	10:KOM.4 (1.2	-508.483	52.2E 3	-271.334	-691.369	-55.952	484.959
	11:KOM.5 (0.9	-356.065	29.8E 3	-542.900	-1.32E 3	-40.808	330.730
	12:KOM.6 (0.9	-374.650	31.2E 3	-156.771	-444.485	-40.672	362.171
	13:KOM.7 (1.2	-500.470	52.2E 3	-271.329	-691.277	-55.937	463.899
	14:KOM.8 (1.2	-500.470	52.2E 3	-271.329	-691.277	-55.937	463.899
	15:KOM.9 (1.2	-500.470	52.2E 3	-271.329	-691.277	-55.937	463.899
	16:KOM.10 (1.:	-500.470	52.2E 3	-271.329	-691.277	-55.937	463.899
	17:KOM.11 (0.!	-366.636	31.2E 3	-156.766	-444.393	-40.656	341.111
	18:KOM.12 (0.!	-366.636	31.2E 3	-156.766	-444.393	-40.656	341.111
	19:KOM.13 (0.!	-366.636	31.2E 3	-156.766	-444.393	-40.656	341.111
	20:KOM.14 (0.!	-366.636	31.2E 3	-156.766	-444.393	-40.656	341.111
115	1:BEBAN MAT	208.324	22.9E 3	-394.294	-745.820	-34.445	-540.702
	2:BEBAN HIDU	14.315	13.1E 3	-50.404	-78.355	-1.302	-29.290
	3:BEBAN GEN	-742.490	5.05E 3	-1.77E 3	-4.23E 3	0.380	1.92E 3
	4:BEBAN GEN	742.490	-5.05E 3	1.77E 3	4.23E 3	-0.380	-1.92E 3
	5:BEBAN ANG	0.090	786.839	-209.549	-503.426	-0.264	3.471
	6:BEBAN ANG	-5.203	3.455	0.066	0.057	-0.007	13.440
	7:KOM.1 (1.4 D	291.653	32.1E 3	-552.012	-1.04E 3	-48.223	-756.983
	8:KOM.2 (1.2 D	272.892	48.5E 3	-553.799	-1.02E 3	-43.418	-695.707
	9:KOM.3 (1.2 D	264.447	41.9E 3	-858.835	-1.78E 3	-43.058	-672.579
	10:KOM.4 (1.2	255.979	40.6E 3	-523.451	-973.247	-42.647	-656.628
	11:KOM.5 (0.9	187.635	21.9E 3	-690.143	-1.48E 3	-31.423	-481.078
	12:KOM.6 (0.9	179.167	20.6E 3	-354.759	-671.146	-31.011	-465.128
	13:KOM.7 (1.2	264.303	40.6E 3	-523.557	-973.338	-42.636	-678.133
	14:KOM.8 (1.2	264.303	40.6E 3	-523.557	-973.338	-42.636	-678.133
	15:KOM.9 (1.2	264.303	40.6E 3	-523.557	-973.338	-42.636	-678.133
	16:KOM.10 (1.:	264.303	40.6E 3	-523.557	-973.338	-42.636	-678.133
	17:KOM.11 (0.!	187.491	20.6E 3	-354.865	-671.238	-31.000	-486.632
	18:KOM.12 (0.!	187.491	20.6E 3	-354.865	-671.238	-31.000	-486.632
	19:KOM.13 (0.!	187.491	20.6E 3	-354.865	-671.238	-31.000	-486.632
	20:KOM.14 (0.!	187.491	20.6E 3	-354.865	-671.238	-31.000	-486.632
117	1:BEBAN MAT	187.991	26.4E 3	-217.653	-437.647	-24.490	-539.008
	2:BEBAN HIDU	4.455	13.5E 3	-32.551	-50.433	-0.733	-15.920
	3:BEBAN GEN	-761.175	6.14E 3	-1.73E 3	-4.17E 3	-0.472	1.95E 3
	4:BEBAN GEN	761.175	-6.14E 3	1.73E 3	4.17E 3	0.472	-1.95E 3
	5:BEBAN ANG	-3.793	1.08E 3	-201.939	-491.646	-0.340	9.478
	6:BEBAN ANG	-5.134	0.308	-0.035	-0.081	-0.005	13.336
	7:KOM.1 (1.4 D	263.187	37E 3	-304.714	-612.706	-34.286	-754.611
	8:KOM.2 (1.2 D	232.717	53.4E 3	-313.265	-605.870	-30.561	-672.282
	9:KOM.3 (1.2 D	223.975	47E 3	-616.837	-1.36E 3	-30.666	-647.564
	10:KOM.4 (1.2	221.830	45.3E 3	-293.790	-575.740	-30.128	-641.392
	11:KOM.5 (0.9	163.123	25.5E 3	-518.990	-1.18E 3	-22.586	-469.942
	12:KOM.6 (0.9	160.978	23.8E 3	-195.943	-394.013	-22.049	-463.769
	13:KOM.7 (1.2	230.044	45.3E 3	-293.734	-575.610	-30.121	-662.730
	14:KOM.8 (1.2	230.044	45.3E 3	-293.734	-575.610	-30.121	-662.730
	15:KOM.9 (1.2	230.044	45.3E 3	-293.734	-575.610	-30.121	-662.730
	16:KOM.10 (1.:	230.044	45.3E 3	-293.734	-575.610	-30.121	-662.730

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	17:KOM.11 (0.!	169.192	23.8E 3	-195.887	-393.883	-22.041	-485.107
	18:KOM.12 (0.!	169.192	23.8E 3	-195.887	-393.883	-22.041	-485.107
	19:KOM.13 (0.!	169.192	23.8E 3	-195.887	-393.883	-22.041	-485.107
	20:KOM.14 (0.!	169.192	23.8E 3	-195.887	-393.883	-22.041	-485.107
119	1:BEBAN MAT	202.189	25.1E 3	-119.365	-260.777	-15.291	-585.064
	2:BEBAN HIDL	15.664	10.5E 3	15.944	20.941	-0.119	-33.000
	3:BEBAN GEN	-754.226	5.77E 3	-1.72E 3	-4.16E 3	-2.191	1.95E 3
	4:BEBAN GEN	754.226	-5.77E 3	1.72E 3	4.16E 3	2.191	-1.95E 3
	5:BEBAN ANG	-4.153	1.09E 3	-200.042	-488.118	-0.347	10.275
	6:BEBAN ANG	-5.063	0.710	-0.032	-0.072	-0.003	13.230
	7:KOM.1 (1.4 D	283.065	35.1E 3	-167.111	-365.088	-21.407	-819.090
	8:KOM.2 (1.2 D	267.689	47E 3	-117.728	-279.427	-18.539	-754.877
	9:KOM.3 (1.2 D	251.646	42.4E 3	-447.362	-1.07E 3	-19.023	-718.637
	10:KOM.4 (1.2	250.190	40.7E 3	-127.346	-292.106	-18.473	-713.908
	11:KOM.5 (0.9	175.325	24.3E 3	-427.496	-1.02E 3	-14.318	-510.118
	12:KOM.6 (0.9	173.869	22.6E 3	-107.480	-234.815	-13.767	-505.389
	13:KOM.7 (1.2	258.291	40.7E 3	-127.294	-291.991	-18.468	-735.077
	14:KOM.8 (1.2	258.291	40.7E 3	-127.294	-291.991	-18.468	-735.077
	15:KOM.9 (1.2	258.291	40.7E 3	-127.294	-291.991	-18.468	-735.077
	16:KOM.10 (1.:	258.291	40.7E 3	-127.294	-291.991	-18.468	-735.077
	17:KOM.11 (0.!	181.970	22.6E 3	-107.429	-234.700	-13.762	-526.558
	18:KOM.12 (0.!	181.970	22.6E 3	-107.429	-234.700	-13.762	-526.558
	19:KOM.13 (0.!	181.970	22.6E 3	-107.429	-234.700	-13.762	-526.558
	20:KOM.14 (0.!	181.970	22.6E 3	-107.429	-234.700	-13.762	-526.558
121	1:BEBAN MAT	312.304	32.2E 3	42.065	-6.197	-8.135	-767.226
	2:BEBAN HIDL	16.826	13.1E 3	-13.277	-22.115	0.294	-35.233
	3:BEBAN GEN	-776.635	4.91E 3	-1.75E 3	-4.2E 3	-3.296	1.98E 3
	4:BEBAN GEN	776.635	-4.91E 3	1.75E 3	4.2E 3	3.296	-1.98E 3
	5:BEBAN ANG	-7.102	899.093	-203.123	-491.904	-0.291	14.718
	6:BEBAN ANG	-5.094	-2.021	-0.096	-0.160	-0.003	13.272
	7:KOM.1 (1.4 D	437.226	45E 3	58.890	-8.676	-11.389	-1.07E 3
	8:KOM.2 (1.2 D	401.686	59.5E 3	29.235	-42.820	-9.292	-977.045
	9:KOM.3 (1.2 D	380.227	53.1E 3	-287.795	-816.599	-9.934	-932.355
	10:KOM.4 (1.2	383.440	51.7E 3	37.047	-29.808	-9.473	-934.669
	11:KOM.5 (0.9	269.710	30.4E 3	-287.138	-792.625	-7.787	-666.954
	12:KOM.6 (0.9	272.923	28.9E 3	37.705	-5.834	-7.326	-669.268
	13:KOM.7 (1.2	391.591	51.7E 3	37.201	-29.551	-9.468	-955.905
	14:KOM.8 (1.2	391.591	51.7E 3	37.201	-29.551	-9.468	-955.905
	15:KOM.9 (1.2	391.591	51.7E 3	37.201	-29.551	-9.468	-955.905
	16:KOM.10 (1.:	391.591	51.7E 3	37.201	-29.551	-9.468	-955.905
	17:KOM.11 (0.!	281.074	28.9E 3	37.858	-5.578	-7.321	-690.504
	18:KOM.12 (0.!	281.074	28.9E 3	37.858	-5.578	-7.321	-690.504
	19:KOM.13 (0.!	281.074	28.9E 3	37.858	-5.578	-7.321	-690.504
	20:KOM.14 (0.!	281.074	28.9E 3	37.858	-5.578	-7.321	-690.504
123	1:BEBAN MAT	663.712	95E 3	1.24E 3	1.76E 3	-3.996	-1.29E 3
	2:BEBAN HIDL	13.628	13.3E 3	-1.227	-5.688	0.307	-30.731
	3:BEBAN GEN	-860.780	-5.46E 3	-2.04E 3	-4.62E 3	-2.944	2.1E 3
	4:BEBAN GEN	860.780	5.46E 3	2.04E 3	4.62E 3	2.944	-2.1E 3
	5:BEBAN ANG	-17.562	-689.917	-235.218	-538.205	-0.187	29.745

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	6:BEBAN ANG	-5.116	-17.729	-0.476	-0.710	-0.003	13.299
	7:KOM.1 (1.4 D	929.196	133E 3	1.74E 3	2.46E 3	-5.594	-1.81E 3
	8:KOM.2 (1.2 D	818.259	135E 3	1.49E 3	2.1E 3	-4.304	-1.6E 3
	9:KOM.3 (1.2 D	781.982	126E 3	1.12E 3	1.24E 3	-4.788	-1.54E 3
	10:KOM.4 (1.2	801.897	127E 3	1.49E 3	2.1E 3	-4.493	-1.56E 3
	11:KOM.5 (0.9	569.241	84.4E 3	744.132	719.080	-3.896	-1.12E 3
	12:KOM.6 (0.9	589.155	85.5E 3	1.12E 3	1.58E 3	-3.601	-1.14E 3
	13:KOM.7 (1.2	810.082	127E 3	1.49E 3	2.1E 3	-4.488	-1.58E 3
	14:KOM.8 (1.2	810.082	127E 3	1.49E 3	2.1E 3	-4.488	-1.58E 3
	15:KOM.9 (1.2	810.082	127E 3	1.49E 3	2.1E 3	-4.488	-1.58E 3
	16:KOM.10 (1.2	810.082	127E 3	1.49E 3	2.1E 3	-4.488	-1.58E 3
	17:KOM.11 (0.9	597.341	85.5E 3	1.12E 3	1.58E 3	-3.596	-1.17E 3
	18:KOM.12 (0.9	597.341	85.5E 3	1.12E 3	1.58E 3	-3.596	-1.17E 3
	19:KOM.13 (0.9	597.341	85.5E 3	1.12E 3	1.58E 3	-3.596	-1.17E 3
	20:KOM.14 (0.9	597.341	85.5E 3	1.12E 3	1.58E 3	-3.596	-1.17E 3
125	1:BEBAN MAT	-120.421	80.7E 3	396.714	511.360	-2.257	-168.308
	2:BEBAN HIDU	-4.520	11.3E 3	-56.355	-86.933	-0.005	-4.161
	3:BEBAN GEM	-698.858	-11.4E 3	-2.03E 3	-4.59E 3	3.171	1.86E 3
	4:BEBAN GEM	698.858	11.4E 3	2.03E 3	4.59E 3	-3.171	-1.86E 3
	5:BEBAN ANG	0.385	-1.79E 3	-239.604	-543.652	0.470	3.245
	6:BEBAN ANG	-4.903	1.060	0.000	-0.013	-0.003	12.985
	7:KOM.1 (1.4 D	-168.590	113E 3	555.400	715.905	-3.160	-236.471
	8:KOM.2 (1.2 D	-151.738	115E 3	385.889	474.539	-2.716	-209.347
	9:KOM.3 (1.2 D	-148.410	105E 3	36.336	-343.144	-1.961	-201.659
	10:KOM.4 (1.2	-156.870	108E 3	419.702	526.679	-2.717	-186.074
	11:KOM.5 (0.9	-107.763	69.8E 3	-26.323	-409.619	-1.280	-146.826
	12:KOM.6 (0.9	-116.224	72.7E 3	357.043	460.204	-2.035	-131.240
	13:KOM.7 (1.2	-149.026	108E 3	419.702	526.699	-2.713	-206.850
	14:KOM.8 (1.2	-149.026	108E 3	419.702	526.699	-2.713	-206.850
	15:KOM.9 (1.2	-149.026	108E 3	419.702	526.699	-2.713	-206.850
	16:KOM.10 (1.2	-149.026	108E 3	419.702	526.699	-2.713	-206.850
	17:KOM.11 (0.9	-108.379	72.7E 3	357.043	460.224	-2.031	-152.017
	18:KOM.12 (0.9	-108.379	72.7E 3	357.043	460.224	-2.031	-152.017
	19:KOM.13 (0.9	-108.379	72.7E 3	357.043	460.224	-2.031	-152.017
	20:KOM.14 (0.9	-108.379	72.7E 3	357.043	460.224	-2.031	-152.017
127	1:BEBAN MAT	220.195	33.5E 3	-90.901	-186.746	-5.694	-676.800
	2:BEBAN HIDU	9.248	10.9E 3	-62.414	-94.928	-0.634	-23.993
	3:BEBAN GEM	-696.842	-5.14E 3	-1.98E 3	-4.54E 3	9.127	1.85E 3
	4:BEBAN GEM	696.842	5.14E 3	1.98E 3	4.54E 3	-9.127	-1.85E 3
	5:BEBAN ANG	0.457	-835.104	-232.875	-536.402	1.123	2.158
	6:BEBAN ANG	-4.897	2.191	0.019	0.018	-0.003	12.976
	7:KOM.1 (1.4 D	308.273	46.9E 3	-127.261	-261.444	-7.972	-947.520
	8:KOM.2 (1.2 D	279.030	57.7E 3	-208.944	-375.979	-7.848	-850.548
	9:KOM.3 (1.2 D	274.213	49.8E 3	-544.095	-1.18E 3	-5.671	-832.700
	10:KOM.4 (1.2	265.647	51.1E 3	-171.465	-318.994	-7.472	-815.392
	11:KOM.5 (0.9	198.906	28.8E 3	-454.410	-1.03E 3	-3.328	-605.667
	12:KOM.6 (0.9	190.341	30.2E 3	-81.781	-168.042	-5.129	-588.359
	13:KOM.7 (1.2	273.482	51.1E 3	-171.495	-319.023	-7.467	-836.153
	14:KOM.8 (1.2	273.482	51.1E 3	-171.495	-319.023	-7.467	-836.153

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	15:KOM.9 (1.2	273.482	51.1E 3	-171.495	-319.023	-7.467	-836.153
	16:KOM.10 (1.:	273.482	51.1E 3	-171.495	-319.023	-7.467	-836.153
	17:KOM.11 (0.!	198.176	30.1E 3	-81.811	-168.071	-5.125	-609.120
	18:KOM.12 (0.!	198.176	30.1E 3	-81.811	-168.071	-5.125	-609.120
	19:KOM.13 (0.!	198.176	30.1E 3	-81.811	-168.071	-5.125	-609.120
	20:KOM.14 (0.!	198.176	30.1E 3	-81.811	-168.071	-5.125	-609.120
129	1:BEBAN MAT	285.915	26.2E 3	-102.853	-195.071	-1.465	-791.776
	2:BEBAN HIDL	15.192	13.1E 3	-34.275	-51.973	-0.738	-32.662
	3:BEBAN GEN	-703.524	4.85E 3	-1.77E 3	-4.26E 3	10.092	1.85E 3
	4:BEBAN GEN	703.524	-4.85E 3	1.77E 3	4.26E 3	-10.092	-1.85E 3
	5:BEBAN ANG	2.650	738.403	-209.944	-505.033	1.203	-1.385
	6:BEBAN ANG	-5.094	4.296	0.114	0.160	-0.003	13.263
	7:KOM.1 (1.4 D	400.280	36.7E 3	-143.994	-273.100	-2.051	-1.11E 3
	8:KOM.2 (1.2 D	367.405	52.5E 3	-178.263	-317.243	-2.940	-1E 3
	9:KOM.3 (1.2 D	362.529	45.8E 3	-493.608	-1.09E 3	-0.571	-985.010
	10:KOM.4 (1.2	350.140	44.6E 3	-157.515	-285.803	-2.501	-961.573
	11:KOM.5 (0.9	261.563	24.8E 3	-428.477	-983.616	0.607	-714.815
	12:KOM.6 (0.9	249.173	23.6E 3	-92.385	-175.308	-1.323	-691.378
	13:KOM.7 (1.2	358.290	44.6E 3	-157.698	-286.059	-2.497	-982.794
	14:KOM.8 (1.2	358.290	44.6E 3	-157.698	-286.059	-2.497	-982.794
	15:KOM.9 (1.2	358.290	44.6E 3	-157.698	-286.059	-2.497	-982.794
	16:KOM.10 (1.:	358.290	44.6E 3	-157.698	-286.059	-2.497	-982.794
	17:KOM.11 (0.!	257.323	23.6E 3	-92.568	-175.564	-1.319	-712.599
	18:KOM.12 (0.!	257.323	23.6E 3	-92.568	-175.564	-1.319	-712.599
	19:KOM.13 (0.!	257.323	23.6E 3	-92.568	-175.564	-1.319	-712.599
	20:KOM.14 (0.!	257.323	23.6E 3	-92.568	-175.564	-1.319	-712.599
131	1:BEBAN MAT	322.903	26.6E 3	-82.367	-166.768	4.625	-870.647
	2:BEBAN HIDL	-0.542	13.3E 3	-13.620	-20.462	-0.423	-10.402
	3:BEBAN GEN	-731.432	6.14E 3	-1.75E 3	-4.25E 3	10.062	1.89E 3
	4:BEBAN GEN	731.432	-6.14E 3	1.75E 3	4.25E 3	-10.062	-1.89E 3
	5:BEBAN ANG	-1.872	1.09E 3	-205.380	-500.649	1.261	5.177
	6:BEBAN ANG	-5.050	-0.067	0.005	0.004	-0.003	13.202
	7:KOM.1 (1.4 D	452.065	37.3E 3	-115.313	-233.475	6.476	-1.22E 3
	8:KOM.2 (1.2 D	386.616	53.3E 3	-120.631	-232.861	4.873	-1.06E 3
	9:KOM.3 (1.2 D	383.946	47E 3	-441.067	-1.02E 3	7.146	-1.05E 3
	10:KOM.4 (1.2	378.862	45.3E 3	-112.451	-220.576	5.123	-1.03E 3
	11:KOM.5 (0.9	287.617	25.7E 3	-402.738	-951.129	6.181	-775.300
	12:KOM.6 (0.9	282.534	24E 3	-74.121	-150.084	4.159	-762.459
	13:KOM.7 (1.2	386.942	45.3E 3	-112.460	-220.583	5.127	-1.06E 3
	14:KOM.8 (1.2	386.942	45.3E 3	-112.460	-220.583	5.127	-1.06E 3
	15:KOM.9 (1.2	386.942	45.3E 3	-112.460	-220.583	5.127	-1.06E 3
	16:KOM.10 (1.:	386.942	45.3E 3	-112.460	-220.583	5.127	-1.06E 3
	17:KOM.11 (0.!	290.613	24E 3	-74.130	-150.091	4.163	-783.582
	18:KOM.12 (0.!	290.613	24E 3	-74.130	-150.091	4.163	-783.582
	19:KOM.13 (0.!	290.613	24E 3	-74.130	-150.091	4.163	-783.582
	20:KOM.14 (0.!	290.613	24E 3	-74.130	-150.091	4.163	-783.582
133	1:BEBAN MAT	355.071	26.3E 3	-85.600	-185.317	12.356	-944.284
	2:BEBAN HIDL	11.729	10.8E 3	10.867	15.676	0.150	-29.045
	3:BEBAN GEN	-732.987	5.73E 3	-1.78E 3	-4.3E 3	8.406	1.9E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg m)	MY (kg m)	MZ (kg m)
	4:BEBAN GEN	732.967	-5.73E 3	1.78E 3	4.3E 3	-8.406	-1.9E 3
	5:BEBAN ANG	-2.132	1.11E 3	-207.959	-506.790	1.305	5.642
	6:BEBAN ANG	-5.049	-0.397	0.001	0.003	-0.004	13.204
	7:KOM.1 (1.4 D	497.099	36.8E 3	-119.840	-259.444	17.298	-1.32E 3
	8:KOM.2 (1.2 D	444.852	48.8E 3	-85.332	-197.299	15.068	-1.18E 3
	9:KOM.3 (1.2 D	434.403	44.1E 3	-424.686	-1.02E 3	17.066	-1.15E 3
	10:KOM.4 (1.2	429.736	42.3E 3	-91.851	-206.700	14.971	-1.14E 3
	11:KOM.5 (0.9	316.152	25.4E 3	-409.773	-977.650	13.209	-840.829
	12:KOM.6 (0.9	311.486	23.7E 3	-77.038	-166.781	11.114	-828.729
	13:KOM.7 (1.2	437.815	42.3E 3	-91.853	-206.705	14.977	-1.16E 3
	14:KOM.8 (1.2	437.815	42.3E 3	-91.853	-206.705	14.977	-1.16E 3
	15:KOM.9 (1.2	437.815	42.3E 3	-91.853	-206.705	14.977	-1.16E 3
	16:KOM.10 (1.:	437.815	42.3E 3	-91.853	-206.705	14.977	-1.16E 3
	17:KOM.11 (0.!	319.564	23.7E 3	-77.040	-166.785	11.120	-849.856
	18:KOM.12 (0.!	319.564	23.7E 3	-77.040	-166.785	11.120	-849.856
	19:KOM.13 (0.!	319.564	23.7E 3	-77.040	-166.785	11.120	-849.856
	20:KOM.14 (0.!	319.564	23.7E 3	-77.040	-166.785	11.120	-849.856
135	1:BEBAN MAT	378.136	26.4E 3	-142.048	-296.147	21.014	-1.01E 3
	2:BEBAN HIDU	22.701	13.4E 3	-13.202	-20.231	0.799	-45.921
	3:BEBAN GEN	-736.316	6.21E 3	-1.79E 3	-4.34E 3	6.626	1.9E 3
	4:BEBAN GEN	736.316	-6.21E 3	1.79E 3	4.34E 3	-6.626	-1.9E 3
	5:BEBAN ANG	-2.526	1.1E 3	-211.149	-513.859	1.307	6.364
	6:BEBAN ANG	-5.057	0.022	-0.001	0.008	-0.005	13.220
	7:KOM.1 (1.4 D	529.391	36.9E 3	-198.867	-414.606	29.420	-1.41E 3
	8:KOM.2 (1.2 D	490.084	53.1E 3	-191.581	-387.747	26.496	-1.28E 3
	9:KOM.3 (1.2 D	472.423	46.8E 3	-521.499	-1.2E 3	28.108	-1.24E 3
	10:KOM.4 (1.2	468.372	45.1E 3	-183.661	-375.596	26.008	-1.23E 3
	11:KOM.5 (0.9	336.281	25.5E 3	-465.682	-1.09E 3	21.005	-895.201
	12:KOM.6 (0.9	332.231	23.7E 3	-127.844	-266.520	18.904	-884.231
	13:KOM.7 (1.2	476.464	45.1E 3	-183.660	-375.608	26.016	-1.25E 3
	14:KOM.8 (1.2	476.464	45.1E 3	-183.660	-375.608	26.016	-1.25E 3
	15:KOM.9 (1.2	476.464	45.1E 3	-183.660	-375.608	26.016	-1.25E 3
	16:KOM.10 (1.:	476.464	45.1E 3	-183.660	-375.608	26.016	-1.25E 3
	17:KOM.11 (0.!	340.322	23.7E 3	-127.843	-266.533	18.913	-905.383
	18:KOM.12 (0.!	340.322	23.7E 3	-127.843	-266.533	18.913	-905.383
	19:KOM.13 (0.!	340.322	23.7E 3	-127.843	-266.533	18.913	-905.383
	20:KOM.14 (0.!	340.322	23.7E 3	-127.843	-266.533	18.913	-905.383
137	1:BEBAN MAT	334.117	23.5E 3	-305.143	-578.940	30.492	-971.283
	2:BEBAN HIDU	-5.385	13E 3	-29.275	-45.743	1.363	-6.140
	3:BEBAN GEN	-772.937	4.38E 3	-1.87E 3	-4.46E 3	5.729	1.96E 3
	4:BEBAN GEN	772.937	-4.38E 3	1.87E 3	4.46E 3	-5.729	-1.96E 3
	5:BEBAN ANG	-6.701	805.666	-220.715	-530.194	1.276	12.632
	6:BEBAN ANG	-5.124	-3.893	-0.080	-0.098	-0.007	13.320
	7:KOM.1 (1.4 D	467.764	32.9E 3	-427.201	-810.516	42.689	-1.36E 3
	8:KOM.2 (1.2 D	392.325	49E 3	-413.012	-767.917	38.771	-1.18E 3
	9:KOM.3 (1.2 D	384.835	42.5E 3	-748.591	-1.59E 3	39.995	-1.15E 3
	10:KOM.4 (1.2	387.358	41.2E 3	-395.575	-740.628	37.942	-1.15E 3
	11:KOM.5 (0.9	289.984	22.4E 3	-627.773	-1.37E 3	29.484	-853.944
	12:KOM.6 (0.9	292.507	21.1E 3	-274.757	-521.203	27.431	-852.843

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	13:KOM.7 (1.2	395.556	41.2E 3	-395.447	-740.471	37.953	-1.17E 3
	14:KOM.8 (1.2	395.556	41.2E 3	-395.447	-740.471	37.953	-1.17E 3
	15:KOM.9 (1.2	395.556	41.2E 3	-395.447	-740.471	37.953	-1.17E 3
	16:KOM.10 (1.:	395.556	41.2E 3	-395.447	-740.471	37.953	-1.17E 3
	17:KOM.11 (0.!	300.705	21.1E 3	-274.629	-521.046	27.443	-874.154
	18:KOM.12 (0.!	300.705	21.1E 3	-274.629	-521.046	27.443	-874.154
	19:KOM.13 (0.!	300.705	21.1E 3	-274.629	-521.046	27.443	-874.154
	20:KOM.14 (0.!	300.705	21.1E 3	-274.629	-521.046	27.443	-874.154
139	1:BEBAN MAT	928.005	35.5E 3	-129.579	-385.264	40.232	-1.86E 3
	2:BEBAN HIDL	18.614	10.9E 3	-66.682	-103.474	1.686	-41.648
	3:BEBAN GEN	-806.613	-5.84E 3	-2.14E 3	-4.86E 3	5.697	2.01E 3
	4:BEBAN GEN	806.613	5.84E 3	2.14E 3	4.86E 3	-5.697	-2.01E 3
	5:BEBAN ANG	-13.343	-934.196	-256.501	-584.681	1.210	22.620
	6:BEBAN ANG	-4.982	-3.321	0.009	0.046	-0.010	13.117
	7:KOM.1 (1.4 D	1.3E 3	49.7E 3	-181.411	-539.370	56.325	-2.6E 3
	8:KOM.2 (1.2 D	1.14E 3	60E 3	-262.186	-627.876	50.977	-2.3E 3
	9:KOM.3 (1.2 D	1.11E 3	52E 3	-632.578	-1.5E 3	51.901	-2.24E 3
	10:KOM.4 (1.2	1.12E 3	53.4E 3	-222.163	-565.717	49.949	-2.25E 3
	11:KOM.5 (0.9	813.856	30.4E 3	-527.022	-1.28E 3	38.145	-1.64E 3
	12:KOM.6 (0.9	827.234	31.9E 3	-116.607	-346.664	36.193	-1.65E 3
	13:KOM.7 (1.2	1.13E 3	53.4E 3	-222.177	-565.791	49.965	-2.27E 3
	14:KOM.8 (1.2	1.13E 3	53.4E 3	-222.177	-565.791	49.965	-2.27E 3
	15:KOM.9 (1.2	1.13E 3	53.4E 3	-222.177	-565.791	49.965	-2.27E 3
	16:KOM.10 (1.:	1.13E 3	53.4E 3	-222.177	-565.791	49.965	-2.27E 3
	17:KOM.11 (0.!	835.204	31.9E 3	-116.621	-346.738	36.209	-1.67E 3
	18:KOM.12 (0.!	835.204	31.9E 3	-116.621	-346.738	36.209	-1.67E 3
	19:KOM.13 (0.!	835.204	31.9E 3	-116.621	-346.738	36.209	-1.67E 3
	20:KOM.14 (0.!	835.204	31.9E 3	-116.621	-346.738	36.209	-1.67E 3
141	1:BEBAN MAT	650.317	40.3E 3	-387.265	-776.094	25.978	-1.21E 3
	2:BEBAN HIDL	2.838	10.9E 3	49.962	64.546	0.197	-9.235
	3:BEBAN GEN	-577.783	6.38E 3	-2.14E 3	-4.86E 3	4.471	1.61E 3
	4:BEBAN GEN	577.783	-6.38E 3	2.14E 3	4.86E 3	-4.471	-1.61E 3
	5:BEBAN ANG	15.150	1.2E 3	-256.333	-584.764	0.944	-26.545
	6:BEBAN ANG	-4.985	-3.415	0.080	0.155	-0.001	13.135
	7:KOM.1 (1.4 D	910.444	56.4E 3	-542.171	-1.09E 3	36.369	-1.69E 3
	8:KOM.2 (1.2 D	784.921	65.9E 3	-384.778	-828.039	31.488	-1.46E 3
	9:KOM.3 (1.2 D	807.459	61.2E 3	-824.888	-1.8E 3	32.880	-1.5E 3
	10:KOM.4 (1.2	775.242	59.3E 3	-414.628	-866.519	31.369	-1.44E 3
	11:KOM.5 (0.9	609.526	38.2E 3	-758.671	-1.63E 3	24.890	-1.13E 3
	12:KOM.6 (0.9	577.309	36.3E 3	-348.411	-698.237	23.379	-1.06E 3
	13:KOM.7 (1.2	783.219	59.3E 3	-414.756	-866.766	31.370	-1.46E 3
	14:KOM.8 (1.2	783.219	59.3E 3	-414.756	-866.766	31.370	-1.46E 3
	15:KOM.9 (1.2	783.219	59.3E 3	-414.756	-866.766	31.370	-1.46E 3
	16:KOM.10 (1.:	783.219	59.3E 3	-414.756	-866.766	31.370	-1.46E 3
	17:KOM.11 (0.!	585.286	36.3E 3	-348.539	-698.484	23.380	-1.09E 3
	18:KOM.12 (0.!	585.286	36.3E 3	-348.539	-698.484	23.380	-1.09E 3
	19:KOM.13 (0.!	585.286	36.3E 3	-348.539	-698.484	23.380	-1.09E 3
	20:KOM.14 (0.!	585.286	36.3E 3	-348.539	-698.484	23.380	-1.09E 3
143	1:BEBAN MAT	126.207	23.3E 3	-50.138	-242.588	21.934	-454.958

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg m)	MY (kg m)	MZ (kg m)
	2:BEBAN HIDL	-14.023	13E 3	15.551	13.835	-0.058	14.452
	3:BEBAN GEM	-658.322	-5.24E 3	-1.85E 3	-4.43E 3	6.488	1.73E 3
	4:BEBAN GEM	658.322	5.24E 3	1.85E 3	4.43E 3	-6.488	-1.73E 3
	5:BEBAN ANG	8.716	-546.015	-221.009	-530.892	1.321	-16.681
	6:BEBAN ANG	-5.148	-3.891	0.148	0.249	-0.003	13.368
	7:KOM.1 (1.4 D	176.690	32.6E 3	-70.194	-339.623	30.708	-636.941
	8:KOM.2 (1.2 D	129.013	48.7E 3	-35.284	-268.970	26.228	-522.827
	9:KOM.3 (1.2 D	151.371	40E 3	-398.230	-1.13E 3	28.377	-558.188
	10:KOM.4 (1.2	129.189	40.9E 3	-44.378	-276.872	26.258	-510.109
	11:KOM.5 (0.9	127.532	20.1E 3	-398.739	-1.07E 3	21.855	-436.152
	12:KOM.6 (0.9	105.350	20.9E 3	-44.887	-217.930	19.736	-388.073
	13:KOM.7 (1.2	137.426	40.9E 3	-44.615	-277.271	26.263	-531.498
	14:KOM.8 (1.2	137.426	40.9E 3	-44.615	-277.271	26.263	-531.498
	15:KOM.9 (1.2	137.426	40.9E 3	-44.615	-277.271	26.263	-531.498
	16:KOM.10 (1.	137.426	40.9E 3	-44.615	-277.271	26.263	-531.498
	17:KOM.11 (0.	113.586	20.9E 3	-45.124	-218.329	19.741	-409.462
	18:KOM.12 (0.	113.586	20.9E 3	-45.124	-218.329	19.741	-409.462
	19:KOM.13 (0.	113.586	20.9E 3	-45.124	-218.329	19.741	-409.462
	20:KOM.14 (0.	113.586	20.9E 3	-45.124	-218.329	19.741	-409.462
145	1:BEBAN MAT	188.403	25.7E 3	-104.385	-287.693	17.002	-548.855
	2:BEBAN HIDL	14.066	13.4E 3	2.676	-5.285	-0.005	-26.652
	3:BEBAN GEM	-681.994	-6.26E 3	-1.79E 3	-4.33E 3	7.739	1.77E 3
	4:BEBAN GEM	681.994	6.26E 3	1.79E 3	4.33E 3	-7.739	-1.77E 3
	5:BEBAN ANG	4.193	-842.840	-211.137	-513.806	1.452	-9.610
	6:BEBAN ANG	-5.077	0.057	0.043	0.088	-0.004	13.264
	7:KOM.1 (1.4 D	263.764	35.9E 3	-146.139	-402.770	23.803	-768.396
	8:KOM.2 (1.2 D	248.590	52.2E 3	-120.980	-353.687	20.394	-701.269
	9:KOM.3 (1.2 D	246.858	42.8E 3	-460.405	-1.17E 3	22.720	-700.653
	10:KOM.4 (1.2	232.026	44.2E 3	-122.517	-350.375	20.391	-664.056
	11:KOM.5 (0.9	176.271	21.7E 3	-431.766	-1.08E 3	17.625	-509.345
	12:KOM.6 (0.9	161.439	23.1E 3	-93.878	-258.782	15.295	-472.747
	13:KOM.7 (1.2	240.150	44.2E 3	-122.585	-350.516	20.397	-685.278
	14:KOM.8 (1.2	240.150	44.2E 3	-122.585	-350.516	20.397	-685.278
	15:KOM.9 (1.2	240.150	44.2E 3	-122.585	-350.516	20.397	-685.278
	16:KOM.10 (1.	240.150	44.2E 3	-122.585	-350.516	20.397	-685.278
	17:KOM.11 (0.	169.563	23.1E 3	-93.946	-258.924	15.302	-493.969
	18:KOM.12 (0.	169.563	23.1E 3	-93.946	-258.924	15.302	-493.969
	19:KOM.13 (0.	169.563	23.1E 3	-93.946	-258.924	15.302	-493.969
	20:KOM.14 (0.	169.563	23.1E 3	-93.946	-258.924	15.302	-493.969
147	1:BEBAN MAT	188.101	25.5E 3	-98.080	-252.848	12.487	-550.863
	2:BEBAN HIDL	1.527	10.7E 3	-20.100	-38.391	0.236	-8.652
	3:BEBAN GEM	-684.771	-5.8E 3	-1.77E 3	-4.29E 3	9.437	1.78E 3
	4:BEBAN GEM	684.771	5.8E 3	1.77E 3	4.29E 3	-9.437	-1.78E 3
	5:BEBAN ANG	3.762	-840.651	-207.530	-505.791	1.429	-8.696
	6:BEBAN ANG	-5.072	-0.298	0.025	0.055	-0.004	13.255
	7:KOM.1 (1.4 D	263.341	35.7E 3	-137.312	-353.988	17.482	-771.208
	8:KOM.2 (1.2 D	228.165	47.8E 3	-149.856	-364.843	15.363	-674.879
	9:KOM.3 (1.2 D	233.268	40E 3	-469.843	-1.15E 3	17.507	-683.601
	10:KOM.4 (1.2	219.133	41.3E 3	-137.755	-341.721	15.214	-648.480

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	11:KOM.5 (0.9	175.310	21.6E 3	-420.319	-1.04E 3	13.524	-509.690
	12:KOM.6 (0.9	161.175	23E 3	-88.231	-227.476	11.231	-474.569
	13:KOM.7 (1.2	227.248	41.3E 3	-137.796	-341.809	15.221	-669.688
	14:KOM.8 (1.2	227.248	41.3E 3	-137.796	-341.809	15.221	-669.688
	15:KOM.9 (1.2	227.248	41.3E 3	-137.796	-341.809	15.221	-669.688
	16:KOM.10 (1.:	227.248	41.3E 3	-137.796	-341.809	15.221	-669.688
	17:KOM.11 (0.!	169.291	23E 3	-88.272	-227.564	11.238	-495.777
	18:KOM.12 (0.!	169.291	23E 3	-88.272	-227.564	11.238	-495.777
	19:KOM.13 (0.!	169.291	23E 3	-88.272	-227.564	11.238	-495.777
	20:KOM.14 (0.!	169.291	23E 3	-88.272	-227.564	11.238	-495.777
149	1:BEBAN MAT	193.276	25.8E 3	-64.829	-185.625	8.823	-559.478
	2:BEBAN HIDL	-6.582	13.3E 3	4.474	-1.841	0.499	2.983
	3:BEBAN GEN	-687.482	-6.16E 3	-1.75E 3	-4.23E 3	9.906	1.78E 3
	4:BEBAN GEN	687.482	6.16E 3	1.75E 3	4.23E 3	-9.906	-1.78E 3
	5:BEBAN ANG	3.425	-828.294	-204.662	-499.008	1.274	-8.133
	6:BEBAN ANG	-5.077	-0.152	0.002	0.012	-0.004	13.261
	7:KOM.1 (1.4 D	270.587	36.1E 3	-90.760	-259.875	12.353	-783.269
	8:KOM.2 (1.2 D	221.400	52.2E 3	-70.637	-225.696	11.386	-666.601
	9:KOM.3 (1.2 D	230.829	42.9E 3	-400.780	-1.02E 3	13.124	-681.403
	10:KOM.4 (1.2	217.227	44.2E 3	-73.317	-224.573	11.080	-647.173
	11:KOM.5 (0.9	179.428	21.9E 3	-385.805	-965.475	9.979	-516.543
	12:KOM.6 (0.9	165.826	23.2E 3	-58.342	-167.044	7.934	-482.312
	13:KOM.7 (1.2	225.349	44.2E 3	-73.321	-224.591	11.087	-668.391
	14:KOM.8 (1.2	225.349	44.2E 3	-73.321	-224.591	11.087	-668.391
	15:KOM.9 (1.2	225.349	44.2E 3	-73.321	-224.591	11.087	-668.391
	16:KOM.10 (1.:	225.349	44.2E 3	-73.321	-224.591	11.087	-668.391
	17:KOM.11 (0.!	173.948	23.2E 3	-58.346	-167.063	7.941	-503.530
	18:KOM.12 (0.!	173.948	23.2E 3	-58.346	-167.063	7.941	-503.530
	19:KOM.13 (0.!	173.948	23.2E 3	-58.346	-167.063	7.941	-503.530
	20:KOM.14 (0.!	173.948	23.2E 3	-58.346	-167.063	7.941	-503.530
151	1:BEBAN MAT	181.118	25.6E 3	-33.321	-126.652	5.869	-541.960
	2:BEBAN HIDL	10.391	13.1E 3	24.232	28.211	0.621	-21.884
	3:BEBAN GEN	-725.808	-3.98E 3	-1.8E 3	-4.29E 3	8.388	1.84E 3
	4:BEBAN GEN	725.808	3.98E 3	1.8E 3	4.29E 3	-8.388	-1.84E 3
	5:BEBAN ANG	-0.898	-505.694	-209.144	-503.315	0.985	-2.036
	6:BEBAN ANG	-5.120	4.175	-0.119	-0.174	-0.003	13.324
	7:KOM.1 (1.4 D	253.566	35.9E 3	-46.650	-177.313	8.217	-758.744
	8:KOM.2 (1.2 D	233.968	51.7E 3	-1.214	-106.845	8.036	-685.366
	9:KOM.3 (1.2 D	226.297	43E 3	-350.383	-929.076	9.239	-675.494
	10:KOM.4 (1.2	219.541	43.8E 3	-15.944	-124.050	7.659	-650.918
	11:KOM.5 (0.9	161.571	22.2E 3	-364.619	-919.291	6.857	-491.022
	12:KOM.6 (0.9	154.814	23.1E 3	-30.180	-114.265	5.277	-466.446
	13:KOM.7 (1.2	227.733	43.8E 3	-15.753	-123.772	7.664	-672.236
	14:KOM.8 (1.2	227.733	43.8E 3	-15.753	-123.772	7.664	-672.236
	15:KOM.9 (1.2	227.733	43.8E 3	-15.753	-123.772	7.664	-672.236
	16:KOM.10 (1.:	227.733	43.8E 3	-15.753	-123.772	7.664	-672.236
	17:KOM.11 (0.!	163.007	23.1E 3	-29.989	-113.987	5.282	-487.764
	18:KOM.12 (0.!	163.007	23.1E 3	-29.989	-113.987	5.282	-487.764
	19:KOM.13 (0.!	163.007	23.1E 3	-29.989	-113.987	5.282	-487.764

Reactions Cont...

Node	L/C	Horizontal FX (kg)	Vertical FY (kg)	Horizontal FZ (kg)	Moment MX (kg`m)	MY (kg`m)	MZ (kg`m)
	20:KOM.14 (0.!	163.007	23.1E 3	-29.989	-113.987	5.282	-487.764
153	1:BEBAN MAT	140.265	33E 3	-53.913	-147.712	3.360	-481.111
	2:BEBAN HIDL	5.335	10.9E 3	50.957	68.698	0.462	-14.978
	3:BEBAN GEN	-677.591	5.34E 3	-1.98E 3	-4.54E 3	4.533	1.77E 3
	4:BEBAN GEN	677.591	-5.34E 3	1.98E 3	4.54E 3	-4.533	-1.77E 3
	5:BEBAN ANG	1.714	1.02E 3	-232.269	-535.416	0.516	-6.041
	6:BEBAN ANG	-4.936	1.867	-0.038	-0.063	-0.002	13.057
	7:KOM.1 (1.4 [	196.371	46.2E 3	-75.478	-206.797	4.704	-673.555
	8:KOM.2 (1.2 [	176.854	57.1E 3	16.835	-67.338	4.771	-601.298
	9:KOM.3 (1.2 [	176.396	52.2E 3	-385.369	-965.222	5.319	-601.977
	10:KOM.4 (1.2	165.756	50.6E 3	-13.800	-108.657	4.490	-571.420
	11:KOM.5 (0.9	128.981	31.4E 3	-420.152	-989.606	3.850	-442.665
	12:KOM.6 (0.9	118.341	29.7E 3	-48.583	-133.042	3.021	-412.109
	13:KOM.7 (1.2	173.653	50.6E 3	-13.739	-108.557	4.493	-592.311
	14:KOM.8 (1.2	173.653	50.6E 3	-13.739	-108.557	4.493	-592.311
	15:KOM.9 (1.2	173.653	50.6E 3	-13.739	-108.557	4.493	-592.311
	16:KOM.10 (1.:	173.653	50.6E 3	-13.739	-108.557	4.493	-592.311
	17:KOM.11 (0.!	126.238	29.7E 3	-48.521	-132.941	3.024	-433.000
	18:KOM.12 (0.!	126.238	29.7E 3	-48.521	-132.941	3.024	-433.000
	19:KOM.13 (0.!	126.238	29.7E 3	-48.521	-132.941	3.024	-433.000
	20:KOM.14 (0.!	126.238	29.7E 3	-48.521	-132.941	3.024	-433.000
155	1:BEBAN MAT	-105.016	72.7E 3	-499.750	-803.139	1.127	-131.074
	2:BEBAN HIDL	-5.555	11.2E 3	45.962	61.468	0.105	0.101
	3:BEBAN GEN	-697.979	9.28E 3	-2.03E 3	-4.6E 3	0.973	1.8E 3
	4:BEBAN GEN	697.979	-9.28E 3	2.03E 3	4.6E 3	-0.973	-1.8E 3
	5:BEBAN ANG	-1.498	1.78E 3	-239.710	-545.806	0.159	-0.946
	6:BEBAN ANG	-4.881	-2.015	0.002	-0.010	-0.001	12.979
	7:KOM.1 (1.4 [	-147.023	102E 3	-699.650	-1.12E 3	1.578	-183.504
	8:KOM.2 (1.2 [	-134.908	105E 3	-526.161	-865.417	1.520	-157.128
	9:KOM.3 (1.2 [	-133.972	101E 3	-937.274	-1.78E 3	1.711	-158.701
	10:KOM.4 (1.2	-139.385	98.4E 3	-553.735	-902.314	1.455	-136.422
	11:KOM.5 (0.9	-96.912	68.3E 3	-833.311	-1.6E 3	1.269	-119.480
	12:KOM.6 (0.9	-102.325	65.4E 3	-449.771	-722.841	1.013	-97.201
	13:KOM.7 (1.2	-131.575	98.4E 3	-553.738	-902.298	1.457	-157.188
	14:KOM.8 (1.2	-131.575	98.4E 3	-553.738	-902.298	1.457	-157.188
	15:KOM.9 (1.2	-131.575	98.4E 3	-553.738	-902.298	1.457	-157.188
	16:KOM.10 (1.:	-131.575	98.4E 3	-553.738	-902.298	1.457	-157.188
	17:KOM.11 (0.!	-94.515	65.4E 3	-449.775	-722.825	1.014	-117.967
	18:KOM.12 (0.!	-94.515	65.4E 3	-449.775	-722.825	1.014	-117.967
	19:KOM.13 (0.!	-94.515	65.4E 3	-449.775	-722.825	1.014	-117.967
	20:KOM.14 (0.!	-94.515	65.4E 3	-449.775	-722.825	1.014	-117.967
157	1:BEBAN MAT	497.033	86.9E 3	-1.38E 3	-2.09E 3	-5.162	-1.02E 3
	2:BEBAN HIDL	6.751	13.1E 3	-10.816	-21.442	-0.331	-18.772
	3:BEBAN GEN	-602.592	3.34E 3	-1.98E 3	-4.54E 3	-1.399	1.66E 3
	4:BEBAN GEN	602.592	-3.34E 3	1.98E 3	4.54E 3	1.399	-1.66E 3
	5:BEBAN ANG	16.319	1.11E 3	-240.990	-547.538	-0.015	-26.597
	6:BEBAN ANG	-5.179	-14.481	0.368	0.521	-0.003	13.411
	7:KOM.1 (1.4 [	695.846	122E 3	-1.93E 3	-2.92E 3	-7.227	-1.42E 3
	8:KOM.2 (1.2 [	607.241	125E 3	-1.67E 3	-2.54E 3	-6.724	-1.25E 3

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
	9:KOM.3 (1.2 [	629.300	119E 3	-2.05E 3	-3.4E 3	-6.550	-1.28E 3
	10:KOM.4 (1.2	594.904	117E 3	-1.66E 3	-2.52E 3	-6.530	-1.22E 3
	11:KOM.5 (0.9	473.440	80E 3	-1.63E 3	-2.75E 3	-4.670	-956.468
	12:KOM.6 (0.9	439.044	78.2E 3	-1.24E 3	-1.88E 3	-4.650	-892.455
	13:KOM.7 (1.2	603.190	117E 3	-1.67E 3	-2.52E 3	-6.526	-1.24E 3
	14:KOM.8 (1.2	603.190	117E 3	-1.67E 3	-2.52E 3	-6.526	-1.24E 3
	15:KOM.9 (1.2	603.190	117E 3	-1.67E 3	-2.52E 3	-6.526	-1.24E 3
	16:KOM.10 (1.:	603.190	117E 3	-1.67E 3	-2.52E 3	-6.526	-1.24E 3
	17:KOM.11 (0.!	447.330	78.2E 3	-1.24E 3	-1.88E 3	-4.646	-913.913
	18:KOM.12 (0.!	447.330	78.2E 3	-1.24E 3	-1.88E 3	-4.646	-913.913
	19:KOM.13 (0.!	447.330	78.2E 3	-1.24E 3	-1.88E 3	-4.646	-913.913
	20:KOM.14 (0.!	447.330	78.2E 3	-1.24E 3	-1.88E 3	-4.646	-913.913
159	1:BEBAN MAT	306.846	31.6E 3	-228.543	-424.079	-10.962	-753.254
	2:BEBAN HIDU	15.598	13.1E 3	2.143	-3.838	-0.554	-32.573
	3:BEBAN GEN	-670.600	-5.07E 3	-1.75E 3	-4.21E 3	-3.182	1.76E 3
	4:BEBAN GEN	670.600	5.07E 3	1.75E 3	4.21E 3	3.182	-1.76E 3
	5:BEBAN ANG	6.304	-603.276	-205.409	-496.172	-0.253	-11.938
	6:BEBAN ANG	-5.103	-1.554	0.025	0.013	-0.004	13.302
	7:KOM.1 (1.4 [	429.584	44.3E 3	-319.960	-593.710	-15.346	-1.05E 3
	8:KOM.2 (1.2 [	393.173	56.8E 3	-270.823	-515.036	-14.041	-956.022
	9:KOM.3 (1.2 [	393.901	50E 3	-600.763	-1.31E 3	-14.113	-955.580
	10:KOM.4 (1.2	375.649	51E 3	-272.068	-512.712	-13.715	-915.195
	11:KOM.5 (0.9	286.249	27.5E 3	-534.343	-1.18E 3	-10.270	-697.030
	12:KOM.6 (0.9	267.997	28.4E 3	-205.648	-381.650	-9.872	-656.646
	13:KOM.7 (1.2	383.814	51E 3	-272.109	-512.733	-13.708	-936.478
	14:KOM.8 (1.2	383.814	51E 3	-272.109	-512.733	-13.708	-936.478
	15:KOM.9 (1.2	383.814	51E 3	-272.109	-512.733	-13.708	-936.478
	16:KOM.10 (1.:	383.814	51E 3	-272.109	-512.733	-13.708	-936.478
	17:KOM.11 (0.!	276.161	28.4E 3	-205.689	-381.671	-9.866	-677.929
	18:KOM.12 (0.!	276.161	28.4E 3	-205.689	-381.671	-9.866	-677.929
	19:KOM.13 (0.!	276.161	28.4E 3	-205.689	-381.671	-9.866	-677.929
	20:KOM.14 (0.!	276.161	28.4E 3	-205.689	-381.671	-9.866	-677.929
161	1:BEBAN MAT	217.843	24.1E 3	-97.504	-257.360	-16.752	-636.257
	2:BEBAN HIDU	12.665	10.5E 3	-26.313	-46.420	-0.502	-29.061
	3:BEBAN GEN	-693.929	-5.64E 3	-1.73E 3	-4.18E 3	-2.001	1.8E 3
	4:BEBAN GEN	693.929	5.64E 3	1.73E 3	4.18E 3	2.001	-1.8E 3
	5:BEBAN ANG	2.718	-827.771	-201.234	-490.792	-0.325	-6.415
	6:BEBAN ANG	-5.085	0.528	-0.031	-0.078	-0.005	13.278
	7:KOM.1 (1.4 [	304.980	33.8E 3	-136.506	-360.304	-23.453	-890.759
	8:KOM.2 (1.2 [	281.675	45.8E 3	-159.107	-383.103	-20.905	-810.006
	9:KOM.3 (1.2 [	278.425	38.2E 3	-465.293	-1.14E 3	-21.124	-802.833
	10:KOM.4 (1.2	265.940	39.5E 3	-143.367	-355.376	-20.612	-771.325
	11:KOM.5 (0.9	200.408	20.4E 3	-409.728	-1.02E 3	-15.596	-582.895
	12:KOM.6 (0.9	187.922	21.7E 3	-87.803	-231.749	-15.084	-551.387
	13:KOM.7 (1.2	274.076	39.5E 3	-143.319	-355.252	-20.604	-792.569
	14:KOM.8 (1.2	274.076	39.5E 3	-143.319	-355.252	-20.604	-792.569
	15:KOM.9 (1.2	274.076	39.5E 3	-143.319	-355.252	-20.604	-792.569
	16:KOM.10 (1.:	274.076	39.5E 3	-143.319	-355.252	-20.604	-792.569
	17:KOM.11 (0.!	196.058	21.7E 3	-87.754	-231.624	-15.077	-572.631

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	18:KOM.12 (0.!	196.058	21.7E 3	-87.754	-231.624	-15.077	-572.631
	19:KOM.13 (0.!	196.058	21.7E 3	-87.754	-231.624	-15.077	-572.631
	20:KOM.14 (0.!	196.058	21.7E 3	-87.754	-231.624	-15.077	-572.631
163	1:BEBAN MAT	250.296	25.4E 3	-74.102	-257.656	-22.867	-694.730
	2:BEBAN HIDU	6.089	13.5E 3	20.763	21.508	-0.394	-20.137
	3:BEBAN GEM	-709.346	-6.03E 3	-1.74E 3	-4.2E 3	0.033	1.82E 3
	4:BEBAN GEM	709.346	6.03E 3	1.74E 3	4.2E 3	-0.033	-1.82E 3
	5:BEBAN ANG	1.874	-815.143	-203.084	-494.222	-0.269	-4.675
	6:BEBAN ANG	-5.156	-0.018	-0.050	-0.115	-0.004	13.381
	7:KOM.1 (1.4 D	350.415	35.5E 3	-103.743	-360.718	-32.014	-972.621
	8:KOM.2 (1.2 D	310.098	52E 3	-55.702	-274.774	-28.071	-865.894
	9:KOM.3 (1.2 D	309.442	42.6E 3	-393.094	-1.08E 3	-28.266	-861.293
	10:KOM.4 (1.2	298.195	43.9E 3	-68.239	-287.863	-27.842	-832.403
	11:KOM.5 (0.9	228.265	21.5E 3	-391.626	-1.02E 3	-21.011	-632.737
	12:KOM.6 (0.9	217.018	22.9E 3	-66.772	-232.074	-20.588	-603.847
	13:KOM.7 (1.2	306.445	43.9E 3	-68.160	-287.679	-27.835	-853.812
	14:KOM.8 (1.2	306.445	43.9E 3	-68.160	-287.679	-27.835	-853.812
	15:KOM.9 (1.2	306.445	43.9E 3	-68.160	-287.679	-27.835	-853.812
	16:KOM.10 (1.:	306.445	43.9E 3	-68.160	-287.679	-27.835	-853.812
	17:KOM.11 (0.!	225.267	22.9E 3	-66.692	-231.890	-20.580	-625.257
	18:KOM.12 (0.!	225.267	22.9E 3	-66.692	-231.890	-20.580	-625.257
	19:KOM.13 (0.!	225.267	22.9E 3	-66.692	-231.890	-20.580	-625.257
	20:KOM.14 (0.!	225.267	22.9E 3	-66.692	-231.890	-20.580	-625.257
165	1:BEBAN MAT	299.022	22.5E 3	-28.831	-237.357	-29.327	-776.684
	2:BEBAN HIDU	17.424	13.1E 3	34.373	40.900	-0.421	-37.267
	3:BEBAN GEM	-749.103	-4.26E 3	-1.8E 3	-4.3E 3	2.132	1.89E 3
	4:BEBAN GEM	749.103	4.26E 3	1.8E 3	4.3E 3	-2.132	-1.89E 3
	5:BEBAN ANG	-2.487	-524.189	-210.525	-505.634	-0.092	2.347
	6:BEBAN ANG	-5.226	3.331	-0.177	-0.310	-0.003	13.485
	7:KOM.1 (1.4 D	418.631	31.5E 3	-40.363	-332.299	-41.058	-1.09E 3
	8:KOM.2 (1.2 D	386.704	48E 3	20.399	-219.388	-35.866	-991.649
	9:KOM.3 (1.2 D	372.270	39.3E 3	-337.064	-1.05E 3	-35.761	-965.534
	10:KOM.4 (1.2	367.888	40.1E 3	-0.508	-244.424	-35.619	-947.712
	11:KOM.5 (0.9	265.140	19.4E 3	-362.788	-1.02E 3	-26.542	-695.261
	12:KOM.6 (0.9	260.758	20.3E 3	-26.232	-214.117	-26.400	-677.440
	13:KOM.7 (1.2	376.250	40.1E 3	-0.224	-243.928	-35.614	-969.289
	14:KOM.8 (1.2	376.250	40.1E 3	-0.224	-243.928	-35.614	-969.289
	15:KOM.9 (1.2	376.250	40.1E 3	-0.224	-243.928	-35.614	-969.289
	16:KOM.10 (1.:	376.250	40.1E 3	-0.224	-243.928	-35.614	-969.289
	17:KOM.11 (0.!	269.120	20.3E 3	-25.948	-213.621	-26.395	-699.016
	18:KOM.12 (0.!	269.120	20.3E 3	-25.948	-213.621	-26.395	-699.016
	19:KOM.13 (0.!	269.120	20.3E 3	-25.948	-213.621	-26.395	-699.016
	20:KOM.14 (0.!	269.120	20.3E 3	-25.948	-213.621	-26.395	-699.016
333	1:BEBAN MAT	427.617	84E 3	-2.49E 3	-3.78E 3	39.807	-889.677
	2:BEBAN HIDU	-47.881	8.84E 3	-105.626	-149.463	1.069	64.388
	3:BEBAN GEM	-664.690	4.47E 3	-2.25E 3	-5.03E 3	5.285	1.74E 3
	4:BEBAN GEM	664.690	-4.47E 3	2.25E 3	5.03E 3	-5.285	-1.74E 3
	5:BEBAN ANG	-2.951	463.734	-262.329	-594.486	0.764	-0.825
	6:BEBAN ANG	-4.422	2.575	-0.564	-0.779	0.013	12.321

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	7:KOM.1 (1.4 [	598.664	118E 3	-3.49E 3	-5.3E 3	55.730	-1.25E 3
	8:KOM.2 (1.2 [	436.531	115E 3	-3.16E 3	-4.78E 3	49.479	-964.592
	9:KOM.3 (1.2 [	460.538	110E 3	-3.51E 3	-5.64E 3	50.060	-1E 3
	10:KOM.4 (1.2	458.184	110E 3	-3.09E 3	-4.69E 3	48.858	-983.511
	11:KOM.5 (0.9	380.134	76.3E 3	-2.66E 3	-4.36E 3	37.049	-802.029
	12:KOM.6 (0.9	377.780	75.6E 3	-2.24E 3	-3.41E 3	35.847	-780.995
	13:KOM.7 (1.2	465.259	110E 3	-3.09E 3	-4.69E 3	48.837	-1E 3
	14:KOM.8 (1.2	465.259	110E 3	-3.09E 3	-4.69E 3	48.837	-1E 3
	15:KOM.9 (1.2	465.259	110E 3	-3.09E 3	-4.69E 3	48.837	-1E 3
	16:KOM.10 (1.:	465.259	110E 3	-3.09E 3	-4.69E 3	48.837	-1E 3
	17:KOM.11 (0.!	384.855	75.6E 3	-2.24E 3	-3.4E 3	35.827	-800.709
	18:KOM.12 (0.!	384.855	75.6E 3	-2.24E 3	-3.4E 3	35.827	-800.709
	19:KOM.13 (0.!	384.855	75.6E 3	-2.24E 3	-3.4E 3	35.827	-800.709
	20:KOM.14 (0.!	384.855	75.6E 3	-2.24E 3	-3.4E 3	35.827	-800.709
1040	1:BEBAN MAT	55.933	39.2E 3	3.538	-4.974	-2.987	-372.498
	2:BEBAN HIDU	-1.435	1.92E 3	4.695	20.778	0.514	3.910
	3:BEBAN GEM	-49.575	-560.496	-141.769	-1E 3	-4.253	375.147
	4:BEBAN GEM	49.575	560.496	141.769	1E 3	4.253	-375.147
	5:BEBAN ANG	1.613	-113.222	-21.666	-153.346	-0.182	-8.022
	6:BEBAN ANG	-0.522	-1.924	-0.006	-0.033	-0.002	3.772
	7:KOM.1 (1.4 [	78.307	54.9E 3	4.953	-6.964	-4.182	-521.498
	8:KOM.2 (1.2 [	64.824	50.1E 3	11.757	27.275	-2.761	-440.742
	9:KOM.3 (1.2 [	68.265	48.8E 3	-25.725	-230.545	-3.361	-455.923
	10:KOM.4 (1.2	64.850	48.9E 3	8.931	14.756	-3.073	-437.053
	11:KOM.5 (0.9	52.921	35.1E 3	-31.481	-249.831	-2.979	-348.084
	12:KOM.6 (0.9	49.505	35.3E 3	3.174	-4.529	-2.691	-329.214
	13:KOM.7 (1.2	65.685	48.9E 3	8.940	14.809	-3.070	-443.088
	14:KOM.8 (1.2	65.685	48.9E 3	8.940	14.809	-3.070	-443.088
	15:KOM.9 (1.2	65.685	48.9E 3	8.940	14.809	-3.070	-443.088
	16:KOM.10 (1.:	65.685	48.9E 3	8.940	14.809	-3.070	-443.088
	17:KOM.11 (0.!	50.340	35.3E 3	3.184	-4.477	-2.688	-335.248
	18:KOM.12 (0.!	50.340	35.3E 3	3.184	-4.477	-2.688	-335.248
	19:KOM.13 (0.!	50.340	35.3E 3	3.184	-4.477	-2.688	-335.248
	20:KOM.14 (0.!	50.340	35.3E 3	3.184	-4.477	-2.688	-335.248
1042	1:BEBAN MAT	79.017	31.9E 3	-3.635	-20.218	-0.535	-477.794
	2:BEBAN HIDU	-1.551	1.63E 3	-0.908	-4.439	-0.134	4.305
	3:BEBAN GEM	-64.900	101.783	-22.560	-158.227	-1.070	452.058
	4:BEBAN GEM	64.900	-101.783	22.560	158.227	1.070	-452.058
	5:BEBAN ANG	-1.760	89.154	-3.500	-24.504	-0.060	9.299
	6:BEBAN ANG	-0.504	-1.362	0.000	0.001	-0.000	3.649
	7:KOM.1 (1.4 [	110.624	44.6E 3	-5.089	-28.306	-0.749	-668.912
	8:KOM.2 (1.2 [	92.340	40.8E 3	-5.814	-31.365	-0.857	-566.466
	9:KOM.3 (1.2 [	90.422	40E 3	-10.870	-67.907	-0.873	-554.170
	10:KOM.4 (1.2	92.464	39.8E 3	-5.269	-28.699	-0.777	-563.210
	11:KOM.5 (0.9	68.268	28.8E 3	-8.872	-57.403	-0.578	-415.137
	12:KOM.6 (0.9	70.310	28.7E 3	-3.271	-18.194	-0.482	-424.176
	13:KOM.7 (1.2	93.270	39.8E 3	-5.270	-28.701	-0.777	-569.048
	14:KOM.8 (1.2	93.270	39.8E 3	-5.270	-28.701	-0.777	-569.048
	15:KOM.9 (1.2	93.270	39.8E 3	-5.270	-28.701	-0.777	-569.048

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	16:KOM.10 (1.:	93.270	39.8E 3	-5.270	-28.701	-0.777	-569.048
	17:KOM.11 (0.!	71.116	28.7E 3	-3.271	-18.197	-0.482	-430.015
	18:KOM.12 (0.!	71.116	28.7E 3	-3.271	-18.197	-0.482	-430.015
	19:KOM.13 (0.!	71.116	28.7E 3	-3.271	-18.197	-0.482	-430.015
	20:KOM.14 (0.!	71.116	28.7E 3	-3.271	-18.197	-0.482	-430.015
1075	1:BEBAN MAT	-16.9E 3	29.7E 3	11.7E 3	0.000	0.000	0.000
	2:BEBAN HIDL	-617.495	1.06E 3	431.728	0.000	0.000	0.000
	3:BEBAN GEN	7.1E 3	-8.25E 3	-4.02E 3	0.000	0.000	0.000
	4:BEBAN GEN	-7.1E 3	8.25E 3	4.02E 3	0.000	0.000	0.000
	5:BEBAN ANG	895.969	-1.03E 3	-497.596	0.000	0.000	0.000
	6:BEBAN ANG	-2.284	1.907	0.913	0.000	0.000	0.000
	7:KOM.1 (1.4 D	-23.7E 3	41.6E 3	16.4E 3	0.000	0.000	0.000
	8:KOM.2 (1.2 D	-21.3E 3	37.3E 3	14.7E 3	0.000	0.000	0.000
	9:KOM.3 (1.2 D	-19.5E 3	35E 3	13.7E 3	0.000	0.000	0.000
	10:KOM.4 (1.2	-20.9E 3	36.7E 3	14.5E 3	0.000	0.000	0.000
	11:KOM.5 (0.9	-13.8E 3	25.1E 3	9.72E 3	0.000	0.000	0.000
	12:KOM.6 (0.9	-15.2E 3	26.7E 3	10.5E 3	0.000	0.000	0.000
	13:KOM.7 (1.2	-20.9E 3	36.7E 3	14.5E 3	0.000	0.000	0.000
	14:KOM.8 (1.2	-20.9E 3	36.7E 3	14.5E 3	0.000	0.000	0.000
	15:KOM.9 (1.2	-20.9E 3	36.7E 3	14.5E 3	0.000	0.000	0.000
	16:KOM.10 (1.:	-20.9E 3	36.7E 3	14.5E 3	0.000	0.000	0.000
	17:KOM.11 (0.!	-15.2E 3	26.7E 3	10.5E 3	0.000	0.000	0.000
	18:KOM.12 (0.!	-15.2E 3	26.7E 3	10.5E 3	0.000	0.000	0.000
	19:KOM.13 (0.!	-15.2E 3	26.7E 3	10.5E 3	0.000	0.000	0.000
	20:KOM.14 (0.!	-15.2E 3	26.7E 3	10.5E 3	0.000	0.000	0.000
1077	1:BEBAN MAT	-38.5E 3	43E 3	-10.5E 3	0.000	0.000	0.000
	2:BEBAN HIDL	-1.39E 3	1.51E 3	-347.047	0.000	0.000	0.000
	3:BEBAN GEN	-6.3E 3	7.3E 3	-3.78E 3	0.000	0.000	0.000
	4:BEBAN GEN	6.3E 3	-7.3E 3	3.78E 3	0.000	0.000	0.000
	5:BEBAN ANG	-706.312	845.920	-451.234	0.000	0.000	0.000
	6:BEBAN ANG	-3.401	2.183	-0.169	0.000	0.000	0.000
	7:KOM.1 (1.4 D	-53.9E 3	60.2E 3	-14.7E 3	0.000	0.000	0.000
	8:KOM.2 (1.2 D	-48.4E 3	54E 3	-13.2E 3	0.000	0.000	0.000
	9:KOM.3 (1.2 D	-48.7E 3	54.5E 3	-13.7E 3	0.000	0.000	0.000
	10:KOM.4 (1.2	-47.6E 3	53.1E 3	-13E 3	0.000	0.000	0.000
	11:KOM.5 (0.9	-35.8E 3	40.1E 3	-10.2E 3	0.000	0.000	0.000
	12:KOM.6 (0.9	-34.6E 3	38.7E 3	-9.48E 3	0.000	0.000	0.000
	13:KOM.7 (1.2	-47.6E 3	53.1E 3	-13E 3	0.000	0.000	0.000
	14:KOM.8 (1.2	-47.6E 3	53.1E 3	-13E 3	0.000	0.000	0.000
	15:KOM.9 (1.2	-47.6E 3	53.1E 3	-13E 3	0.000	0.000	0.000
	16:KOM.10 (1.:	-47.6E 3	53.1E 3	-13E 3	0.000	0.000	0.000
	17:KOM.11 (0.!	-34.6E 3	38.7E 3	-9.48E 3	0.000	0.000	0.000
	18:KOM.12 (0.!	-34.6E 3	38.7E 3	-9.48E 3	0.000	0.000	0.000
	19:KOM.13 (0.!	-34.6E 3	38.7E 3	-9.48E 3	0.000	0.000	0.000
	20:KOM.14 (0.!	-34.6E 3	38.7E 3	-9.48E 3	0.000	0.000	0.000
1078	1:BEBAN MAT	-19.5E 3	32.1E 3	9.83E 3	0.000	0.000	0.000
	2:BEBAN HIDL	-637.334	1.05E 3	318.824	0.000	0.000	0.000
	3:BEBAN GEN	4.01E 3	-8.96E 3	-11.6E 3	0.000	0.000	0.000
	4:BEBAN GEN	-4.01E 3	8.96E 3	11.6E 3	0.000	0.000	0.000

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	5:BEBAN ANG	614.650	-1.15E 3	-1.38E 3	0.000	0.000	0.000
	6:BEBAN ANG	-8.151	5.071	0.039	0.000	0.000	0.000
	7:KOM.1 (1.4 [	-27.3E 3	44.9E 3	13.8E 3	0.000	0.000	0.000
	8:KOM.2 (1.2 [	-24.4E 3	40.2E 3	12.3E 3	0.000	0.000	0.000
	9:KOM.3 (1.2 [	-23E 3	37.7E 3	9.91E 3	0.000	0.000	0.000
	10:KOM.4 (1.2	-24E 3	39.6E 3	12.1E 3	0.000	0.000	0.000
	11:KOM.5 (0.9	-16.5E 3	27E 3	6.64E 3	0.000	0.000	0.000
	12:KOM.6 (0.9	-17.5E 3	28.9E 3	8.85E 3	0.000	0.000	0.000
	13:KOM.7 (1.2	-24E 3	39.6E 3	12.1E 3	0.000	0.000	0.000
	14:KOM.8 (1.2	-24E 3	39.6E 3	12.1E 3	0.000	0.000	0.000
	15:KOM.9 (1.2	-24E 3	39.6E 3	12.1E 3	0.000	0.000	0.000
	16:KOM.10 (1.:	-24E 3	39.6E 3	12.1E 3	0.000	0.000	0.000
	17:KOM.11 (0.!	-17.5E 3	28.9E 3	8.85E 3	0.000	0.000	0.000
	18:KOM.12 (0.!	-17.5E 3	28.9E 3	8.85E 3	0.000	0.000	0.000
	19:KOM.13 (0.!	-17.5E 3	28.9E 3	8.85E 3	0.000	0.000	0.000
	20:KOM.14 (0.!	-17.5E 3	28.9E 3	8.85E 3	0.000	0.000	0.000
1080	1:BEBAN MAT	-1.32E 3	14.9E 3	-8.77E 3	0.000	0.000	0.000
	2:BEBAN HIDU	0.221	449.694	-281.415	0.000	0.000	0.000
	3:BEBAN GEM	-5.37E 3	10.2E 3	-11.9E 3	0.000	0.000	0.000
	4:BEBAN GEM	5.37E 3	-10.2E 3	11.9E 3	0.000	0.000	0.000
	5:BEBAN ANG	-572.481	1.13E 3	-1.37E 3	0.000	0.000	0.000
	6:BEBAN ANG	-4.294	5.608	-2.690	0.000	0.000	0.000
	7:KOM.1 (1.4 [	-1.85E 3	20.9E 3	-12.3E 3	0.000	0.000	0.000
	8:KOM.2 (1.2 [	-1.59E 3	18.6E 3	-11E 3	0.000	0.000	0.000
	9:KOM.3 (1.2 [	-2.51E 3	20.1E 3	-13E 3	0.000	0.000	0.000
	10:KOM.4 (1.2	-1.6E 3	18.3E 3	-10.8E 3	0.000	0.000	0.000
	11:KOM.5 (0.9	-2.11E 3	15.2E 3	-10.1E 3	0.000	0.000	0.000
	12:KOM.6 (0.9	-1.2E 3	13.4E 3	-7.9E 3	0.000	0.000	0.000
	13:KOM.7 (1.2	-1.59E 3	18.3E 3	-10.8E 3	0.000	0.000	0.000
	14:KOM.8 (1.2	-1.59E 3	18.3E 3	-10.8E 3	0.000	0.000	0.000
	15:KOM.9 (1.2	-1.59E 3	18.3E 3	-10.8E 3	0.000	0.000	0.000
	16:KOM.10 (1.:	-1.59E 3	18.3E 3	-10.8E 3	0.000	0.000	0.000
	17:KOM.11 (0.!	-1.19E 3	13.4E 3	-7.89E 3	0.000	0.000	0.000
	18:KOM.12 (0.!	-1.19E 3	13.4E 3	-7.89E 3	0.000	0.000	0.000
	19:KOM.13 (0.!	-1.19E 3	13.4E 3	-7.89E 3	0.000	0.000	0.000
	20:KOM.14 (0.!	-1.19E 3	13.4E 3	-7.89E 3	0.000	0.000	0.000
1082	1:BEBAN MAT	17.3E 3	30.1E 3	11.9E 3	0.000	0.000	0.000
	2:BEBAN HIDU	634.234	1.08E 3	439.390	0.000	0.000	0.000
	3:BEBAN GEM	-8.35E 3	-9.45E 3	-4.6E 3	0.000	0.000	0.000
	4:BEBAN GEM	8.35E 3	9.45E 3	4.6E 3	0.000	0.000	0.000
	5:BEBAN ANG	-966.479	-1.1E 3	-535.228	0.000	0.000	0.000
	6:BEBAN ANG	-2.120	-1.787	-0.865	0.000	0.000	0.000
	7:KOM.1 (1.4 [	24.2E 3	42.1E 3	16.6E 3	0.000	0.000	0.000
	8:KOM.2 (1.2 [	21.7E 3	37.8E 3	14.9E 3	0.000	0.000	0.000
	9:KOM.3 (1.2 [	19.8E 3	35.4E 3	13.8E 3	0.000	0.000	0.000
	10:KOM.4 (1.2	21.4E 3	37.2E 3	14.7E 3	0.000	0.000	0.000
	11:KOM.5 (0.9	14E 3	25.3E 3	9.82E 3	0.000	0.000	0.000
	12:KOM.6 (0.9	15.5E 3	27.1E 3	10.7E 3	0.000	0.000	0.000
	13:KOM.7 (1.2	21.4E 3	37.2E 3	14.7E 3	0.000	0.000	0.000

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	14:KOM.8 (1.2	21.4E 3	37.2E 3	14.7E 3	0.000	0.000	0.000
	15:KOM.9 (1.2	21.4E 3	37.2E 3	14.7E 3	0.000	0.000	0.000
	16:KOM.10 (1.:	21.4E 3	37.2E 3	14.7E 3	0.000	0.000	0.000
	17:KOM.11 (0.9	15.5E 3	27.1E 3	10.7E 3	0.000	0.000	0.000
	18:KOM.12 (0.!	15.5E 3	27.1E 3	10.7E 3	0.000	0.000	0.000
	19:KOM.13 (0.!	15.5E 3	27.1E 3	10.7E 3	0.000	0.000	0.000
	20:KOM.14 (0.!	15.5E 3	27.1E 3	10.7E 3	0.000	0.000	0.000
1084	1:BEBAN MAT	38.3E 3	42.8E 3	-10.5E 3	0.000	0.000	0.000
	2:BEBAN HIDU	1.39E 3	1.51E 3	-344.246	0.000	0.000	0.000
	3:BEBAN GEM	5.83E 3	7.24E 3	-4.03E 3	0.000	0.000	0.000
	4:BEBAN GEM	-5.83E 3	-7.24E 3	4.03E 3	0.000	0.000	0.000
	5:BEBAN ANG	762.118	909.617	-485.296	0.000	0.000	0.000
	6:BEBAN ANG	-2.967	-1.846	0.096	0.000	0.000	0.000
	7:KOM.1 (1.4 D	53.6E 3	60E 3	-14.6E 3	0.000	0.000	0.000
	8:KOM.2 (1.2 D	48.2E 3	53.8E 3	-13.1E 3	0.000	0.000	0.000
	9:KOM.3 (1.2 D	48.6E 3	54.4E 3	-13.7E 3	0.000	0.000	0.000
	10:KOM.4 (1.2	47.4E 3	52.9E 3	-12.9E 3	0.000	0.000	0.000
	11:KOM.5 (0.9	35.7E 3	40E 3	-10.2E 3	0.000	0.000	0.000
	12:KOM.6 (0.9	34.5E 3	38.5E 3	-9.4E 3	0.000	0.000	0.000
	13:KOM.7 (1.2	47.4E 3	52.9E 3	-12.9E 3	0.000	0.000	0.000
	14:KOM.8 (1.2	47.4E 3	52.9E 3	-12.9E 3	0.000	0.000	0.000
	15:KOM.9 (1.2	47.4E 3	52.9E 3	-12.9E 3	0.000	0.000	0.000
	16:KOM.10 (1.:	47.4E 3	52.9E 3	-12.9E 3	0.000	0.000	0.000
	17:KOM.11 (0.9	34.5E 3	38.5E 3	-9.41E 3	0.000	0.000	0.000
	18:KOM.12 (0.!	34.5E 3	38.5E 3	-9.41E 3	0.000	0.000	0.000
	19:KOM.13 (0.!	34.5E 3	38.5E 3	-9.41E 3	0.000	0.000	0.000
	20:KOM.14 (0.!	34.5E 3	38.5E 3	-9.41E 3	0.000	0.000	0.000
2018	1:BEBAN MAT	3.76E 3	32.9E 3	101.415	3.34E 3	-171.425	-6.57E 3
	2:BEBAN HIDU	137.940	1.14E 3	4.081	117.996	-5.782	-245.253
	3:BEBAN GEM	-705.729	19.3E 3	-2.78E 3	-4.3E 3	-244.245	1.41E 3
	4:BEBAN GEM	705.729	-19.3E 3	2.78E 3	4.3E 3	244.245	-1.41E 3
	5:BEBAN ANG	-52.075	2.49E 3	-402.851	-596.002	-50.639	98.451
	6:BEBAN ANG	-2.029	-11.501	4.317	5.016	1.307	4.333
	7:KOM.1 (1.4 D	5.26E 3	46.1E 3	141.981	4.67E 3	-239.995	-9.19E 3
	8:KOM.2 (1.2 D	4.73E 3	41.3E 3	128.228	4.19E 3	-214.961	-8.27E 3
	9:KOM.3 (1.2 D	4.56E 3	44.6E 3	-518.782	3.17E 3	-292.515	-7.97E 3
	10:KOM.4 (1.2	4.64E 3	40.6E 3	132.686	4.13E 3	-209.401	-8.12E 3
	11:KOM.5 (0.9	3.3E 3	33.6E 3	-553.288	2.05E 3	-235.306	-5.75E 3
	12:KOM.6 (0.9	3.38E 3	29.6E 3	98.181	3.01E 3	-152.192	-5.9E 3
	13:KOM.7 (1.2	4.65E 3	40.6E 3	125.779	4.12E 3	-211.492	-8.13E 3
	14:KOM.8 (1.2	4.65E 3	40.6E 3	125.779	4.12E 3	-211.492	-8.13E 3
	15:KOM.9 (1.2	4.65E 3	40.6E 3	125.779	4.12E 3	-211.492	-8.13E 3
	16:KOM.10 (1.:	4.65E 3	40.6E 3	125.779	4.12E 3	-211.492	-8.13E 3
	17:KOM.11 (0.9	3.38E 3	29.6E 3	91.274	3E 3	-154.283	-5.91E 3
	18:KOM.12 (0.!	3.38E 3	29.6E 3	91.274	3E 3	-154.283	-5.91E 3
	19:KOM.13 (0.!	3.38E 3	29.6E 3	91.274	3E 3	-154.283	-5.91E 3
	20:KOM.14 (0.!	3.38E 3	29.6E 3	91.274	3E 3	-154.283	-5.91E 3
2019	1:BEBAN MAT	3.4E 3	39.9E 3	9.15E 3	11.3E 3	172.201	-5.83E 3
	2:BEBAN HIDU	118.949	1.31E 3	319.618	394.491	7.665	-210.424

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg·m)	MY (kg·m)	MZ (kg·m)
	3:BEBAN GEM	-968.330	-22.7E 3	-3.63E 3	-5.33E 3	379.719	2.09E 3
	4:BEBAN GEM	968.330	22.7E 3	3.63E 3	5.33E 3	-379.719	-2.09E 3
	5:BEBAN ANG	24.190	-2.45E 3	-421.319	-645.371	22.426	-44.827
	6:BEBAN ANG	-8.632	-16.029	-0.838	0.458	1.386	18.058
	7:KOM.1 (1.4 [	4.77E 3	55.8E 3	12.8E 3	15.8E 3	241.082	-8.16E 3
	8:KOM.2 (1.2 [	4.27E 3	50E 3	11.5E 3	14.2E 3	218.906	-7.33E 3
	9:KOM.3 (1.2 [	4.24E 3	45.2E 3	10.6E 3	12.9E 3	250.189	-7.28E 3
	10:KOM.4 (1.2	4.19E 3	49.1E 3	11.3E 3	13.9E 3	216.524	-7.18E 3
	11:KOM.5 (0.9	3.1E 3	32E 3	7.56E 3	9.12E 3	190.863	-5.32E 3
	12:KOM.6 (0.9	3.05E 3	35.9E 3	8.24E 3	10.2E 3	157.199	-5.22E 3
	13:KOM.7 (1.2	4.2E 3	49.2E 3	11.3E 3	13.9E 3	214.307	-7.21E 3
	14:KOM.8 (1.2	4.2E 3	49.2E 3	11.3E 3	13.9E 3	214.307	-7.21E 3
	15:KOM.9 (1.2	4.2E 3	49.2E 3	11.3E 3	13.9E 3	214.307	-7.21E 3
	16:KOM.10 (1.:	4.2E 3	49.2E 3	11.3E 3	13.9E 3	214.307	-7.21E 3
	17:KOM.11 (0.!	3.06E 3	35.9E 3	8.24E 3	10.2E 3	154.981	-5.25E 3
	18:KOM.12 (0.!	3.06E 3	35.9E 3	8.24E 3	10.2E 3	154.981	-5.25E 3
	19:KOM.13 (0.!	3.06E 3	35.9E 3	8.24E 3	10.2E 3	154.981	-5.25E 3
	20:KOM.14 (0.!	3.06E 3	35.9E 3	8.24E 3	10.2E 3	154.981	-5.25E 3
3749	1:BEBAN MAT	-70.787	40.6E 3	-157.404	-287.757	3.583	-86.985
	2:BEBAN HIDL	-15.540	6.04E 3	-8.772	-17.399	0.210	17.992
	3:BEBAN GEM	-585.900	-4.43E 3	-1.8E 3	-4.09E 3	-2.241	1.4E 3
	4:BEBAN GEM	585.900	4.43E 3	1.8E 3	4.09E 3	2.241	-1.4E 3
	5:BEBAN ANG	-6.004	-804.176	-210.778	-482.165	-0.262	6.477
	6:BEBAN ANG	-3.841	9.768	-0.052	-0.083	-0.005	9.724
	7:KOM.1 (1.4 [	-99.102	56.8E 3	-220.366	-402.860	5.017	-121.779
	8:KOM.2 (1.2 [	-109.808	58.4E 3	-202.920	-373.146	4.636	-75.595
	9:KOM.3 (1.2 [	-110.090	53.5E 3	-534.902	-1.13E 3	4.090	-76.027
	10:KOM.4 (1.2	-106.630	54.8E 3	-197.741	-362.839	4.502	-70.832
	11:KOM.5 (0.9	-73.315	35.2E 3	-478.908	-1.03E 3	2.805	-67.923
	12:KOM.6 (0.9	-69.855	36.5E 3	-141.748	-259.113	3.218	-62.729
	13:KOM.7 (1.2	-100.484	54.8E 3	-197.657	-362.707	4.510	-86.390
	14:KOM.8 (1.2	-100.484	54.8E 3	-197.657	-362.707	4.510	-86.390
	15:KOM.9 (1.2	-100.484	54.8E 3	-197.657	-362.707	4.510	-86.390
	16:KOM.10 (1.:	-100.484	54.8E 3	-197.657	-362.707	4.510	-86.390
	17:KOM.11 (0.!	-63.708	36.5E 3	-141.664	-258.981	3.225	-78.286
	18:KOM.12 (0.!	-63.708	36.5E 3	-141.664	-258.981	3.225	-78.286
	19:KOM.13 (0.!	-63.708	36.5E 3	-141.664	-258.981	3.225	-78.286
	20:KOM.14 (0.!	-63.708	36.5E 3	-141.664	-258.981	3.225	-78.286
3750	1:BEBAN MAT	-29.279	42.4E 3	23.597	-14.646	-18.580	-193.363
	2:BEBAN HIDL	-13.611	6.12E 3	-1.629	-6.132	-0.710	13.317
	3:BEBAN GEM	-475.223	6.67E 3	-1.78E 3	-4.07E 3	12.648	1.26E 3
	4:BEBAN GEM	475.223	-6.67E 3	1.78E 3	4.07E 3	-12.648	-1.26E 3
	5:BEBAN ANG	8.443	884.245	-211.215	-483.072	1.547	-12.058
	6:BEBAN ANG	-3.810	10.258	0.035	0.042	0.002	9.667
	7:KOM.1 (1.4 [	-40.990	59.4E 3	33.036	-20.505	-26.012	-270.708
	8:KOM.2 (1.2 [	-56.912	60.7E 3	25.711	-27.386	-23.432	-210.729
	9:KOM.3 (1.2 [	-35.236	58.4E 3	-311.256	-796.622	-20.531	-238.012
	10:KOM.4 (1.2	-54.841	57E 3	26.743	-23.639	-23.003	-203.252
	11:KOM.5 (0.9	-12.842	39.6E 3	-316.707	-786.096	-14.247	-193.320

Reactions Cont...

		Horizontal	Vertical	Horizontal	Moment		
Node	L/C	FX (kg)	FY (kg)	FZ (kg)	MX (kg`m)	MY (kg`m)	MZ (kg`m)
	12:KOM.6 (0.9	-32.447	38.2E 3	21.293	-13.114	-16.719	-158.560
	13:KOM.7 (1.2	-48.745	57E 3	26.688	-23.707	-23.006	-218.719
	14:KOM.8 (1.2	-48.745	57E 3	26.688	-23.707	-23.006	-218.719
	15:KOM.9 (1.2	-48.745	57E 3	26.688	-23.707	-23.006	-218.719
	16:KOM.10 (1.:	-48.745	57E 3	26.688	-23.707	-23.006	-218.719
	17:KOM.11 (0.!	-26.351	38.2E 3	21.238	-13.182	-16.722	-174.027
	18:KOM.12 (0.!	-26.351	38.2E 3	21.238	-13.182	-16.722	-174.027
	19:KOM.13 (0.!	-26.351	38.2E 3	21.238	-13.182	-16.722	-174.027
	20:KOM.14 (0.!	-26.351	38.2E 3	21.238	-13.182	-16.722	-174.027
3751	1:BEBAN MAT	-1.27E 3	229E 3	-1.4E 3	-2.11E 3	62.590	1.66E 3
	2:BEBAN HIDU	-28.972	8.8E 3	-38.755	-61.465	3.162	37.300
	3:BEBAN GEM	-653.853	6.95E 3	-1.76E 3	-4.03E 3	3.411	1.51E 3
	4:BEBAN GEM	653.853	-6.95E 3	1.76E 3	4.03E 3	-3.411	-1.51E 3
	5:BEBAN ANG	-19.461	999.856	-203.331	-471.085	-0.004	27.141
	6:BEBAN ANG	-3.607	4.592	-0.171	-0.262	0.013	9.387
	7:KOM.1 (1.4 D	-1.78E 3	320E 3	-1.96E 3	-2.95E 3	87.627	2.33E 3
	8:KOM.2 (1.2 D	-1.57E 3	289E 3	-1.74E 3	-2.63E 3	80.168	2.05E 3
	9:KOM.3 (1.2 D	-1.59E 3	285E 3	-2.04E 3	-3.34E 3	78.263	2.07E 3
	10:KOM.4 (1.2	-1.56E 3	283E 3	-1.72E 3	-2.59E 3	78.291	2.05E 3
	11:KOM.5 (0.9	-1.18E 3	208E 3	-1.58E 3	-2.65E 3	56.324	1.54E 3
	12:KOM.6 (0.9	-1.15E 3	206E 3	-1.26E 3	-1.9E 3	56.352	1.51E 3
	13:KOM.7 (1.2	-1.56E 3	283E 3	-1.72E 3	-2.59E 3	78.270	2.03E 3
	14:KOM.8 (1.2	-1.56E 3	283E 3	-1.72E 3	-2.59E 3	78.270	2.03E 3
	15:KOM.9 (1.2	-1.56E 3	283E 3	-1.72E 3	-2.59E 3	78.270	2.03E 3
	16:KOM.10 (1.:	-1.56E 3	283E 3	-1.72E 3	-2.59E 3	78.270	2.03E 3
	17:KOM.11 (0.!	-1.14E 3	206E 3	-1.26E 3	-1.9E 3	56.331	1.5E 3
	18:KOM.12 (0.!	-1.14E 3	206E 3	-1.26E 3	-1.9E 3	56.331	1.5E 3
	19:KOM.13 (0.!	-1.14E 3	206E 3	-1.26E 3	-1.9E 3	56.331	1.5E 3
	20:KOM.14 (0.!	-1.14E 3	206E 3	-1.26E 3	-1.9E 3	56.331	1.5E 3
3752	1:BEBAN MAT	-1.29E 3	247E 3	1.2E 3	1.67E 3	35.862	1.62E 3
	2:BEBAN HIDU	-24.934	9.32E 3	24.856	31.543	2.233	28.290
	3:BEBAN GEM	-442.286	-3.16E 3	-1.56E 3	-3.72E 3	42.078	1.24E 3
	4:BEBAN GEM	442.286	3.16E 3	1.56E 3	3.72E 3	-42.078	-1.24E 3
	5:BEBAN ANG	15.384	-844.826	-187.589	-445.324	4.385	-19.168
	6:BEBAN ANG	-3.932	18.194	0.211	0.296	0.032	9.836
	7:KOM.1 (1.4 D	-1.8E 3	346E 3	1.67E 3	2.34E 3	50.207	2.27E 3
	8:KOM.2 (1.2 D	-1.59E 3	311E 3	1.47E 3	2.06E 3	46.608	1.99E 3
	9:KOM.3 (1.2 D	-1.55E 3	305E 3	1.16E 3	1.33E 3	52.284	1.94E 3
	10:KOM.4 (1.2	-1.58E 3	306E 3	1.46E 3	2.04E 3	45.319	1.99E 3
	11:KOM.5 (0.9	-1.14E 3	221E 3	775.648	794.690	39.292	1.43E 3
	12:KOM.6 (0.9	-1.17E 3	222E 3	1.08E 3	1.51E 3	32.327	1.47E 3
	13:KOM.7 (1.2	-1.57E 3	306E 3	1.46E 3	2.04E 3	45.268	1.97E 3
	14:KOM.8 (1.2	-1.57E 3	306E 3	1.46E 3	2.04E 3	45.268	1.97E 3
	15:KOM.9 (1.2	-1.57E 3	306E 3	1.46E 3	2.04E 3	45.268	1.97E 3
	16:KOM.10 (1.:	-1.57E 3	306E 3	1.46E 3	2.04E 3	45.268	1.97E 3
	17:KOM.11 (0.!	-1.16E 3	222E 3	1.08E 3	1.51E 3	32.276	1.46E 3
	18:KOM.12 (0.!	-1.16E 3	222E 3	1.08E 3	1.51E 3	32.276	1.46E 3
	19:KOM.13 (0.!	-1.16E 3	222E 3	1.08E 3	1.51E 3	32.276	1.46E 3
	20:KOM.14 (0.!	-1.16E 3	222E 3	1.08E 3	1.51E 3	32.276	1.46E 3

JHS SYSTEM

Nomor : 06 / JHS-PCI / R-UNM/III/10
Lampiran :
Perihal : **Permohonan Data & Informasi**

Kepada Yth. Dekan Fakultas Teknik Sipil dan Perencanaan
Institut Teknologi Nasional Malang

Menanggapi surat Saudara Nomor : ITN-117/III.TA/1/2009 perihal Permohonan Data dan Informasi
Setelah melalui berbagai pertimbangan, maka dengan ini kami memutuskan bahwa proyek yang sedang kami kerjakan, yakni :

PROYEK	: RUSUNAWA UNIVERSITAS NEGERI MALANG
LOKASI	: JALAN SURABAYA NO.6 MALANG
LINGKUP PEK.	: ■STRUKTURAL ■ARSITEKTURAL □INSTALASI □M.E.
PEMILIK	: KEMENTERIAN NEGARA PERUMAHAN RAKYAT
PERENCANA	: PT. PERENTJANA DJAJA
PENGAWAS	: PT. SAKA ADHI PRADA
PELAKSANA	: PT. JHS PRECAST CONCRETE INDONESIA, JAKARTA TIMUR

adalah ....**LAYAK** / ~~TIDAK LAYAK~~.......coret yang tidak sesuai.

untuk dijadikan object melakukan Pengambilan Data & Informasi guna penyusunan Tugas Akhir bagi mahasiswa yang namanya tercantum dalam surat Saudara.

Demikian tanggapan dari kami. Atas perhatian ,kepercayaan dan kerjasama yang baik ini, disampaikan terima kasih.

Malang, 12 Maret 2010
Project Manajer

PRECAST CONCRETE INDONESIA

Dian Agung P, ST

Tembusan Kepada:

1. Arsip

Tabel 3.1 : Perhitungan Pusat Massa Untuk Kolom Pada Lantai 2

No	Uraian			Berat Sendiri	Jarak		Momen	
					X	Y	MX	MY
I	KOLOM							
	Berat sendiri =Luas x (1/2 tinggi kolom bawah + 1/2 tinggi kolom atas) x 2400							
	Titik pusat atau titik 0 (0,0) dapat dilihat pada gambar denah kolom pada masing-masing lantai							
1	1	K2	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	3,50	7163,64	3742,20
	2	K3	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	10,60	3,50	11333,52	3742,20
	3	K4	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	14,50	3,50	15503,40	3742,20
	4	K5	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	18,40	3,50	19673,28	3742,20
	5	K6	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	22,30	3,50	23843,16	3742,20
	6	K7	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	26,20	3,50	28013,04	3742,20
	7	K8	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	3,50	32182,92	3742,20
	8	K18	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	8,30	7163,64	8874,36
	9	K19	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	10,60	8,30	11333,52	8874,36
	10	K20	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	14,50	8,30	15503,40	8874,36
	11	K21	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	18,40	8,30	19673,28	8874,36
	12	K22	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	22,30	8,30	23843,16	8874,36
	13	K23	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	26,20	8,30	28013,04	8874,36
	14	K24	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	8,30	32182,92	8874,36
				14968,80			275425,92	88315,92
2	1	K9	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	34,00	3,50	36352,80	3742,20
	2	K10	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	3,50	40522,68	3742,20
	3	K11	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	41,80	3,50	44692,56	3742,20
	4	K12	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	45,70	3,50	48862,44	3742,20
	5	K13	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	49,50	3,50	52925,40	3742,20
	6	K14	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	53,50	3,50	57202,20	3742,20
	7	K15	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,40	3,50	61372,08	3742,20
	8	K24	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	8,30	32182,92	8874,36
	9	K26	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	8,30	40522,68	8874,36
	10	K27	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	41,80	8,30	44692,56	8874,36
	11	K28	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	45,70	8,30	48862,44	8874,36
	12	K29	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	49,50	8,30	52925,40	8874,36
	13	K30	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	53,50	8,30	57202,20	8874,36
	14	K31	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,4	8,30	61372,08	8874,36
				14968,80			679690,44	88315,92
3	1	K41	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	34,00	15,50	36352,80	16572,60
	2	K42	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	15,50	40522,68	16572,60
	3	K43	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	41,80	15,50	44692,56	16572,60
	4	K44	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	45,70	15,50	48862,44	16572,60
	5	K45	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	49,50	15,50	52925,40	16572,60
	6	K46	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	53,50	15,50	57202,20	16572,60
	7	K47	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,40	15,50	61372,08	16572,60
	8	K57	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	34,00	20,30	36352,80	21704,76
	9	K58	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	20,30	40522,68	21704,76
	10	K59	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	41,80	20,30	44692,56	21704,76
	11	K60	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	45,70	20,30	48862,44	21704,76
	12	K61	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	49,50	20,30	52925,40	21704,76
	13	K62	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	53,50	20,30	57202,20	21704,76
	14	K63	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,40	20,30	61372,08	21704,76
				14968,80			683860,32	267941,52
4	1	K34	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	15,50	7163,64	16572,60
	2	K35	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	10,60	15,50	11333,52	16572,60
	3	K36	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	14,50	15,50	15503,40	16572,60
	4	K37	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	18,40	15,50	19673,28	16572,60
	5	K38	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	22,30	15,50	23843,16	16572,60
	6	K39	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	26,20	15,50	28013,04	16572,60
	7	K40	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	15,50	32182,92	16572,60
	8	K50	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	20,30	7163,64	21704,76
	9	K51	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	10,60	20,30	11333,52	21704,76

	10	K52	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	14,50	20,30	15503,40	21704,76
	11	K53	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	18,40	20,30	19673,28	21704,76
	12	K54	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	22,30	20,30	23843,16	21704,76
	13	K55	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	26,20	20,30	28013,04	21704,76
	14	K56	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	20,30	32182,92	21704,76
				14968,80			275425,92	267941,52
5		K1	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	2,20	3,50	2352,24	3742,20
		K2	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	3,50	7163,64	3742,20
		K17	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	2,20	8,30	2352,24	8874,36
		K18	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	8,30	7163,64	8874,36
		K71	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	2,20	10,38	2090,88	9865,15
		K72	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	6,70	10,38	6367,68	9865,15
				6177,60			27490,32	44963,42
6		K15	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,46	3,50	61436,23	3742,20
		K16	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	61,90	3,50	66183,48	3742,20
		K31	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,46	8,30	61436,23	8874,36
		K32	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	61,90	8,30	66183,48	8874,36
		K81	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	57,46	10,38	54609,98	9865,15
		K82	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	61,90	10,38	58829,76	9865,15
				6177,60			368679,17	44963,42
7		K49	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	2,20	20,30	2352,24	21704,76
		K50	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	20,30	7163,64	21704,76
		K33	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	2,20	15,50	2352,24	16572,60
		K34	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	6,70	15,50	7163,64	16572,60
		K69	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	2,20	13,43	2090,88	12763,87
		K70	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	6,70	13,43	6367,68	12763,87
				6177,60			27490,32	102082,46
8		K63	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,46	20,30	61436,232	21704,76
		K64	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	61,90	20,30	66183,48	21704,76
		K47	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	57,46	15,50	61436,232	16572,60
		K48	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	61,90	15,50	66183,48	16572,60
		K79	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	57,46	13,43	54609,984	12763,87
		K80	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	61,90	13,43	58829,76	12763,87
				6177,60			368679,168	102082,46
9		K48	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	61,90	15,50	66183,48	16572,60
		K83	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	30,10	17,50	28607,04	16632,00
		K80	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	30,10	13,43	28607,04	12763,87
				2970,00			123397,56	45968,47
10		K32	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	61,90	8,30	66183,48	8874,36
		K82	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	61,90	10,38	58829,76	9865,15
		K86	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	34,00	6,30	32313,60	5987,52
				2970,00			157326,84	24727,03
11		K17	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	2,20	8,30	2352,24	8874,36
		K68	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	0,30	6,30	285,12	5987,52
		K71	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	2,20	10,38	2090,88	9865,15
				2970,00			4728,24	24727,03
12		K33	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	2,20	15,50	2352,24	16572,60
		K65	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	0,30	17,50	285,12	16632,00
		K69	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	2,20	13,43	2090,88	12763,87
				2970,00			4728,24	45968,47
13		K87	= 0.2 x 0.40 x 1/2 x (3.4+3.2) x 2400	30,10	30,10	23,80	906,01	716,38
		K88	= 0.2 x 0.40 x 1/2 x (3.4+3.2) x 2400	31,10	37,90	23,80	1178,69	740,18
		K56	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	20,30	32182,92	21704,76
		K57	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	20,30	40522,68	21704,76
		K40	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	15,50	32182,92	16572,60
		K41	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	15,50	40522,68	16572,60
		K74	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	30,10	13,70	28607,04	13020,48
		K75	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	37,90	13,70	36020,16	13020,48
		K77	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	30,10	10,10	28607,04	9599,04
		K78	= 0.3 x 0.40 x 1/2 x (3.4+3.2) x 2400	950,40	37,90	10,10	36020,16	9599,04
		K24	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	8,30	32182,92	8874,36
		K25	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	8,30	40522,68	8874,36
		K8	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	30,10	3,50	32182,92	3742,20
		K9	= 0.3 x 0.45 x 1/2 x (3.4+3.2) x 2400	1069,20	37,90	3,50	40522,68	3742,20
		K89	= 0.2 x 0.40 x 1/2 x (3.4+3.2) x 2400	30,10	30,10	0,00	906,01	0,00
		K90	= 0.2 x 0.40 x 1/2 x (3.4+3.2) x 2400	31,10	37,90	0,00	1178,69	0,00
				12477,60			424246,20	148483,44

Tabel 3.2 : Perhitungan Pusat Massa Untuk Balok Pada Lantai 2

No	Uraian		Berat Sendiri	Jarak		Momen	
				X	Y	MX	MY
2	BALOK						
	Berat sendiri = Luas x Panjang x 2400						
	Titik pusat atau titik 0 (0,0) dapat dilihat pada gambar denah balok pada masing-masing lantai						
1	Line A (2-8)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	18,40	3,50	82667,52	15724,80
	Line B' (2-8)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	18,40	10,10	82667,52	45377,28
	Titik 2 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	6,70	6,80	13266,00	13464,00
	Titik 3 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	10,60	6,80	20988,00	13464,00
	Titik 4 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	14,50	6,80	28710,00	13464,00
	Titik 5 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	18,40	6,80	36432,00	13464,00
	Titik 6 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	22,30	6,80	44154,00	13464,00
	Titik 7 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	26,20	6,80	51876,00	13464,00
	Titik 8 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	30,10	6,80	59598,00	13464,00
			22845,60			420359,04	155350,08
2	Line A (9-15)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	45,69	3,50	205276,03	15724,80
	Line B '(9-15)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	45,69	10,10	205276,03	45377,28
	Titik 9 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	34,00	6,80	67320,00	13464,00
	Titik 10 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	37,90	6,80	75042,00	13464,00
	Titik 11 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	41,80	6,80	82764,00	13464,00
	Titik 12 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	45,70	6,80	90486,00	13464,00
	Titik 13 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	49,50	6,80	98010,00	13464,00
	Titik 14 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	53,50	6,80	105930,00	13464,00
	Titik 15 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980,00	57,40	6,80	113652,00	13464,00
			22845,60			1043756,06	155350,08
3	Line D (9-15)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	45,69	20,30	205276,03	91203,84
	Line B" (9-15)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	45,69	13,70	205276,03	61551,36
	Titik 9 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	34,00	17,00	67320,00	33660,00
	Titik 10 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	37,90	17,00	75042,00	33660,00
	Titik 11 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	41,80	17,00	82764,00	33660,00
	Titik 12 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	45,70	17,00	90486,00	33660,00
	Titik 13 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	49,50	17,00	98010,00	33660,00
	Titik 14 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	53,50	17,00	105930,00	33660,00
	Titik 15 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	57,40	17,00	113652,00	33660,00
			22845,60			1043756,06	388375,20
4	Line D (2-8)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	18,40	20,30	82667,52	91203,84
	Line B" (2-8)	= 0.2 x 0.4 x 23.40 x 2400	4492,8	18,40	13,70	82667,52	61551,36
	Titik 2 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	6,70	17,00	13266,00	33660,00
	Titik 3 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	10,60	17,00	20988,00	33660,00
	Titik 4 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	14,50	17,00	28710,00	33660,00
	Titik 5 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	18,40	17,00	36432,00	33660,00
	Titik 6 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	22,30	17,00	44154,00	33660,00
	Titik 7 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	26,20	17,00	51876,00	33660,00
	Titik 8 (A-B)	= 0.25 x 0.5 x 6.60 x 2400	1980,00	30,10	17,00	59598,00	33660,00
			22845,60			420359,04	388375,20
5	Line A (1-2)	= 0.2 x 0.4 x 4.50 x 2400	864	4,45	3,50	3844,80	3024,00
	Line E' (1-2)	= 0.2 x 0.4 x 4.50 x 2400	864	4,45	10,38	3844,80	8968,32
	Titik 1 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	2,20	6,94	4540,80	14324,16
	Titik 2 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	6,70	6,94	13828,80	14324,16
			5856,00			26059,20	40640,64
6	Line A (15-16)	= 0.2 x 0.4 x 4.50 x 2400	864	59,65	3,50	51537,60	3024,00
	Line E' (15-16)	= 0.2 x 0.4 x 4.50 x 2400	864	59,65	10,38	51537,60	8968,32
	Titik 15 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	57,40	6,94	118473,60	14324,16
	Titik 16 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	61,90	6,94	127761,60	14324,16
			5856,00			349310,40	40640,64
7	Line D (1-2)	= 0.2 x 0.4 x 4.50 x 2400	864	4,45	20,30	3844,80	17539,20
	Line B" (1-2)	= 0.2 x 0.4 x 4.50 x 2400	864	4,45	13,43	3844,80	11603,52
	Titik 1 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	2,20	16,86	4540,80	34799,04
	Titik 2 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	6,70	16,86	13828,80	34799,04
			5856,00			26059,20	98740,80

8		Line D (15-16)	= 0.2 x 0.4 x 4.50 x 2400	864	59,65	20,30	51537,60	17539,20
		Line B" (15-16)	= 0.2 x 0.4 x 4.50 x 2400	864	59,65	13,43	51537,60	11603,52
		Titik 15 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	57,40	16,86	118473,60	34799,04
		Titik 16 (A-E')	= 0.25 x 0.5 x 6.88 x 2400	2064	61,90	16,86	127761,60	34799,04
				5856,00			349310,40	98740,80
9		Line C' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	62,85	17,50	22927,68	6384,00
		Line E" (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	62,85	13,43	22927,68	4899,26
		Titik 16 (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	61,90	15,46	36367,49	9083,06
		Titik 16' (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	63,80	15,46	37483,78	9083,06
				1904,64			119706,62	29449,38
10		Line A' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	62,85	6,30	22927,68	2298,24
		Line E' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	62,85	10,68	22927,68	3896,06
		Titik 16 (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	61,90	8,34	36367,49	4899,92
		Titik 16' (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	63,80	8,34	37483,78	4899,92
				1904,64			119706,62	15994,14
11		Line A' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	1,25	6,30	456,00	2298,24
		Line E' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	1,25	10,68	456,00	3896,06
		Titik 1" (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	0,30	8,34	176,26	4899,92
		Titik 1 (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	2,20	8,34	1292,54	4899,92
				1904,64			2380,80	15994,14
12		Line A' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	1,25	17,50	456,00	6384,00
		Line E' (16-16')	= 0.2 x 0.4 x 1.90 x 2400	364,8	1,25	13,43	456,00	4899,26
		Titik 1" (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	0,30	15,46	176,26	9083,06
		Titik 1 (A-E')	= 0.2 x 0.3 x 4.08 x 2400	587,52	2,20	15,46	1292,54	9083,06
				1904,64			2380,80	29449,38
13		Line A0 (8-9)	= 0.2 x 0.3 x 3.90 x 2400	561,6	32,05	0,00	17999,28	0,00
		Line A (8-9)	= 0.2 x 0.4 x 3.90 x 2400	748,8	32,05	3,50	23999,04	2620,80
		Line B (8-9)	= 0.2 x 0.4 x 3.90 x 2400	748,8	32,05	8,80	23999,04	6589,44
		Line B' (8-9)	= 0.2 x 0.4 x 3.90 x 2400	748,8	32,05	10,10	23999,04	7562,88
		Line B" (8-9)	= 0.2 x 0.4 x 3.90 x 2400	748,8	32,05	13,70	23999,04	10258,56
		Line C (8-9)	= 0.2 x 0.4 x 3.90 x 2400	748,8	32,05	15,50	23999,04	11606,40
		Line D (8-9)	= 0.2 x 0.4 x 3.90 x 2400	748,8	32,05	20,30	23999,04	15200,64
		Line D' (8-9)	= 0.2 x 0.3 x 3.90 x 2400	561,6	32,05	23,80	17999,28	13366,08
		Titik 8 (A0-A')	= 0.2 x 0.3 x 3.50 x 2400	504	30,10	1,50	15170,40	756,00
		Titik 8 (A-B')	= 0.25 x 0.5 x 6.60 x 2400	1980	30,10	6,80	59598,00	13464,00
		Titik 8 (B"-D)	= 0.25 x 0.5 x 6.60 x 2400	1980	30,10	17,00	59598,00	33660,00
		Titik 8 (D-D')	= 0.2 x 0.3 x 3.50 x 2400	504	30,10	22,05	15170,40	11113,20
		Titik 9 (A0-A)	= 0.2 x 0.3 x 3.50 x 2400	504	34,00	1,50	17136,00	756,00
		Titik 9 (A-D)	= 0.25 x 0.5 x 16.80 x 2400	1980	34,00	11,90	67320,00	23562,00
		Titik 9 (D-D')	= 0.2 x 0.3 x 3.50 x 2400	504	34,00	22,05	17136,00	11113,20
				13572,00			431121,60	161629,20

Tabel 3.3 : Perhitungan Pusat Massa Untuk Plat Pada Lantai 2

No	Uraian			Berat Sendiri	Jarak		Momen	
					X	Y	MX	MY
3	PLAT Berat Sendiri = Luas x Tebal x 2400 Titik pusat atau titik 0 (0,0) dapat dilihat pada gambar denah dinding pada masing-masing lantai							
1		Line A-B' (2-8)	= 23.40 x 6.60 x 0.12 x 2400	44478,72	18,40	6,80	818408,45	302455,30
2		Line A-B' (9-15)	= 23.40 x 6.60 x 0.12 x 2400	44478,72	45,69	6,80	2032232,72	302455,30
3		Line B"-D (9-15)	= 23.40 x 6.60 x 0.12 x 2400	44478,72	45,69	17,00	2032232,72	756138,24
4		Line B"-D (9-15)	= 23.40 x 6.60 x 0.12 x 2400	44478,72	23,40	17,00	1040802,05	756138,24
5		Line A-B' (1-2)	= 4.50 x 6.88 x 0.12 x 2400	8916,48	4,45	6,94	39678,34	61880,37
6		Line A-B' (15-16)	= 4.50 x 6.88 x 0.12 x 2400	8916,48	59,62	6,94	531600,54	61880,37
7		Line A-B' (1-2)	= 4.50 x 6.88 x 0.12 x 2400	8916,48	4,45	16,86	39678,34	150331,85
8		Line A-B' (15-16)	= 4.50 x 6.88 x 0.12 x 2400	8916,48	59,62	16,86	531600,54	150331,85
9		Line C'-E" (16-16')	= 1.90 x 4.08 x 0.12 x 2400	2232,576	62,85	15,46	140317,40	34515,62
10		Line A'-E' (16-16')	= 1.90 x 4.08 x 0.12 x 2400	2232,576	62,85	8,34	140317,40	18619,68
11		Line A'-E' (1"-1)	= 1.90 x 4.08 x 0.12 x 2400	2232,576	1,25	8,34	2790,72	18619,68
12		Line C'-E" (1"-1)	= 1.90 x 4.08 x 0.12 x 2400	2232,576	1,25	15,46	2790,72	34515,62
13		Line A0-D' (8-9)	= 3.90 x 23.80 x 0.12 x 2400	26732,16	32,05	11,90	856765,73	318112,70
				249243,26			8209215,65	2965994,84

Tabel 3.4 : Perhitungan Pusat Massa Untuk Tangga Dan Bordes Pada Lantai 2

No	Uraian		Berat Sendiri	Jarak		Momen	
				X	Y	MX	MY
4	TANGGA Berat sendiri tangga = (Panjang miring x lebar x tebal plat tangga x 2400) + (Jumlah anak tangga x 0.5 x panjang anak tangga x lebar anak tangga x tinggi anak tangga x 2400) Bordes = (n jumlah balok bordes x lebar balok bordes x tinggi balok bordes x 2400) + (tebal bordes x lebar bordes x panjang bordes x 2400)						
	Titik pusat atau titik 0 (0,0) dapat dilihat pada gambar denah dinding pada masing-masing lantai						
	Tangga Samping kiri						
	Berat Sendiri	= (2.754 x 1.375 x 0.21 x 2400) + (9 x 0.5 x 1.375 x 0.2 x 2400)	7578,52	3,63	11,90	27510,03	90184,41
	bordes	= 2 x (0.2 x 0.3 x 1.825 x 2400) + (0.12 x 3.05 x 2400)	1404,00	1,40	11,90	1965,60	16707,60
	Tangga Utama						
	Berat sendiri	= (2.754 x 1.5 x 0.21 x 2400) + (9 x 0.5 x 1.375 x 0.2 x 2400)	7752,02	28,69	11,90	222405,57	92249,09
	bordes	= 2 x (0.2 x 0.3 x 1.825 x 2400) + (0.12 x 3.05 x 2400)	1404,00	26,37	11,90	37023,48	16707,60
	Tangga Samping kanan						
	Berat Sendiri	= (2.754 x 1.375 x 0.21 x 2400) + (9 x 0.5 x 1.375 x 0.2 x 2400)	7578,52	60,48	11,90	458349,01	90184,41
	bordes	= 2 x (0.2 x 0.3 x 1.825 x 2400) + (0.12 x 3.05 x 2400)	1404,00	62,70	11,90	88030,80	16707,60
		Σ	27121,07			835284,49	322740,71

Tabel 3.5 : Perhitungan Pusat Massa Untuk Dinding Pada Lantai 2

No	Uraian			Berat Sendiri	Jarak		Momen	
					X	Y	MX	MY
5	DINDING							
	Berat sendiri = Panjang x Tinggi x 250							
	Titik pusat atau titik 0 (0,0) dapat dilihat pada							
	gambar denah dinding pada masing-masing lantai							
1	1	Line A (2-8)	= 23.40 x 2.9 x 250	16965,00	18,40	3,50	312156,00	59377,50
	2	Line B (2-8)	= 23.40 x 2.9 x 250	16965,00	18,40	8,30	312156,00	140809,50
	3	Titik 2 (A-B)	= 4.80 x 2.9 x 250	3480,00	6,70	5,90	23316,00	20532,00
	4	Titik 3 (A-B)	= 4.80 x 2.9 x 250	3480,00	10,60	5,90	36888,00	20532,00
	5	Titik 4 (A-B)	= 4.80 x 2.9 x 250	3480,00	14,50	5,90	50460,00	20532,00
	6	Titik 5 (A-B)	= 4.80 x 2.9 x 250	3480,00	18,40	5,90	64032,00	20532,00
	7	Titik 6 (A-B)	= 4.80 x 2.9 x 250	3480,00	22,30	5,90	77604,00	20532,00
	8	Titik 7 (A-B)	= 4.80 x 2.9 x 250	3480,00	26,20	5,90	91176,00	20532,00
	9	Titik 8 (A-B)	= 4.80 x 2.9 x 250	3480,00	30,10	5,90	104748,00	20532,00
				58290,00			1072536,00	343911,00
2	1	Line A (9-15)	= 23.40 x 2.9 x 250	16965,00	45,69	3,50	775130,85	59377,50
	2	Line B (9-15)	= 23.40 x 2.9 x 250	16965,00	45,69	10,10	775130,85	171346,50
	3	Titik 9 (A-B)	= 4.80 x 2.9 x 250	3480,00	34,00	5,90	118320,00	20532,00
	4	Titik 10 (A-B)	= 4.80 x 2.9 x 250	3480,00	37,90	5,90	131892,00	20532,00
	5	Titik 11 (A-B)	= 4.80 x 2.9 x 250	3480,00	41,80	5,90	145464,00	20532,00
	6	Titik 12 (A-B)	= 4.80 x 2.9 x 250	3480,00	45,70	5,90	159036,00	20532,00
	7	Titik 13 (A-B)	= 4.80 x 2.9 x 250	3480,00	49,50	5,90	172260,00	20532,00
	8	Titik 14 (A-B)	= 4.80 x 2.9 x 250	3480,00	53,50	5,90	186180,00	20532,00
	9	Titik 15 (A-B)	= 4.80 x 2.9 x 250	3480,00	57,40	5,90	199752,00	20532,00
				58290,00			2663165,70	374448,00
3	1	Line D (9-15)	= 23.40 x 2.9 x 250	16965,00	45,69	20,30	775130,85	344389,50
	2	Line C (9-15)	= 23.40 x 2.9 x 250	16965,00	45,69	13,70	775130,85	232420,50
	3	Titik 9 (B"-D)	= 4.80 x 2.9 x 250	3480,00	34,00	17,90	118320,00	62292,00
	4	Titik 10 (B"-D)	= 4.80 x 2.9 x 250	3480,00	37,90	17,90	131892,00	62292,00
	5	Titik 11 (B"-D)	= 4.80 x 2.9 x 250	3480,00	41,80	17,90	145464,00	62292,00
	6	Titik 12 (B"-D)	= 4.80 x 2.9 x 250	3480,00	45,70	17,90	159036,00	62292,00
	7	Titik 13 (B"-D)	= 4.80 x 2.9 x 250	3480,00	49,50	17,90	172260,00	62292,00
	8	Titik 14 (B"-D)	= 4.80 x 2.9 x 250	3480,00	53,50	17,90	186180,00	62292,00
	9	Titik 15 (B"-D)	= 4.80 x 2.9 x 250	3480,00	57,40	17,90	199752,00	62292,00
				58290,00			2663165,70	1012854,00
4	1	Line D (2-8)	= 23.40 x 2.9 x 250	16965,00	18,40	20,30	312156,00	344389,50
	2	Line C (2-8)	= 23.40 x 2.9 x 250	16965,00	18,40	13,70	312156,00	232420,50
	3	Titik 2 (A-B)	= 4.80 x 2.9 x 250	3480,00	6,70	17,90	23316,00	62292,00
	4	Titik 3 (A-B)	= 4.80 x 2.9 x 250	3480,00	10,60	17,90	36888,00	62292,00
	5	Titik 4 (A-B)	= 4.80 x 2.9 x 250	3480,00	14,50	17,90	50460,00	62292,00
	6	Titik 5 (A-B)	= 4.80 x 2.9 x 250	3480,00	18,40	17,90	64032,00	62292,00
	7	Titik 6 (A-B)	= 4.80 x 2.9 x 250	3480,00	22,30	17,90	77604,00	62292,00
	8	Titik 7 (A-B)	= 4.80 x 2.9 x 250	3480,00	26,20	17,90	91176,00	62292,00
	9	Titik 8 (A-B)	= 4.80 x 2.9 x 250	3480,00	30,10	17,90	104748,00	62292,00
				58290,00			1072536,00	1012854,00
5	1	Line A (1-2)	= 4.50 x 2.9 x 250	3262,50	4,45	3,50	14518,13	11418,75
	2	Line B (1-2)	= 4.50 x 2.9 x 250	3262,50	4,45	10,38	14518,13	33864,75
	3	Titik 1 (A-B)	= 4.80 x 2.9 x 250	3480,00	2,20	6,94	7656,00	24151,20
	4	Titik 2 (A-B)	= 4.80 x 2.9 x 250	3480,00	6,70	6,94	23316,00	24151,20
				13485,00			60008,25	93585,90
6	1	Line A (15-16)	= 4.50 x 2.9 x 250	3262,50	59,65	3,50	194608,13	11418,75
	2	Line B (15-16)	= 4.50 x 2.9 x 250	3262,50	59,65	10,38	194608,13	33864,75
	3	Titik 15 (A-B)	= 4.80 x 2.9 x 250	3480,00	57,40	6,94	199752,00	24151,20
	4	Titik 16 (A-B)	= 4.80 x 2.9 x 250	3480,00	61,90	6,94	215412,00	24151,20
				13485,00			804380,25	93585,90

7	1	Line D (1-2)	= 4.50 x 2.9 x 250	3262,50	4,45	20,30	14518,13	66228,75
	2	Line C (1-2)	= 4.50 x 2.9 x 250	3262,50	4,45	13,43	14518,13	43815,38
	3	Titik 1 (C-D)	= 4.80 x 2.9 x 250	3480,00	2,20	16,86	7656,00	58672,80
	4	Titik 2 (C-D)	= 4.80 x 2.9 x 250	3480,00	6,70	16,86	23316,00	58672,80
				13485,00			60008,25	227389,73
8	1	Line D (15-16)	= 4.50 x 2.9 x 250	3262,50	59,65	20,30	194608,13	66228,75
	2	Line C (15-16)	= 4.50 x 2.9 x 250	3262,50	59,65	13,43	194608,13	43815,38
	3	Titik 15 (C-D)	= 4.80 x 2.9 x 250	3480,00	57,40	16,86	199752,00	58672,80
	4	Titik 16 (C-D)	= 4.80 x 2.9 x 250	3480,00	61,90	16,86	215412,00	58672,80
				13485,00			804380,25	227389,73
9	1	Line C' (16-16')	= 1.90 x 0.8 x 250	380,00	62,85	17,50	23883,00	6650,00
	2	Line B" (16-16')	= 1.90 x 0.8 x 250	380,00	62,85	13,43	23883,00	5103,40
	3	Titik 16 (A-B")	= 4.08 x 0.8 x 250	816,00	61,90	15,46	50510,40	12615,36
	4	Titik 16' (A-B")	= 4.08 x 0.8 x 250	816,00	63,80	15,46	52060,80	12615,36
				2392,00			150337,20	36984,12
10	1	Line A' (16-16')	= 1.90 x 0.8 x 250	380,00	62,85	6,30	23883,00	2394,00
	2	Line E' (16-16')	= 1.90 x 0.8 x 250	380,00	62,85	10,68	23883,00	4058,40
	3	Titik 16 (A-E')	= 4.08 x 0.8 x 250	816,00	61,90	8,34	50510,40	6805,44
	4	Titik 16' (A-E')	= 4.08 x 0.8 x 250	816,00	63,80	8,34	52060,80	6805,44
				2392,00			150337,20	20063,28
11	1	Line A' (16-16')	= 1.90 x 0.8 x 250	380,00	1,25	6,30	475,00	2394,00
	2	Line E' (16-16')	= 1.90 x 0.8 x 250	380,00	1,25	10,68	475,00	4058,40
	3	Titik 1" (A-E')	= 4.08 x 0.8 x 250	816,00	0,30	8,34	244,80	6805,44
	4	Titik 1 (A-E')	= 4.08 x 0.8 x 250	816,00	2,20	8,34	1795,20	6805,44
				2392,00			2990,00	20063,28
12	1	Line C' (1"-1)	= 1.90 x 0.8 x 250	380,00	1,25	17,50	475,00	6650,00
	2	Line B" (1"-1)	= 1.90 x 0.8 x 250	380,00	1,25	13,43	475,00	5103,40
	3	Titik 1" (C'-B")	= 4.08 x 0.8 x 250	816,00	0,30	15,46	244,80	12615,36
	4	Titik 1 (C'-B")	= 4.08 x 0.8 x 250	816,00	2,20	15,46	1795,20	12615,36
				2392,00			2990,00	36984,12
13	1	Line A (8-9)	= 3.90 x 2.9 x 250	2827,50	32,05	3,50	90621,38	9896,25
	2	Line B (8-9)	= 3.90 x 2.9 x 250	2827,50	32,05	8,30	90621,38	23468,25
	3	Line C (8-9)	= 3.90 x 2.9 x 250	2827,50	32,05	15,50	90621,38	43826,25
	4	Line D (8-9)	= 3.90 x 2.9 x 250	2827,50	32,05	20,30	90621,38	57398,25
	5	Titik 8 (A-B)	= 4.80 x 2.9 x 250	33408,00	30,10	6,80	1005580,80	227174,40
	6	Titik 8 (C-D)	= 4.80 x 2.9 x 250	33408,00	30,10	17,00	1005580,80	567936,00
	7	Titik 8 (D-D')	= 4.80 x 2.9 x 250	33408,00	30,10	22,05	1005580,80	736646,40
	8	Titik 9 (A-D)	= 4.80 x 2.9 x 250	33408,00	34,00	11,90	1135872,00	397555,20
				144942,00			4515099,90	2063901,00

Tabel 3.6 : Perhitungan pusat massa beberapa tipe pada lantai 2

No	Uraian	Jarak
1	Pusat massa arah memanjang (X)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{2549005.73}{138532.92} = 18.40 \text{ m}$
	Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{928551.94}{138532.92} = 6.70 \text{ m}$
2	Pusat massa arah memanjang (X)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{6329344.83}{138532.92} = 45.69 \text{ m}$
	Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{928551.94}{138532.92} = 6.70 \text{ m}$
3	Pusat massa arah memanjang (X)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{6329344.83}{138532.92} = 45.69 \text{ m}$
	Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{2368531.56}{138532.92} = 17.10 \text{ m}$

4	Pusat massa arah memanjang (X)	$=\frac{\Sigma Berat\ grafitasi\ x\ jarak}{\Sigma Berat\ grafitasi}$ $=\frac{2549005.73}{138532.92}=18.40\ m$
	Pusat massa arah melintang (Y)	$=\frac{\Sigma Berat\ grafitasi\ x\ jarak}{\Sigma Berat\ grafitasi}$ $=\frac{2368531.56}{138532.92}=17.10\ m$
5	Pusat massa arah memanjang (X)	$=\frac{\Sigma Berat\ grafitasi\ x\ jarak}{\Sigma Berat\ grafitasi}$ $=\frac{151125.48}{33960.78}=4.45\ m$
	Pusat massa arah melintang (Y)	$=\frac{\Sigma Berat\ grafitasi\ x\ jarak}{\Sigma Berat\ grafitasi}$ $=\frac{237778.69}{33960.78}=7.00m$
6	Pusat massa arah memanjang (X)	$=\frac{\Sigma Berat\ grafitasi\ x\ jarak}{\Sigma Berat\ grafitasi}$ $=\frac{2025678.37}{33960.78}=59.65m$
	Pusat massa arah melintang (Y)	$=\frac{\Sigma Berat\ grafitasi\ x\ jarak}{\Sigma Berat\ grafitasi}$ $=\frac{237778.69}{33960.78}=7.00m$

7	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{151125.48}{33960.78} = 4.45$ m $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{570546.99}{33960.78} = 16.80$ m
8	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{2025678.37}{33960.78} = 59.65$m $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{570546.99}{33960.78} = 16.80$ m
9	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{533570.86}{9496.23} = 56.19$ m $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{130975.42}{9496.23} = 13.79$ m

10	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{533570.86}{9496.23} = 56.19 \text{ m}$ $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{146871.36}{33960.78} = 4.32 \text{ m}$
11	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{12886.02}{9496.23} = 1.36 \text{ m}$ $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{146871.36}{33960.78} = 4.32 \text{ m}$
12	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{12886.02}{9496.23} = 1.36 \text{ m}$ $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{130975.42}{9496.23} = 13.79 \text{ m}$

13	Pusat massa arah memanjang (X) Pusat massa arah melintang (Y)	$= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{2057814.17}{63718.56} = 32.30 \text{ m}$ $= \frac{\Sigma \text{Berat grafitasi x jarak}}{\Sigma \text{Berat grafitasi}}$ $= \frac{763863.26}{63718.56} = 11.99 \text{ m}$

III. HASIL PENGUJIAN DAN ANALISIS HASIL UJI

A. Hasil Uji Sondir

Data dan grafik perolehan angka uji sondir di tiap titik uji dapat dilihat pada lembar lampiran. Dari denah lokasi dan data uji sondir di setiap titik uji dapat dikemukakan sebagai berikut:

Tabel 01. Ringkasan Hasil Uji Sondir

Titik Uji	Kedalaman Uji Sondir	Perlawanan Konus (qc)	JHP
	(m)	(kg/cm2)	(kg/cm)
S1	0.00	0	0.00
	0.40	25	20.00
	1.00	10	70.00
	1.40	20	110.00
	2.00	35	170.00
	2.40	45	220.00
	3.00	30	310.00
	3.40	20	360.00
	4.00	25	420.00
	4.40	20	450.00
	5.00	45	520.00
	5.40	50	570.00
	6.00	150	710.00
S2	0.00	0	0.00
	0.40	10	30.00
	1.00	25	130.00
	1.40	15	170.00
	2.00	25	230.00
	2.40	45	300.00
	3.00	65	390.00
	3.40	65	490.00
	4.00	40	590.00
	4.40	35	650.00
	5.00	30	730.00
	5.40	35	770.00
	6.00	90	890.00
	6.40	150	1030.00

Titik Uji	Kedalaman Uji Sondir	Perlawanan Konus (qc)	JHP
	(m)	(kg/cm2)	(kg/cm)
S3	0.00	0	0.00
	0.40	15	20.00
	1.00	30	80.00
	1.40	20	140.00
	2.00	20	170.00
	2.40	20	200.00
	3.00	30	270.00
	3.40	30	320.00
	4.00	25	400.00
	4.40	15	440.00
	5.00	15	510.00
	5.40	30	560.00
	6.00	45	670.00
	6.40	110	820.00
	6.60	155	880.00

Dari hasil pengujian diperoleh data tanah keras dengan nilai qc ≥ 150 kg/cm², terdapat pada kedalaman yang berbeda-beda, seperti pada tabel berikut:

Titik Uji	Kedalaman Tanah keras	Perlawanan Konus (qc)	JHP
	(m)	(kg/cm2)	(kg/cm)
S1	6.00	150	710.00
S2	5.40	150	1030.00
S3	6.60	155	880.00

IV. LAMPIRAN - LAMPIRAN

1. Denah Lokasi
2. Data dan Grafik Uji Sondir
3. Photo-photo

LABORATORIUM MEKANIKA TANAH
JURUSAN TEKNIK SIPIL FAKULTAS TEKNIK
UNIVERSITAS NEGERI MALANG
Gedung D2 Lt 2 Kampus UM Jl. Surabaya 6 Malang Telp/Fax: (0341) 587 082 Ext. 205

Proyek	: PEMBANGUNAN GEDUNG RUSUNAWA UNIVERSITAS NEGERI MALANG	Tgl. Uji	: 03.05.2009	TITIK UJI : S1
		Dikerjakan	: St dan Ww	
Lokasi	: JL. SURABAYA 6 MALANG	Diperiksa	: MS	

UJI PENETRASI KONUS (CONE PENETRATION TEST)
ASTM D 3441 - 86

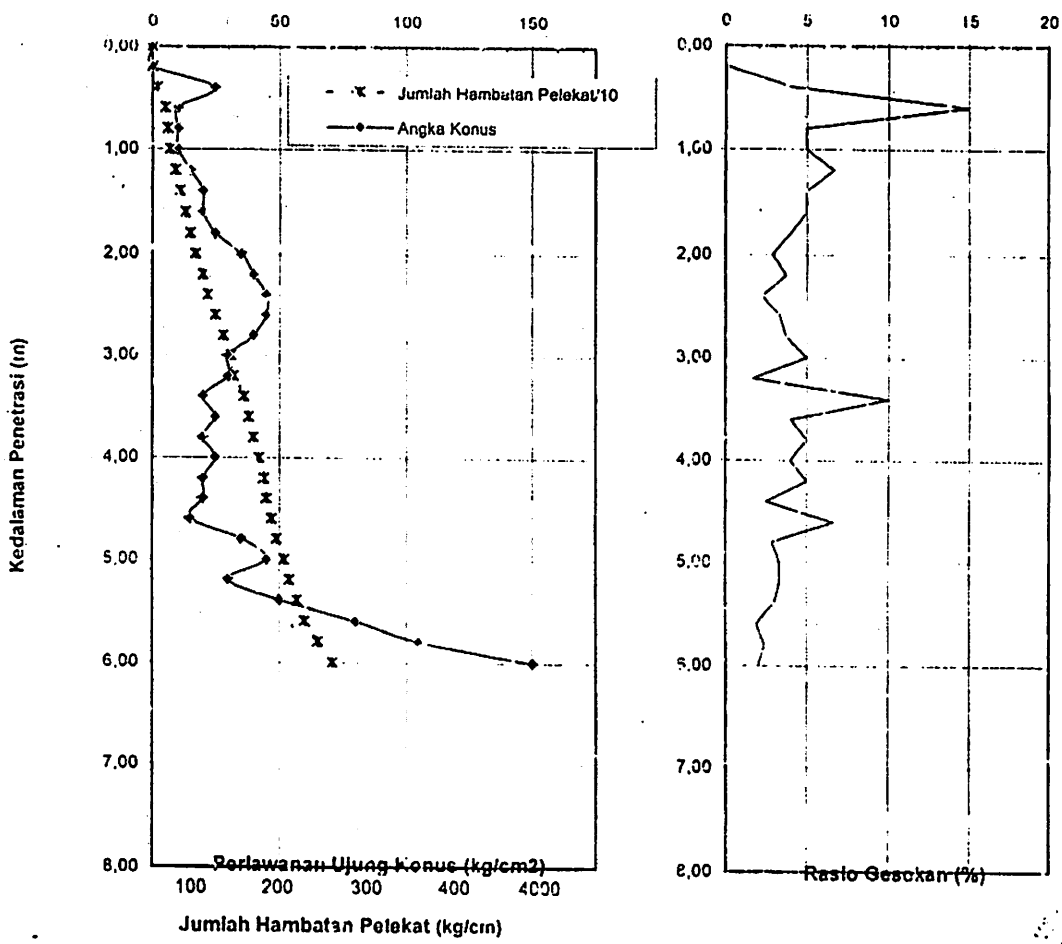
Kedalaman	Perlawanan Konus (PK)	Jumlah Perlawanan (JP)	Hambatan Pelekat (HP) =(JP-PK)/10	HP x 20	JHP =Σ (HP x 20)	Ratio Gesekan (FR) = (HP/PK)x100
(Meter)	(kg/cm²)	(kg/cm²)	(kg/cm²)	(kg/cm)	(kg/cm)	(%)
0,00	0	0	0,00	0,00	0,00	0,00
0,20	0	0	0,00	0,00	0,00	0,00
0,40	25	35	1,00	20,00	20,00	4,00
0,60	10	25	1,50	30,00	50,00	15,00
0,80	10	15	0,50	10,00	60,00	5,00
1,00	10	15	0,50	10,00	70,00	5,00
1,20	15	25	1,00	20,00	90,00	6,67
1,40	20	30	1,00	20,00	110,00	5,00
1,60	20	30	1,00	20,00	130,00	5,00
1,80	25	35	1,00	20,00	150,00	4,00
2,00	35	45	1,00	20,00	170,00	2,86
2,20	40	55	1,50	30,00	200,00	3,75
2,40	45	55	1,00	20,00	220,00	2,22
2,60	45	60	1,50	30,00	250,00	3,33
2,80	40	55	1,50	30,00	280,00	3,75
3,00	30	45	1,50	30,00	310,00	5,00
3,20	30	35	0,50	10,00	320,00	1,67
3,40	20	40	2,00	40,00	360,00	10,00
3,60	25	35	1,00	20,00	380,00	4,00
3,80	20	30	1,00	20 00	400,00	5,00
4,00	25	35	1,00	20,00	420,00	4,00
4,20	20	30	1,00	20,00	440,00	5,00
4,40	20	25	0,50	10,00	450,00	2,50
4,60	15	25	1,00	20,00	470,00	6,67
4,80	35	45	1,00	20,00	490,00	2,86
5,00	45	60	1,50	30,00	520,00	3,33
5,20	30	40	1,00	20,00	540,00	3,33
5,40	50	65	1,50	30,00	570,00	3,00
5,60	80	95	1,50	30,00	600,00	1,88
5,80	105	130	2,50	50,00	650,00	2,38
6,00	150	180	3,00	60,00	710,00	2,00

LABORATORIUM MEKANIKA TANAH
JURUSAN TEKNIK SIPIL FAKULTAS TEKNIK
UNIVERSITAS NEGERI MALANG

Gedung D2 Lt 2 Kampus UM Jl. Surabaya 6 Malang Telp/Fax: (0341) 587 082 Ext. 205

Proyek	: PEMBANGUNAN GEDUNG RUSUNAWA	Tgl. Uji	: 03.06.2009	TITIK UJI : S1
Lokasi	: JL. SURABAYA 6 MALANG	Dikerjakan	: St dan Ww	
		Diperiksa	: MS	

UJI PENETRASI KONUS (CONE PENETRATION TEST)
ASTM D 3441 - 86



LABORATORIUM MEKANIKA TANAH
JURUSAN TEKNIK SIPIL FAKULTAS TEKNIK
UNIVERSITAS NEGERI MALANG

Gedung D2 Lt 2 Kampus UM Jl. Surabaya 6 Malang Telp/Fax (0341) 587 082 Ext. 205

Proyek	: PEMBANGUNAN GEDUNG RUSUNAWA UNIVERSITAS NEGERI MALANG	Tgl. Uji	: 03.05.2009	TITIK UJI : S2
		Dikerjakan	: St dan Ww	
Lokasi	: JL. SURABAYA 6 MALANG	Diperiksa	: MS	

UJI PENETRASI KONUS (CONE PENETRATION TEST)

ASTM D 3441 - 86

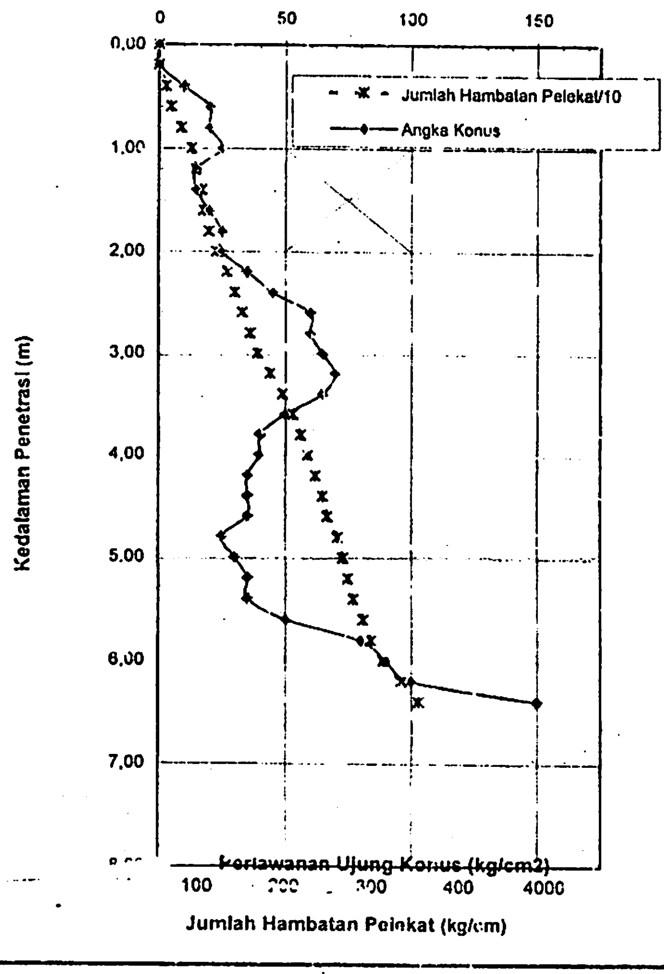
Kedalaman	Perlawanan Konus (PK)	Jumlah Perlawanan (JP)	Hambatan Pelekat (HP) =(JP-PK)/10	HP x 20	JHP =Σ (HP x 20)	Ratio Gesekan (FR) = (HP/PK)x100
(Meter)	(kg/cm²)	(kg/cm²)	(kg/cm²)	(kg/cm)	(kg/cm)	(%)
0,00	0	0	0,00	0,00	0,00	0,00
0,20	0	0	0,00	0,00	0,00	0,00
0,40	10	25	1.50	30,00	30,00	15,00
0,60	20	30	1,00	20,00	50,00	5,00
0,80	20	40	2,00	40,00	90,00	10,00
1.00	25	45	2,00	40,00	130,00	8,00
1,20	15	25	1,00	20,00	150,00	6,67
1,40	15	25	1,00	20,00	170,00	6,67
1.60	20	25	0,50	10,00	180,00	2,50
1,80	25	35	1,00	20,00	200,00	4,00
2,00	25	40	1,50	30,00	230,00	6,00
2,20	35	55	2,00	40,00	270,00	5,71
2,40	45	60	1,50	30,00	300,00	3,33
2,60	60	75	1,50	30,00	330,00	2,50
2,80	60	75	1,50	30,00	360,00	2,50
3,00	65	80	1,50	30,00	390,00	2,31
3,20	70	95	2,50	50,00	440,00	3,57
3,40	65	90	2,50	50,00	490,00	3,85
3,60	50	70	2,00	40,00	530,00	4,00
3.80	40	55	1,50	30,00	560,00	3,75
4,00	40	55	1,50	30,00	590,00	3,75
4,20	35	50	1,50	30,00	620,00	4,29
4,40	35	50	1,50	30,00	650,00	4,29
4,60	35	45	1,00	20,00	670,00	2.86
4,80	25	45	2,00	40,00	710,00	8,00
5,00	30	40	1.00	20,00	730,00	3,33
5,20	35	45	1,00	20,00	750,00	2,86
5,40	35	45	1,00	20,00	770,00	2,86
5,60	50	70	2,00	40,00	810,00	4,00
5,80	80	95	1,50	30,00	840,00	1,88
6,00	90	115	2,50	50,00	890.00	2,78
6,20	100	135	3,50	70,00	960,00	3,50
6.40	150	185	3,50	70,00	1030,00	2,33

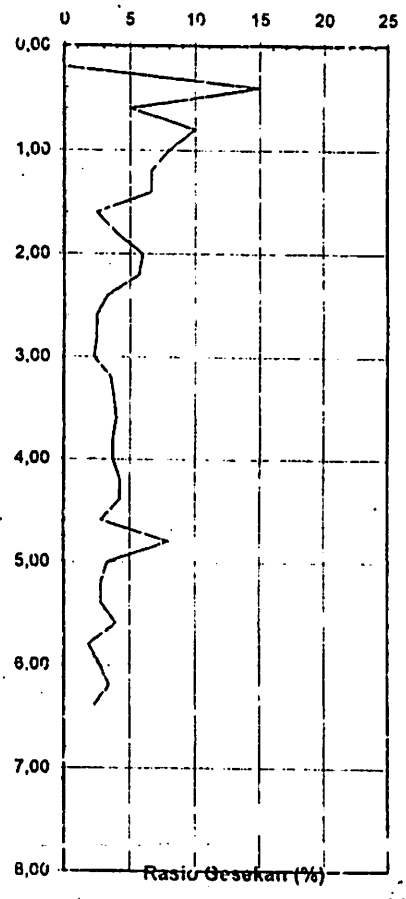
LABORATORIUM MEKANIKA TANAH
JURUSAN TEKNIK SIPIL FAKULTAS TEKNIK
UNIVERSITAS NEGERI MALANG

Gedung D2 Lt 2 Kampus UM Jl. Surabaya 6 Malang Telp/Fax: (0341) 587 082 Ext. 205

Proyek	: PEMBANGUNAN GEDUNG RUSUNAWA	Tgl. Uji	: 03.05.2009 TITIK UJI : S2
Lokasi	: JL. SURABAYA 6 MALANG	Dikerjakan	: St dan Ww
		Diperiksa	: MS

UJI PENETRASI KONUS (CONE PENETRATION TEST)
ASTM D 3441 - 86





LABORATORIUM MEKANIKA TANAH

JURUSAN TEKNIK SIPIL FAKULTAS TEKNIK

UNIVERSITAS NEGERI MALANG

Gedung D2 Lt 2 Kampus UM Jl. Surabaya 6 Malang Telp/Fax. (0341) 587 082 Ext. 205

Proyek : PEMBANGUNAN GEDUNG RUSUNAWA UNIVERSITAS NEGERI MALANG
Lokasi : JL. SURABAYA 6 MALANG

Tgl. Uji : 03.05.2009 TITIK UJI : S3
Dikerjakan : St dan Ww
Diperiksa : MS

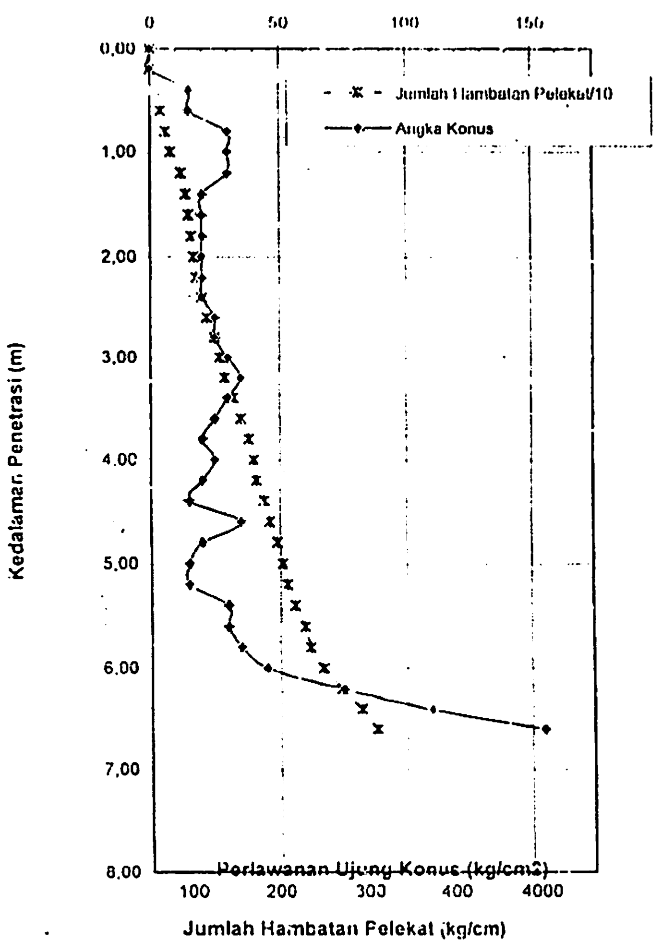
UJI PENETRASI KONUS (CONE PENETRATION TEST)
ASTM D 3441 - 86

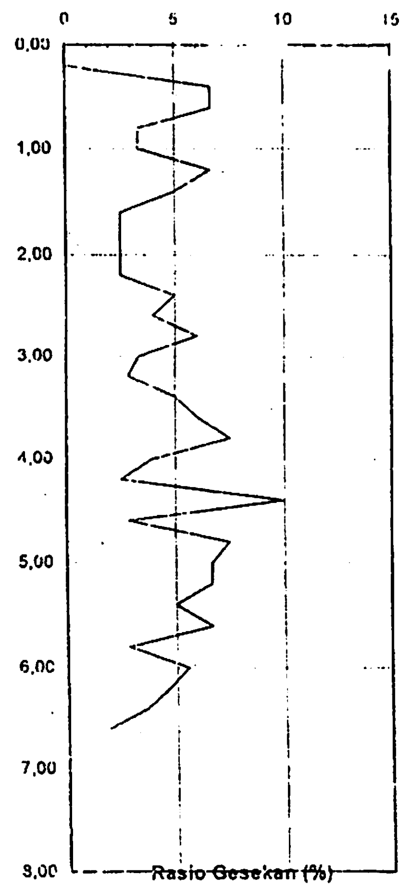
Kedalaman	Perlawanan Konus (PK)	Jumlah Perlawanan (JP)	Hambatan Pelekat (HP) =(JP-PK)/10	HP x 20	JHP =Σ (HP x 20)	Ratio Gesekan (FR) = (HP/PK)x100
(Meter)	[kg/cm²]	[kg/cm²]	[kg/cm²]	[kg/cm]	[kg/cm]	(%)
0,00	0	0	0,00	0,00	0,00	0,00
0,20	0	0	0,00	0,00	0,00	0,00
0,40	15	25	1,00	20,00	20,00	6,67
0,60	15	25	1,00	20,00	40,00	6,67
0,80	30	40	1,00	20,00	60,00	3,33
1,00	30	40	1,00	20,00	80,00	3,33
1,20	30	50	2,00	40,00	120,00	6,67
1,40	20	30	1,00	20,00	140,00	5,00
1,60	20	25	0,50	10,00	150,00	2,50
1,80	20	25	0,50	10,00	160,00	2,50
2,00	20	25	0,50	10,00	170,00	2,50
2,20	20	25	0,50	10,00	180,00	2,50
2,40	20	30	1,00	20,00	200,00	5,00
2,60	25	35	1,00	20,00	220,00	4,00
2,80	25	40	1,50	30,00	250,00	6,00
3,00	30	40	1,00	20,00	270,00	3,33
3,20	35	45	1,00	20,00	290,00	2,86
3,40	30	45	1,50	30,00	320,00	5,00
3,60	25	40	1,50	30,00	350,00	6,00
3,80	20	35	1,50	30,00	380,00	7,50
4,00	25	35	1,00	20,00	400,00	4,00
4,20	20	25	0,50	10,00	410,00	2,50
4,40	15	30	1,50	30,00	440,00	10,00
4,60	35	45	1,00	20,00	460,00	2,86
4,80	20	35	1,50	30,00	490,00	7,50
5,00	15	25	1,00	20,00	510,00	6,67
5,20	15	25	1,00	20,00	530,00	6,67
5,40	30	45	1,50	30,00	560,00	5,00
5,60	30	50	2,00	40,00	600,00	6,67
5,80	35	45	1,00	20,00	620,00	2,86
6,00	45	70	2,50	50,00	670,00	5,56
6,20	75	110	3,50	70,00	740,00	4,67
6,40	110	150	4,00	80,00	820,00	3,64
6,60	155	185	3,00	60,00	880,00	1,94

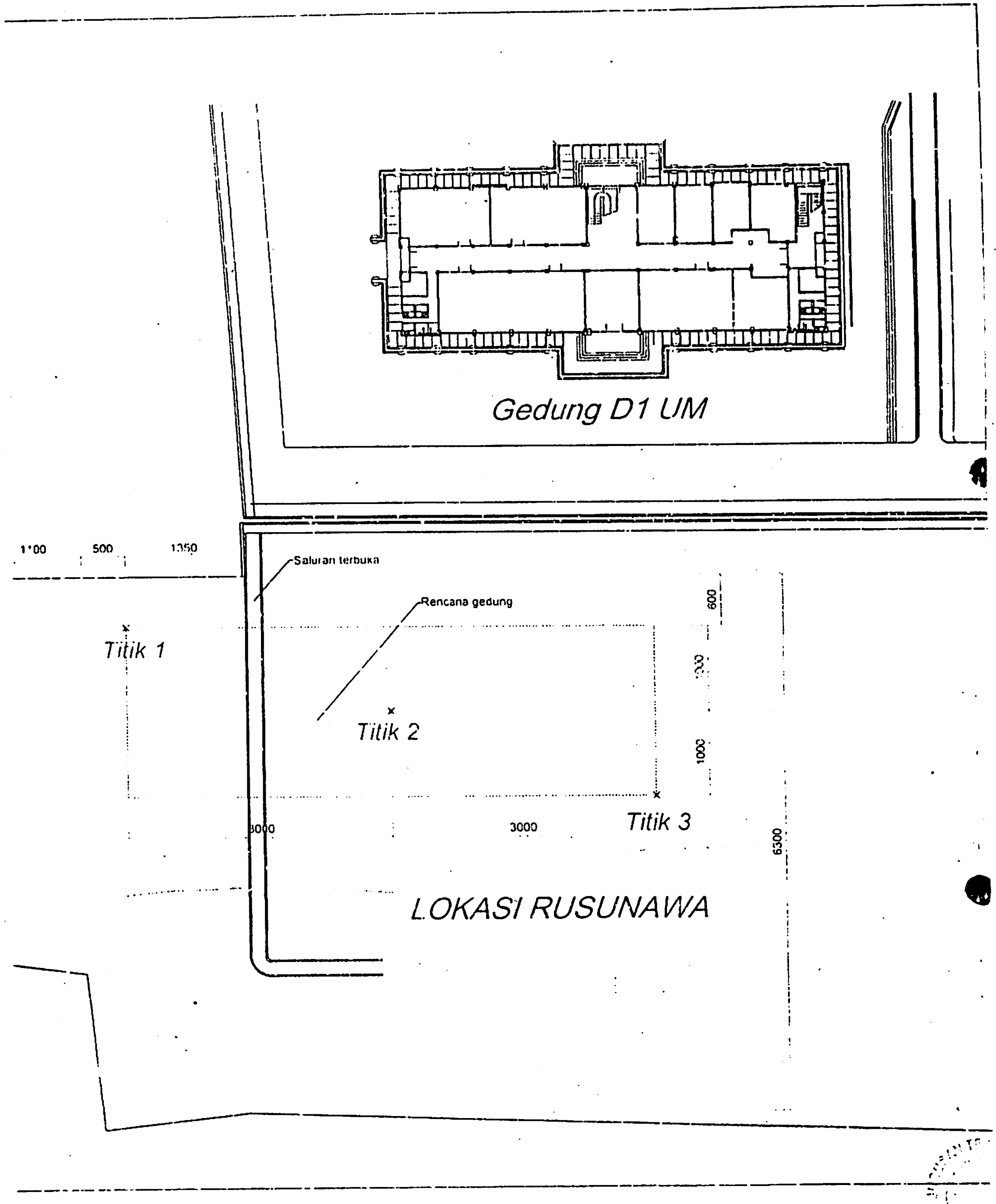
LABORATORIUM MEKANIKA TANAH
JURUSAN TEKNIK SIPIL FAKULTAS TEKNIK
UNIVERSITAS NEGERI MALANG
Gedung D2 Lt 2 Kampus UM Jl. Surabaya 6 Malang Telp/Fax: (0341) 587 082 Ext. 205

Proyek	: PEMBANGUNAN GEDUNG RUSUNAWA	Tgl. Uji	: 03.05.2009	TITIK UJI : S3
Lokasi	: JL. SURABAYA 6 MALANG	Dikerjakan	: St dan Ww	
		Diperiksa	: MS	

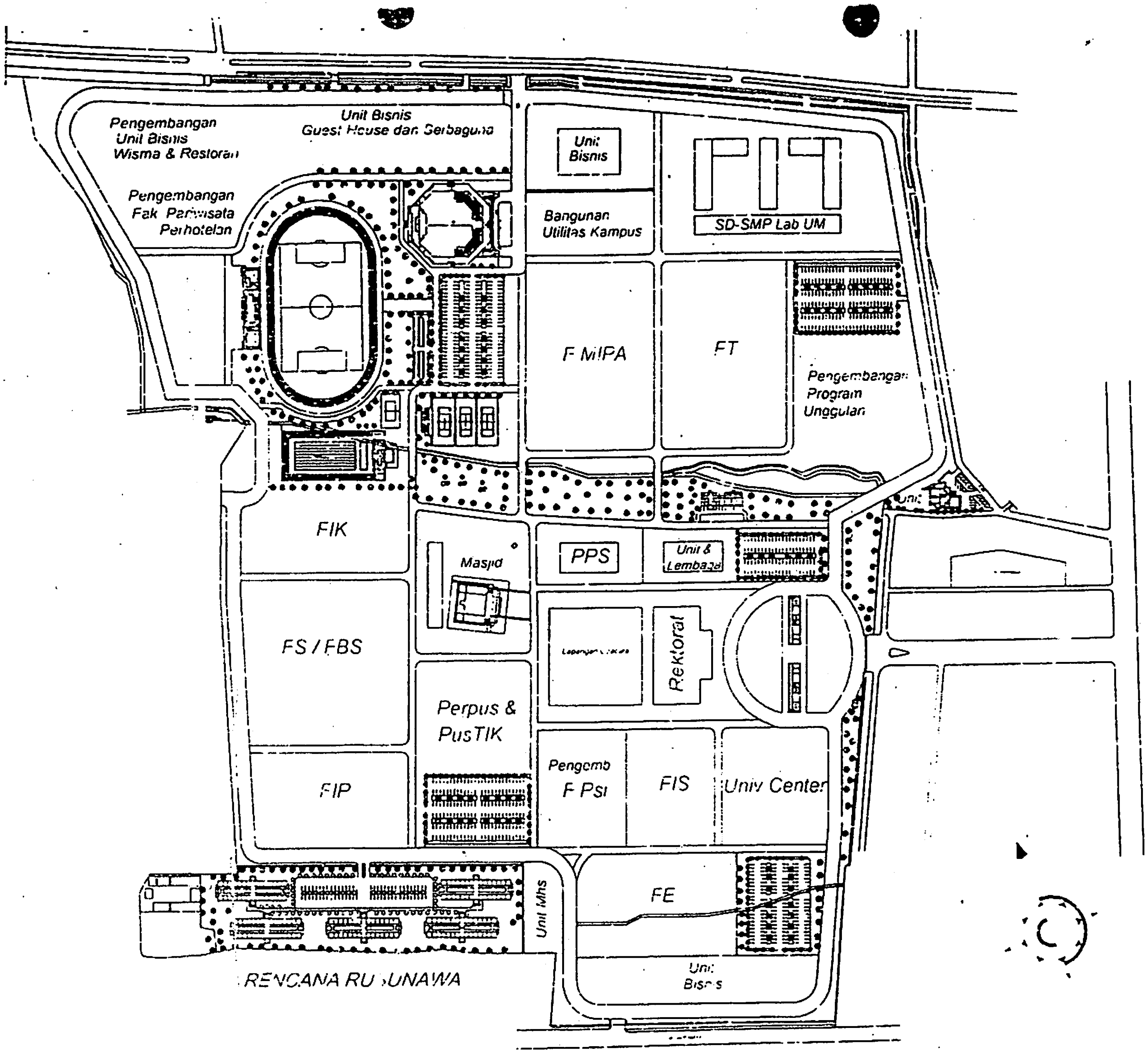
UJI PENETRASI KONUS (CONE PENETRATION TEST)
ASTM D 3441 - 86







LETAK TITIK SONDIR



LAY OUT ZONA PENGEMBANGAN