R_File_Young_Survey

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
data <- read.csv("G:/Rutgers/MVA/Project/responses.csv")</pre>
View(data)
# The structure of the datasets
dim(data)
## [1] 1010 150
## Separate out numeric variables and categoric variables
data cat <- data[,sapply(data, is.factor)]</pre>
data_num <- data[,!sapply(data, is.factor)]</pre>
dim(data_cat) # 11 features
## [1] 1010
              11
dim(data num) # 139 features
## [1] 1010 139
# Grouping of columns accoring to the preferences
music_data = data[,1:19]
movie_data = data[,20:31]
hobbies data = data[,32:63]
phobia_data = data[,64:73]
health data = data[,74:76]
traits_data = data[,77:133]
spend_data = data[,134:140]
demo data = data[,141:150]
```

MISSING VALUES ANALYSIS

```
sum(is.na(data))
## [1] 571
colSums(is.na(data)) #suming the na values as per the column level
```

| ## | Music | Slow.songs.or.fast.songs | |
|----|---------------------|--------------------------|--|
| ## | 3 | 2 | |
| ## | Dance | Folk | |
| ## | 4 | 5 | |
| ## | Country | Classical.music | |
| ## | 5 | 7 | |
| ## | Musical | Рор | |
| ## | 2 | 3 | |
| ## | Rock | Metal.or.Hardrock | |
| ## | 6 | 3 | |
| ## | Punk | HiphopRap | |
| ## | 8 | 4 | |
| ## | ReggaeSka | SwingJazz | |
| ## | 7 | 6 | |
| ## | Rock.n.roll | Alternative | |
| ## | 7 | 7 | |
| ## | Latino | TechnoTrance | |
| ## | 8 | 7 | |
| ## | Opera | Movies | |
| ## | ' 1 | 6 | |
| ## | Horror | Thriller | |
| ## | 2 | 1 | |
| ## | Comedy | Romantic | |
| ## | 3 | 3 | |
| ## | Sci.fi | War | |
| ## | 2 | 2 | |
| ## | Fantasy.Fairy.tales | Animated | |
| ## | 3 | 3 | |
| ## | Documentary | Western | |
| ## | 8 | 4 | |
| ## | Action | History | |
| ## | 2 | 2 | |
| ## | Psychology | Politics | |
| ## | 5 | 1 | |
| ## | Mathematics | Physics | |
| ## | 3 | 3 | |
| ## | Internet | PC | |
| ## | 4 | 6 | |
| ## | Economy.Management | Biology | |
| ## | 5 | 6 | |
| ## | Chemistry | Reading | |
| ## | 10 | 6 | |
| ## | Geography | Foreign.languages | |
| ## | 9 | 5 | |
| ## | Medicine | Law | |
| ## | 5 | 1 | |
| ## | Cars | Art.exhibitions | |
| ## | 4 | 6 | |
| ## | Religion | Countrysideoutdoors | |
| ## | 3 | 7 | |
| •• | _ | , | |

| ## | Dancing | Musical.instruments | |
|----------|-------------------------|-----------------------|--|
| ## | 3 | 1 | |
| ## | Writing | Passive.sport | |
| ## | 6 | 15 | |
| ## ## | Active.sport | Gardening 7 | |
| ## | 4 Celebrities | / Shopping | |
| ## | 2 | 3110pping 2 | |
| ## | Science.and.technology | Theatre | |
| ## | 6 | 8 | |
| ## | Fun.with.friends | Adrenaline.sports | |
| ## | 4 | . 3 | |
| ## | Pets | Flying | |
| ## | 4 | 3 | |
| ## | Storm | Darkness | |
| ## | 1 | 2 | |
| ## | Heights | Spiders | |
| ## | 3 | 5 | |
| ## | Snakes | Rats | |
| ## | 0 | 3 | |
| ## | Ageing | Dangerous.dogs | |
| ## | | 1 Curalitas | |
| ## | Fear.of.public.speaking | Smoking | |
| ## ## | 1 Alcohol | Ugalthy gating | |
| ## ## | AICONOI 0 | Healthy.eating 3 | |
| ## | Daily.events | Prioritising.workload | |
| ## | Daily.evenes | 5 | |
| ## | Writing.notes | Workaholism | |
| ## | 3 | 5 | |
| ## | Thinking.ahead | Final.judgement | |
| ## | 3 | 7 | |
| ## | Reliability | Keeping.promises | |
| ## | 4 | 1 | |
| ## | Loss.of.interest | Friends.versus.money | |
| ## | 4 | 6 | |
| ## | Funniness | Fake | |
| ## | 4 | _ 1 | |
| ## | Criminal.damage | Decision.making | |
| ## | 7 | 4 CalC anitiain | |
| ## | Elections | Self.criticism | |
| ## ## | 3 | 5 Hypochondnia | |
| ## ## | Judgment.calls 4 | Hypochondria 4 | |
| ## ## | Empathy | Eating.to.survive | |
| ## | 5 Empachy | eacing.to.survive | |
| ## | Giving | Compassion.to.animals | |
| ## | 6 | 7 | |
| ## | Borrowed.stuff | Loneliness | |
| ## | 2 | 1 | |
| | | | |

| ## | Cheating.in.school | Health |
|----------|-------------------------|----------------------------------|
| ## | 4 | 1 |
| ## | Changing.the.past | God |
| ## | 2 | 2 |
| ## | Dreams | Charity |
| ## | 0 | 3 |
| ## | Number.of.friends | Punctuality |
| ## | 0 | 0 |
| ## | Lying | Waiting |
| ## | 0 | 3 |
| ## | New.environment | Mood.swings |
| ## | 2 | 4 Carialiaina |
| ## | Appearence.and.gestures | Socializing |
| ## ## | Achievements | Posnonding to a sonious lotton |
| ## | Actifievements | Responding.to.a.serious.letter 6 |
| ## | Children | Assertiveness |
| ## | 4 | 2 |
| ## | Getting.angry | Knowing.the.right.people |
| ## | 4 | 2 |
| ## | Public.speaking | Unpopularity |
| ## | 2 | 3 |
| ## | Life.struggles | Happiness.in.life |
| ## | 3 | 4 |
| ## | Energy.levels | Smallbig.dogs |
| ## | 5 | 4 |
| ## | Personality | Finding.lost.valuables |
| ## | 4 | 4 |
| ## | Getting.up | Interests.or.hobbies |
| ## | 5 | 3 |
| ## | Parentsadvice 2 | Questionnaires.or.polls 4 |
| ## ## | Internet.usage | 4 Finances |
| ## | internet.usage | 3 |
| ## | Shopping.centres | Branded.clothing |
| ## | 2 | 2 |
| ## | Entertainment.spending | Spending.on.looks |
| ## | 3 | 3 |
| ## | Spending.on.gadgets | Spending.on.healthy.eating |
| ## | 0 | 2 |
| ## | Age | Height |
| ## | 7 | 20 |
| ## | Weight | Number.of.siblings |
| ## | 20 | 6 |
| ## | Gender | Leftright.handed |
| ## | 0 | 0 |
| ## | Education | Only.child |
| ## | 0 Villago tour | Ususa black of flats |
| ## | Villagetown | Houseblock.of.flats |
| ## | 0 | 0 |

```
# Finding missing values with more than 1%
# Create a function
pMiss <- function(x){sum(is.na(x))/length(x)*100}</pre>
perc cat <- apply(data cat, 2, pMiss)</pre>
perc_num <- apply(data_num, 2, pMiss)</pre>
perc_cat # this shows the percentage of missing value in the categorial data
sat
##
                   Smoking
                                            Alcohol
                                                                 Punctuality
##
                          0
##
                                    Internet.usage
                                                                      Gender
                     Lying
##
##
      Left...right.handed
                                          Education
                                                                 Only.child
##
##
           Village...town House...block.of.flats
##
                                                   0
# this shows the percentage of missing value in the numerical data
perc_num
##
                                           Slow.songs.or.fast.songs
                              Music
##
                         0.2970297
                                                           0.1980198
##
                              Dance
                                                                 Folk
                                                           0.4950495
##
                         0.3960396
##
                            Country
                                                     Classical.music
##
                         0.4950495
                                                           0.6930693
##
                            Musical
                                                                  Pop
##
                         0.1980198
                                                           0.2970297
##
                               Rock
                                                  Metal.or.Hardrock
##
                         0.5940594
                                                           0.2970297
##
                                                         Hiphop..Rap
                               Punk
                         0.7920792
##
                                                           0.3960396
##
                       Reggae..Ska
                                                         Swing..Jazz
##
                         0.6930693
                                                           0.5940594
                       Rock.n.roll
##
                                                         Alternative
##
                         0.6930693
                                                           0.6930693
##
                                                      Techno..Trance
                             Latino
                                                           0.6930693
##
                         0.7920792
##
                                                               Movies
                              Opera
##
                         0.0990099
                                                           0.5940594
##
                             Horror
                                                            Thriller
##
                         0.1980198
                                                           0.0990099
##
                             Comedy
                                                            Romantic
                          0.2970297
                                                           0.2970297
##
##
                             Sci.fi
                                                                  War
##
                          0.1980198
                                                           0.1980198
##
               Fantasy.Fairy.tales
                                                            Animated
##
                          0.2970297
                                                           0.2970297
##
                       Documentary
                                                             Western
##
                          0.7920792
                                                           0.3960396
```

| ## | Action | History |
|----|-------------------------|-----------------------|
| ## | 0.1980198 | 0.1980198 |
| ## | Psychology | Politics |
| ## | 0.4950495 | 0.0990099 |
| ## | Mathematics | Physics |
| ## | 0.2970297 | 0.2970297 |
| ## | Internet | PC |
| ## | 0.3960396 | 0.5940594 |
| ## | Economy.Management | Biology |
| ## | 0.4950495 | 0.5940594 |
| ## | Chemistry | Reading |
| ## | 0.9900990 | 0.5940594 |
| ## | Geography | Foreign.languages |
| ## | 0.8910891 | 0.4950495 |
| ## | Medicine | Law |
| ## | 0.4950495 | 0.0990099 |
| ## | Cars | Art.exhibitions |
| ## | 0.3960396 | 0.5940594 |
| ## | Religion | Countrysideoutdoors |
| ## | 0.2970297 | 0.6930693 |
| ## | Dancing | Musical.instruments |
| ## | 0.2970297 | 0.0990099 |
| ## | Writing | Passive.sport |
| ## | 0.5940594 | 1.4851485 |
| ## | Active.sport | Gardening |
| ## | 0.3960396 | 0.6930693 |
| ## | Celebrities | Shopping |
| ## | 0.1980198 | 0.1980198 |
| ## | Science.and.technology | Theatre |
| ## | 0.5940594 | 0.7920792 |
| ## | Fun.with.friends | Adrenaline.sports |
| ## | 0.3960396 | 0.2970297 |
| ## | Pets | Flying |
| ## | 0.3960396 | 0.2970297 |
| ## | Storm | Darkness |
| ## | 0.0990099 | 0.1980198 |
| ## | Heights | Spiders |
| ## | 0.2970297 | 0.4950495 |
| ## | Snakes | Rats |
| ## | 0.0000000 | 0.2970297 |
| ## | Ageing | Dangerous.dogs |
| ## | 0.0990099 | 0.0990099 |
| ## | Fear.of.public.speaking | Healthy.eating |
| ## | 0.0990099 | 0.2970297 |
| ## | Daily.events | Prioritising.workload |
| ## | 0.6930693 | 0.4950495 |
| ## | Writing.notes | Workaholism |
| ## | 0.2970297 | 0.4950495 |
| ## | Thinking.ahead | Final.judgement |
| ## | 0.2970297 | 0.6930693 |
| | | |

| ## | Reliability | Keeping.promises | |
|----------|-----------------------------------|--|--|
| ## | 0.3960396 | 0.0990099 | |
| ## | Loss.of.interest | Friends.versus.money | |
| ## | 0.3960396 | 0.5940594 | |
| ## | Funniness | Fake | |
| ## | 0.3960396 | 0.0990099 | |
| ## | Criminal.damage | Decision.making | |
| ## | 0.6930693 | 0.3960396 | |
| ## | Elections | Self.criticism | |
| ## | 0.2970297 | 0.4950495 | |
| ## | Judgment.calls | Hypochondria | |
| ## | 0.3960396 | 0.3960396 | |
| ## | Empathy | Eating.to.survive | |
| ## | 0.4950495 | 0.0000000 | |
| ## | Giving | Compassion.to.animals | |
| ## | 0.5940594 | 0.6930693 | |
| ## | Borrowed.stuff | Loneliness | |
| ## | 0.1980198 | 0.0990099 | |
| ## | Cheating.in.school | Health | |
| ## | 0.3960396 | 0.0990099 | |
| ## | Changing.the.past | God | |
| ## | 0.1980198 | 0.1980198 | |
| ## | Dreams | Charity | |
| ## | 0.0000000 | 0.2970297 | |
| ## | Number.of.friends | Waiting | |
| ## | 0.000000 | 0.2970297 | |
| ## | New.environment | Mood.swings | |
| ## | 0.1980198 | 0.3960396 | |
| ## | Appearence.and.gestures 0.2970297 | Socializing | |
| ## ## | | 0.4950495 | |
| ## | 0.1980198 | Responding.to.a.serious.letter 0.5940594 | |
| ## | Children | Assertiveness | |
| ## | 0.3960396 | 0.1980198 | |
| ## | Getting.angry | Knowing.the.right.people | |
| ## | 0.3960396 | 0.1980198 | |
| ## | Public.speaking | Unpopularity | |
| ## | 0.1980198 | 0.2970297 | |
| ## | Life.struggles | Happiness.in.life | |
| ## | 0.2970297 | 0.3960396 | |
| ## | Energy.levels | Smallbig.dogs | |
| ## | 0.4950495 | 0.3960396 | |
| ## | Personality | Finding.lost.valuables | |
| ## | 0.3960396 | 0.3960396 | |
| ## | Getting.up | Interests.or.hobbies | |
| ## | 0.4950495 | 0.2970297 | |
| ## | Parentsadvice | Questionnaires.or.polls | |
| ## | 0.1980198 | 0.3960396 | |
| ## | Finances | Shopping.centres | |
| ## | 0.2970297 | 0.1980198 | |
| 11 11 | 0.27/027/ | 0.1700170 | |

```
##
                  Branded.clothing
                                            Entertainment.spending
##
                         0.1980198
                                                          0.2970297
##
                                               Spending.on.gadgets
                Spending.on.looks
##
                         0.2970297
                                                          0.0000000
##
       Spending.on.healthy.eating
                                                                Age
##
                         0.1980198
                                                          0.6930693
##
                            Height
                                                             Weight
##
                         1.9801980
                                                          1.9801980
##
               Number.of.siblings
##
                         0.5940594
```

IMPUTE MISSING VALUES: Imputation based on predictive method using features

```
# Numeric variable imputation
library(mice)
## Warning: package 'mice' was built under R version 3.6.2
## Loading required package: lattice
## Warning: package 'lattice' was built under R version 3.6.2
##
## Attaching package: 'mice'
## The following objects are masked from 'package:base':
##
##
      cbind, rbind
# methods(mice)
impu_num = mice(data_num, m=1, method = 'pmm', maxit = 1, seed = 200)
##
## iter imp variable
        1 Music Slow.songs.or.fast.songs Dance Folk Country Classical.
music Musical Pop Rock Metal.or.Hardrock Punk Hiphop..Rap Reggae..Ska
Swing..Jazz Rock.n.roll Alternative Latino Techno..Trance Opera Movies
Horror Thriller Comedy Romantic Sci.fi War Fantasy.Fairy.tales Animate
d Documentary Western Action History Psychology Politics Mathematics
Physics Internet PC Economy. Management Biology Chemistry Reading Geogr
aphy Foreign.languages Medicine Law Cars Art.exhibitions Religion Coun
tryside..outdoors Dancing Musical.instruments Writing Passive.sport Acti
ve.sport Gardening Celebrities Shopping Science.and.technology Theatre
Fun.with.friends Adrenaline.sports Pets Flying Storm Darkness Heights
Spiders Rats Ageing Dangerous.dogs Fear.of.public.speaking Healthy.eatin
g Daily.events Prioritising.workload Writing.notes Workaholism Thinking.
ahead Final.judgement Reliability Keeping.promises Loss.of.interest Frie
nds.versus.money Funniness Fake Criminal.damage Decision.making Election
s Self.criticism Judgment.calls Hypochondria Empathy Giving Compassion.
to.animals Borrowed.stuff Loneliness Cheating.in.school Health Changing.
the.past God Charity Waiting New.environment Mood.swings Appearence.and
```

```
.gestures Socializing Achievements Responding.to.a.serious.letter Childre
n Assertiveness Getting.angry Knowing.the.right.people Public.speaking U
npopularity Life.struggles Happiness.in.life Energy.levels Small...big.do
gs Personality Finding.lost.valuables Getting.up Interests.or.hobbies Pa
rents..advice Questionnaires.or.polls Finances Shopping.centres Branded.c
lothing Entertainment.spending Spending.on.looks Spending.on.healthy.eatin
  Age Height Weight Number.of.siblings
# summary(impu num)
impu_num$imp$Age # Imputed data at each iterations
##
       1
## 138 20
## 143 22
## 463 19
## 550 22
## 736 25
## 903 18
## 961 20
impu_num$imp$Weight
##
       1
## 138 74
## 143 55
## 165 92
## 210 89
## 277 65
## 406 63
## 454 64
## 496 51
## 510 57
## 552 70
## 559 58
## 647 68
## 704 76
## 713 64
## 791 57
## 843 50
## 876 88
## 890 60
## 903 58
## 961 60
```

Parameters: 'pmm' - predictive mean matching method m=5 - no.of multiple imputed datasets maxit = 10 - no.of iterations The computational time is dependent on the 'maxit' - for me it took more than 20 min

```
# Get the numeirc imputed data
impu_num_compl = complete(impu_num,action = 1)
```

Imputing categorical missing variables

```
impu_cat = mice(data_cat, m=5, maxit = 10, seed = 200, method = 'pmm')
##
##
   iter imp variable
##
    1
         1
##
##
     1
        3
     1
        4
##
     1
        5
##
##
     2
        1
         2
     2
##
##
     2
         3
     2
         4
##
     2
        5
##
##
     3
         1
     3
        2
##
     3
         3
##
##
     3
         4
##
     3
         5
         1
     4
##
         2
##
     4
         3
##
     4
     4
         4
##
     4
         5
##
         1
     5
##
##
     5
         2
     5
         3
##
     5
         4
##
        5
     5
##
        1
     6
##
         2
##
     6
        3
     6
##
##
     6
        4
        5
##
     6
##
     7
         1
         2
##
    7
         3
    7
##
    7
         4
##
         5
##
    7
##
     8
         1
         2
##
     8
##
     8
         3
         4
##
     8
##
     8
        5
     9
         1
##
     9
         2
##
     9
##
         3
     9
         4
##
```

```
##
     9
         5
          1
##
     10
##
     10
          2
          3
##
     10
##
     10
          4
##
          5
# Get categoric imputed data
impu_cat_compl = complete(impu_cat, 1)
sum(is.na(impu_num_compl)) # No missing values
## [1] 0
sum(is.na(impu_cat_compl)) # No missing values
## [1] 0
```

Outlier detection:

```
library(outliers)
outlier(data_num)
##
                              Music
                                            Slow.songs.or.fast.songs
##
##
                              Dance
                                                                  Folk
##
                            Country
                                                      Classical.music
##
##
##
                            Musical
                                                                   Pop
##
                                                                     1
##
                                Rock
                                                   Metal.or.Hardrock
##
                                   1
                                                          Hiphop..Rap
##
                                Punk
##
##
                        Reggae..Ska
                                                          Swing..Jazz
##
                        Rock.n.roll
##
                                                          Alternative
##
                             Latino
                                                       Techno..Trance
##
##
                                                               Movies
##
                              Opera
##
                                                             Thriller
##
                             Horror
##
                             Comedy
                                                             Romantic
##
##
                                   1
                                                                     1
##
                             Sci.fi
                                                                   War
##
                                                                     1
##
               Fantasy.Fairy.tales
                                                             Animated
##
```

| ## | Documentary | Western | |
|----------|-------------------------|--------------------------|--|
| ## | 1 | 5 | |
| ## | Action | History | |
| ## | Develology | 1 Politics | |
| ## ## | Psychology | 5 | |
| ## | Mathematics | Physics | |
| ## | 5 | 5 | |
| ## | Internet | PC | |
| ## | 1 | 1 | |
| ## | Economy.Management | Biology | |
| ## | 5 | 5 | |
| ## | Chemistry | Reading | |
| ## | 5 | 1 | |
| ## | Geography | Foreign.languages | |
| ## | 1 | 1 | |
| ## | Medicine - | Law | |
| ## | 5 | 5 | |
| ## | Cars | Art.exhibitions | |
| ## ## | 5 Polision | Country side outdoors | |
| ## | Religion 5 | Countrysideoutdoors 1 | |
| ## | Dancing | Musical.instruments | |
| ## | 5 | 5 | |
| ## | Writing | Passive.sport | |
| ## | 5 | 1 | |
| ## | Active.sport | Gardening | |
| ## | 1 | 5 | |
| ## | Celebrities | Shopping | |
| ## | 5 | 1 | |
| ## | Science.and.technology | Theatre | |
| ## | _ 1 | 1 | |
| ## | Fun.with.friends | Adrenaline.sports | |
| ## | 2 | 5 | |
| ## ## | Pets | Flying 5 | |
| ## | 1 Storm | Darkness | |
| ## | 5 | bar kiless 5 | |
| ## | Heights | Spiders | |
| ## | 5 | 5 | |
| ## | Snakes | Rats | |
| ## | 1 | 5 | |
| ## | Ageing | Dangerous.dogs | |
| ## | 5 | 1 | |
| ## | Fear.of.public.speaking | Healthy.eating | |
| ## | 5 | 1 | |
| ## | Daily.events | Prioritising.workload | |
| ## | | 5 | |
| ## | Writing.notes | Workaholism | |
| ## | 1 | 5 | |

| ## | Thinking.ahead | Final.judgement | |
|----------|-------------------------|--------------------------------|--|
| ## | 1 | . 5 | |
| ## | Reliability | Keeping.promises | |
| ## | 1 | | |
| ## | Loss.of.interest | Friends.versus.money | |
| ## | 5 Funnings | 1 | |
| ## ## | Funniness 1 | Fake 5 | |
| ## | Criminal.damage | ر Decision.making | |
| ## | 5 | 1 | |
| ## | Elections | Self.criticism | |
| ## | 1 | 1 | |
| ## | Judgment.calls | Hypochondria | |
| ## | 1 | 5 | |
| ## | Empathy | Eating.to.survive | |
| ## | 1 | 5 | |
| ## | Giving | Compassion.to.animals | |
| ## | 5 | 1 | |
| ## | Borrowed.stuff | Loneliness | |
| ## | 1 | | |
| ## | Cheating.in.school | Health | |
| ## | | 1 | |
| ## | Changing.the.past | God | |
| ## ## | 5 Dnoams | 1 Chanity | |
| ## | Dreams 1 | Charity 5 | |
| ## | Number.of.friends | Waiting | |
| ## | 1 | 5 | |
| ## | New.environment | Mood.swings | |
| ## | 1 | 1 | |
| ## | Appearence.and.gestures | Socializing | |
| ## | 1 | 1 | |
| ## | Achievements | Responding.to.a.serious.letter | |
| ## | 5 | 1 | |
| ## | Children | Assertiveness | |
| ## | 1 | 1 | |
| ## | Getting.angry | Knowing.the.right.people | |
| ## | Doub.1. | 1 | |
| ## | Public.speaking | Unpopularity 1 | |
| ## ## | lifo ctouggles | Hannings in life | |
| ## | Life.struggles 1 | Happiness.in.life | |
| ## | Energy.levels | Smallbig.dogs | |
| ## | 1 | 5 | |
| ## | Personality | Finding.lost.valuables | |
| ## | 1 | 5 | |
| ## | - Getting.up | Interests.or.hobbies | |
| ## | 1 | 1 | |
| ## | Parentsadvice | Questionnaires.or.polls | |
| ## | 1 | 5 | |
| | | | |

```
##
                          Finances
                                                   Shopping.centres
##
##
                  Branded.clothing
                                             Entertainment.spending
##
##
                 Spending.on.looks
                                                Spending.on.gadgets
##
##
       Spending.on.healthy.eating
                                                                 Age
##
                                                                  30
##
                            Height
                                                              Weight
##
                                 62
                                                                 165
##
               Number.of.siblings
##
```

Demographic category - Height, Weight, Age, No.of siblings have maximum no.of outliers

```
library(ggplot2)
```

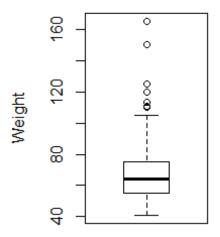
The boxplot.stats function; is a ancillary function that produces statistics for drawing boxplots. It returns among other information a vector stats with five elements: the extreme of the lower whisker, the lower 'hinge', the median, the upper 'hinge' and the extreme of the upper whisker, the extreme of the whiskers are the adjacent values (last non-missing value, i.e. every value beyond is an outlier.

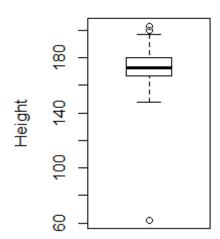
```
id1 = boxplot.stats(impu_num_compl$Weight)
id1$stats
## [1] 41 55 64 75 105
id1$stats[1] #The Lower adjacent value
## [1] 41
id1$stats[5] # The upper adjacent value
## [1] 105
id2 = boxplot.stats(impu_num_compl$Height)
id2$stats[1] #The Lower adjacent value
## [1] 148
id2$stats[5] # The upper adjacent value
## [1] 197
id3 = boxplot.stats(impu_num_compl$Age)
id3$stats[1] #The Lower adjacent value
## [1] 15
```

```
id3$stats[5] # The upper adjacent value
## [1] 26
id4 = boxplot.stats(impu_num_compl$Number.of.siblings)
id4$stats[1] #The Lower adjacent value
## [1] 0
id4$stats[5] # The upper adjacent value
## [1] 3
# Boxplot
par(mfrow=c(1,2))
boxplot(impu_num_compl$Weight, main = 'Outliers in Weight', ylab = 'Weight')
boxplot(impu_num_compl$Height, main = 'Otliers in Height', ylab = 'Height')
```

Outliers in Weight

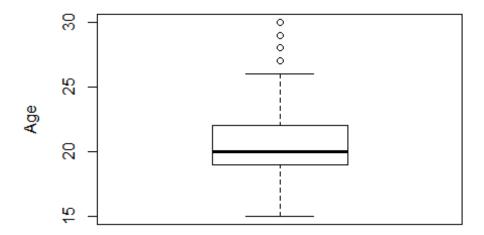
Otliers in Height





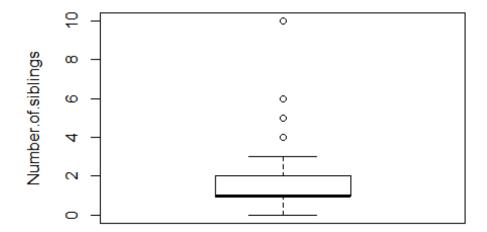
```
boxplot(impu_num_compl$Age, main = 'Outliers in Age', ylab = 'Age')
```

Outliers in Age



boxplot(impu_num_compl\$Number.of.siblings , main = 'Otliers in Number.of.sibl
ings', ylab = 'Number.of.siblings')

Otliers in Number.of.siblings



```
# You can get the actual values of the outliers with this
boxplot(impu num compl$Weight, plot=FALSE)$out
## [1] 120 110 111 120 113 125 165 120 150
boxplot(impu num compl$Height, plot=FALSE)$out
## [1] 200 200 203 62 203 200
# no of rows having outliers
Outlier height = boxplot(impu num compl$Height, plot=FALSE)$out
impu_num_compl[which(impu_num_compl$Height %in% Outlier_height),]
       Music Slow.songs.or.fast.songs Dance Folk Country Classical.music Musi
cal
## 98
            5
                                       3
                                             2
                                                   1
                                                           1
                                                                             1
1
## 221
            5
                                       3
                                             4
                                                   3
                                                           3
                                                                             4
2
                                                           2
## 548
            5
                                       4
                                             1
                                                   4
                                                                             5
3
## 677
            5
                                       4
                                             2
                                                   2
                                                           1
                                                                             2
2
                                       3
                                                   2
                                                           3
## 800
            5
                                             1
                                                                             4
5
## 993
                                                           4
            4
                                       4
                                             4
                                                   1
1
##
       Pop Rock Metal.or.Hardrock Punk Hiphop..Rap Reggae..Ska Swing..Jazz
## 98
         2
               1
                                  1
                                        1
                                                     5
                                                                  2
                                                     5
                                  1
                                        2
                                                                               4
## 221
         1
               3
                                                                  4
                                  5
                                                     2
                                                                  2
## 548
         1
               4
                                        2
                                                                               1
         1
               2
                                  2
                                        1
                                                     2
                                                                  1
                                                                               2
## 677
                                                                               2
         2
                                  5
                                                     1
                                                                  1
## 800
               4
                                        4
                                  4
## 993
         3
                                        3
                                                     2
                                                                  3
##
       Rock.n.roll Alternative Latino Techno..Trance Opera Movies Horror Thri
ller
                                                       2
                                                                     5
## 98
                  1
                               1
                                       1
                                                              1
                                                                             2
3
## 221
                  2
                               5
                                       3
                                                       1
                                                              3
                                                                     5
                                                                             3
3
                               3
                                       1
                                                              5
                                                                     5
                                                                             3
## 548
                  4
                                                       1
                               5
                                       2
                                                       2
## 677
                  1
                                                              2
                                                                     5
                                                                             1
2
## 800
                  4
                               4
                                       2
                                                       2
                                                              4
                                                                     5
                                                                             1
1
                                       2
## 993
                  1
                               1
                                                              2
                                                                     4
                                                                             4
4
##
       Comedy Romantic Sci.fi War Fantasy. Fairy. tales Animated Documentary We
stern
```

```
## 98
             5
3
## 221
             5
                       3
                               2
                                   3
                                                         4
                                                                   5
                                                                                4
3
## 548
                       2
             5
                               2
                                   4
                                                         4
                                                                   4
                                                                                5
## 677
             2
                                                         3
                                                                                5
                                   2
## 800
                       3
             4
                               4
                                                         3
                                                                                5
3
## 993
                       3
                               5
                                                         4
                                   3
3
       Action History Psychology Politics Mathematics Physics Internet PC
##
## 98
                                  2
                                            2
                                                         4
                                                                  1
                                  3
## 221
             4
                      3
                                            1
                                                         1
                                                                  1
                                                                            3
                                  3
                                            5
                      5
                                                                  1
                                                                            3
## 548
             4
                                                         1
                                                                               3
                                  1
## 677
             3
                      3
                                            1
                                                         1
                                                                  1
                                                                            5
                                  2
                                                         4
                                                                  3
                                                                            5
## 800
             3
                      4
                                            3
                                                         5
             4
                      5
                                  2
                                            3
                                                                  5
## 993
       Economy. Management Biology Chemistry Reading Geography Foreign.languag
##
es
## 98
                          2
                                   1
                                              1
                                                       3
4
## 221
                          1
                                   5
                                              5
                                                       3
                                                                  1
5
## 548
                          1
                                   2
                                              1
                                                       5
                                                                  5
5
## 677
                          1
                                   1
                                              1
                                                       1
                                                                  3
## 800
                          2
                                              2
                                                       5
                                                                  3
                                   3
4
## 993
                          1
                                   4
                                              4
                                                       2
                                                                  4
2
       Medicine Law Cars Art.exhibitions Religion Countryside..outdoors Danci
ng
## 98
                   2
                         2
                                                     4
                                                                             4
               1
                                           1
## 221
               3
                   2
                         4
                                           3
                                                     2
                                                                             4
## 548
               2
                   2
                         1
                                                     4
                                                                             3
## 677
                   5
                         2
                                                     1
1
                   2
                                                     2
## 800
               3
                         3
2
## 993
                         2
               1
                   1
                                           1
                                                     1
                                                                             1
       Musical.instruments Writing Passive.sport Active.sport Gardening
## 98
                           1
                                    1
                                                    1
                                                                  5
                                                                             2
## 221
```

```
## 548
                                                     5
                                                                   5
                            1
                                     1
                                                                               2
## 677
## 800
                            3
                                     3
                                                     3
                                                                   2
                                                                              4
                            1
                                     5
                                                     4
## 993
                                                                   1
                                                                               1
       Celebrities Shopping Science.and.technology Theatre Fun.with.friends
##
## 98
                   1
                             1
                                                       4
                                                                1
                             3
                                                       4
                                                                2
                                                                                   5
## 221
                   1
                                                       2
                                                                5
                                                                                   5
## 548
                   1
                             1
                                                       3
                                                                5
                                                                                   5
                   4
                             3
## 677
                   3
                             3
                                                       4
                                                                5
                                                                                   4
## 800
## 993
                                                       5
                                                                2
                   1
                             1
       Adrenaline.sports Pets Flying Storm Darkness Heights Spiders Snakes Ra
##
ts
## 98
                          3
                               5
                                       1
                                              1
                                                        2
                                                                 3
                                                                          2
1
                          3
                                                        2
## 221
                               5
                                       1
                                              3
                                                                 2
                                                                          2
                                                                                  3
## 548
                          5
                                              1
                                                        2
                                                                 3
                                                                          1
                               4
                                       1
                                                                                  1
## 677
                          2
                               3
                                       1
                                              2
                                                        2
                                                                 2
                                                                          3
                                                                                  3
## 800
                          3
                               5
                                       2
                                              1
                                                        3
                                                                 2
                                                                          3
                                                                                  3
## 993
                          1
                               1
                                       3
                                              1
                                                        1
                                                                 5
                                                                          5
                                                                                  3
2
##
       Ageing Dangerous.dogs Fear.of.public.speaking Healthy.eating Daily.eve
nts
## 98
                                                         2
                                                                          3
             1
                              1
1
## 221
                                                         3
             1
                              4
                                                                          4
2
## 548
                                                                          2
             1
                                                         1
5
## 677
             3
                              3
                                                         3
                                                                          4
2
## 800
             2
                              2
                                                                          3
                                                         4
3
## 993
             2
                              3
                                                         4
                                                                          1
3
##
       Prioritising.workload Writing.notes Workaholism Thinking.ahead
## 98
                                              1
                                                           3
                                                                            2
                              2
                                              2
                                                           1
                                                                            2
## 221
                              2
                                              1
                                                           2
                                                                            2
## 548
                              1
                                              2
                                                           1
                                                                            2
## 677
## 800
                              3
                                              2
                                                           4
                                                                            3
                              1
## 993
                                              1
                                                           1
       Final.judgement Reliability Keeping.promises Loss.of.interest
##
## 98
                                     4
                                                        5
                                                                           2
## 221
                       2
                                     3
## 548
```

```
## 677
                       1
                                    4
                                                       4
                                                                          2
## 800
                       3
                                    3
                                                       5
## 993
       Friends.versus.money Funniness Fake Criminal.damage Decision.making
## 98
                            3
                                       4
                                             4
                                                               5
## 221
                            4
                                        4
                                             2
                                                               5
                            5
                                        5
                                                               1
                                                                                 3
## 548
                                             1
                                        2
                                                                                 2
## 677
                            4
                                             2
                                                               5
                                        3
                                                               2
                                             3
                                                                                 3
## 800
                            1
                                        2
## 993
                                             1
       Elections Self.criticism Judgment.calls Hypochondria Empathy
## 98
                                 4
                                                 3
                4
                                 2
                                                                1
## 221
                                                 4
                                                                         4
## 548
                5
                                 5
                                                 5
                                                                1
                                                                         4
                                 2
## 677
                1
                                                                         4
                2
                                 4
                                                                2
## 800
                                                                         4
## 993
                5
                                 2
                                                 3
                                                                1
       Eating.to.survive Giving Compassion.to.animals Borrowed.stuff Loneline
##
SS
## 98
                         4
                                 1
                                                         2
                                                                          5
5
## 221
                         2
                                 3
                                                         5
                                                                          5
## 548
                         1
                                 1
                                                         5
1
## 677
                         1
                                 2
                                                         1
                                                                          2
2
## 800
                         2
                                                         5
                                 3
4
## 993
                                 4
                                                         2
                         1
3
       Cheating.in.school Health Changing.the.past God Dreams Charity
## 98
                          5
                                  1
                                                          5
                                                                  4
                                                                           2
                          5
                                  3
                                                          2
                                                                  3
## 221
                                                                           1
## 548
                          5
                                  2
                                                      2
                                                          1
                                                                  3
                                                                           2
                          5
                                  3
                                                          4
                                                                  3
                                                                           2
## 677
                                                          2
## 800
                          3
                                  3
                                                      2
                                                                  4
                                                                           3
## 993
                          1
                                  3
                                                                  3
                                                                           3
       Number.of.friends Waiting New.environment Mood.swings
## 98
                         2
                                  4
                                                    5
                                                                 5
                                  2
                                                                 3
## 221
                         4
                                                    4
                         3
                                  5
                                                    5
                                                                 1
## 548
## 677
                         3
                                  3
                                                                 5
                                                    3
                         2
                                                    2
## 800
                                  4
## 993
                         3
                                  2
                                                    2
       Appearence.and.gestures Socializing Achievements
## 98
                                2
                                             3
                                3
                                                            3
## 221
                                             4
                                                            2
## 548
                                1
                                             4
## 677
```

```
## 800
## 993
                                2
                                             1
                                                            3
       Responding.to.a.serious.letter Children Assertiveness Getting.angry
##
## 98
                                        3
                                                  5
                                                                 5
## 221
                                        4
                                                  3
                                                                 3
                                                                                 2
## 548
                                        3
                                                                 2
                                                                                 1
                                        4
                                                                                 2
## 677
## 800
                                        4
                                                                                 2
                                                                 5
## 993
                                        3
                                                                                 3
                                                  3
##
        Knowing.the.right.people Public.speaking Unpopularity Life.struggles
## 98
                                 4
                                                   2
                                                   5
                                                                 3
## 221
                                 4
                                                                                  1
                                 3
                                                   1
                                                                 3
                                                                                  1
## 548
## 677
                                 4
                                                   2
                                                                 3
                                                                                  3
## 800
                                                                                  4
                                 3
                                                   5
## 993
       Happiness.in.life Energy.levels Small...big.dogs Personality
## 98
                         3
                                         3
                                                            3
                         5
## 221
                                                            3
                                                                         4
## 548
                                                            3
                                                                         3
                         3
                                                            2
                                                                         4
## 677
## 800
                         3
                                                            2
                                                                         3
## 993
                                         3
       Finding.lost.valuables Getting.up Interests.or.hobbies Parents..advice
##
## 98
                                                                   5
## 221
                               3
                                           4
                                                                                    4
## 548
                               4
                                                                   5
                                                                                    4
## 677
                               4
                                                                   3
                                                                                     3
## 800
                               4
                                                                   2
                                                                                    3
                                           5
## 993
                               1
                                                                   3
##
       Questionnaires.or.polls Finances Shopping.centres Branded.clothing
## 98
                                1
                                          2
                                                             1
                                3
                                                                                2
## 221
                                3
                                          3
                                                             2
## 548
                                                                                1
## 677
                                1
                                          3
                                                             4
                                                                                2
## 800
                                          4
                                3
                                                             3
                                                                                3
## 993
                                2
                                          1
##
       Entertainment.spending Spending.on.looks Spending.on.gadgets
## 98
                               5
                                                                         5
                               5
                                                                         2
## 221
                               3
## 548
                                                                         1
                               2
                                                                         2
## 677
                               2
                                                   3
## 800
## 993
                                                   1
       Spending.on.healthy.eating Age Height Weight Number.of.siblings
##
## 98
                                   2
                                       19
                                             200
                                                      75
                                                                             1
## 221
                                   3
                                       18
                                             200
                                                      90
                                                                             2
                                                                             2
## 548
                                       21
                                             203
                                                      80
## 677
                                       20
                                              62
                                                      55
                                                                             2
```

| ## 800 ## 993 | | | .8 .0 | 203 200 | 15 15 | 39 50 | 2 1 | | |
|--|-----------------|---------------|----------|------------|----------|----------|---------------------|--|--|
| <pre>outlier_siblings = boxplot(impu_num_compl\$Number.of.siblings, plot=FALSE)\$out impu_num_compl[which(impu_num_compl\$Number.of.siblings %in% outlier_siblings) ,]</pre> | | | | | | | | | |
| ## | Music Slow.song | s.or.fast.son | gs | Dance | Folk | Country | Classical.music Mus | | |
| ical ## 13 | 5 | | 3 | 1 | 2 | 1 | 4 | | |
| 3 ## 33 | 5 | | 5 | 3 | 1 | 3 | 2 | | |
| 3 ## 35 | 5 | | 4 | 3 | 2 | 1 | 3 | | |
| 4 ## 54 | 5 | | 3 | 4 | 4 | 3 | 4 | | |
| 5 | | | | | | | | | |
| ## 92 5 | 5 | | 5 | 1 | 5 | 1 | 2 | | |
| ## 125 5 | 4 | | 4 | 1 | 4 | 5 | 5 | | |
| ## 139 5 | 5 | | 3 | 2 | 3 | 3 | 4 | | |
| ## 150 | 2 | | 3 | 1 | 3 | 1 | 3 | | |
| 4 ## 230 | 4 | | 3 | 4 | 2 | 4 | 1 | | |
| 1 ## 260 | 2 | | 3 | 3 | 3 | 3 | 2 | | |
| 2 ## 366 | 5 | | 3 | 2 | 2 | 3 | 4 | | |
| 2 | | | | | | | | | |
| ## 372 5 | 5 | | 3 | 5 | 5 | 5 | 5 | | |
| ## 443 3 | 5 | | 3 | 4 | 2 | 4 | 3 | | |
| ## 476 5 | 5 | | 3 | 3 | 2 | 5 | 4 | | |
| ## 503 | 5 | | 4 | 4 | 3 | 2 | 4 | | |
| 2 ## 525 | 5 | | 3 | 2 | 1 | 2 | 4 | | |
| 2 ## 571 | 5 | | 3 | 3 | 1 | 1 | 2 | | |
| 1 ## 620 | 5 | | 1 | 3 | 3 | 1 | 5 | | |
| 4 | | | | | | | | | |
| ## 683 3 | 4 | | 4 | 4 | 2 | 3 | 3 | | |
| ## 695 2 | 5 | | 3 | 3 | 3 | 4 | 5 | | |
| ## 743 | 5 | | 3 | 1 | 3 | 4 | 5 | | |

| ## 751 |
|--|
| ## 804 |
| ## 804 |
| ## 847 |
| ## 849 |
| 1 |
| ## 854 5 3 4 4 2 3 3 4 4 4 2 3 4 4 4 4 4 4 4 4 4 |
| ## 931 5 3 3 2 1 2 ### 938 5 3 4 1 1 5 ### 941 5 3 2 1 1 5 ### 958 5 4 2 1 1 3 4 ### 1007 4 4 4 5 1 3 4 ### 133 3 5 4 5 3 4 5 3 4 2 3 1 1 1 ### 33 3 4 3 4 4 4 2 2 2 3 1 1 ### 35 4 5 3 4 3 4 4 4 2 2 2 3 3 3 3 3 3 3 3 3 3 3 |
| ## 938 5 3 4 1 1 1 5 ## 941 5 3 2 1 1 1 3 ## 958 5 4 2 1 1 1 1 1 ## 1007 4 4 4 5 1 3 4 ## 133 3 5 4 5 4 2 3 1 1 1 ## 33 3 4 4 4 2 3 1 1 1 ## 33 3 4 3 4 2 3 1 1 1 ## 35 4 5 3 4 2 3 1 1 ## 36 4 5 3 4 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 |
| ## 938 5 3 4 1 1 1 5 4 |
| ## 941 5 3 2 1 1 1 3 ## 958 5 4 2 1 1 1 1 ## 1007 4 4 5 1 3 4 ## 13 3 5 4 2 3 4 5 3 4 4 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| ## 958 5 4 2 1 1 1 1 1 2 |
| ## 958 |
| ## 1007 |
| 1 ## Pop Rock Metal.or.Hardrock Punk HiphopRap ReggaeSka SwingJazz ## 13 3 5 4 2 3 1 1 ## 33 3 4 3 4 2 2 ## 35 4 5 3 4 2 3 3 ## 54 4 3 2 2 3 3 3 ## 92 3 5 5 5 1 5 1 ## 125 3 5 3 3 4 ## 139 2 1 1 1 3 3 4 |
| ## Pop Rock Metal.or.Hardrock Punk Hiphop.Rap Reggae.Ska Swing.Jazz ## 13 |
| ## 33 |
| ## 35 |
| ## 54 4 3 2 2 3 3 3 3 ## 92 3 5 5 5 1 5 1 ## 125 3 5 3 3 1 2 4 ## 139 2 1 1 1 3 3 3 4 |
| ## 92 3 5 5 5 1 5 1 ## 125 3 5 3 3 1 2 4 ## 139 2 1 1 1 3 3 4 |
| ## 125 |
| ## 139 2 1 1 1 3 3 4 |
| |
| ## 150 1 2 2 2 3 2 1 |
| <u> </u> |
| ## 230 4 3 1 4 2 5 3 |
| ## 260 3 4 2 2 1 3 |
| ## 366 1 5 4 5 1 5 4 |
| ## 372 5 5 3 3 2 2 5 |
| ## 443 5 4 1 4 3 4 4 |
| ## 476 3 5 4 4 3 4 3 |
| ## 503 2 5 3 4 3 3 4 |
| ## 525 |
| ## 571 3 3 1 2 2 1 1 |
| ## 620 3 3 2 2 3 |
| ## 683 4 4 3 4 3 |
| ## 695 3 5 4 2 3 3 5 |
| ## 743 2 4 2 1 3 4 2 |
| ## 751 3 3 1 1 5 1 5 |
| ## 804 3 5 4 5 1 1 2 |
| ## 847 4 2 1 1 4 2 4 |
| ## 849 3 5 3 4 1 4 2 |
| ## 854 3 3 1 1 2 3 2 |
| ## 931 3 2 2 3 5 3 1 |
| ## 938 5 5 4 5 4 5 5 |

| ## 941 ## 958 ## 1007 | 3 3 2 2 4 1 | | 1 1 1 1 1 4 | . 5 | 4 1 1 | 5 2 2 |
|-----------------------------|-------------------|-------------|-------------------|--------------|-------------|-------------|
| ## | | Alternative | | TechnoTrance | | |
| iller ## 13 | 4 | 3 | 2 | 1 | 2 5 | 1 |
| 5 | | | | | | |
| ## 33 5 | 4 | 4 | 2 | 3 | 1 5 | 5 |
| ## 35 | 4 | 4 | 2 | 1 | 1 5 | 2 |
| 3 ## 54 | 3 | 3 | 5 | 2 | 5 5 | 3 |
| 3 ## 92 | 3 | 1 | 1 | 1 | 1 5 | 4 |
| 4 | | | | | | |
| ## 125 5 | 5 | 2 | 3 | 1 | 3 4 | 5 |
| ## 139 2 | 4 | 2 | 3 | 1 | 2 5 | 1 |
| ## 150 | 1 | 1 | 1 | 1 | 2 3 | 2 |
| 2 ## 230 | 3 | 2 | 2 | 3 | 3 3 | 1 |
| 3 ## 260 | 5 | 2 | 5 | 1 | 5 3 | 1 |
| 1 | | | | | | |
| ## 366 5 | 5 | 5 | 1 | 2 | 4 5 | 1 |
| ## 372 2 | 5 | 3 | 5 | 2 | 5 5 | 1 |
| ## 443 | 4 | 2 | 2 | 2 | 1 5 | 5 |
| 4 ## 476 | 5 | 3 | 4 | 1 | 2 4 | 4 |
| 3 ## 503 | 5 | 3 | 1 | 3 | 3 5 | 3 |
| 5 | | | | | | |
| ## 525 4 | 3 | 5 | 2 | 1 | 3 5 | 3 |
| ## 571 2 | 3 | 2 | 2 | 1 | 1 5 | 4 |
| ## 620 | 3 | 2 | 3 | 2 | 5 5 | 2 |
| 4 ## 683 | 4 | 3 | 2 | 5 | 2 5 | 2 |
| 4 ## 695 | 5 | 1 | 5 | 4 | 3 5 | 4 |
| 5 ## 743 | 3 | 4 | 5 | 5 | 2 5 | |
| 3 | | | | | | |
| ## 751 4 | 4 | 5 | 5 | 1 | 4 4 | 3 |
| ## 804 | 3 | 2 | 1 | 1 | 2 5 | 3 |

| ## 847 |
|--|
| ## 849 |
| ## 849 |
| ## 854 |
| ## 931 1 1 1 3 3 3 2 5 3 1 3 2 5 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| 2 |
| ## 941 |
| ## 941 |
| ## 958 |
| ## 1007 |
| ## 13 |
| ## 13 |
| ## 33 |
| ## 35 |
| ## 54 5 5 1 5 5 3 3 ## 92 5 5 5 3 1 5 5 5 1 ## 125 5 4 5 5 5 5 5 5 5 5 5 4 3 1 5 5 5 5 5 3 3 1 5 5 5 5 3 3 4 4 4 4 4 4 |
| ## 92 5 5 3 1 5 5 1 ## 125 5 4 5 5 5 5 5 ## 139 5 5 1 3 5 4 4 ## 150 4 2 5 5 4 4 4 ## 230 4 1 2 2 3 2 3 ## 260 5 1 1 4 3 1 5 ## 372 5 5 3 2 5 5 3 ## 443 5 4 3 3 5 5 3 ## 476 5 5 5 5 5 5 3 ## 503 4 2 5 5 5 5 3 ## 525 3 3 3 3 4 5 4 |
| ## 125 5 4 5 5 5 5 5 5 4 3 1 5 5 5 5 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| ## 139 |
| ## 150 |
| ## 230 |
| ## 260 5 1 1 4 3 1 5 ## 366 2 2 1 5 2 2 5 ## 372 5 5 3 2 5 5 3 ## 443 5 4 3 3 5 5 5 4 ## 476 5 5 2 3 5 5 5 3 ## 503 4 2 5 5 5 5 3 ## 525 3 3 3 3 3 3 4 5 |
| ## 366 |
| ## 372 5 5 3 2 5 5 3 4 3 3 5 5 5 4 ## 443 5 5 5 5 5 5 4 4 ## 476 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 |
| ## 443 5 4 3 3 5 5 4 4 3 4 4 4 5 4 4 4 4 4 |
| ## 476 5 5 2 3 5 5 3 ## 503 4 2 5 5 5 5 5 3 ## 525 3 3 3 3 4 5 4 |
| ## 503 |
| ## 525 3 3 3 3 4 5 4 |
| |
| |
| ## 620 4 2 2 5 3 3 5 |
| ## 683 4 2 4 5 5 4 4 |
| ## 695 5 3 4 5 4 4 5 |
| ## 743 5 4 3 5 5 5 4 |
| ## 751 5 4 4 4 5 5 5 |
| ## 804 5 4 1 2 3 2 2 |
| ## 847 5 5 5 2 2 4 4 |
| ## 849 3 4 4 2 1 2 1 |
| ## 854 5 5 1 3 5 3 4 |
| ## 931 5 5 2 3 5 5 3 |
| ## 938 5 5 4 2 4 5 3 |
| ## 941 5 3 5 5 4 3 5 |
| ## 958 5 4 4 4 3 2 3 |
| ## 1007 5 1 5 5 1 5 5 5 |
| ## Western Action History Psychology Politics Mathematics Physics Intern |

| et ## | | 1 | 1 | 4 | 4 | 4 | 1 | 1 |
|----------|----------|---|---|---|---|---|---|---|
| 3 ## | 2 33 | 2 | 4 | 4 | 5 | 3 | 1 | 1 |
| 5 | 4 | | | | | | | |
| ## 5 | 35 4 | 1 | 5 | 4 | 5 | 4 | 3 | 1 |
| ## | 54 | 1 | 5 | 3 | 3 | 4 | 1 | 1 |
| 3 ## | 2 92 | 1 | 3 | 1 | 1 | 1 | 1 | 1 |
| 5 ## | 5 125 | 5 | 4 | 4 | 4 | 4 | 1 | 3 |
| 4 | 5 | | | | | | | |
| ## 3 | 139 1 | 3 | 2 | 2 | 3 | 2 | 1 | 1 |
| | 150 | 2 | 2 | 2 | 3 | 1 | 5 | 5 |
| ## | 230 | 3 | 5 | 2 | 1 | 1 | 4 | 2 |
| 5 ## | 5 260 | 1 | 1 | 5 | 4 | 4 | 1 | 2 |
| 2 | | 2 | 4 | Г | _ | 4 | 1 | 1 |
| ## 3 | 366 2 | 3 | 4 | 5 | 5 | 4 | 1 | 1 |
| | 372 | 3 | 2 | 2 | 5 | 1 | 5 | 3 |
| ## | 443 | 3 | 3 | 2 | 2 | 3 | 3 | 2 |
| | 476 | 1 | 2 | 4 | 5 | 3 | 3 | 2 |
| 4 ## | 2 503 | 5 | 5 | 2 | 1 | 4 | 3 | 1 |
| 5 ## | 5 525 | 1 | 1 | 3 | 4 | 1 | 3 | 2 |
| 5 | 2 | | | | | | | |
| ## 5 | 571 3 | 1 | 5 | 4 | 3 | 2 | 1 | 1 |
| ## | 620 | 2 | 4 | 3 | 2 | 2 | 5 | 5 |
| 5 ## | 4 683 | 3 | 5 | 3 | 3 | 2 | 4 | 2 |
| 4 | 4 | | | _ | _ | _ | _ | |
| | 695 5 | 2 | 4 | 5 | 5 | 5 | 5 | 3 |
| | 743 | 5 | 5 | 3 | 5 | 3 | 4 | 3 |
| ## | 751 | 3 | 3 | 4 | 5 | 2 | 4 | 3 |
| | 804 | 1 | 2 | 3 | 3 | 3 | 1 | 1 |
| | 847 | 2 | 3 | 2 | 1 | 1 | 2 | 2 |
| | 4 849 | 1 | 3 | 1 | 5 | 2 | 1 | 2 |
| | | | | | | | | |

| 5 | 3 | | | | | | | |
|---------|----------|------------|-----------|---------|-----------|---------|-----------|----------------|
| | 854 | 4 | 3 | 3 | 3 | 2 | 3 | 3 |
| 4 | 3 | • | 3 | J | J | - | 3 | J |
| | 931 | 2 | 3 | 3 | 2 | 2 | 1 | 2 |
| 5 | 4 | | | | | | | |
| | 938 | 5 | 5 | 3 | 5 | 1 | 5 | 4 |
| | 3 | _ | _ | _ | _ | | _ | |
| | 941 | 4 | 5 | 4 | 3 | 2 | 3 | 3 |
| 5 | 5 958 | 2 | 5 | 3 | 3 | 3 | 1 | 1 |
| 4 | | 2 | 5 | 3 | 3 | 3 | 1 | 1 |
| | 1007 | 2 | 5 | 4 | 1 | 1 | 5 | 4 |
| 5 | | _ | | · | _ | _ | _ | · |
| ## | | Economy.Ma | anagement | Biology | Chemistry | Reading | Geography | Foreign.langua |
| ges | | - | | | | | | |
| ## | 13 | | 1 | 5 | 5 | 5 | 3 | |
| 5 | | | _ | _ | _ | _ | _ | |
| ## | 33 | | 3 | 1 | 1 | 3 | 3 | |
| 3 ## | 25 | | 4 | 3 | 1 | 3 | 2 | |
| 5 | <i></i> | | 4 | , | _ | , | 2 | |
| ## | 54 | | 2 | 4 | 2 | 4 | 5 | |
| 5 | | | | | | | _ | |
| ## | 92 | | 1 | 5 | 1 | 1 | 1 | |
| 5 | | | | | | | | |
| | 125 | | 3 | 2 | 2 | 4 | 4 | |
| 4 | 120 | | 2 | - | 4 | - | 2 | |
| ## 5 | 139 | | 2 | 5 | 4 | 5 | 3 | |
| | 150 | | 3 | 2 | 3 | 2 | 3 | |
| 3 | 130 | | 3 | _ | 3 | _ | 3 | |
| | 230 | | 2 | 3 | 2 | 1 | 5 | |
| 3 | | | | | | | | |
| ## | 260 | | 2 | 4 | 3 | 5 | 4 | |
| 4 | | | _ | _ | _ | _ | _ | |
| | 366 | | 4 | 4 | 4 | 4 | 5 | |
| 5 | 372 | | 3 | 5 | 5 | 5 | 2 | |
| 3 | | | , | , | , | , | 2 | |
| | 443 | | 2 | 3 | 3 | 2 | 3 | |
| 3 | | | | | _ | | _ | |
| ## | 476 | | 2 | 3 | 2 | 5 | 3 | |
| 3 | | | | | | | | |
| | 503 | | 4 | 1 | 1 | 1 | 1 | |
| 4 | F 2 F | | 4 | _ | | | | |
| ## 3 | 525 | | 1 | 5 | 4 | 3 | 4 | |
| | 571 | | 2 | 2 | 1 | 1 | 4 | |
| 5 | J, 1 | | 2 | 2 | | _ | 7 | |
| | 620 | | 2 | 3 | 2 | 1 | 5 | |
| | | | | | | | | |

| 4 | | | | | | | | | | |
|---|--|--------------------------------------|--------------------------------------|--------------------------------------|-------------|--------------------------------------|--------------------------------------|-----------|------------|----------------------------|
| ## | 683 | | | 2 | 2 | | 1 | 3 | 4 | |
| 3 ## | 695 | | | 3 | 2 | | 2 | 2 | 4 | |
| 5 | | | | | | | | | | |
| ## 5 | 743 | | | 5 | 4 | | 1 | 5 | 4 | |
| | 751 | | | 2 | 3 | | 2 | 2 | 2 | |
| | 804 | | | 2 | 2 | | 1 | 2 | 2 | |
| ## | 847 | | | 3 | 1 | | 1 | 3 | 2 | |
| | 849 | | | 5 | 2 | | 2 | 1 | 2 | |
| 3 ## | 854 | | | 3 | 3 | | 3 | 4 | 4 | |
| 3 | 024 | | | 2 | 2 | | 4 | 4 | 2 | |
| ## 3 | 931 | | | 3 | 2 | | 1 | 1 | 3 | |
| | 938 | | | 2 | 4 | | 2 | 5 | 5 | |
| | 941 | | | 1 | 2 | | 1 | 2 | 1 | |
| ## | 958 | | | 1 | 1 | | 1 | 1 | 1 | |
| | 1007 | | | 2 | 2 | | 1 | 1 | 2 | |
| 2 ## | | | | | ما د ما د م | itions | | | | |
| | | Medicine | Law | Cars | Art exnir | | Religion | Countrysi | de outdoor | s Danc |
| | | Medicine | Law | Cars | art.exnic | TCTOHS | Religion | Countrysi | deoutdoor | s Danc |
| iną ## | | Medicine 5 | Law 2 | Cars A | art.exnic | 1 | Religion | | | S Danc |
| in{ ## 3 ## | 3 | | | | art.exnit | | | | ! | |
| ing ## 3 ## 1 | 3 13 | 5 | 2 | 3 | Art.exnit | 1 | 1 | | : | 5 |
| ing ## 3 ## 1 ## 2 ## | 33 | 5 | 2 2 2 | 3 | Art.exnit | 1 | 1 | | ! : | 5 |
| ing ## 3 ## 1 ## 2 ## 5 | 33 35 | 5 1 3 | 2 2 2 | 3 3 5 | Art.exnit | 1 4 3 | 1 2 5 | | ! ! | 5 |
| ing ## 3 ## 1 ## 2 ## 5 ## | 33 35 54 92 | 5 1 3 4 | 2 2 3 | 3 3 5 5 | Art.exnit | 1 4 3 5 | 1 2 5 5 | | ! ! | 5 2 5 4 |
| ing ## 3 ## 1 ## 2 ## 5 ## 5 ## 2 | 33 35 54 92 125 | 5 1 3 4 5 4 | 2 2 2 3 1 4 | 3 3 5 5 1 4 | Art.exnit | 1 4 3 5 1 5 | 1 2 5 5 1 3 | | ! ! | 5 2 5 4 5 |
| ing ## 3 ## 1 ## 5 ## 5 ## 2 ## 2 | 33 35 54 92 125 139 | 5 1 3 4 5 | 2 2 2 3 1 4 | 3 3 5 5 | Art.exnit | 1 4 3 5 | 1 2 5 5 | | ! ! | 5 2 5 4 |
| ing ## 3 ## 1 ## 5 ## 5 ## 2 ## 2 | 33 35 54 92 125 | 5 1 3 4 5 4 | 2 2 2 3 1 4 | 3 3 5 5 1 4 | Art.exnit | 1 4 3 5 1 5 | 1 2 5 5 1 3 | | | 5 2 5 4 5 |
| ing ## 3 ## 1 ## 5 ## 5 ## 2 ## 1 ## | 33 35 54 92 125 139 | 5 1 3 4 5 4 5 | 2 2 3 1 4 | 3 5 5 1 4 | Art.exnit | 1 4 3 5 1 5 | 1 2 5 1 3 | | | 5 2 5 4 5 |
| ing ## 3 ## 1 ## 2 ## 5 ## 2 ## 2 ## 2 ## | 33 33 35 54 92 125 139 150 | 5 1 3 4 5 4 5 | 2 2 3 1 4 1 1 | 3 5 5 1 4 1 2 | Art.exnit | 1 4 3 5 1 5 | 1 2 5 1 3 5 | | | 5 2 5 4 5 5 |
| ing ## 3 ## 1 ## 2 ## 5 ## 2 ## 2 ## 5 | 33 33 35 54 92 125 139 150 230 | 5 1 3 4 5 4 5 2 | 2 2 3 1 4 1 2 4 | 3 3 5 5 1 4 1 2 | Art.exnit | 1 4 3 5 1 1 1 2 | 1 2 5 5 1 3 2 3 | | | 5 2 5 4 5 5 |

| | 372 | | 5 | 2 | 2 | | 3 | 5 | | 5 |
|----------|------|---------|------|--------|------------------|--------------|-----------|--------------------|------------------|---------|
| | 443 | | 2 | 2 | 2 | | 4 | 3 | | 3 |
| 2 ## | 476 | | 2 | 3 | 1 | | 2 | 2 | | 4 |
| 2 ## | 503 | | 1 | 2 | 5 | | 1 | 1 | | 2 |
| 1 | 525 | | 5 | 1 | 1 | | 3 | 3 | | 5 |
| 2 | 571 | | 1 | 1 | 5 | | 1 | 1 | | 5 |
| 1 | | | | | | | | | | |
| 1 | 620 | | 2 | 3 | 4 | | 1 | 1 | | 2 |
| 1 | 683 | | 2 | 2 | 4 | | 2 | 4 | | 4 |
| ## 3 | 695 | | 1 | 3 | 4 | | 3 | 5 | | 4 |
| ## 4 | 743 | | 4 | 4 | 2 | | 3 | 5 | | 5 |
| | 751 | | 5 | 3 | 5 | | 5 | 5 | | 2 |
| | 804 | | 1 | 1 | 3 | | 3 | 2 | | 4 |
| ## | 847 | | 2 | 1 | 3 | | 2 | 2 | | 3 |
| | 849 | | 1 | 2 | 1 | | 2 | 1 | | 2 |
| | 854 | | 3 | 3 | 3 | | 3 | 3 | | 5 |
| 3 ## | 931 | | 3 | 2 | 4 | | 3 | 3 | | 4 |
| 2 ## | 938 | | 3 | 2 | 3 | | 3 | 3 | | 2 |
| 2 | 941 | | 1 | 1 | 1 | | 2 | 4 | | 5 |
| 1 | 958 | | 1 | 1 | 5 | | 1 | 1 | | 3 |
| 1 | | | | | | | 1 | | | 5 |
| 5 | 1007 | | 1 | 1 | 5 | | | 5 | | |
| ## ## | 13 | Musical | .ins | strume | ents Writir 4 | ng Pass 1 | sive.spor | rt Active.spo 5 | rt Gardenin 3 | ng 4 |
| ## | 33 | | | | 2 | 1 | | 2 | 2 | 1 |
| ## | | | | | 3 | 2 | | 5 | 3 | 1 |
| ## ## | | | | | 4 1 | 1 | | 5 5 | 5 3 | 3 1 |
| | 125 | | | | 5 | 3 | | 4 | 5 | 1 |
| ## | 139 | | | | 5 | 3 | | 2 | 4 | 1 |
| ## | 150 | | | | 1 | 1 | | 2 | 3 | 1 |

| шш | 220 | | 4 | 1 | _ | | 2 2 | |
|--|---|--|--|-----------|--|--|---------------|--|
| | 230 | | 4 | 1 | 5 | | 3 2 | |
| | 260 | | 2 | 2 | 5 | | 2 1 | |
| | 366 | | 3 | 2 | 4 | | 3 1 | |
| ## | 372 | | 5 | 3 | 2 | | 5 3 | |
| ## | 443 | | 5 | 2 | 3 | | 4 2 | |
| ## | 476 | | 5 | 3 | 3 | | 3 1 | |
| | 503 | | 3 | 1 | 2 | | 3 1 | |
| | 525 | | 1 | _ 1 | 5 | | 1 1 | |
| | 571 | | 2 | 1 | 5 | | 5 1 | |
| | 620 | | 1 | 1 | 2 | | 1 1 | |
| | | | | | | | | |
| | 683 | | 1 | 1 | 4 | | 1 1 | |
| | 695 | | 5 | 1 | 4 | | 5 1 | |
| | 743 | | 3 | 4 | 3 | | 5 1 | |
| | 751 | | 1 | 3 | 2 | | 5 4 | |
| ## | 804 | | 4 | 1 | 4 | | 5 3 | |
| ## | 847 | | 2 | 1 | 2 | | 2 2 | |
| ## | 849 | | 2 | 1 | 5 | | 1 2 | |
| ## | 854 | | 3 | 4 | 5 | | 3 4 | |
| | 931 | | 4 | 1 | 3 | | 1 1 | |
| | 938 | | 5 | _ 1 | 5 | | 2 1 | |
| | 941 | | 5 | 1 | 5 | | 1 1 | |
| | 958 | | 1 | 1 | 2 | | 1 1 | |
| | | | | | | | | |
| | 1007 | C-1-1-1-1-1 | 5 Ch | 1 | 1 | Th | 5 5 | |
| ## | 4.0 | | | Science.a | nd.technology | | run.with.frie | |
| | 13 | 3 | 2 | | 3 | 2 | | 4 |
| | | _ | _ | | _ | _ | | |
| | 33 | 4 | 5 | | 3 | 3 | | 5 |
| ## | 35 | 4 1 | 5 3 | | 3 5 | 3 3 | | |
| ## | | | | | | | | 5 |
| ## ## | 35 | 1 | 3 | | 5 | 3 | | 5 5 |
| ## ## ## | 35 54 | 1 1 | 3 | | 5 3 | 3 5 | | 5 5 5 |
| ## ## ## ## | 35 54 92 | 1 1 3 | 3 3 | | 5 3 1 | 3 5 3 | | 5 5 5 5 |
| ## ## ## ## | 35 54 92 125 139 | 1 1 3 1 | 3 3 3 1 3 | | 5 3 1 5 2 | 3 5 3 4 2 | | 5 5 5 4 4 |
| ## ## ## ## ## | 35 54 92 125 139 150 | 1 1 3 1 2 | 3 3 1 3 2 | | 5 3 1 5 2 4 | 3 5 3 4 2 2 | | 5 5 5 4 4 3 |
| ## ## ## ## ## | 35 54 92 125 139 150 230 | 1 3 1 2 1 | 3 3 1 3 2 2 | | 5 3 1 5 2 4 4 | 3 5 3 4 2 2 2 | | 5 5 5 4 4 3 4 |
| ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 | 1 1 3 1 2 1 1 | 3 3 1 3 2 2 1 | | 5 3 1 5 2 4 4 3 | 3 5 3 4 2 2 2 5 | | 5 5 5 4 4 3 4 5 |
| ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 | 1 1 3 1 2 1 1 1 | 3 3 1 3 2 2 1 3 | | 5 3 1 5 2 4 4 3 2 | 3 5 3 4 2 2 2 5 3 | | 5 5 5 4 4 3 4 5 4 |
| ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 | 1 1 3 1 2 1 1 1 1 | 3 3 1 3 2 2 1 3 3 | | 5 3 1 5 2 4 4 3 2 3 | 3 5 3 4 2 2 2 5 3 3 | | 5 5 5 4 4 3 4 5 4 5 |
| ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 | 1 3 1 2 1 1 1 1 | 3 3 1 3 2 2 1 3 3 3 | | 5 3 1 5 2 4 4 3 2 3 4 | 3 5 3 4 2 2 2 5 3 3 4 | | 5 5 5 4 4 3 4 5 4 5 5 |
| ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 | 1 3 1 2 1 1 1 1 4 4 | 3 3 1 3 2 2 1 3 3 3 2 | | 5 3 1 5 2 4 4 3 2 3 4 2 | 3 5 3 4 2 2 2 5 3 4 3 | | 5 5 5 5 4 4 3 4 5 5 5 5 |
| ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 503 | 1 3 1 2 1 1 1 4 4 | 3 3 1 3 2 2 1 3 3 3 2 4 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 | 3 5 3 4 2 2 2 5 3 4 3 1 | | 5 5 5 4 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 |
| ## ## ## ## ## ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 | 1 3 1 2 1 1 1 4 4 4 | 3 3 1 3 2 2 1 3 3 3 2 4 3 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 | 3 5 3 4 2 2 2 5 3 4 3 1 4 | | 5 5 5 5 4 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 |
| ## ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 | 1 3 1 2 1 1 1 4 4 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 | 3 5 3 4 2 2 2 5 3 4 3 1 4 3 | | 5 5 5 4 4 3 4 5 5 5 5 4 |
| ## ## ## ## ## ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 | 1 3 1 2 1 1 1 4 4 4 | 3 3 1 3 2 2 1 3 3 3 2 4 3 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 | 3 5 3 4 2 2 2 5 3 4 3 1 4 | | 5 5 5 5 4 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 |
| ## ## ## ## ## ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 | 1 3 1 2 1 1 1 4 4 4 1 5 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 | 3 5 3 4 2 2 2 5 3 4 3 1 4 3 | | 5 5 5 4 4 3 4 5 5 5 5 4 |
| ###################################### | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 | 1 1 3 1 2 1 1 1 1 4 4 1 5 3 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 | 3 5 3 4 2 2 2 5 3 4 3 1 4 3 1 | | 5 5 5 5 4 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 |
| ###################################### | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 | 1 1 3 1 2 1 1 1 4 4 4 1 5 3 1 2 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 1 3 2 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 | 3 5 3 4 2 2 5 3 4 3 1 4 3 1 3 2 | | 5 5 5 5 4 4 3 4 5 5 5 5 5 4 5 5 5 4 5 5 5 5 |
| ## ## ## ## ## ## ## ## ## ## ## ## ## | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 | 1 3 1 2 1 1 1 4 4 4 1 5 3 1 2 2 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 1 3 2 3 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 | 3 5 3 4 2 2 5 3 4 3 1 4 3 1 3 2 4 | | 5 5 5 5 5 4 4 3 4 5 5 5 5 5 4 5 5 5 5 5 |
| ########################## | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 751 | 1 3 1 2 1 1 1 4 4 4 1 5 3 1 2 2 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 1 3 2 3 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 4 5 4 5 4 5 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 | 3 5 3 4 2 2 5 3 4 3 1 4 3 1 3 2 4 5 | | 5 5 5 5 4 4 3 4 5 4 5 5 5 5 5 4 5 4 5 5 5 |
| ######################### | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 751 804 | 1 1 3 1 2 1 1 1 4 4 4 1 5 3 1 2 2 1 2 2 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 1 3 2 3 5 3 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 4 5 4 5 1 | 3 5 3 4 2 2 5 3 4 3 1 4 3 1 3 2 4 5 3 | | 5 5 5 5 4 4 3 4 5 4 5 5 5 5 4 5 4 5 5 5 5 |
| ############################# | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 751 804 847 | 1 1 3 1 2 1 1 1 4 4 4 1 5 3 1 2 2 1 2 1 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 1 3 5 3 5 3 5 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 4 5 4 5 4 5 | 3 5 3 4 2 2 5 3 4 3 1 4 3 1 3 2 4 5 3 2 | | 5 5 5 5 4 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 |
| ####################################### | 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 751 804 | 1 1 3 1 2 1 1 1 4 4 4 1 5 3 1 2 2 1 2 2 | 3 3 1 3 2 2 1 3 3 3 2 4 3 5 1 3 2 3 5 3 5 | | 5 3 1 5 2 4 4 3 2 3 4 2 5 1 4 5 4 5 4 5 1 | 3 5 3 4 2 2 5 3 4 3 1 4 3 1 3 2 4 5 3 | | 5 5 5 5 4 4 3 4 5 4 5 5 5 5 4 5 4 5 5 5 5 |

| ## 931 ## 938 ## 941 ## 958 ## 1007 | 3 1 1 1 1 Adrenaline.sports | 5 3 3 2 2 | Flying | Storm | 3 3 2 4 5 | 2 4 2 2 1 | Snidens | 5 5 4 5 Snakes R |
|---|--|-----------------------|--------|-------|-----------------------|-----------------------|---------|------------------------------|
| ats ## 13 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 |
| 1 ## 33 | 1 | 5 | 3 | 5 | 5 | 5 | 5 | 5 |
| 5 ## 35 | 5 | 1 | 1 | 2 | 2 | 1 | 2 | 2 |
| 2 ## 54 | 3 | 1 | 3 | 1 | 1 | 1 | 5 | 1 |
| 3 ## 92 | 4 | 1 | 1 | 3 | 1 | 1 | 5 | 5 |
| 5 ## 125 | 5 | 4 | 1 | 1 | 1 | 2 | 1 | 1 |
| 1 ## 139 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 2 |
| 2 ## 150 | 3 | 1 | 1 | 1 | 2 | 3 | 1 | 2 |
| 1 ## 230 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 1 ## 260 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 |
| 1 ## 366 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 ## 372 | 2 | 3 | 2 | 4 | 1 | 3 | 2 | 3 |
| 2 ## 443 | 2 | 5 | 2 | 1 | 2 | 2 | 2 | 4 |
| 3 ## 476 | 2 | 5 | 2 | 3 | 5 | 1 | 1 | 4 |
| 3 ## 503 | 3 | 1 | 2 | 1 | 1 | 2 | 3 | 3 |
| 1 ## 525 | 5 | 5 | 1 | 2 | 3 | 2 | 2 | 1 |
| 1 ## 571 | 4 | 3 | 1 | 1 | 1 | 4 | 1 | 5 |
| 4 ## 620 | 3 | 1 | 1 | 1 | 2 | 2 | 3 | 5 |
| 2 ## 683 | 3 | 5 | 3 | 1 | 1 | 2 | 2 | 5 |
| 3 ## 695 | 3 | 1 | 2 | 2 | 1 | 1 | 3 | 5 |
| 2 ## 743 | 4 | 1 | 1 | 1 | 2 | 4 | 2 | 2 |
| 3 ## 751 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| 1 ## 80 | 4 | 5 | 3 | 1 | 1 | 1 | 2 | 5 | 5 |
|---|--|--------------|----------------------------|----------|--------|-----------------------|---------|---------------------------------|--------|
| 4 ## 84 | 7 | 2 | 5 | 5 | 2 | 2 | 4 | 5 | 5 |
| 5 ## 84 | 9 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 ## 85 | 4 | 3 | 5 | 1 | 1 | 1 | 1 | 1 | 2 |
| 3 ## 93 | 1 | 2 | 1 | 3 | 3 | 3 | 4 | 5 | 5 |
| 5 ## 93 | 8 | 4 | 5 | 1 | 3 | 4 | 2 | 3 | 5 |
| 4 ## 94 | 1 | 3 | 4 | 1 | 3 | 4 | 5 | 3 | 5 |
| 1 ## 95 | 8 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 |
| 1 ## 10 | 07 | 1 | 5 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 ## | Ageing | Dangerous.do | gs Fea | ar.of.pu | blic.s | peaking Hea | althy.e | ating Da | ily.ev |
| ents ## 13 | 5 | | 2 | | | 2 | | 3 | |
| 4 ## 33 | 1 | | 5 | | | 2 | | 3 | |
| 3 ## 35 | 1 | | 2 | | | 3 | | 3 | |
| 5 ## 54 3 | 1 | | 3 | | | 5 | | 3 | |
| ## 92 3 | 5 | | 5 | | | 1 | | 3 | |
| ## 12 | | | | | | | | | |
| /1 | 5 1 | | 2 | | | 1 | | 4 | |
| 4 ## 13 | | | 2 | | | 1 | | | |
| ## 13 4 ## 15 | 9 1 | | | | | | | 4 | |
| ## 13 4 ## 15 2 ## 23 | 9 1 | | 4 | | | 3 | | 4 1 | |
| ## 13 4 ## 15 2 ## 23 2 ## 26 | 9 1 0 2 0 3 | | 4 | | | 3 4 | | 4 1 2 | |
| ## 13 4 | 9 1 0 2 0 3 0 1 | | 4 3 2 | | | 3 4 2 | | 4 1 2 2 | |
| ## 13 4 ## 15 2 ## 23 2 ## 26 4 ## 36 4 ## 37 | 9 1 0 2 0 3 0 1 6 3 | | 4 3 2 5 | | | 3 4 2 1 | | 4 1 2 2 4 | |
| ## 13 4 ## 15 2 ## 23 2 ## 26 4 ## 36 4 ## 37 2 ## 44 | 9 1 0 2 0 3 0 1 6 3 2 1 | | 4 3 2 5 1 | | | 3 4 2 1 | | 4 1 2 2 4 4 | |
| ## 13 4 ## 15 2 ## 23 2 ## 26 4 ## 36 4 ## 37 2 | 9 1 0 2 0 3 0 1 6 3 2 1 3 3 | | 4 3 2 5 1 5 | | | 3 4 2 1 1 | | 4 1 2 2 4 4 1 | |

| 2 ## | 525 | 3 | 2 | | 5 | 2 |
|---------|------|--------------|----------------|----------------|--------------|------------|
| 3 ## | 571 | 5 | 4 | | 1 | 5 |
| 3 | 620 | 4 | 3 | | 1 | 1 |
| 3 | | | | | | |
| 3 | 683 | 2 | 4 | | 3 | 2 |
| ## 3 | 695 | 1 | 2 | | 1 | 4 |
| | 743 | 1 | 3 | | 2 | 3 |
| ## | 751 | 1 | 2 | | 1 | 4 |
| | 804 | 3 | 3 | | 1 | 2 |
| | 847 | 4 | 5 | | 3 | 3 |
| 3 ## | 849 | 1 | 1 | | 1 | 4 |
| 3 ## | 854 | 3 | 4 | | 1 | 3 |
| 3 | 931 | 3 | 5 | | 4 | 4 |
| 3 | | | | | | |
| 3 | 938 | 4 | 3 | | 4 | 3 |
| ## 3 | 941 | 5 | 3 | | 4 | 1 |
| ## 1 | 958 | 1 | 2 | | 3 | 1 |
| ## 1 | 1007 | 2 | 5 | | 5 | 3 |
| ## | F | Prioritising | workload Writi | ng.notes Worka | aholism Thin | king.ahead |
| | 13 | J | | 5 | | |
| ## | 33 | | 1 | 1 | 1 | 2 |
| ## | 35 | | 3 | 1 | 5 | 3 |
| ## | 54 | | 3 | 5 | 2 | 5 |
| ## | 92 | | 3 | 5 | 5 | 5 |
| | 125 | | 2 | 2 | 3 | 4 |
| | 139 | | 2 | 2 | 1 | 5 |
| | 150 | | 3 | 2 | 3 | 2 |
| | 230 | | 1 | 2 | 1 | 3 |
| | 260 | | 5 | 3 | 4 | 2 |
| | 366 | | 3 | 1 | 3 | 4 |
| | 372 | | 3 | 3 | 4 | 4 |
| | 443 | | 3 | 4 | 3 | 2 |
| | 476 | | 1 | 2 | 2 | 3 |
| | 503 | | 4 | 2 | 5 3 | 4 |
| ## | 525 | | 3 | 2 | 3 | 4 |

| ## | 571 | | 3 | 2 | 3 | 3 |
|----|------|-----------------------|------------|------------|--------------|-----------|
| ## | 620 | : | 3 | 5 | 5 | 4 |
| ## | 683 | : | 1 | 1 | 2 | 2 |
| ## | 695 | | 3 | 4 | 3 | 5 |
| | 743 | | 2 | 5 | 2 | 2 |
| | 751 | | 3 | 4 | 4 | 3 |
| | 804 | | 1 | 4 | 1 | 4 |
| | 847 | | | 4 | | |
| | | | 3 | | 3 | 3 |
| | 849 | | 3 | 3 | 4 | 2 |
| | 854 | | 5 | 5 | 3 | 3 |
| | 931 | | 2 | 3 | 2 | 2 |
| | 938 | | 2 | 4 | 1 | 2 |
| ## | 941 | | 2 | 1 | 1 | 3 |
| ## | 958 | : | 2 | 1 | 1 | 3 |
| ## | 1007 | : | 3 | 1 | 5 | 5 |
| ## | | Final.judgement Relia | ability Ke | eping.prom | ises Loss.of | .interest |
| ## | 13 | 1 | 5 | | 5 | 4 |
| ## | | 1 | 1 | | 1 | 1 |
| ## | | 5 | 4 | | 4 | 4 |
| ## | | 3 | 5 | | 5 | 1 |
| ## | | | 3 | | 5 | 3 |
| | | 5 | | | | |
| | 125 | 2 | 4 | | 4 | 1 |
| | 139 | 2 | 5 | | 5 | 5 |
| | 150 | 3 | 2 | | 2 | 2 |
| | 230 | 3 | 3 | | 5 | 2 |
| ## | 260 | 4 | 3 | | 3 | 1 |
| ## | 366 | 5 | 4 | | 5 | 2 |
| ## | 372 | 3 | 4 | | 5 | 1 |
| ## | 443 | 3 | 4 | | 5 | 2 |
| ## | 476 | 3 | 2 | | 4 | 2 |
| | 503 | 3 | 5 | | 5 | 2 |
| | 525 | 3 | 4 | | 5 | 1 |
| | 571 | 1 | 4 | | 4 | 5 |
| | 620 | 1 | 4 | | 3 | 1 |
| | | | | | | |
| | 683 | 3 | 1 | | 2 | 3 |
| | 695 | 5 | 5 | | 4 | 2 |
| | 743 | 5 | 2 | | 5 | 5 |
| | 751 | 2 | 4 | | 4 | 2 |
| | 804 | 5 | 5 | | 5 | 2 |
| | 847 | 5 | 5 | | 3 | 3 |
| ## | 849 | 3 | 3 | | 1 | 1 |
| ## | 854 | 3 | 4 | | 4 | 2 |
| | 931 | 3 | 4 | | 3 | 1 |
| | 938 | 3 | 4 | | 5 | 2 |
| | 941 | 5 | i | | 1 | 4 |
| | 958 | 4 | 3 | | 3 | 2 |
| | 1007 | 5 | 5 | | 4 | 1 |
| | TOO | | | Eaka Caim | | |
| ## | 12 | Friends.versus.money | | | _ | |
| ## | | 4 | 3 | | 2 | 5 |
| ## | 33 | 1 | 1 | 1 | 3 | 1 |

| | 25 | | - | - | | 4 | | 2 |
|--|---|---|---|-----------|---|--|---|---|
| ## | | | 5 | | 1 | 1 | | 3 |
| ## | | | 5 | | 1 | 1 | | 3 |
| ## | 92 | | 5 | 3 3 | 1 | 1 | | 5 |
| ## | 125 | | 2 | 3 : | 1 | 1 | | 2 |
| ## | 139 | | 4 | 3 : | 1 | 1 | | 4 |
| | 150 | | 5 | | 3 | 3 | | 2 |
| | 230 | | 4 | | 3 | | | 3 |
| | | | | | | 3 | | |
| | 260 | | 5 | | 1 | 1 | | 3 |
| | 366 | | 5 | | 2 | 2 | | 2 |
| ## | 372 | | 4 | 1 1 | 1 | 1 | | 2 |
| ## | 443 | | 5 | 3 1 | 1 | 2 | | 2 |
| ## | 476 | | 4 | 5 2 | 2 | 1 | | 2 |
| | 503 | | 2 | | 2 | 1 | | 4 |
| | 525 | | 4 | | 2 | 3 | | 3 |
| | 571 | | | | 2 | | | 4 |
| | | | 1 | | | 5 | | |
| | 620 | | 3 | | 2 | 3 | | 4 |
| | 683 | | 2 | | 3 | 2 | | 1 |
| | 695 | | 5 | | 1 | 2 | | 3 |
| ## | 743 | | 5 | 5 2 | 2 | 3 | | 2 |
| ## | 751 | | 5 | 2 2 | 2 | 2 | | 3 |
| ## | 804 | | 3 | 3 1 | 1 | 5 | | 3 |
| | 847 | | 5 | | 2 | 5 | | 3 |
| | 849 | | 4 | | 2 | 4 | | 2 |
| | 854 | | 3 | | 1 | 1 | | 3 |
| | 931 | | | | 2 | | | |
| | | | 4 | | | 5 | | 4 |
| | 938 | | 4 | | 1 | 1 | | 3 |
| | 941 | | 4 | | 2 | 5 | | 2 |
| | 958 | | 4 | | 1 | 4 | | 4 |
| ## | 1007 | | 2 | | 1 | 3 | | 5 |
| ## | | Elections | Self.criticism | Judgment. | calls | Hypochondria | Empathy | |
| ## | 13 | 5 | 5 | _ | 2 | 5 | 5 | |
| ## | 33 | 1 | 1 | | 5 | 1 | 5 | |
| ## | | 5 | 4 | | 3 | 1 | 2 | |
| ## | | 5 | 3 | | 5 | 1 | 5 | |
| ## | | 4 | _ | | _ | 3 | _ | |
| | 72 | 1 | 3 | | | | | |
| | 425 | _ | | | 3 | 3 | 5 | |
| ## | 125 | 3 | 5 | | 3 | 1 | 3 | |
| | 139 | 5 | 5 4 | | 3 5 | 1 1 | 3 5 | |
| | 139 150 | | 5 | | 3 5 2 | 1 | 3 5 2 | |
| | 139 | 5 | 5 4 | | 3 5 | 1 1 | 3 5 | |
| ## | 139 150 | 5 3 | 5 4 1 | | 3 5 2 | 1 1 1 | 3 5 2 | |
| ## ## | 139 150 230 | 5 3 4 | 5 4 1 4 | | 3 5 2 4 | 1 1 1 | 3 5 2 5 | |
| ## ## ## | 139 150 230 260 366 | 5 3 4 4 5 | 5 4 1 4 5 2 | | 3 5 2 4 5 4 | 1 1 1 1 5 | 3 5 2 5 5 2 | |
| ## ## ## ## | 139 150 230 260 366 372 | 5 3 4 4 5 5 | 5 4 1 4 5 2 | | 3 5 2 4 5 4 5 | 1 1 1 1 5 1 | 3 5 2 5 5 2 4 | |
| ## ## ## ## | 139 150 230 260 366 372 443 | 5 3 4 4 5 5 | 5 4 1 4 5 2 1 4 | | 3 5 2 4 5 4 5 | 1 1 1 5 1 1 | 3 5 2 5 5 2 4 4 | |
| ## ## ## ## ## | 139 150 230 260 366 372 443 476 | 5 3 4 4 5 5 1 5 | 5 4 1 4 5 2 1 4 | | 3 5 4 5 4 5 4 | 1 1 1 5 1 1 2 | 3 5 2 5 5 2 4 4 5 | |
| ## ## ## ## ## | 139 150 230 260 366 372 443 476 503 | 5 3 4 4 5 5 1 5 5 | 5 4 1 4 5 2 1 4 4 2 | | 3 5 2 4 5 4 5 4 5 | 1 1 1 5 1 1 2 2 | 3 5 2 5 2 4 4 5 4 | |
| ## ## ## ## ## ## | 139 150 230 260 366 372 443 476 503 525 | 5 3 4 4 5 5 1 5 5 5 | 5 4 1 4 5 2 1 4 4 2 5 | | 3 5 2 4 5 4 5 4 5 4 | 1 1 1 5 1 1 2 2 | 3 5 2 5 5 2 4 4 5 4 | |
| ## ## ## ## ## ## | 139 150 230 260 366 372 443 476 503 525 571 | 5 3 4 4 5 5 1 5 5 5 3 | 5 4 1 4 5 2 1 4 4 2 5 2 | | 3 5 2 4 5 4 5 4 4 5 4 5 | 1 1 1 5 1 1 2 2 2 | 3 5 2 5 2 4 4 5 4 4 3 | |
| ## ## ## ## ## ## | 139 150 230 260 366 372 443 476 503 525 571 620 | 5 3 4 4 5 5 1 5 5 5 | 5 4 1 4 5 2 1 4 4 2 5 2 3 | | 3 5 2 4 5 4 5 4 5 4 5 4 5 4 | 1 1 1 5 1 1 2 2 2 2 | 3 5 2 5 2 4 4 5 4 3 3 | |
| ## ## ## ## ## ## ## | 139 150 230 260 366 372 443 476 503 525 571 620 683 | 5 3 4 4 5 5 1 5 5 5 3 | 5 4 1 4 5 2 1 4 4 2 5 2 | | 3 5 2 4 5 4 5 4 5 4 5 4 5 4 1 | 1 1 1 5 1 1 2 2 2 | 3 5 2 5 2 4 4 5 4 4 3 | |
| ## ## ## ## ## ## ## | 139 150 230 260 366 372 443 476 503 525 571 620 | 5 3 4 4 5 5 1 5 5 3 1 | 5 4 1 4 5 2 1 4 4 2 5 2 3 | | 3 5 2 4 5 4 5 4 5 4 5 4 5 4 | 1 1 1 5 1 1 2 2 2 2 | 3 5 2 5 2 4 4 5 4 3 3 | |

| ## 743 | 2 | 2 | 5 | 2 5 | |
|---------------|-------------------|--------|-----------------------|----------------|---------|
| ## 751 | 5 | 3 | 4 | 2 5 | |
| ## 804 | 3 | 3 | 2 | 3 5 | |
| ## 847 | 2 | 2 | 2 | 3 3 | |
| ## 849 | 3 | 5 | 4 | 1 2 | |
| ## 854 | 3 | 4 | 3 | 1 3 | |
| ## 931 | 1 | 3 | 5 | 3 5 | |
| ## 938 | 4 | 2 | 5 | 4 4 | |
| ## 941 | 1 | 2 | 4 | 2 4 | |
| ## 958 | 5 | 4 | 3 | 2 5 | |
| ## 1007 | | 5 | 5 | 1 2 | |
| ## | Eating.to.survive | Giving | Compassion.to.animals | Borrowed.stuff | Lonelin |
| ess | 2 | 2 | _ | - | |
| ## 13 | 3 | 2 | 5 | 5 | |
| 5 | 1 | 1 | 5 | 5 | |
| ## 33 | 1 | 1 | 5 | 5 | |
| 1 ## 35 | 2 | 3 | 1 | 3 | |
| ## 33 2 | 2 | 5 | 1 | 3 | |
| ## 54 | 5 | 5 | 3 | 5 | |
| 3 | J | J | 5 | , | |
| ## 92 | 3 | 3 | 1 | 2 | |
| 2 | , | , | - | _ | |
| ## 125 | 2 | 4 | 2 | 4 | |
| 2 | _ | • | _ | · | |
| ## 139 | 2 | 1 | 2 | 5 | |
| 4 | | | | _ | |
| ## 150 | 3 | 2 | 1 | 2 | |
| 3 | | | | | |
| ## 230 | 5 | 3 | 3 | 4 | |
| 2 | | | | | |
| ## 260 | 1 | 1 | 5 | 5 | |
| 3 | | | | | |
| ## 366 | 2 | 3 | 4 | 4 | |
| 2 | | | | | |
| ## 372 | 3 | 3 | 4 | 4 | |
| 1 | _ | _ | _ | _ | |
| ## 443 | 1 | 3 | 4 | 4 | |
| 4 | 2 | 2 | - | 4 | |
| ## 476 | 2 | 2 | 5 | 4 | |
| 3 ## 503 | 1 | 3 | 2 | 4 | |
| ## 505 2 | Т | 5 | 2 | 4 | |
| ## 525 | 1 | 1 | 5 | 3 | |
| ## <i>323</i> | 1 | | 3 | 3 | |
| ## 571 | 1 | 3 | 3 | 3 | |
| 3 | • | , | J | , | |
| ## 620 | 2 | 3 | 5 | 4 | |
| 2 | | | | | |
| ## 683 | 2 | 2 | 4 | 4 | |
| | | | | | |

| ~ | | | | | | |
|--|---|---|--|--|---|--|
| 3 | COF | 4 | 1 | | 2 | F |
| ## 5 | 695 | 4 | 1 | | 3 | 5 |
| | 743 | 4 | 1 | | 4 | 2 |
| 1 | 745 | 7 | _ | | - | ~ |
| | 751 | 3 | 4 | | 3 | 4 |
| 2 | | | | | | |
| ## | 804 | 1 | 5 | | 5 | 5 |
| 3 | | | | | | |
| | 847 | 4 | 3 | | 5 | 5 |
| 4 | 849 | 1 | 2 | | 2 | 1 |
| 1 | 049 | 1 | 2 | | 3 | 1 |
| | 854 | 3 | 5 | | 5 | 5 |
| 3 | | • | | | | • |
| | 931 | 2 | 5 | | 2 | 4 |
| 5 | | | | | | |
| | 938 | 2 | 1 | | 4 | 5 |
| 5 | 941 | 2 | 2 | | 3 | 2 |
| 2 | 341 | 2 | 2 | | 3 | 2 |
| | 958 | 3 | 1 | | 5 | 4 |
| 3 | | | | | | |
| | 1007 | 1 | 4 | | 3 | 4 |
| 1 | | | | | | |
| | | | | | | |
| ## | 4.2 | Cheating.in.school | | | | |
| ## ## | | 2 | 5 | 3 | 1 | 3 2 |
| ## ## ## | 33 | 2 5 | 5 1 | 3 1 | 1 3 | 3 2 3 1 |
| ## ## ## ## | 33 35 | 2 5 2 | 5 1 2 | 3 1 4 | 1 3 5 | 3 2 3 1 4 4 |
| ## ## ## ## | 33 35 54 | 2 5 2 5 | 5 1 2 3 | 3 1 4 5 | 1 3 5 5 | 3 2 3 1 4 4 3 1 |
| ## ## ## ## ## | 33 35 54 92 | 2 5 2 5 5 | 5 1 2 3 3 | 3 1 4 5 3 | 1 3 5 5 5 | 3 2 3 1 4 4 3 1 3 2 |
| ## ## ## ## ## ## | 33 35 54 92 125 | 2 5 2 5 5 2 | 5 1 2 3 3 2 | 3 1 4 5 3 2 | 1 3 5 5 5 1 | 3 2 3 1 4 4 3 1 3 2 4 4 |
| ## ## ## ## ## ## | 33 35 54 92 125 139 | 2 5 2 5 5 2 4 | 5 1 2 3 3 2 3 | 3 1 4 5 3 2 5 | 1 3 5 5 5 1 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 |
| ## ## ## ## ## ## | 33 35 54 92 125 139 150 | 2 5 2 5 5 2 | 5 1 2 3 3 2 3 2 | 3 1 4 5 3 2 5 1 | 1 3 5 5 5 1 5 | 3 2 3 1 4 4 3 1 3 2 4 4 |
| ## ## ## ## ## ## ## | 33 35 54 92 125 139 | 2 5 2 5 5 2 4 2 | 5 1 2 3 3 2 3 | 3 1 4 5 3 2 5 | 1 3 5 5 5 1 5 4 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 |
| ## ## ## ## ## ## ## | 33 35 54 92 125 139 150 230 | 2 5 2 5 5 2 4 2 5 | 5 1 2 3 3 2 3 2 2 | 3 1 4 5 3 2 5 1 2 | 1 3 5 5 1 5 4 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 3 2 |
| ## ## ## ## ## ## ## ## | 33 35 54 92 125 139 150 230 260 366 372 | 2 5 2 5 2 4 2 5 3 3 2 | 5 1 2 3 2 3 2 2 5 1 3 | 3 1 4 5 3 2 5 1 2 5 3 1 | 1 3 5 5 5 1 5 4 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 3 2 3 1 4 3 4 3 4 3 |
| ## ## ## ## ## ## ## ## ## | 33 35 54 92 125 139 150 230 260 366 372 443 | 2 5 2 5 2 4 2 5 3 3 2 | 5 1 2 3 2 3 2 5 1 3 3 | 3 1 4 5 3 2 5 1 2 5 3 1 2 | 1 3 5 5 1 5 4 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 2 |
| ## ## ## ## ## ## ## ## ## | 33 35 54 92 125 139 150 230 260 366 372 443 476 | 2 5 2 5 5 2 4 2 5 3 3 2 5 | 5 1 2 3 3 2 2 5 1 3 3 3 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 | 1 3 5 5 1 5 4 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 3 4 3 |
| ## ################################### | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 | 2 5 2 5 5 2 4 2 5 3 3 2 5 5 | 5 1 2 3 2 3 2 5 1 3 3 3 2 2 2 5 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 2 | 1 3 5 5 5 1 5 4 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 |
| ###################################### | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 | 2 5 2 5 2 4 2 5 3 3 2 5 5 4 | 5 1 2 3 2 3 2 5 1 3 3 3 2 3 3 2 3 3 2 3 3 3 3 3 3 3 3 3 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 2 2 | 1 3 5 5 5 1 5 4 5 5 5 5 5 5 4 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 2 3 4 1 1 3 1 |
| ####################### | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 | 2 5 2 5 2 4 2 5 3 3 2 5 5 5 | 5 1 2 3 2 3 2 5 1 3 3 2 3 4 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 2 4 4 | 1 3 5 5 5 1 5 4 5 5 5 5 5 5 5 4 5 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 2 3 4 1 3 4 1 3 1 4 3 |
| ## ## ## ## ## ## ## ## ## ## ## | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 | 2 5 2 5 5 2 4 2 5 3 3 2 5 5 5 4 5 5 3 | 5 1 2 3 2 2 5 1 3 3 2 3 4 5 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 2 4 4 4 2 | 1 3 5 5 5 1 5 5 5 5 5 5 5 4 5 5 5 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 |
| ########################## | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 | 2 5 2 5 2 4 2 5 3 3 2 5 5 5 4 5 5 | 5 1 2 3 2 2 5 1 3 3 2 3 4 5 2 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 2 4 4 4 2 | 1 3 5 5 5 1 5 5 5 5 5 5 5 4 5 5 5 5 4 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 |
| ######################### | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 | 2 5 2 5 2 4 2 5 3 3 2 5 5 5 4 5 3 3 4 | 5 1 2 3 2 2 5 1 3 3 2 3 4 5 2 3 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 4 4 4 2 | 1 3 5 5 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 |
| ########################### | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 | 2 5 2 5 2 4 2 5 3 3 2 5 5 4 5 4 5 3 3 4 5 | 5 1 2 3 2 2 5 1 3 3 2 3 4 5 2 3 1 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 4 4 4 2 4 3 2 | 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 2 3 4 2 3 4 1 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 |
| ## ## ## ## ## ## ## ## ## ## ## ## ## | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 751 | 2 5 2 5 2 4 2 5 3 3 2 5 5 5 4 5 3 3 4 5 3 | 5 1 2 3 2 2 5 1 3 3 2 3 4 5 2 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 4 4 2 4 3 2 | 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 3 4 3 4 2 3 4 2 3 4 1 3 1 4 3 3 1 4 3 3 2 4 1 3 2 4 1 3 2 4 1 3 5 4 1 5 7 8 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 |
| ############################### | 33 35 54 92 125 139 150 230 260 366 372 443 476 503 525 571 620 683 695 743 | 2 5 2 5 2 4 2 5 3 3 2 5 5 4 5 4 5 3 3 4 5 | 5 1 2 3 2 2 5 1 3 3 2 3 4 5 2 3 1 | 3 1 4 5 3 2 5 1 2 5 3 1 2 2 2 4 4 4 2 4 3 2 | 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 3 2 3 1 4 4 3 1 3 2 4 4 3 3 3 2 3 1 4 3 4 3 4 3 4 2 3 4 2 3 4 1 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 |

| | 849 | 5 | 3 | | 1 | 5 | 4 | 1 |
|----|------------|--------------------------|--------|-----------------|------|---------|--------|---|
| ## | 854 | 3 | 5 | | 3 | 5 | 4 | 3 |
| ## | 931 | 4 | 4 | | 3 | 4 | 3 | 2 |
| ## | 938 | 4 | 4 | | 1 | 3 | 4 | 2 |
| ## | 941 | 5 | 4 | | 5 | 4 | 2 | 1 |
| ## | 958 | 5 | 3 | | 3 | 4 | 3 | 1 |
| ## | 1007 | 1 | 3 | | 4 | 5 | 3 | 3 |
| ## | | Number.of.friends Waitin | ng | New.environment | Mood | d.swing | zs. | |
| ## | 13 | 3 | 2 | 1 | | | 4 | |
| ## | 33 | 5 | 2 | 5 | | | 2 | |
| ## | 35 | 4 | 4 | 3 | | | 2 | |
| | 54 | 5 | 1 | 4 | | | 2 | |
| | 92 | 3 | 1 | 4 | | | 4 | |
| | 125 | 4 | 4 | 4 | | | 2 | |
| | 139 | 4 | 5 | 5 | | | 2 | |
| | 150 | 2 | 2 | 4 | | | 3 | |
| | 230 | 4 | 3 | 4 | | | 2 | |
| | 260 | 4 | 1 | 5 | | | 2 | |
| | 366 | 3 | 4 | 4 | | | 2 | |
| | 372 | 5 | 3 | 4 | | | 2 | |
| | 443 | 3 | 4 | 4 | | | 3 | |
| | 476 | 5 | 3 | 2 | | | 3 | |
| | 503 | 4 | 3 | 5 | | | 1 | |
| | 525 | 2 | 1 | 3 | | | 3 | |
| | 571 | 5 | 3 | 5 | | | 3 | |
| | 620 | 4 | 3 | 3 | | | 3 | |
| | 683 | 3 | 3 | 5 | | | 4 | |
| | 695 | 4 | 2 | 5 | | | 4 | |
| | 743 | 5 | 2 | 5 | | | 4 | |
| | 751 | 3 | 3 | 4 | | | 2 | |
| | 804 | 3 | 2 | 5 | | | 2 | |
| | 847 | 2 | 2 | 4 | | | 4 | |
| | 849 | 5 | 5 | _ | | | 2 | |
| | | 5 | | 4 | | | | |
| | 854 | | 4 | 4 | | | 4 | |
| | 931 | 2 | 3 | 4 | | | 5 | |
| | 938 941 | 1 | 2 | 4 | | | 4 | |
| | 941 958 | 4 2 | 2 | 4 | | | 4 | |
| | 1007 | 3 | 3 5 | 3 5 | | | 3 1 | |
| | 1007 | | | | omor | ·+ c | 1 | |
| ## | 13 | Appearence.and.gestures | 30 | _ | emer | | | |
| | | 4 | | 2 | | 3 | | |
| | 33 35 | 2 3 | | 4 | | 2 | | |
| | 35 54 | | | 4 | | 3 | | |
| | | 1 | | 5 | | 2 | | |
| | 92 125 | 3 | | 5 | | 3 | | |
| | 125 | 3 | | 2 | | 3 | | |
| | 139 | 3 | | 5 | | 3 | | |
| | 150 | 2 | | 3 | | 4 | | |
| | 230 | 4 | | 4 | | 3 | | |
| ## | 260 | 2 | | 4 | | 3 | | |

```
## 366
                                    4
                                                  3
                                                                  3
                                                  5
## 372
                                    4
                                                                  3
## 443
                                    4
                                                  3
                                                                  3
## 476
                                    2
                                                  1
                                                                  4
## 503
                                    3
                                                  3
                                                                  4
## 525
                                    2
                                                  3
                                                                  1
                                    5
## 571
                                                  4
                                                                  3
                                                  3
## 620
                                    4
                                                                  3
                                    2
                                                  3
## 683
                                                                  4
## 695
                                    4
                                                  5
                                                                  3
                                                  5
## 743
                                    1
                                                                  4
## 751
                                    4
                                                  3
                                                                  2
## 804
                                    4
                                                  3
                                                                  3
                                                  2
## 847
                                    3
                                                                  4
                                    5
                                                                  2
## 849
                                                  3
                                    4
                                                  4
## 854
                                                                  4
                                                  3
## 931
                                    4
                                                                  3
## 938
                                    2
                                                  3
                                                                  1
## 941
                                    4
                                                  1
                                                                  5
                                    3
## 958
                                                  3
                                                                  3
## 1007
                                    3
                                                  3
                                                                  3
##
         Responding.to.a.serious.letter Children Assertiveness Getting.angry
## 13
                                            4
                                                       5
                                                                        5
                                                                                         5
                                                       3
                                                                                         1
## 33
                                            3
                                                                        4
                                            3
                                                       3
                                                                                         1
## 35
                                                                        4
                                            1
                                                       5
                                                                                         2
## 54
                                                                        5
## 92
                                            3
                                                       4
                                                                        4
                                                                                         5
## 125
                                            1
                                                       4
                                                                        4
                                                                                         1
## 139
                                            5
                                                       5
                                                                        4
                                                                                         1
## 150
                                            3
                                                       5
                                                                        2
                                                                                         2
## 230
                                            4
                                                       4
                                                                        4
                                                                                         1
## 260
                                            2
                                                       3
                                                                        3
                                                                                         3
                                            3
## 366
                                                       4
                                                                        4
                                                                                         1
                                            2
                                                       5
## 372
                                                                        4
                                                                                         1
## 443
                                            2
                                                       5
                                                                        5
                                                                                         3
## 476
                                            4
                                                       4
                                                                        4
                                                                                         2
                                            2
                                                       3
                                                                        5
                                                                                         1
## 503
## 525
                                            4
                                                       3
                                                                        2
                                                                                         2
                                                       5
                                            3
## 571
                                                                        4
                                                                                         4
                                            2
                                                       3
## 620
                                                                        5
                                                                                         3
                                                       5
                                                                        3
                                                                                         3
## 683
                                            4
                                            5
## 695
                                                                        3
                                                       4
                                                                                         1
                                            3
                                                       4
                                                                                         2
## 743
                                                                        4
## 751
                                            1
                                                       5
                                                                        3
                                                                                         3
## 804
                                            1
                                                       4
                                                                        3
                                                                                         3
## 847
                                            2
                                                       5
                                                                        4
                                                                                         3
## 849
                                            4
                                                       4
                                                                        4
                                                                                         1
                                            2
                                                       5
                                                                                         3
## 854
                                                                        3
                                            2
                                                       4
                                                                        3
## 931
                                                                                         4
## 938
                                                                                         4
```

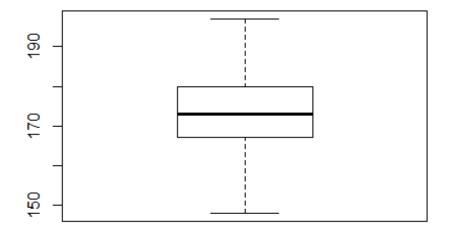
| | 941 958 | | | 3 4 | 3 3 | | 4 2 | | 3 4 |
|----|------------|--------------------|---------|---------|----------|----------|--------|----------|--------|
| | 1007 | | | 5 | 5 | | 4 | | 1 |
| ## | | Knowing.the.right. | people | Public. | speaking | Unpopula | rity | Life.str | uggles |
| | 13 | | 3 | | 3 | | 2 | | 5 |
| | 33 | | 3 | | 4 | | 3 | | 3 |
| | 35 54 | | 4 | | 4 | | 4 | | 1 2 |
| | 92 | | 2 5 | | 2 5 | | 5 5 | | 2 |
| | 125 | | 3 | | 2 | | 4 | | 1 |
| | 139 | | 2 | | 5 | | 5 | | 5 |
| | 150 | | 3 | | 5 | | 4 | | 2 |
| ## | 230 | | 3 | | 4 | | 3 | | 2 |
| | 260 | | 3 | | 3 | | 3 | | 2 |
| | 366 | | 1 | | 1 | | 3 | | 2 |
| | 372 | | 3 | | 2 | | 3 | | 2 |
| | 443 | | 4 | | 4 | | 4 | | 4 |
| | 476 | | 3 | | 3 | | 3 | | 4 |
| | 503 525 | | 5 4 | | 2 4 | | 2 4 | | 1 3 |
| | 571 | | 3 | | 5 | | 5 | | 3 |
| | 620 | | 5 | | 1 | | 3 | | 1 |
| | 683 | | 3 | | 3 | | 4 | | 1 |
| | 695 | | 4 | | 1 | | 3 | | 1 |
| ## | 743 | | 4 | | 2 | | 2 | | 1 |
| | 751 | | 5 | | 1 | | 3 | | 2 |
| | 804 | | 3 | | 3 | | 3 | | 3 |
| | 847 | | 3 | | 5 | | 5 | | 4 |
| | 849 | | 5 | | 2 | | 5 | | 2 |
| | 854 931 | | 4 | | 4 | | 3 | | 5 |
| | 938 | | 3 4 | | 4 | | 4 5 | | 5 5 |
| | 941 | | 2 | | 2 | | 4 | | 4 |
| | 958 | | 2 | | 5 | | 4 | | 3 |
| | 1007 | | 2 | | 5 | | 1 | | 1 |
| ## | | Happiness.in.life | Energy. | levels | Small | oig.dogs | Perso | nality | |
| ## | 13 | 4 | | 3 | | 4 | | 3 | |
| | 33 | 4 | | 5 | | 1 | | 4 | |
| ## | | 3 | | 5 | | 3 | | 3 | |
| | 54 | 4 | | 5 | | 4 | | 3 | |
| | 92 | 5 | | 5 | | 1 | | 3 | |
| | 125 139 | 3 4 | | 4 4 | | 5 | | 3 3 | |
| | 150 | 3 | | 2 | | 3 | | 2 | |
| | 230 | 5 | | 4 | | 3 | | 3 | |
| | 260 | 4 | | 5 | | 3 | | 3 | |
| | 366 | 4 | | 4 | | 4 | | 3 | |
| | 372 | 5 | | 4 | | 2 | | 4 | |
| | 443 | 4 | | 3 | | 5 | | 3 | |
| ## | 476 | 4 | | 3 | | 3 | | 3 | |

| ## | 503 | 4 | 4 | 3 | 4 |
|----|------|-------------------------|------------|------------------------|---|
| | 525 | 3 | 2 | 3 | 3 |
| | 571 | 4 | 4 | 3 | 3 |
| | 620 | 4 | 4 | 3 | 4 |
| | 683 | 4 | 3 | 3 | 3 |
| | 695 | 4 | 4 | 5 | 3 |
| | 743 | 4 | 5 | 5 | 4 |
| | 751 | 4 | 4 | 5 | 3 |
| | 804 | 3 | 4 | 3 | 4 |
| | 847 | 4 | 3 | 1 | 3 |
| | 849 | 5 | 5 | 3 | 5 |
| | 854 | 3 | 4 | 3 | 3 |
| | 931 | 3 | 3 | 3 | 3 |
| | 938 | 4 | 3 | 3 | 2 |
| | 941 | 4 | 4 | 4 | 3 |
| | 958 | 3 | 2 | 4 | 3 |
| | 1007 | 4 | 4 | 3 | 5 |
| ## | 1007 | Finding.lost.valuables | | | |
| e | | . inding.iose.vaidasies | occern8.ab | 11.66.63.310.11.633163 | |
| ## | 13 | 1 | 3 | 2 | |
| 4 | | _ | | _ | |
| ## | 33 | 1 | 5 | 5 | |
| 3 | | _ | | | |
| ## | 35 | 5 | 2 | 3 | |
| 2 | | _ | _ | _ | |
| ## | 54 | 3 | 5 | 5 | |
| 4 | | _ | _ | _ | |
| ## | 92 | 3 | 5 | 4 | |
| 4 | | _ | _ | · | |
| | 125 | 3 | 3 | 4 | |
| 3 | | _ | _ | · | |
| | 139 | 4 | 3 | 3 | |
| 5 | | | _ | _ | |
| | 150 | 3 | 2 | 3 | |
| 3 | | _ | _ | _ | |
| | 230 | 1 | 3 | 4 | |
| 4 | | | _ | | |
| | 260 | 5 | 3 | 5 | |
| 3 | | | | | |
| | 366 | 2 | 2 | 4 | |
| 3 | | | | | |
| | 372 | 3 | 3 | 5 | |
| 3 | | | | | |
| | 443 | 3 | 2 | 4 | |
| 3 | | | _ | · | |
| | 476 | 3 | 5 | 5 | |
| 3 | | | | | |
| | 503 | 1 | 2 | 4 | |
| 4 | | | | | |
| | 525 | 3 | 3 | 3 | |
| | | | | | |

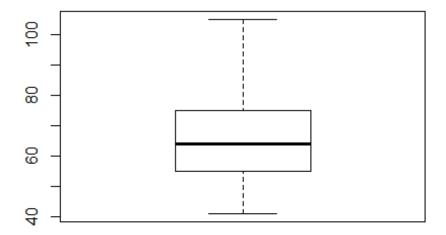
| | 571 | 1 | 3 | | 3 | |
|--------------|------------|-------------------------|--------|--------|----------------|--------|
| | 620 | 3 | 3 | | 1 | |
| | 683 | 3 | 5 | | 2 | |
| | 695 | 5 | 5 | | 5 | |
| 3 ## 1 | 743 | 3 | 5 | | 4 | |
| | 751 | 1 | 3 | | 3 | |
| | 804 | 2 | 5 | | 4 | |
| | 847 | 5 | 4 | | 4 | |
| | 849 | 1 | 4 | | 5 | |
| | 854 | 4 | 1 | | 5 | |
| | 931 | 4 | 3 | | 4 | |
| | 938 | 2 | 5 | | 5 | |
| ## 4 | 941 | 2 | 5 | | 3 | |
| ## 4 | 958 | 4 | 4 | | 2 | |
| ## 4 | 1007 | 3 | 1 | | 3 | |
| ## | 4.3 | Questionnaires.or.polls | | | Branded.clothi | |
| ## ## | | 2 3 | 4 1 | 1 | | 1 1 |
| ## | | 2 | 3 | 3 | | 4 |
| ## | | 4 | 3 | 5 | | 3 |
| ## | | 3 | 5 | 5 | | 5 |
| | 125 | 2 | 3 | 3 | | 3 |
| | 139 | 5 | 4 | 1 | | 1 |
| | 150 | 3 | 3 | 2 | | 1 |
| | 230 | 2 | 1 | 2 | | 2 |
| | 260 366 | 5 1 | 4 | 1 3 | | 3 3 |
| | 372 | 3 | 3 | 3 | | 2 |
| | 443 | 1 | 2 | 4 | | 2 |
| | 476 | 2 | 1 | 2 | | 2 |
| ## | 503 | 3 | 2 | 5 | | 5 |
| | 525 | 5 | 4 | 2 | | 5 |
| | 571 | 1 | 3 | 5 | | 5 |
| ## | 620 | 1 | 2 | 2 | | 4 |

```
## 683
                                                                  4
                                                                                      4
                                   3
                                                                  2
                                                                                      3
## 695
                                              3
## 743
                                   3
                                              1
                                                                  4
                                                                                      5
## 751
                                   3
                                              4
                                                                  3
                                                                                      3
## 804
                                   1
                                              3
                                                                  3
                                                                                      2
## 847
                                   5
                                              4
                                                                  4
                                                                                      3
                                   2
                                                                                      5
## 849
                                              3
                                                                  4
                                                                                      1
## 854
                                   3
                                              4
                                                                  2
                                   3
                                                                  5
                                                                                      2
## 931
                                              3
## 938
                                   4
                                              5
                                                                  2
                                                                                      2
                                                                  5
                                                                                      5
## 941
                                   3
                                              2
                                   3
                                              3
                                                                  2
                                                                                      5
## 958
                                   3
                                              3
                                                                  1
                                                                                      1
## 1007
##
         Entertainment.spending Spending.on.looks Spending.on.gadgets
## 13
                                  2
                                  4
                                                       5
## 33
                                                                               1
                                  3
                                                       3
                                                                               1
## 35
## 54
                                  3
                                                       1
                                                                               2
                                                                               2
## 92
                                  5
                                                       3
                                  3
                                                       4
                                                                               3
## 125
## 139
                                  1
                                                       1
                                                                              1
## 150
                                  2
                                                       1
                                                                               2
## 230
                                  4
                                                       1
                                                                               2
                                                                               1
## 260
                                  4
                                                       3
                                  3
                                                                               2
## 366
                                                       4
                                  3
                                                       3
## 372
                                                                              4
## 443
                                  4
                                                       5
                                                                               3
                                                       2
## 476
                                  5
                                                                               1
## 503
                                  4
                                                       4
                                                                               5
## 525
                                  3
                                                       2
                                                                              2
## 571
                                  3
                                                       5
                                                                               5
## 620
                                  3
                                                       2
                                                                               4
                                  4
                                                                               4
## 683
                                                       4
                                  3
                                                       2
## 695
                                                                               4
## 743
                                  5
                                                       4
                                                                               4
## 751
                                  3
                                                       3
                                                                               3
                                  3
                                                       3
                                                                               3
## 804
## 847
                                  4
                                                       4
                                                                               4
                                  5
                                                                              5
                                                       5
## 849
                                                                               2
## 854
                                  1
                                                       3
                                  2
                                                       3
                                                                               2
## 931
                                                       2
                                                                               3
## 938
                                  4
                                  4
                                                                              4
## 941
                                                       4
                                  3
                                                       3
                                                                               3
## 958
## 1007
                                  1
                                                       1
##
         Spending.on.healthy.eating Age Height Weight Number.of.siblings
## 13
                                       3
                                          24
                                                 168
                                                           55
                                                                                 10
## 33
                                       1
                                          20
                                                           46
                                                                                  4
                                                 158
                                                                                  5
                                       2
## 35
                                          20
                                                 177
                                                           67
                                                           51
## 54
                                          18
                                                 164
```

```
## 92
                                      2
                                         18
                                                168
                                                         50
                                                                                4
                                      5
                                         20
                                                                                4
## 125
                                                176
                                                         69
                                      1
                                         20
                                                         50
                                                                                4
## 139
                                                168
                                                                                5
## 150
                                     4
                                         19
                                                184
                                                         85
                                                                                5
## 230
                                      2
                                         21
                                                173
                                                         73
## 260
                                      3
                                         19
                                                175
                                                         72
                                                                                4
                                                                                5
                                         24
## 366
                                     4
                                                175
                                                         70
## 372
                                     3
                                         19
                                                164
                                                         53
                                                                               4
                                      3
                                                                                6
## 443
                                         18
                                                163
                                                         58
## 476
                                      3
                                         18
                                                172
                                                         60
                                                                               4
                                     5
                                        22
## 503
                                                193
                                                         86
                                                                                6
## 525
                                      2
                                        19
                                                171
                                                         60
                                                                               4
                                     5
                                         23
                                                                                4
## 571
                                                189
                                                         88
## 620
                                      5
                                         27
                                                175
                                                         83
                                                                               4
## 683
                                     1
                                         19
                                                172
                                                         75
                                                                               4
                                                                               4
## 695
                                     4
                                         21
                                                         73
                                                187
## 743
                                     5
                                         26
                                                183
                                                         90
                                                                                5
## 751
                                      3
                                         22
                                                175
                                                                                6
                                                         86
                                      3
                                         27
                                                         79
                                                                                5
## 804
                                                173
## 847
                                     4
                                         23
                                                171
                                                         54
                                                                                4
                                         19
                                                                               4
## 849
                                     5
                                                184
                                                         60
## 854
                                     2
                                         30
                                                175
                                                                               4
                                                         68
## 931
                                     4
                                         18
                                                165
                                                         45
                                                                                5
## 938
                                     5
                                         18
                                                167
                                                         62
                                                                                4
## 941
                                     4
                                         16
                                                172
                                                                                4
                                                         59
## 958
                                      3
                                         20
                                                175
                                                         65
                                                                                5
                                                                                5
                                     3
                                         27
## 1007
                                                183
                                                         80
# Function for outlier treatment
# Capping and Flooring function
treat_outlier <- function(x){</pre>
  qnt <- quantile(x, probs=c(.25, .75), na.rm = T)</pre>
  caps <- quantile(x, probs=c(.05, .95), na.rm = T)</pre>
  H \leftarrow 1.5 * IQR(x, na.rm = T)
  x[x < (qnt[1] - H)] < - caps[1]
  x[x > (qnt[2] + H)] < - caps[2]
  return(as.data.frame(x))
}
impu_num_compl$Age <- treat_outlier(impu_num_compl$Age)$x</pre>
impu_num_compl$Height <- treat_outlier(impu_num_compl$Height)$x</pre>
impu_num_compl$Weight <- treat_outlier(impu_num_compl$Weight)$x</pre>
dim(impu_num_compl)
## [1] 1010 139
dim(impu_cat_compl)
## [1] 1010
                11
```

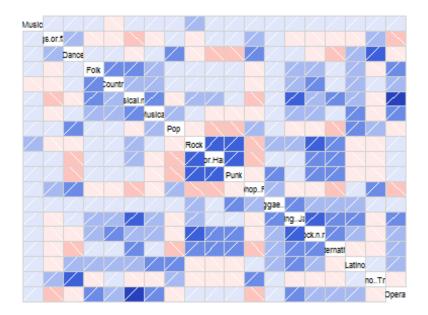


boxplot(impu_num_compl\$Weight)

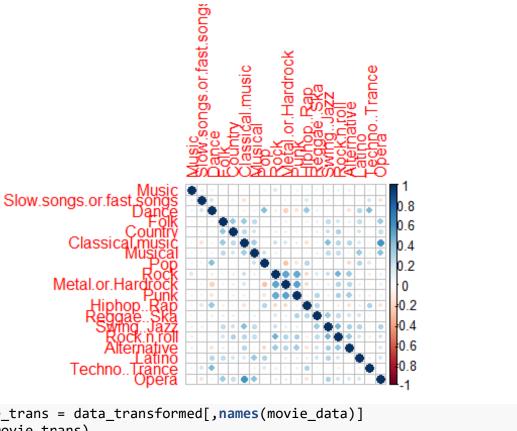


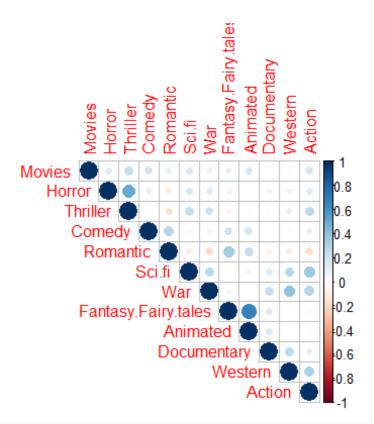
```
data_transformed = cbind(impu_num_compl, impu_cat_compl)
dim(data_transformed)
## [1] 1010 150
Corelation Analysis:
data_num_trans <- data_transformed[,!sapply(data_transformed, is.factor)]</pre>
dim(data_num_trans)
## [1] 1010 139
music_trans = data_transformed[,names(music_data)]
dim(music_trans)
## [1] 1010
              19
library(corrgram)
## Warning: package 'corrgram' was built under R version 3.6.2
## Registered S3 method overwritten by 'seriation':
##
     method
                    from
     reorder.hclust gclus
##
##
## Attaching package: 'corrgram'
## The following object is masked from 'package:lattice':
##
##
       panel.fill
```

corrgram(music_trans)

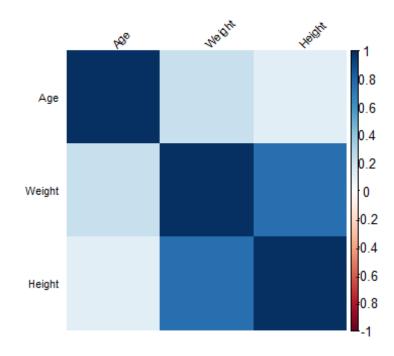


```
library(corrplot)
## Warning: package 'corrplot' was built under R version 3.6.2
## corrplot 0.84 loaded
music_cor = cor(music_trans)
corrplot(music_cor)
```

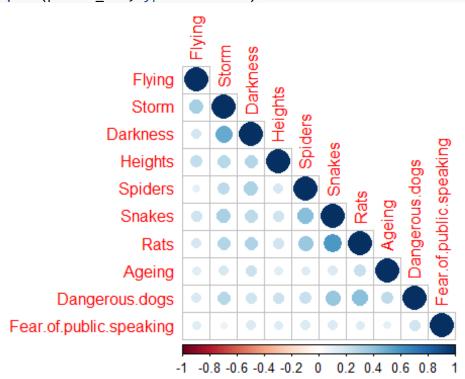




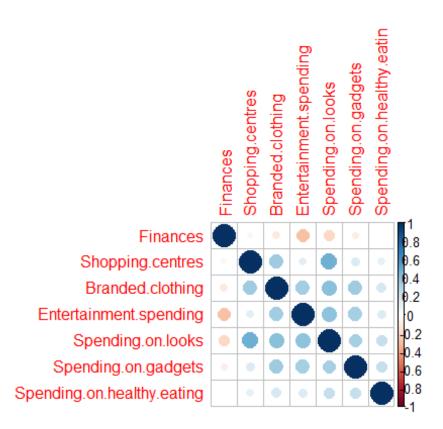
demo_cor <- cor(data_transformed[,c('Age','Weight','Height')])
corrplot(demo_cor, method="shade", shade.col=NA, tl.col="black", tl.srt=45, t
l.cex =0.7)</pre>



phobia_cor = cor(data_transformed[,names(phobia_data)]) corrplot(phobia_cor,type = "lower")

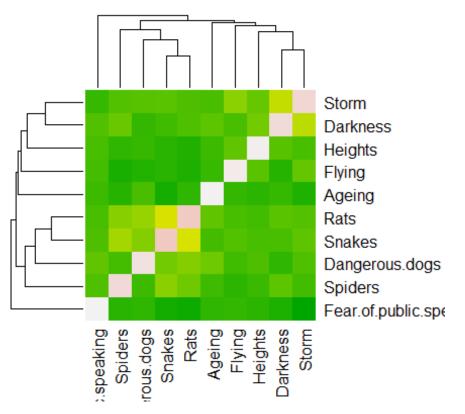


spend_cor = cor(data_transformed[,names(spend_data)])
corrplot(spend_cor)



Heat map

heatmap(phobia_cor, scale="column", col = terrain.colors(256))



```
data transformed$Gender
##
     [1] female female female female male female male
                                                               female fema
le
    [11] female female female female male
                                                 female female male
##
                                                                      male
                       female female female female female male
##
    [21] male
                male
                                                                      fema
le
                female female male
                                           female female male
##
    [31] male
                                                               female fema
le
                      female female male
##
    [41] female male
                                                 female female female fema
le
##
    [51] female female female female female female female male
##
    [61] male
                male
                      male
                             male
                                    female male
                                                 male
                                                        female female fema
le
##
    [71] male
                male
                      female male
                                    male
                                                 male
                                                        female female fema
                                           male
le
                      female female male
                                                        female female fema
##
    [81] female male
                                                 male
le
##
    [91] female female female male
                                    male
                                                 male
                                                        male
                                                               male
                                                                      fema
                                           male
le
##
   [101] female male
                       female male
                                    male
                                           male
                                                 male
                                                        female female male
                female female female female female male
##
   [111] male
le
##
                      female female male
                                           female female female female
   [121] male
                male
le
   [131] female male
                      female female male
                                                               female fema
##
                                                 male
le
   [141] female female male
                             female male
                                           female male
                                                        male
                                                               male
                                                                      male
##
##
   [151] female male
                       male
                             female male
                                           female male
                                                        male
                                                               female male
##
   [161] male
                female male
                             male
                                    male
                                           female female male
                                                               female fema
le
##
   [171] male
                male
                       male
                             male
                                    male
                                           female male
                                                        male
                                                               female male
   [181] male
                                    female female female female female
##
                male
                       female male
le
##
   [191] female female female male
                                    male
                                           male
                                                 female female male
   [201] male
                       male
                             female female male
                                                        female female male
##
   [211] male
                female male
                             female female male
                                                 female female male
##
                male
                       female female male
                                           male
                                                        female female male
##
   [221] male
   [231] female female female female female female female female female
le
                female female female female male
##
   [241] male
                                                        female female fema
le
##
   [251] female female female female female female male
                                                               female male
                female female female female female female female female
##
   [261] male
le
##
   [271] female male
                      female female female female male
                                                               male
                                                                      fema
le
                                    male female female male
  [281] female male female male
```

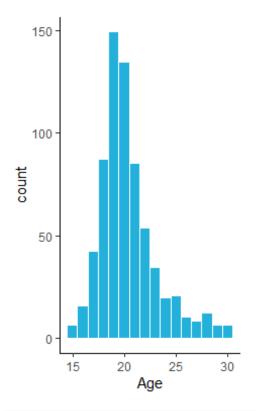
```
[291] female male
                     female female female male male female female
le
                      female female female female female female female
##
   [301] female male
le
                             female male
                                                 female male
##
   [311] male
               female male
                                          male
                                                              female fema
le
                                                 female female male
##
   [321] male female female male female male
                                                                     fema
le
##
   [331] female male
                      female female male
                                                              female fema
                                                 male
                                                        male
le
##
   [341] female male
                      female female female male
                                                        male
                                                              male
                                                                     fema
le
##
               female male
                             female female male
                                                                     fema
   [351] male
                                                 male
                                                       male
                                                              male
le
##
   [361] female female female male
                                          male
                                                 male
                                                        male
                                                              female male
   [371] female female male
                             male
                                   female female female female male
##
   [381] female female female male
                                    female male
                                                 female female female fema
le
##
   [391] male
               female female male
                                    male
                                          male
                                                 female female female fema
le
                             male female female female female female
##
   [401] male
               female male
le
##
   [411] male female female male
                                   male
                                          female female male
                                                              female fema
le
   [421] female female female female female female male
##
                                                              female fema
le
   [431] female male
                             female male
                                          female male
                                                       female female male
##
                      male
   [441] female female female female female male
                                                       female female fema
##
le
                      female female female male
##
   [451] male
                                                       male
                                                              female fema
                male
le
##
   [461] male
                male
                      female female female male
                                                        female female male
                                          female female male
##
   [471] female male
                      male
                             male
                                    male
                                                                     fema
le
                             female female female female male
##
   [481] female male
                      male
                                                                     fema
le
   [491] female female female male
                                   female female female female male
##
##
   [501] female female male
                             female female male
                                                 male
                                                        female male
                                                                     fema
le
##
   [511] male
                male
                      female male
                                    male
                                          male
                                                 male
                                                        female female male
   [521] female female female male
                                    female female male
                                                        female male
##
   [531] female male
                      female male
                                    female male
                                                 female male
                                                              female male
                                                              female fema
##
   [541] male
                female
                             male
                                    male
                                          male
                                                 male
                                                        male
le
                                          female female female female
##
   [551] female female female male
le
##
   [561] female male
                      male
                             male
                                    male
                                          female female male
                                                              female fema
le
##
   [571] male
                male
                      female male
                                    female female male
                                                        female female male
## [581] male female male female male female female female
```

```
le
                                                        male
##
   [591] male
                female female male
                                           male
                                                  male
                                                               male
                                                                      male
   [601] female female male
                             female female male
                                                         female male
##
                                                  male
                                                                      male
   [611] male
                female male
                             female female male
                                                  male
                                                         female female male
##
   [621] male
                       female male
                                    female female female male
                                                                      fema
le
##
   [631] female female male
                             male
                                    female female male
                                                         male
                                                               female male
   [641] female male
                             female female male
                                                  male
                                                        female female fema
##
                       male
le
##
   [651] male
                male
                       male
                              female male
                                           female female male
                                                                      male
##
   [661] female female female male
                                    female female male
                                                                      male
   [671] female female female male
                                           female female female femal
##
le
##
   [681] female female male
                             female female male
                                                        male
                                                               female male
##
   [691] male
                female male
                             female male
                                           female female female female
le
##
   [701] female female male
                             male
                                    female female male
                                                        female male
                                                                      fema
le
##
   [711] female female female female male
                                                  male
                                                         female female male
                                                               female male
   [721] female female female female male
                                                  male
                                                         male
   [731] female female female female female female female male
   [741] male
                female male
                             male
                                    male
                                           male
                                                  female female male
   [751] female female female male
                                           female male
                                                         female male
                                                                      male
##
   [761] female male
                       male
                              male
                                    female male
                                                  female male
                                                               male
                                                                      fema
le
##
   [771] female male
                       female female female male
                                                         male
                                                               female fema
le
                                                               female male
##
   [781] male
                female female male
                                    male
                                           male
                                                  male
                                                         male
##
   [791] female female male
                             male
                                    male
                                           female male
                                                               female male
                                                         male
   [801] male
                female female female female male
                                                               male
                                                                      male
##
                                                         male
   [811] male
                       female male
##
                male
                                    female male
                                                  male
                                                         male
                                                               male
                                                                      fema
le
##
   [821] female male
                       female male
                                    female female female male
                                                                      fema
le
   [831] female female female male
##
                                    male
                                           male
                                                  male
                                                        male
                                                               female fema
le
   [841] female male
                       female female male
                                           female female male
##
                                                                      fema
le
   [851] female male
                             female male
                                           male
                                                  female male
                                                                      male
##
                       male
                                                               male
   [861] male
                female male
                              male
                                    male
                                           female male
                                                         female male
                                                                      fema
##
le
##
   [871] female male
                       male
                             male
                                    female female male
                                                         male
                                                               male
                                                                      male
   [881] female female female female female male
##
                                                         male
                                                               female fema
le
##
   [891] male
                male
                       male
                              female female male
                                                  male
                                                        male
                                                               female male
##
   [901] male
                female male
                              male
                                    female male
                                                  female female male
                                                                      fema
le
##
   [911] female female female female female male
                                                               female fema
                                                        male
le
## [921] female male female female female female male female female female
```

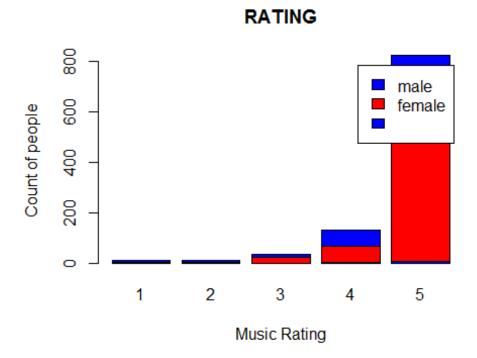
```
le
                                             female female female female
   [931] female male
                       female female
##
le
                                                           female female fema
##
   [941] male
                female male
                              female female male
                                                    male
le
                               female female male
                                                           male
                                                                  female fema
##
   [951] male
                male
                       male
le
                        female male
                                     male
                                             female female male
                                                                         male
##
   [961] female male
                                                                  male
                        female female female female male
   [971] male
                male
                                                                  female male
##
   [981] female female male
                               female female female male
                                                                  male
                                                                         fema
le
                               female female male
                                                           female male
                                                                         male
## [991] male
                male
                       male
## [1001] female female male
                               female male
                                            female male
                                                           female female male
## Levels: female male
a = split(data transformed$Gender, 3, drop =TRUE)
str(data_transformed$Gender)
  Factor w/ 3 levels "", "female", "male": 2 2 2 2 2 3 2 3 2 2 ...
library(ggplot2)
library(gridExtra)
## Warning: package 'gridExtra' was built under R version 3.6.2
library(magrittr) # needs to be run every time you start R and want to use %>
library(dplyr)
##
## Attaching package: 'dplyr'
## The following object is masked from 'package:gridExtra':
##
##
      combine
## The following objects are masked from 'package:stats':
##
##
      filter, lag
## The following objects are masked from 'package:base':
##
##
       intersect, setdiff, setequal, union
library(reshape2)
## Warning: package 'reshape2' was built under R version 3.6.2
p1 =ggplot(na.omit(data), aes(x=Age)) + geom_bar(fill = "#23b0db") + theme_bw
() + theme(panel.border = element_blank(), panel.grid.major = element_blank()
```

```
panel.grid.minor = element_blank(), axis.line = element_line(colour = "black"
))

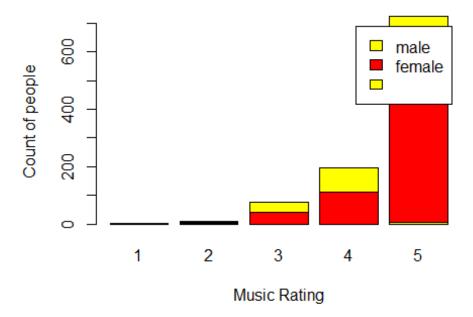
age = data %>% select(Age) %>% group_by(Age) %>% summarize(count = n()) %>% a
rrange(desc(count))
age = tableGrob(as.data.frame(age))
grid.arrange(p1, head(age, 7), ncol=2)
```

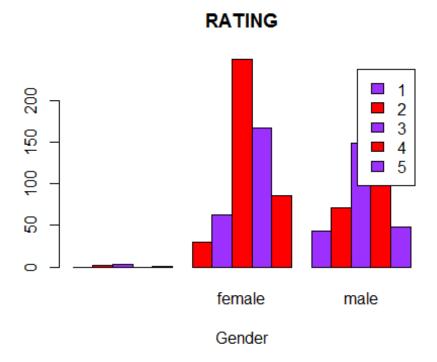


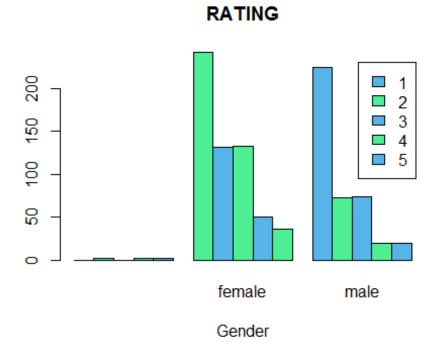
| | Age | count |
|---|-----|-------|
| 1 | 19 | 210 |
| 2 | 20 | 194 |
| 3 | 21 | 127 |
| 4 | 18 | 123 |
| 5 | 22 | 84 |
| 6 | 17 | 53 |

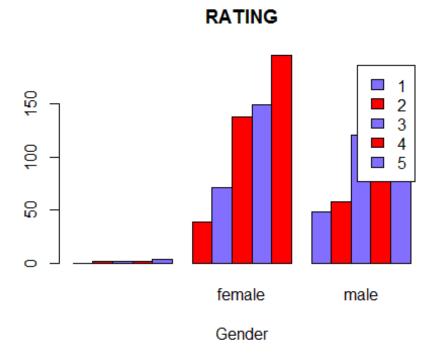


RATING

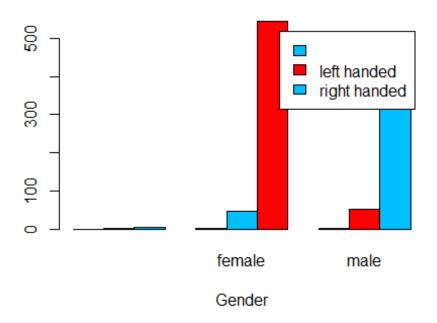








RATING



```
dim(hobbies_data)
## [1] 1010
            32
hobbies_transformed <- data_transformed[,names(hobbies_data)]
hobbies_pca <- prcomp(hobbies_transformed, scale= T)
names(hobbies_pca)
                "rotation" "center"
                                             "x"
## [1] "sdev"
                                   "scale"
#rotation - represents the loadings of each variables on components
hobbies_pca$rotation
##
                               PC1
                                         PC2
                                                     PC3
                                                               PC4
## History
                       0.188458129 -0.09972504 0.191659752 -0.22991541
## Psychology
                       0.230036558 0.01786097
                                              0.099845621 -0.12092486
## Politics
                       ## Mathematics
                       0.071298342 -0.28497563 -0.148794306 -0.11696119
## Physics
                       0.117537829 -0.32127215 -0.264318100 -0.13787033
## Internet
                       -0.047107481 -0.24945405 0.114615245 0.10689102
## PC
                       -0.040810044 -0.37916578 -0.026702872 -0.01947711
## Economy.Management
                       -0.004247973 -0.19189231
                                              0.297016846
                                                         0.01081594
## Biology
                        ## Chemistry
                       0.220249354 -0.02970157 -0.402713435
                                                         0.09655225
## Reading
                        0.273290822 0.20243199 0.075074553 -0.17176942
## Geography
                        0.165733285 -0.15102913
                                              0.150868856 -0.07075296
## Foreign.languages
                       ## Medicine
                       0.283815963 -0.01061050 -0.296379491 0.11658962
```

```
## Law
                           0.139885598 -0.14966276
                                                     0.276167023 -0.02315421
## Cars
                           -0.054065830 -0.35287817
                                                     0.054454401
                                                                   0.15197566
## Art.exhibitions
                           0.307286358
                                         0.08363239
                                                     0.106223775 -0.05528705
                           0.234554023 -0.02118824 -0.009334782 -0.16050540
## Religion
## Countryside..outdoors
                           0.196673276 -0.02578241 -0.009371219
                                                                   0.11783931
## Dancing
                           0.232312679
                                         0.05907080
                                                     0.086621432
                                                                   0.24672526
## Musical.instruments
                           0.216399667 -0.01219800 -0.012291430 -0.08626889
## Writing
                           0.231718611
                                         0.07397364
                                                     0.067636420 -0.15644741
## Passive.sport
                           -0.023439504 -0.15300983
                                                     0.051616951
                                                                   0.20587472
## Active.sport
                           0.069058573 -0.20429023
                                                     0.043485929
                                                                   0.24414843
## Gardening
                           0.192890484
                                         0.03464648 -0.080288637
                                                                   0.18959498
## Celebrities
                           0.015776035
                                         0.09462840
                                                     0.186510020
                                                                   0.34123592
## Shopping
                           0.083917204
                                         0.12707686
                                                     0.199581102
                                                                   0.39774969
## Science.and.technology
                           0.097311047 -0.33700031 -0.117622329 -0.03484404
                                                     0.110875136 -0.03254494
## Theatre
                           0.293866571
                                         0.13860458
## Fun.with.friends
                           0.062460243 -0.05187930
                                                     0.139364342
                                                                   0.26018379
## Adrenaline.sports
                           0.074602609 -0.25199639
                                                     0.062705429
                                                                   0.22378600
## Pets
                                         0.03835047 -0.026758239
                           0.087440530
                                                                   0.25545973
##
                                    PC5
                                                 PC<sub>6</sub>
                                                              PC7
                                                                          PC8
                           0.092591265 -0.232015433
## History
                                                      0.25239113 -0.06548575
## Psychology
                                         0.014508725 -0.14185033
                           0.148720516
                                                                   0.08552131
## Politics
                           0.247013176 -0.132333726
                                                      0.12069825
                                                                   0.12790917
## Mathematics
                           -0.002370872
                                         0.290108551 -0.24097120
                                                                   0.17220703
## Physics
                           -0.005937990
                                         0.138911115 -0.15417460
                                                                   0.13472563
## Internet
                          -0.031563650
                                         0.409201245
                                                      0.15277805 -0.33138111
## PC
                           -0.140059444
                                         0.319267598
                                                      0.09215982 -0.08493418
## Economy.Management
                           0.219596773
                                         0.149171977 -0.20031212
                                                                  0.17069411
## Biology
                           0.237872115 -0.035475460 0.02578910 -0.11433832
## Chemistry
                           0.254623212 -0.044583322 -0.03483529 -0.07935483
## Reading
                                         0.073519057 -0.01308066 -0.14064121
                           0.009166497
## Geography
                           -0.001296033 -0.207056165
                                                      0.27032491 -0.27703787
## Foreign.languages
                                         0.094568340 -0.14992093 -0.41035039
                           0.062444420
## Medicine
                           0.274674151 -0.056459180
                                                      0.01393986 -0.12804866
## Law
                           0.358448817 -0.101036149
                                                      0.02537942
                                                                   0.16761041
## Cars
                           -0.003879326 -0.088122453
                                                      0.11289934
                                                                   0.04308159
## Art.exhibitions
                           -0.194064673
                                         0.083454620 -0.08848909
                                                                   0.01818948
## Religion
                           -0.066276692
                                         0.064782579
                                                      0.19193962
                                                                   0.06085112
## Countryside..outdoors
                          -0.352637463 -0.097031086
                                                      0.22136307 -0.14052420
## Dancing
                          -0.079618956
                                         0.012731339 -0.16346012
                                                                   0.18230175
## Musical.instruments
                           -0.366971152
                                         0.082456456 -0.01926015
                                                                   0.09180239
## Writing
                           -0.205552004
                                         0.136106746
                                                      0.03084835
                                                                   0.23993099
## Passive.sport
                           -0.146071143 -0.127491042
                                                      0.15782316 -0.17095880
## Active.sport
                           -0.141964721 -0.325163564 -0.12763567
                                                                   0.26173364
## Gardening
                           -0.147538683
                                         0.082339921
                                                      0.35510845
                                                                   0.31300178
## Celebrities
                           0.162685242
                                         0.307917512
                                                      0.18206845
                                                                   0.13487536
## Shopping
                           0.157865883
                                         0.241111976
                                                      0.02183875
                                                                   0.02799432
## Science.and.technology
                           0.001477316
                                         0.083055353
                                                      0.04019640 -0.08928700
## Theatre
                           -0.101931633
                                         0.064560558 -0.21810241 -0.07438009
## Fun.with.friends
                           -0.109742421 -0.063689827 -0.39486085 -0.29098669
## Adrenaline.sports
                          -0.143782184 -0.329756935 -0.24642978 0.03323823
```

```
## Pets
                          0.051462435 -0.009519456 0.21944914 0.10229865
##
                                  PC9
                                              PC10
                                                          PC11
                                                                      PC12
                          0.2342319487
## History
                                       0.013213679
                                                    0.02656929
                                                               0.014686171
                          0.1634428977 -0.173316277
                                                    0.29922905 -0.217844043
## Psychology
                                                    0.11560478
                                                               0.089453472
## Politics
                          0.0003330098
                                       0.028409473
## Mathematics
                         -0.1227967977
                                       0.415744678 -0.03102544
                                                               0.146137501
## Physics
                          0.0605717983
                                       0.187165070 -0.05964467
                                                               0.118388354
## Internet
                          0.0501169630 -0.135904736
                                                    0.13256657 -0.038345456
## PC
                          0.0836480239 -0.194955920 -0.08441881 -0.110075826
## Economy.Management
                         ## Biology
                         -0.0656992949 -0.068240695
                                                    0.06665055 -0.004194024
## Chemistry
                         -0.0448282578 -0.012743686 -0.03919365
                                                               0.109878401
## Reading
                          0.1311171386 0.121373314 -0.16553035
                                                               0.121776808
## Geography
                         0.173529969
                         -0.2743702248 -0.085613319 -0.18114315 -0.019851505
## Foreign.languages
## Medicine
                         -0.1044512509 -0.176308133 0.08116972 0.001417123
## Law
                         -0.0129844112
                                      0.024797536
                                                    0.13392287
                                                               0.042392594
## Cars
                          0.1126257763 -0.100383522
                                                    0.05174534 -0.138464290
## Art.exhibitions
                          0.1480556405
                                       0.028108790 -0.03140235
                                                               0.049578834
                         -0.2035988869 -0.004848608
                                                    0.35849183 -0.393017524
## Religion
                         ## Countryside..outdoors
## Dancing
                         -0.2718126978 -0.035144419 -0.02929581 -0.169902419
## Musical.instruments
                         -0.1518894347 -0.228909445
                                                    0.26370229
                                                               0.136685469
## Writing
                          0.0859320390 -0.365865217 -0.11663001
                                                               0.303731172
## Passive.sport
                         -0.1388167380 0.193524389
                                                    0.49466560
                                                               0.554056046
## Active.sport
                         -0.0978546087 -0.191441181 -0.20297874
                                                               0.037383030
## Gardening
                         -0.0174921768 0.134950497 -0.07051273
                                                               0.075730596
## Celebrities
                         -0.0213124787 -0.112807899 -0.10859489
                                                               0.173889435
## Shopping
                          0.0241152752 -0.022607496 -0.02547038 -0.019461421
                         0.2525523547 -0.146066026 -0.18943901 -0.072974790
## Science.and.technology
## Theatre
                          0.2373060604
                                       0.203906538 -0.02908785
                                                               0.045437909
## Fun.with.friends
                          0.2492036609
                                       0.070038751 0.20242860
                                                               0.038986631
## Adrenaline.sports
                          0.1002526616 -0.115681528 -0.07578508 -0.052770482
## Pets
                          0.4875204274
                                       0.294586372 -0.01534318 -0.099785036
##
                                PC13
                                            PC14
                                                        PC15
                                                                    PC16
                         -0.11918292 -0.264841906
                                                  0.23562129
## History
                                                             0.048499587
## Psychology
                         -0.53147080 -0.134003144 -0.25960270 -0.212537201
## Politics
                          0.14225150
                                    0.020275698
                                                  0.17110829 -0.030416836
## Mathematics
                         -0.17389206 -0.088680894 0.04575537
                                                             0.190550851
                         -0.02725997 -0.176143809
## Physics
                                                  0.01568440
                                                             0.150602790
## Internet
                         -0.24231809 -0.094006707
                                                  0.14534745 -0.080953151
## PC
                          0.03656889
                                     0.065041281
                                                  0.07195299 -0.073035218
## Economy.Management
                         -0.02685626
                                     0.258389802 -0.09402371 -0.306934336
## Biology
                         -0.03674544
                                     0.014119227 -0.03946773 -0.083243298
## Chemistry
                          0.07105813
                                     0.018197628
                                                  0.10117714 -0.021308793
## Reading
                          0.05977048 -0.012847994
                                                  0.11893710 0.045485171
## Geography
                         -0.12965737 -0.141435945
                                                  0.01708068
                                                             0.037413428
## Foreign.languages
                         -0.11516304
                                     0.336766162 -0.04416348
                                                             0.114506778
## Medicine
                          0.05568575
                                     0.112221784 -0.05484492 -0.011739787
## Law
                          0.20052654 0.220965966 0.03155761 0.053131138
```

```
## Cars
                          0.35424863 0.088685964 -0.19272303
                                                              0.127627879
## Art.exhibitions
                          0.15766714 -0.095611890 -0.35873345
                                                              0.021981645
## Religion
                          0.14689966 -0.232714089
                                                  0.02768653
                                                              0.224113200
                         -0.02248433
## Countryside..outdoors
                                     0.064114677 -0.13582649 -0.052047476
## Dancing
                         -0.07621054 -0.156530043
                                                  0.29739895
                                                              0.006507375
## Musical.instruments
                          0.08865918
                                     0.372599208
                                                  0.20443150
                                                             0.279091075
## Writing
                         ## Passive.sport
                         -0.10655182 -0.033802622 -0.27309109 -0.053951301
## Active.sport
                         -0.16497639 -0.187370312 0.05512601
                                                             0.165136097
## Gardening
                          0.08029240 0.051113842
                                                  0.16972346 -0.577177451
## Celebrities
                          0.06850153 -0.234754041 -0.08292139
                                                             0.248466200
## Shopping
                          0.06411123 -0.170558272 -0.09922488
                                                             0.126536851
                          0.17199686 -0.004297953 -0.15015236 -0.130311971
## Science.and.technology
## Theatre
                          0.26338123 -0.078838818 -0.21457617 -0.028072652
## Fun.with.friends
                          0.17384884 -0.101511359
                                                  0.47844396 -0.185474306
## Adrenaline.sports
                         -0.10302385
                                     0.065904906 -0.16953678 -0.015564040
## Pets
                         -0.33225220
                                     0.440512655
                                                  0.11433088 0.322198191
##
                                PC17
                                             PC18
                                                          PC19
                                                                      PC20
                                      0.019058804 -0.063137882 -0.340299967
## History
                          0.140568535
## Psychology
                          0.005707387
                                      ## Politics
                                      0.217081565 -0.068302094 0.003366495
                         -0.121565756
## Mathematics
                         -0.087735929 -0.110900070 -0.023429064 -0.143880906
## Physics
                         -0.073782415
                                      0.068293026
                                                   0.076768503 -0.050267426
## Internet
                          0.217522404 -0.215441375
                                                   0.162339326
                                                               0.176880420
## PC
                          0.211440075 -0.111475474 -0.031609704 -0.047651596
## Economy.Management
                         -0.045930537
                                      0.027840840
                                                   0.036412935
                                                               0.102489385
## Biology
                          0.003257511 -0.012333933
                                                   0.069147808 -0.038975437
## Chemistry
                          0.065622261 -0.045303826
                                                   0.024145774 -0.027908462
## Reading
                          0.118537094 -0.343128291 -0.273039466 0.051648044
## Geography
                         -0.176918197
                                      0.137768750
                                                   0.384144671 0.184347919
## Foreign.languages
                         -0.095618470 -0.048243639 -0.400141090 -0.196940783
## Medicine
                          0.028008379 -0.062090399
                                                   0.091488004
                                                                0.042749446
## Law
                          0.232253891 -0.212837437
                                                   0.163565688
                                                               0.047394133
## Cars
                          0.101290718 -0.105382064
                                                   0.064788378 -0.077041582
## Art.exhibitions
                          0.153430645 -0.122627223
                                                   0.216359971
                                                                0.014236907
## Religion
                         -0.385963102 -0.232352629 -0.186134785
                                                                0.334236445
## Countryside..outdoors
                          0.041465898
                                      0.063372624
                                                   0.104381153 -0.213741811
## Dancing
                          0.347373197
                                      0.315367885
                                                   0.078103955
                                                                0.303012386
## Musical.instruments
                          0.023551049
                                      0.261318628
                                                   0.136422927 -0.305837922
## Writing
                         -0.232484887 -0.091472367
                                                   0.092251598
                                                               0.294789399
## Passive.sport
                          0.080514277
                                      0.071173847 -0.224338422
                                                                0.159425948
## Active.sport
                          0.244062647 -0.171008779 -0.379805344
                                                                0.038079046
## Gardening
                         -0.083220637 -0.152562035 -0.158094901 -0.204521380
## Celebrities
                         -0.162035703
                                      0.019266520 0.116912722 -0.286153981
                                      0.142479980 -0.132551335 -0.061052617
## Shopping
                         -0.169084120
## Science.and.technology -0.123494310
                                      0.487730771 -0.345660363
                                                               0.152263003
## Theatre
                          0.223948702
                                      0.105474154 -0.003676628
                                                               0.108807117
## Fun.with.friends
                         -0.282540907 -0.008602802 0.091997421 -0.028442837
## Adrenaline.sports
                         -0.331133280 -0.278594683
                                                   0.153394827 -0.068272781
## Pets
```

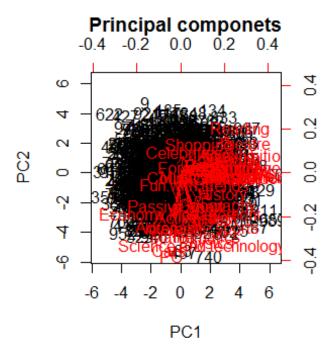
```
##
                                  PC21
                                              PC22
                                                            PC23
                                                                         PC24
## History
                           0.089378024
                                        0.27249982
                                                     0.081685958
                                                                  0.404197186
                           0.105591700 -0.00341174 -0.142315832 -0.212594526
## Psychology
## Politics
                          -0.169374235 -0.31925693 -0.086141769 -0.168492841
## Mathematics
                           0.077297990
                                        0.03806932 -0.006096263 -0.035969797
## Physics
                          -0.013570922
                                        0.11217012
                                                     0.162977863 -0.240395516
## Internet
                          -0.155409428 -0.09517320
                                                     0.174672673
                                                                  0.013745440
## PC
                          -0.029353779 -0.12653046 -0.172011307
                                                                  0.097874903
## Economy.Management
                                        0.03141804 -0.161727689
                           0.056489720
                                                                  0.522600837
## Biology
                           0.036599800 -0.09641642 -0.019273983
                                                                  0.149770112
## Chemistry
                          -0.042457150
                                        0.10832498
                                                     0.063636914
                                                                  0.192233868
## Reading
                                        0.20705552 -0.348080118 -0.001703690
                          -0.143087905
## Geography
                           0.213153785 -0.12339851 -0.024883673 -0.022706934
## Foreign.languages
                           0.213276835 -0.00187073
                                                     0.098434706 -0.251287644
## Medicine
                          -0.033030822 -0.05857201 -0.124398783 -0.031707678
## Law
                          -0.261291638
                                        0.07208552 0.310180864 -0.283896857
## Cars
                           0.487331938
                                        0.36616198 -0.200557843 -0.139096644
## Art.exhibitions
                           0.296753202 -0.33764367
                                                     0.195876942
                                                                  0.058571883
## Religion
                           0.061461577 -0.07981032 -0.032296540
                                                                  0.098511884
## Countryside..outdoors
                          -0.405737882
                                        0.18979428
                                                     0.044101941 -0.119357905
                           0.100580228
                                        0.23799480 -0.165722489 -0.146517269
## Dancing
## Musical.instruments
                          -0.022222980 -0.10777622
                                                     0.013830321
                                                                 0.222434963
## Writing
                                        0.37683012
                                                     0.070487540 -0.025514325
                          -0.068715353
## Passive.sport
                          -0.006673113
                                        0.10716349 -0.094521343
                                                                  0.014066381
                          -0.035453278 -0.29817392 0.081032254
## Active.sport
                                                                  0.066455305
## Gardening
                           0.191596177 -0.13655688
                                                     0.078457744 -0.157125078
## Celebrities
                          -0.193970300 -0.08718504 -0.443689860 -0.071644312
## Shopping
                           0.011889605
                                        0.18851704
                                                     0.504202132
                                                                  0.182827722
## Science.and.technology -0.167691163
                                        0.02308271
                                                     0.015102689 -0.001437206
## Theatre
                          -0.137914691 -0.12133188 -0.093273415
                                                                  0.082180350
## Fun.with.friends
                           0.107272447 -0.03169795 -0.033741293 -0.096182782
## Adrenaline.sports
                          -0.274955137
                                        0.04690266 -0.068476535
                                                                  0.117502955
## Pets
                           0.120812178 -0.12080933 -0.059398012
                                                                  0.020557043
##
                                  PC25
                                               PC26
                                                            PC27
                                                                         PC28
                          -0.015325238 -0.053328696 -0.30396841
## History
                                                                  0.165928980
                                        0.151113617 0.19481959 -0.132513914
## Psychology
                           0.110054126
## Politics
                                                      0.26221721 -0.074297731
                          -0.347059475 -0.438008513
## Mathematics
                          -0.022970305
                                        0.072390127
                                                      0.01836953
                                                                  0.102939921
                           0.024431136 -0.066306695 -0.02225712 -0.033656426
## Physics
## Internet
                          -0.155178320 -0.041469767
                                                      0.22223796
                                                                  0.398051285
## PC
                           0.015283657
                                        0.026053169 -0.21824761 -0.580466363
## Economy.Management
                           0.183985283 -0.095838917
                                                      0.04118931
                                                                 0.052189789
## Biology
                           0.071131033 -0.088068770 -0.04602056 -0.060382767
## Chemistry
                          -0.131050003 -0.155411984
                                                      0.07054633 -0.055676060
## Reading
                                        0.116711124
                                                      0.34129790 -0.258231158
                          -0.059989639
## Geography
                           0.118727757
                                        0.292600948
                                                      0.15721901 -0.122039954
## Foreign.languages
                          -0.101072969 -0.085507934 -0.23360523
                                                                  0.135039521
## Medicine
                                                     0.02810581
                           0.107828167 -0.005904270
                                                                  0.138094731
## Law
                           0.226302203
                                        0.291996307 -0.21384712 -0.089548162
## Cars
                          -0.012959607 -0.077885679 0.29806334 0.143823156
```

```
## Art.exhibitions
                          -0.088515158 -0.305624403 -0.19551497 -0.128551909
## Religion
                           0.051195327
                                        0.108817872 -0.11200946
                                                                 0.024296446
## Countryside..outdoors
                           0.207300073 -0.308268090 0.08157090 -0.043944572
                                        0.006402375 -0.21306071 -0.040119998
## Dancing
                          -0.306851079
## Musical.instruments
                           0.011472790
                                        0.237780789 0.20544425
                                                                0.020807957
## Writing
                           0.183600601 -0.295185892 -0.02768596
                                                                 0.070409544
## Passive.sport
                          -0.013564230 -0.001914892 -0.11556287 -0.129317040
## Active.sport
                           0.328790684 -0.091217882 0.19676068
                                                                 0.081321547
## Gardening
                          -0.124510434
                                        0.217420577 -0.01340209
                                                                 0.117973210
## Celebrities
                           0.132522166 -0.065358357 -0.21211129
                                                                 0.135374613
## Shopping
                          -0.109395978
                                        0.069785761 0.29544826 -0.299961683
## Science.and.technology
                           0.087363698
                                       0.163581113 -0.10841696
                                                                 0.113833901
                                        0.226538771 0.05989364
## Theatre
                          -0.023644657
                                                                 0.309597289
## Fun.with.friends
                           0.321433616 -0.102270132 -0.02456618 -0.068338982
                          -0.498461041
                                        0.180729640 -0.11356323
## Adrenaline.sports
                                                                 0.003381675
## Pets
                           0.006329268 -0.038696539 -0.06279122 -0.011001691
##
                                   PC29
                                               PC30
                                                            PC31
                                                                         PC32
## History
                           0.0436252264
                                        0.08885972 -0.103643613
                                                                  0.024873786
## Psychology
                           0.0003107664 -0.11531229 0.115281418
                                                                  0.089776263
## Politics
                           0.1014169997 -0.04752005 -0.112039360 -0.049791245
                          -0.1355805402 -0.34968646 -0.460256858 0.006634840
## Mathematics
## Physics
                           ## Internet
                          -0.1195715221
                                        0.03743514
                                                     0.085149185 -0.047635005
## PC
                           0.3364108291 -0.07193913 -0.109636364
                                                                  0.059974932
## Economy.Management
                          -0.0416391116  0.18651618  0.161571740
                                                                  0.028396348
## Biology
                           0.0034737992 -0.03368850 -0.076829898 -0.782877286
## Chemistry
                           0.0016929119 -0.46994875
                                                     0.452349152
                                                                  0.368489468
                          -0.3029578433 0.18862194
## Reading
                                                     0.049639285 -0.076930129
## Geography
                           0.0434073886 -0.07451515
                                                     0.028324979
                                                                  0.026165782
## Foreign.languages
                           0.1328496283 -0.01348350
                                                     0.107185899 -0.019764701
## Medicine
                           0.0670882078  0.40844571  -0.477668691
                                                                  0.434044599
## Law
                          -0.1208068942 -0.11101063
                                                     0.041150511 -0.055407938
## Cars
                           0.0285055732 -0.07887428
                                                     0.005240120 -0.085151482
## Art.exhibitions
                          -0.3798787386 0.05354058
                                                     0.010294708
                                                                  0.096928939
## Religion
                           0.0538250641 -0.05636915
                                                     0.116502577
                                                                  0.030215774
## Countryside..outdoors
                          -0.0140779316 -0.05361508 -0.042472613
                                                                  0.031224932
## Dancing
                          -0.0817104451 0.02524419 -0.036321042 -0.022423769
## Musical.instruments
                          -0.1095417829
                                        0.05151530
                                                     0.088708506 -0.022241308
## Writing
                           0.1553783156 -0.13250198 -0.106361802 -0.046039769
                           0.0056073362 0.02706482
                                                     0.029672665
## Passive.sport
                                                                  0.031963639
## Active.sport
                           0.0329459508 -0.01366870
                                                     0.033893795
                                                                  0.005157876
## Gardening
                           0.0286857110
                                        0.04824095
                                                     0.041577449
                                                                  0.037166519
## Celebrities
                          -0.0600954317 -0.03197759
                                                     0.154158929
                                                                  0.019391548
## Shopping
                           0.1108551014
                                        0.07020307 -0.165240833
                                                                  0.033732846
## Science.and.technology -0.4034422108 -0.05396951 -0.022175035
                                                                  0.003311783
## Theatre
                           0.5421808200 -0.14293657 -0.003959493 -0.046385582
## Fun.with.friends
                          -0.0469591626 -0.03661335 -0.013638638
                                                                  0.037373544
## Adrenaline.sports
                          -0.0248298425
                                        0.05120411 -0.004412017 -0.026971282
## Pets
                           0.0339082048
                                        0.01427524 0.039473323
                                                                  0.037922218
```

```
# Calculate the variance explaned by each component
eigen hobbies <- hobbies pca$sdev^2
names(eigen_hobbies) <- paste("PC",1:32,sep="")</pre>
eigen hobbies
##
                                                             PC6
         PC1
                   PC2
                              PC3
                                         PC4
                                                   PC5
                                                                        PC7
PC8
## 4.2391294 3.2188434 2.5628009 2.1936649 1.5704999 1.3868499 1.1689198 1.12
87278
##
         PC9
                  PC10
                             PC11
                                       PC12
                                                  PC13
                                                            PC14
                                                                       PC15
PC16
## 1.0887872 0.9921651 0.9212331 0.8913134 0.8595703 0.7790779 0.7677160 0.72
98606
        PC17
##
                  PC18
                             PC19
                                       PC20
                                                  PC21
                                                             PC22
                                                                       PC23
PC24
## 0.6634885 0.6386832 0.6241286 0.5868250 0.5521857 0.5316185 0.5036362 0.49
61543
##
        PC25
                  PC26
                             PC27
                                       PC28
                                                  PC29
                                                             PC30
                                                                       PC31
PC32
## 0.4709276 0.4429519 0.4079236 0.3757610 0.3676952 0.3061206 0.2978055 0.23
49349
sum_hobbies <- sum(eigen_hobbies)</pre>
sum hobbies
## [1] 32
## Proportion of variance explained by each component
propvar_hobbies <- eigen_hobbies/sum_hobbies</pre>
propvar_hobbies
                        PC2
                                    PC3
                                                 PC4
                                                             PC5
##
           PC1
                                                                          PC6
## 0.132472795 0.100588857 0.080087528 0.068552030 0.049078121 0.043339059
##
           PC7
                        PC8
                                    PC9
                                                PC10
                                                             PC11
                                                                         PC12
## 0.036528744 0.035272745 0.034024598 0.031005160 0.028788535 0.027853544
          PC13
                       PC14
                                   PC15
                                                PC16
                                                             PC17
                                                                         PC18
##
## 0.026861573 0.024346185 0.023991126 0.022808142 0.020734014 0.019958849
##
          PC19
                       PC20
                                   PC21
                                                PC22
                                                             PC23
                                                                         PC24
## 0.019504019 0.018338280 0.017255805 0.016613077 0.015738632 0.015504822
          PC25
                       PC26
                                   PC27
                                                PC28
                                                             PC29
## 0.014716488 0.013842245 0.012747613 0.011742532 0.011490476 0.009566268
##
          PC31
                       PC32
## 0.009306422 0.007341716
cumvar_hobbies <- cumsum(propvar_hobbies)</pre>
cumvar hobbies
                                                   PC5
##
         PC1
                   PC2
                              PC3
                                         PC4
                                                             PC6
                                                                        PC7
PC8
## 0.1324728 0.2330617 0.3131492 0.3817012 0.4307793 0.4741184 0.5106471 0.54
```

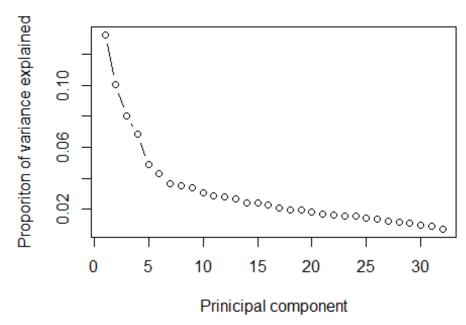
```
59199
##
         PC9
                  PC10
                             PC11
                                       PC12
                                                 PC13
                                                            PC14
                                                                      PC15
PC16
## 0.5799445 0.6109496 0.6397382 0.6675917 0.6944533 0.7187995 0.7427906 0.76
55987
##
        PC17
                  PC18
                             PC19
                                       PC20
                                                  PC21
                                                            PC22
                                                                      PC23
PC24
## 0.7863328 0.8062916 0.8257956 0.8441339 0.8613897 0.8780028 0.8937414 0.90
##
        PC25
                  PC26
                             PC27
                                       PC28
                                                 PC29
                                                            PC30
                                                                      PC31
PC32
## 0.9239627 0.9378050 0.9505526 0.9622951 0.9737856 0.9833519 0.9926583 1.00
99999
matlambdas <- rbind(eigen_hobbies,propvar_hobbies,cumvar_hobbies)</pre>
rownames(matlambdas) <- c("Eigenvalues", "Prop. variance", "Cum. prop. variance</pre>
")
round(matlambdas,4)
##
                           PC1
                                  PC2
                                         PC3
                                                PC4
                                                        PC5
                                                               PC6
                                                                      PC7
                                                                              PC
8
                       4.2391 3.2188 2.5628 2.1937 1.5705 1.3868 1.1689 1.128
## Eigenvalues
                       0.1325 0.1006 0.0801 0.0686 0.0491 0.0433 0.0365 0.035
## Prop. variance
3
## Cum. prop. variance 0.1325 0.2331 0.3131 0.3817 0.4308 0.4741 0.5106 0.545
9
                                                       PC13
##
                           PC9
                                 PC10
                                        PC11
                                                PC12
                                                              PC14
                                                                     PC15
                                                                             PC1
6
## Eigenvalues
                       1.0888 0.9922 0.9212 0.8913 0.8596 0.7791 0.7677 0.729
## Prop. variance
                       0.0340 0.0310 0.0288 0.0279 0.0269 0.0243 0.0240 0.022
## Cum. prop. variance 0.5799 0.6109 0.6397 0.6676 0.6945 0.7188 0.7428 0.765
6
                                               PC20
                                                       PC21
##
                          PC17
                                 PC18
                                        PC19
                                                              PC22
                                                                     PC23
                                                                             PC2
4
## Eigenvalues
                       0.6635 0.6387 0.6241 0.5868 0.5522 0.5316 0.5036 0.496
                       0.0207 0.0200 0.0195 0.0183 0.0173 0.0166 0.0157 0.015
## Prop. variance
## Cum. prop. variance 0.7863 0.8063 0.8258 0.8441 0.8614 0.8780 0.8937 0.909
2
##
                          PC25
                                 PC26
                                        PC27
                                               PC28
                                                       PC29
                                                              PC30
                                                                     PC31
                                                                             PC3
2
## Eigenvalues
                       0.4709 0.4430 0.4079 0.3758 0.3677 0.3061 0.2978 0.234
## Prop. variance
                       0.0147 0.0138 0.0127 0.0117 0.0115 0.0096 0.0093 0.007
```

```
## Cum. prop. variance 0.9240 0.9378 0.9506 0.9623 0.9738 0.9834 0.9927 1.000
0
summary(hobbies_pca)
## Importance of components:
                             PC1
                                    PC2
                                            PC3
                                                    PC4
                                                             PC5
                                                                     PC6
                                                                             Ρ
##
C7
## Standard deviation
                          2.0589 1.7941 1.60088 1.48110 1.25320 1.17765 1.081
17
## Proportion of Variance 0.1325 0.1006 0.08009 0.06855 0.04908 0.04334 0.036
53
## Cumulative Proportion 0.1325 0.2331 0.31315 0.38170 0.43078 0.47412 0.510
65
##
                              PC8
                                      PC9
                                             PC10
                                                     PC11
                                                              PC12
                                                                     PC13
PC14
## Standard deviation
                          1.06242 1.04345 0.99607 0.95981 0.94409 0.92713 0.8
8265
## Proportion of Variance 0.03527 0.03402 0.03101 0.02879 0.02785 0.02686 0.0
2435
## Cumulative Proportion 0.54592 0.57994 0.61095 0.63974 0.66759 0.69445 0.7
1880
##
                             PC15
                                     PC16
                                             PC17
                                                     PC18
                                                             PC19
                                                                    PC20
                                                                             Ρ
C21
## Standard deviation
                          0.87619 0.85432 0.81455 0.79918 0.7900 0.76605 0.74
309
## Proportion of Variance 0.02399 0.02281 0.02073 0.01996 0.0195 0.01834 0.01
## Cumulative Proportion 0.74279 0.76560 0.78633 0.80629 0.8258 0.84413 0.86
139
                                     PC23
                                                    PC25
##
                             PC22
                                            PC24
                                                             PC26
                                                                    PC27
C28
                          0.72912 0.70967 0.7044 0.68624 0.66555 0.63869 0.61
## Standard deviation
299
## Proportion of Variance 0.01661 0.01574 0.0155 0.01472 0.01384 0.01275 0.01
## Cumulative Proportion 0.87800 0.89374 0.9093 0.92396 0.93780 0.95055 0.96
230
##
                             PC29
                                     PC30
                                             PC31
                                                     PC32
## Standard deviation
                          0.60638 0.55328 0.54572 0.48470
## Proportion of Variance 0.01149 0.00957 0.00931 0.00734
## Cumulative Proportion 0.97379 0.98335 0.99266 1.00000
## Plot a biplot to view components on n-dimensional plane
biplot(hobbies_pca, scale = 0, main = 'Principal componets')
```

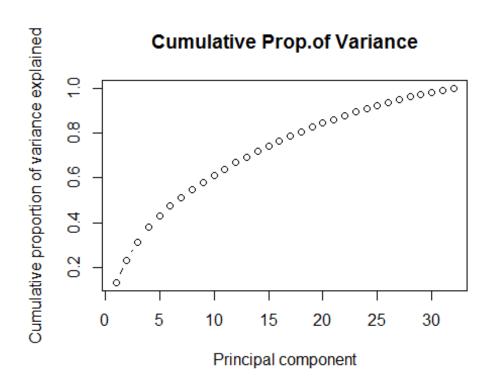


##scree plot - to identify the elbow point
plot(propvar_hobbies,xlab = 'Prinicipal component',ylab = 'Proporiton of vari
ance explained',type = 'b', main = 'Prop. of Variance')

Prop. of Variance



```
#The optimum number of components are ~ 8 i.e PC1 : PC8
# cumulative scree plot
plot(cumvar_hobbies,xlab = 'Principal component',ylab = 'Cumulative proportio
n of variance explained',type = 'b', main = 'Cumulative Prop.of Variance')
```

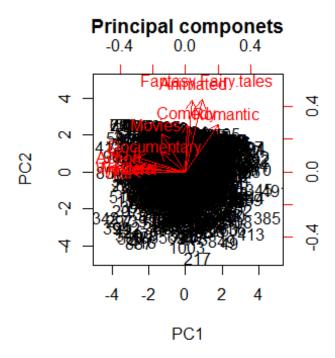


```
#Approx: ~ 75% of the variance is explained by 20 components i.e PC1 to PC20
dim(movie_data)
## [1] 1010
              12
movie transformed <- data transformed[,names(movie data)]</pre>
movie_pca <- prcomp(movie_transformed, scale= T)</pre>
names(movie_pca)
                  "rotation" "center"
## [1] "sdev"
                                         "scale"
#rotation - represents the loadings of each variables on components
movie pca$rotation
##
                                PC1
                                             PC2
                                                         PC3
                       -0.18067387 0.2943522148 -0.29434144 0.1753636709
## Movies
## Horror
                       -0.29774492 0.0281326824 -0.48865014 -0.3468640042
## Thriller
                       -0.38637808 0.0264578000 -0.39885764 -0.3255496550
## Comedy
                        0.00957783 0.3601720121 -0.23777270 0.5045943972
## Romantic
                        0.25313650 0.3635153351 -0.09666751 0.2900854864
## Sci.fi
                       -0.37660398 0.1182255631 0.04518061 0.1849454105
```

```
## War
                    -0.40483304 0.0003113374 0.24428376 -0.0005316756
## Fantasy.Fairy.tales 0.13147403 0.5530319979 0.14626774 -0.2789775438
                     0.05080348 0.5454401638 0.10708136 -0.3574114799
## Animated
                    -0.18889650 0.1506598727 0.47688883 -0.1906702214
## Documentary
## Western
                    -0.36669650 0.0334098269 0.35553267 0.1424325175
                    -0.41171847 0.0941099146 0.03483277 0.3282782261
## Action
##
                           PC5
                                       PC6
                                                  PC7
                                                             PC8
                    -0.58171966   0.542758857   -0.063103472   -0.05424721
## Movies
## Horror
                    0.40181487 -0.053550228 0.101364547 0.06897342
## Thriller
                     0.50260892 -0.003243588 -0.318932106 -0.08324422
## Comedy
                     0.14940500 0.206681921 0.476449707
## Romantic
                                                      0.32906483
## Sci.fi
                    -0.26744131 -0.481445533 0.116396679 0.65269730
## War
                     ## Fantasy.Fairy.tales -0.03100975 -0.148531492 0.071361143 -0.14464158
## Animated
                   -0.10495198 -0.237208831 -0.005510402 -0.17859759
## Documentary
                    0.41447721
## Western
                    ## Action
                    -0.12172688 -0.313963737 -0.292826826 -0.36763211
##
                            PC9
                                      PC10
                                                 PC11
                                                             PC12
## Movies
                    -0.003660409 0.33290656 -0.098891004 0.052868440
## Horror
                    0.087255268 0.19915946 -0.553794897 0.134689408
## Thriller
                    -0.297400380 -0.33471692 0.595001950 -0.098215100
## Comedy
                    ## Romantic
                    -0.296782981 -0.40454959 -0.215875985 -0.107768793
## Sci.fi
                     0.212854244 0.10154056 0.087993301
                                                      0.041342734
## War
                     0.604553122 -0.35768442 -0.001701204 -0.009188477
## Fantasy.Fairy.tales -0.017579240 -0.03239820 0.148441139 0.710786335
                     ## Animated
## Documentary
                    -0.061502779 -0.08527072 -0.161446239 0.002305173
                    -0.425260296  0.51196209  0.154642040  -0.039639315
## Western
## Action
                    -0.336418372 -0.37950074 -0.343795999 0.054460149
# Calculate the variance explaned by each component
eigen movie <- movie pca$sdev^2
names(eigen_movie) <- paste("PC",1:12,sep="")</pre>
eigen_movie
##
       PC1
                PC2
                         PC3
                                  PC4
                                           PC5
                                                    PC6
                                                             PC7
PC8
## 2.5328872 2.1154265 1.4605655 1.0037483 0.8077760 0.7887751 0.7483881 0.67
30806
##
        PC9
               PC10
                        PC11
                                 PC12
## 0.5946969 0.5502757 0.4200133 0.3043667
sum_movie <- sum(eigen_movie)</pre>
sum movie
## [1] 12
```

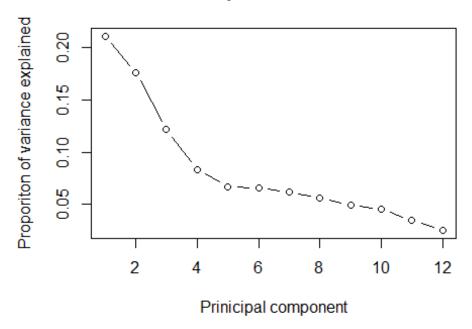
```
## Proportion of variance explained by each component
propvar movie <- eigen movie/sum movie</pre>
propvar movie
##
                      PC2
                                 PC3
                                             PC4
                                                        PC5
                                                                    PC6
                                                                                Ρ
          PC1
C7
## 0.21107393 0.17628555 0.12171380 0.08364569 0.06731467 0.06573126 0.062365
                      PC9
##
          PC8
                                PC10
                                            PC11
                                                       PC12
## 0.05609005 0.04955807 0.04585630 0.03500111 0.02536389
cumvar movie <- cumsum(propvar movie)</pre>
cumvar_movie
##
         PC1
                    PC2
                              PC3
                                         PC4
                                                   PC5
                                                              PC6
                                                                        PC7
## 0.2110739 0.3873595 0.5090733 0.5927190 0.6600336 0.7257649 0.7881306 0.84
42206
##
                  PC10
                                        PC12
         PC9
                             PC11
## 0.8937787 0.9396350 0.9746361 1.0000000
matlambdas_movie <- rbind(eigen_movie,propvar_movie,cumvar_movie)</pre>
rownames(matlambdas_movie) <- c("Eigenvalues", "Prop. variance", "Cum. prop. va</pre>
riance")
round(matlambdas movie,4)
                                  PC2
                                                        PC5
                                                                       PC7
                                                                               PC
##
                           PC1
                                          PC3
                                                 PC4
                                                                PC6
8
## Eigenvalues
                        2.5329 2.1154 1.4606 1.0037 0.8078 0.7888 0.7484 0.673
## Prop. variance
                        0.2111 0.1763 0.1217 0.0836 0.0673 0.0657 0.0624 0.056
## Cum. prop. variance 0.2111 0.3874 0.5091 0.5927 0.6600 0.7258 0.7881 0.844
2
##
                           PC9
                                 PC10
                                         PC11
                                                PC12
## Eigenvalues
                        0.5947 0.5503 0.4200 0.3044
## Prop. variance
                        0.0496 0.0459 0.0350 0.0254
## Cum. prop. variance 0.8938 0.9396 0.9746 1.0000
summary(movie_pca)
## Importance of components:
                              PC1
                                     PC2
                                             PC3
                                                     PC4
                                                              PC5
                                                                      PC<sub>6</sub>
                                                                               PC
##
## Standard deviation
                           1.5915 1.4545 1.2085 1.00187 0.89876 0.88813 0.8650
## Proportion of Variance 0.2111 0.1763 0.1217 0.08365 0.06731 0.06573 0.0623
## Cumulative Proportion 0.2111 0.3874 0.5091 0.59272 0.66003 0.72576 0.7881
```

```
## PC8 PC9 PC10 PC11 PC12
## Standard deviation 0.82041 0.77117 0.74181 0.6481 0.55169
## Proportion of Variance 0.05609 0.04956 0.04586 0.0350 0.02536
## Cumulative Proportion 0.84422 0.89378 0.93963 0.9746 1.00000
## Plot a biplot to view components on n-dimensional plane
biplot(movie_pca, scale = 0, main = 'Principal componets')
```

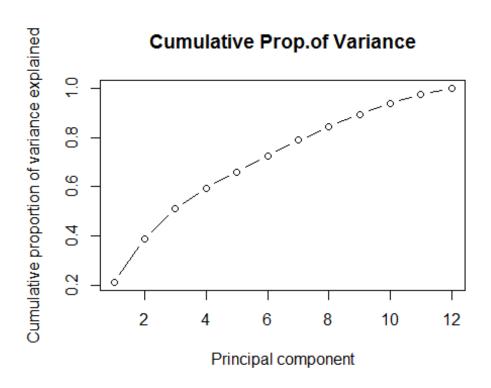


##scree plot - to identify the elbow point
plot(propvar_movie,xlab = 'Prinicipal component',ylab = 'Proporiton of varian
ce explained',type = 'b', main = 'Prop. of Variance')

Prop. of Variance



```
#The optimum number of components are ~ 5 i.e PC1 : PC5
# cumulative scree plot
plot(cumvar_movie,xlab = 'Principal component',ylab = 'Cumulative proportion
of variance explained',type = 'b', main = 'Cumulative Prop.of Variance')
```



```
#Approx: ~ 75% of the variance is explained by 8 components i.e PC1 to PC8
dim(music_data)
## [1] 1010
              19
music_transformed <- data_transformed[,names(music_data)]</pre>
music_pca <- prcomp(music_transformed, scale= T)</pre>
names(music_pca)
## [1] "sdev"
                  "rotation" "center"
                                                    "x"
                                         "scale"
#rotation - represents the loadings of each variables on components
music_pca$rotation
##
                                     PC1
                                                 PC2
                                                              PC3
                                                                          PC4
## Music
                             -0.07348587 -0.06637258
                                                      0.20393520 -0.27285334
## Slow.songs.or.fast.songs
                             0.07909389 -0.03715789
                                                      0.33673187 -0.38692865
## Dance
                              0.10593604 -0.40686613
                                                      0.25266992 -0.18809943
## Folk
                             -0.23536427 -0.20395715 -0.17735902 -0.15261096
## Country
                             -0.22165587 -0.16378995 -0.08826069 -0.07278389
## Classical.music
                             -0.33427216 -0.11363745 -0.22530674 -0.19648989
## Musical
                             -0.21306339 -0.27761360 -0.19176926 -0.04813964
## Pop
                              0.07948200 -0.36864939
                                                      0.10610310 -0.08628967
## Rock
                             -0.31408320 0.16381242
                                                      0.24497619 -0.13760973
## Metal.or.Hardrock
                             -0.26788754   0.27493723   0.20888397   -0.20728971
## Punk
                             -0.25877936
                                         0.22880832
                                                      0.32746991 -0.01776324
## Hiphop..Rap
                             0.14668504 -0.28399372 0.32226482 0.21487767
```

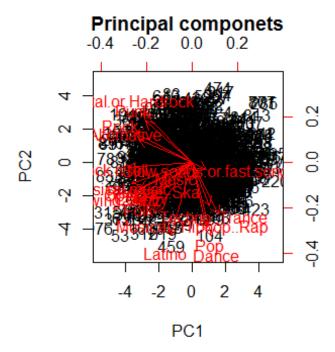
```
## Reggae..Ska
                       -0.17063495 -0.13437788 0.33404941 0.51149310
## Swing..Jazz
                       -0.32246691 -0.16834386 0.02878952 0.30067030
## Rock.n.roll
                       -0.35567777 -0.02784195 0.15705958 0.11136720
## Alternative
                       -0.29273952 0.12627082 0.16107910 0.04377580
## Latino
                       -0.11432176 -0.39837369 -0.03575959 0.17249177
## Techno..Trance
                       0.09648161 -0.23597716 0.27927306 -0.33307335
                       -0.28734109 -0.14638664 -0.29342147 -0.21923779
## Opera
##
                             PC5
                                       PC6
                                                 PC7
                                                           PC8
                        0.32592753 -0.47761802 0.53270546 -0.19974554
## Music
## Slow.songs.or.fast.songs -0.07423270 0.07177854 0.12369657 -0.47694134
## Dance
                       -0.05577652  0.06055365  -0.05942948  0.21887240
## Folk
                       ## Country
                       -0.24305255   0.49366779   0.40798558   0.10106895
## Classical.music
                       -0.13812859 -0.25098533 -0.22358870 -0.01890419
## Musical
                       ## Pop
                       0.46499371 0.15721120 -0.19059791 0.13285282
## Rock
                       0.31499048 0.14180077 -0.08393359 0.20370011
## Metal.or.Hardrock
                       ## Punk
                       0.03787992  0.19456396  -0.23696787  -0.16828955
## Hiphop..Rap
                       -0.14591724 -0.05330011 -0.16891849 -0.21654015
                       ## Reggae..Ska
## Swing..Jazz
                      -0.09855736 -0.27677329 0.06829684 0.13525914
## Rock.n.roll
                       0.15407054 0.08154945 0.17375175 0.27605014
## Alternative
                       -0.10328380 -0.37016042 0.05279782 0.17869982
## Latino
                      0.16866976 0.09636174 0.05687371 0.07392996
## Techno..Trance
                      -0.40272503 -0.16159061 -0.17221071 0.36838201
## Opera
                       -0.12224120 -0.15441720 -0.32365349 -0.21004774
##
                              PC9
                                       PC10
                                                  PC11
                                                             PC1
2
## Music
                       0.407713408 -0.08118246 0.163265029 -0.04619246
## Slow.songs.or.fast.songs -0.626930018 -0.15449805 -0.117591247 0.14296335
7
                     ## Dance
8
## Folk
                       1
                       0.187947460 -0.34757560 -0.176241400 -0.29662246
## Country
## Classical.music
                       0.074840699 -0.11353868 -0.197110022 0.21549659
7
## Musical
                       -0.127942176 -0.06550861 0.043660995 -0.53097656
6
## Pop
                       9
## Rock
                       0.093377372 -0.01603115  0.012947358  0.19418996
## Metal.or.Hardrock
                       0.095803135 -0.09200573 0.378608727 0.14800928
## Punk
```

```
1
                         0.291127995 -0.19951768 -0.212893673 0.01681675
## Hiphop..Rap
                        0.109227439 0.09666073 0.055259444 -0.03372686
## Reggae..Ska
## Swing..Jazz
                      -0.180981008 -0.25859960 0.011764742 0.39390188
## Rock.n.roll
                       -0.227212134 -0.21678701 -0.222790454 -0.05034400
                -0.252502677   0.43193360   -0.239920191   -0.39299183
## Alternative
## Latino
                       -0.233292591 0.10051712 0.644329108 0.00984365
## Techno..Trance 0.049583019 -0.05716672 0.202874089 -0.23224216
                         0.098588439 -0.11619488 0.012943917 0.01431382
## Opera
##
                                          PC14
                                                                 PC1
                               PC13
                                                     PC15
6
## Music
                         0.049792397 -0.02112800 -0.021711972 -0.02448955
## Slow.songs.or.fast.songs 0.003296287 -0.12450736 0.072331948 -0.01169689
## Dance
                         0.305288988 0.10278145 -0.636427969 0.31275893
                       ## Folk
3
## Country
                       0.033698701 -0.30836572 0.067818499 0.20398202
                       -0.081254762 -0.22963497 0.078587122 0.18376290
## Classical.music
## Musical
                         0.012225873  0.44293088  0.107137446  0.25079110
## Pop
                       0.039315867 -0.21197082 0.351688766 -0.02350641
2
## Rock
                       -0.019546117  0.05416288  0.143052503  0.07188814
## Metal.or.Hardrock -0.239674138 0.16759903 0.028215133 0.27454244
                        0.158206848 -0.23587526 -0.223276307 -0.15108780
## Punk
## Hiphop..Rap -0.650067679 0.07539266 -0.148338423 -0.00473977
7
                        0.409507673 -0.01913020 0.255708315 -0.04073503
## Reggae..Ska
7
## Swing..Jazz
                       0.161510400 0.13579529 0.038880226 0.27134972
## Rock.n.roll
                        ## Alternative
               -0.244048277 -0.23543333 -0.004240393 0.20472024
```

```
4
## Latino
                            -0.277520061 -0.40294002 -0.040696024 -0.11774014
                             0.085649349 0.14642498 0.421244095 -0.24053671
## Techno..Trance
9
                             0.142288289 -0.17563687 -0.235717510 -0.39878827
## Opera
2
##
                                    PC17
                                                  PC18
                                                               PC19
## Music
                            -0.066875434 2.567921e-02 0.07345943
## Slow.songs.or.fast.songs 0.033053577 -1.410316e-02 -0.04974487
## Dance
                             0.140182891 -2.906194e-02 0.11125996
## Folk
                            -0.051850387 -3.490200e-02 -0.10739444
## Country
                             0.006149017 9.814582e-02 -0.06497751
## Classical.music
                             0.028773192 -5.759827e-01 0.34337770
## Musical
                            -0.066238082 -8.145992e-02 -0.07751286
## Pop
                            -0.216265041 2.928257e-01 0.17206160
## Rock
                             0.583382189 -1.360268e-01 -0.43938942
## Metal.or.Hardrock
                            -0.119696729 3.588220e-01 0.43444249
                            -0.523054151 -2.601956e-01 -0.25901292
## Punk
## Hiphop..Rap
                             0.056186635 8.017653e-03 -0.15671264
## Reggae..Ska
                             0.302779309 9.179124e-05 0.28654917
                            -0.369360329 1.762901e-01 -0.35365088
## Swing..Jazz
## Rock.n.roll
                            -0.039227337 -8.664268e-02 0.31816965
## Alternative
                             0.084954381 2.479808e-01 0.01148615
## Latino
                             0.008442401 -1.256294e-01 -0.01498152
## Techno..Trance
                            -0.095918082 -8.103699e-02 -0.10837567
## Opera
                             0.206245145 4.752428e-01 -0.12849210
# Calculate the variance explaned by each component
eigen_music <- music_pca$sdev^2
names(eigen_music) <- paste("PC",1:19,sep="")</pre>
eigen music
##
         PC1
                   PC2
                             PC3
                                       PC4
                                                 PC5
                                                            PC6
                                                                      PC7
PC8
## 3.8053009 2.6634739 1.9555901 1.1307190 1.1176877 1.0349666 0.8881561 0.85
90806
##
         PC9
                  PC10
                            PC11
                                      PC12
                                                PC13
                                                           PC14
                                                                     PC15
PC16
## 0.7991110 0.6495392 0.6424224 0.5720013 0.4996263 0.4616361 0.4427409 0.41
27463
##
        PC17
                  PC18
                            PC19
## 0.3801299 0.3576233 0.3274485
sum_music <- sum(eigen_music)</pre>
sum music
## [1] 19
## Proportion of variance explained by each component
```

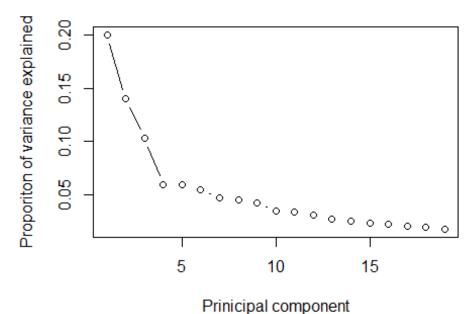
```
propvar music <- eigen music/sum music</pre>
propvar music
##
          PC1
                      PC2
                                 PC3
                                             PC4
                                                        PC5
                                                                    PC6
                                                                                Ρ
C7
## 0.20027900 0.14018284 0.10292580 0.05951152 0.05882567 0.05447193 0.046745
06
          PC8
                      PC9
                                                       PC12
##
                                PC10
                                            PC11
                                                                   PC13
                                                                               PC
14
## 0.04521477 0.04205847 0.03418627 0.03381170 0.03010533 0.02629612 0.024296
63
##
         PC15
                     PC16
                                PC17
                                            PC18
                                                       PC19
## 0.02330215 0.02172349 0.02000684 0.01882228 0.01723413
cumvar music <- cumsum(propvar music)</pre>
cumvar music
##
         PC1
                    PC2
                              PC3
                                         PC4
                                                   PC5
                                                              PC6
                                                                        PC7
PC8
## 0.2002790 0.3404618 0.4433876 0.5028992 0.5617248 0.6161967 0.6629418 0.70
81566
         PC9
##
                  PC10
                             PC11
                                        PC12
                                                  PC13
                                                             PC14
                                                                       PC15
PC16
## 0.7502151 0.7844013 0.8182130 0.8483184 0.8746145 0.8989111 0.9222133 0.94
39368
##
        PC17
                  PC18
                             PC19
## 0.9639436 0.9827659 1.0000000
matlambdas music <- rbind(eigen_music,propvar_music,cumvar_music)</pre>
rownames(matlambdas music) <- c("Eigenvalues", "Prop. variance", "Cum. prop. va</pre>
riance")
round(matlambdas music,4)
##
                           PC1
                                  PC2
                                          PC3
                                                 PC4
                                                        PC5
                                                                PC6
                                                                       PC7
                                                                               PC
8
                        3.8053 2.6635 1.9556 1.1307 1.1177 1.0350 0.8882 0.859
## Eigenvalues
1
                        0.2003 0.1402 0.1029 0.0595 0.0588 0.0545 0.0467 0.045
## Prop. variance
## Cum. prop. variance 0.2003 0.3405 0.4434 0.5029 0.5617 0.6162 0.6629 0.708
2
##
                           PC9
                                 PC10
                                         PC11
                                                PC12
                                                       PC13
                                                               PC14
                                                                      PC15
                                                                              PC1
6
                        0.7991 0.6495 0.6424 0.5720 0.4996 0.4616 0.4427 0.412
## Eigenvalues
7
                        0.0421 0.0342 0.0338 0.0301 0.0263 0.0243 0.0233 0.021
## Prop. variance
## Cum. prop. variance 0.7502 0.7844 0.8182 0.8483 0.8746 0.8989 0.9222 0.943
9
##
                          PC17
                                 PC18
                                         PC19
## Eigenvalues
                        0.3801 0.3576 0.3274
```

```
## Prop. variance
                       0.0200 0.0188 0.0172
## Cum. prop. variance 0.9639 0.9828 1.0000
summary(music_pca)
## Importance of components:
                             PC1
                                    PC2
                                           PC3
                                                   PC4
                                                           PC5
                                                                   PC6
                                                                           PC
##
## Standard deviation
                          1.9507 1.6320 1.3984 1.06335 1.05721 1.01733 0.9424
## Proportion of Variance 0.2003 0.1402 0.1029 0.05951 0.05883 0.05447 0.0467
## Cumulative Proportion 0.2003 0.3405 0.4434 0.50290 0.56172 0.61620 0.6629
                                      PC9
                                                     PC11
                                                             PC12
                                                                    PC13
##
                              PC8
                                             PC10
                                                                           PC
14
## Standard deviation
                          0.92687 0.89393 0.80594 0.80151 0.75631 0.7068 0.67
94
## Proportion of Variance 0.04521 0.04206 0.03419 0.03381 0.03011 0.0263 0.02
## Cumulative Proportion 0.70816 0.75022 0.78440 0.81821 0.84832 0.8746 0.89
89
##
                            PC15
                                    PC16
                                            PC17
                                                    PC18
                                                            PC19
## Standard deviation
                          0.6654 0.64245 0.61655 0.59802 0.57223
## Proportion of Variance 0.0233 0.02172 0.02001 0.01882 0.01723
## Cumulative Proportion 0.9222 0.94394 0.96394 0.98277 1.00000
## Plot a biplot to view components on n-dimensional plane
biplot(music_pca, scale = 0, main = 'Principal componets')
```

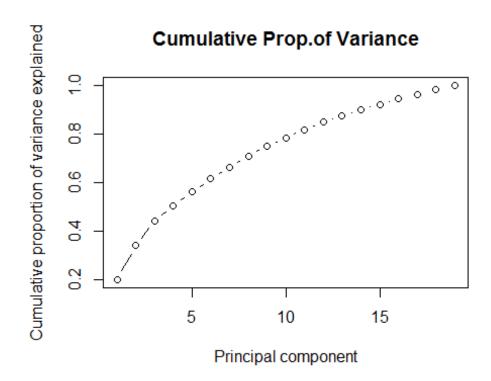


##scree plot - to identify the elbow point
plot(propvar_music,xlab = 'Prinicipal component',ylab = 'Proporiton of varian
ce explained',type = 'b', main = 'Prop. of Variance')

Prop. of Variance



```
#The optimum number of components are ~ 4 i.e PC1 : PC4
# cumulative scree plot
plot(cumvar_music,xlab = 'Principal component',ylab = 'Cumulative proportion
of variance explained',type = 'b', main = 'Cumulative Prop.of Variance')
```



```
#Approx: ~ 75% of the variance is explained by 8 components i.e PC1 to PC8
library(cluster)
## Warning: package 'cluster' was built under R version 3.6.2
```

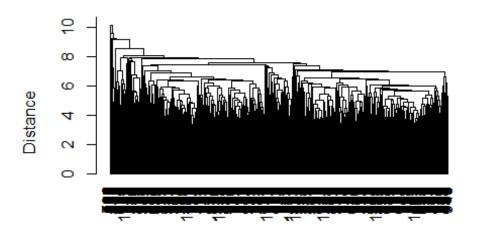
Data Cluster

Movie Preferences Cluster (Hierarcical Clustering)

```
dim(music_trans)
## [1] 1010 19
```

Given to our variables value is the same dimension, We don't need to normalize the data and form the cluster fit directly.

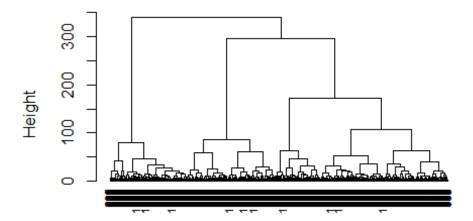
Dendrogram. Nearest neighbor linkage



Object hclust (*, "average")

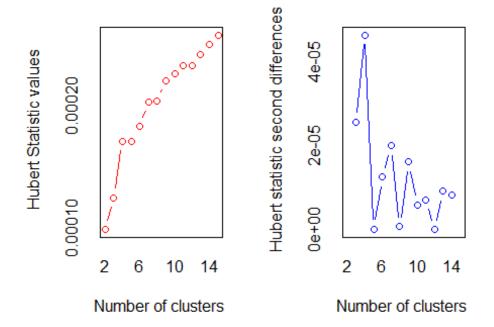
#use agglomerative hierarchical clustering to cluster
hc_mod = hclust(dist(music_trans, method = "euclidean"), method = "ward.D")
plot(hc_mod, hang = -0.01, cex = 0.7)

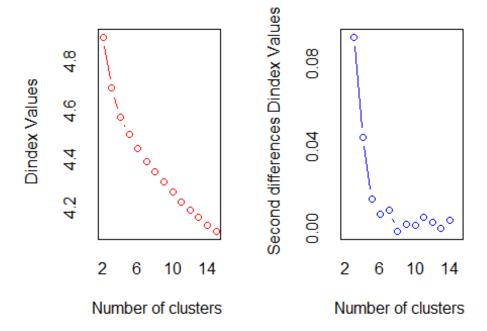
Cluster Dendrogram



I use Ward's

method in this section. Our dataset has a large observations and a lot of variable number, and Ward's method tends to produce clusters with proper numbers of observations. By the way, it can also be sensitive to outlines. From above tree, I'm not so sure how many cluster number it should be.And I will seek help from function NbClust.



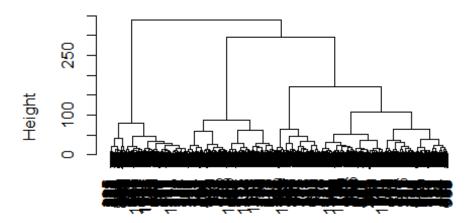


```
## *** : The D index is a graphical method of determining the number of clust
ers.
##
                  In the plot of D index, we seek a significant knee (the si
gnificant peak in Dindex
                  second differences plot) that corresponds to a significant
increase of the value of
##
                  the measure.
##
## *******************************
## * Among all indices:
## * 4 proposed 2 as the best number of clusters
## * 11 proposed 3 as the best number of clusters
## * 4 proposed 4 as the best number of clusters
## * 1 proposed 9 as the best number of clusters
## * 1 proposed 10 as the best number of clusters
## * 2 proposed 15 as the best number of clusters
##
##
                     ***** Conclusion *****
##
## * According to the majority rule, the best number of clusters is 3
##
##
```

Next step is cut the tree to into different clusters.

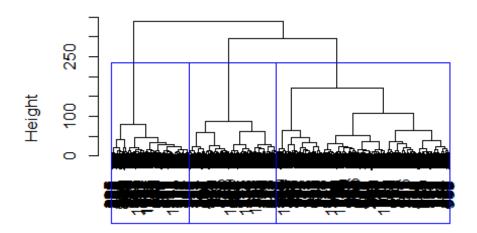
```
fit_model = cutree(hc_mod, k=3)
```

Cluster Dendrogram



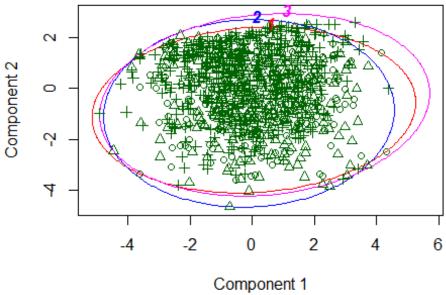
```
plot(hc_mod)
rect.hclust(hc_mod, k= 3, border = "blue")
```

Cluster Dendrogram



```
#segment inspection
aggregate(movie_trans, by=list(cluster=fit_model), mean)
               Movies
                       Horror Thriller
                                         Comedy Romantic
                                                            Sci.fi
## 1
          1 4.584416 3.034632 3.463203 4.597403 3.316017 3.017316 3.225108
           2 4.616858 2.823755 3.517241 4.298851 3.042146 3.210728 3.272031
## 2
           3 4.623552 2.667954 3.277992 4.550193 3.791506 3.098456 3.065637
## 3
     Fantasy. Fairy.tales Animated Documentary Western
##
                                                        Action
                                     3.406926 1.874459 3.679654
## 1
               3.376623 3.519481
## 2
               3.513410 3.689655
                                    3.724138 2.130268 3.440613
## 3
               4.034749 3.959459 3.706564 2.239382 3.515444
clusplot(movie_trans, fit_model, color=TRUE, labels = 4, lines=0, main ="hclus
t plot")
```

hclust plot

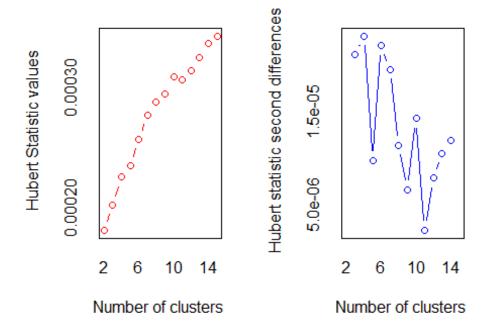


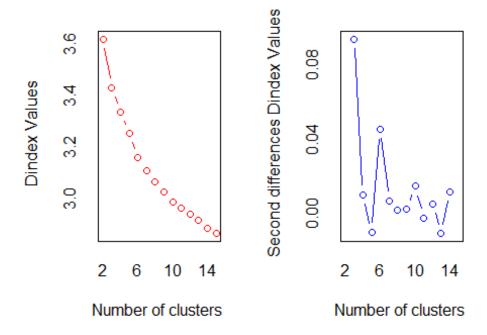
These two components explain 38.74 % of the point variab

The cluster is cut clearly, but as the segment description shows that this cluster is kind of odd. Three groups are umbalance distribution, the first variable, which is general in this topic, has only a value.

K-means cluster

```
#Decide the number of cluster before starting the K-mean fit form.
nb_clust2 = NbClust(movie_trans, min.nc=2, max.nc=15, method="kmeans")
```



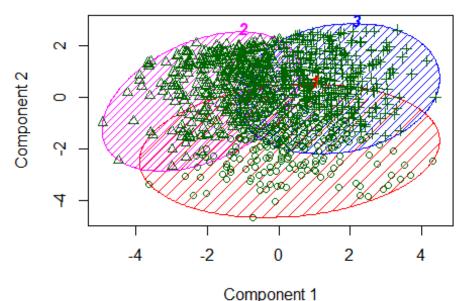


```
## *** : The D index is a graphical method of determining the number of clust
ers.
##
                  In the plot of D index, we seek a significant knee (the si
gnificant peak in Dindex
                  second differences plot) that corresponds to a significant
increase of the value of
##
                  the measure.
##
  ****************
## * Among all indices:
## * 7 proposed 2 as the best number of clusters
## * 11 proposed 3 as the best number of clusters
## * 1 proposed 6 as the best number of clusters
## * 1 proposed 9 as the best number of clusters
## * 1 proposed 10 as the best number of clusters
## * 2 proposed 15 as the best number of clusters
##
##
                     ***** Conclusion *****
##
## * According to the majority rule, the best number of clusters is 3
##
#table(nc2$Best.n[1,])
```

It's still 3 with Kmeans.

```
set.seed(101)
km mo <- kmeans(movie trans, 3)</pre>
aggregate(movie_trans, by=list(cluster=km_mo$cluster), mean)
##
     cluster
               Movies
                        Horror Thriller
                                           Comedy Romantic
                                                             Sci.fi
## 1
           1 4.449827 2.913495 3.494810 4.145329 2.837370 2.951557 3.173010
           2 4.576316 2.176316 2.721053 4.607895 4.068421 2.378947 2.334211
## 2
## 3
           3 4.791789 3.375367 4.023460 4.668622 3.395894 4.055718 4.055718
##
     Fantasy. Fairy. tales Animated Documentary Western
## 1
                2.484429 2.422145
                                      3.346021 2.086505 3.477509
                4.421053 4.350000
## 2
                                      3.463158 1.600000 2.873684
## 3
                4.073314 4.322581
                                     4.093842 2.750733 4.316716
clusplot(movie_trans, km_mo$cluster,color=TRUE, shade=TRUE,
         labels=4, lines=0, main="K-means cluster plot")
```

K-means cluster plot



These two components explain 38.74 % of the point variab

According to the kmeans cluster result, I can barely name the three cluster as:

cluster 3: movie enthdusiasts, love all kind of movie except romantic and Fantasy/Fairy tales cluster 1: normal movie consumer, focus on romantic, Fantasy/Fairy tales, comedy, and no feeling on horror, thriller, war, and western cluster 2: specific kind of movie lover, focus on war, thriller, action

comparing the three clusters demographics characters:

```
demo_trans = data_transformed[,names(demo_data)]
aggregate(demo_trans[,1:4], by = list(km_mo$cluster), mean)
```

```
Age Height Weight Number.of.siblings
## 1
           1 20.67474 175.3253 69.12111
                                                  1.231834
## 2
           2 20.12895 169.1082 60.02105
                                                  1.300000
## 3
           3 20.37537 177.0254 70.24047
                                                  1.351906
round(prop.table(table(km_mo$cluster, demo_trans$Gender),1),2)
##
##
            female male
##
     1 0.01
              0.45 0.54
##
     2 0.01
              0.90 0.10
              0.35 0.64
##
     3 0.01
round(prop.table(table(demo trans$Education,km mo$cluster),2),2)
##
##
                                         1
                                              2
                                                   3
##
                                      0.00 0.00 0.00
     college/bachelor degree
##
                                      0.22 0.22 0.20
##
     currently a primary school pupil 0.01 0.01 0.01
##
     doctorate degree
                                      0.01 0.00 0.00
##
    masters degree
                                      0.10 0.08 0.07
     primary school
##
                                      0.06 0.09 0.09
     secondary school
##
                                      0.60 0.62 0.63
round(prop.table(table(km_mo$cluster,demo_data$Village...town),1),2)
##
##
            city village
##
    1 0.01 0.72
                    0.27
##
     2 0.00 0.69
                    0.31
##
     3 0.00 0.70
                    0.30
round(prop.table(table(km_mo$cluster, demo_trans$House...block.of.flats),1),2
)
##
##
            block of flats house/bungalow
##
                      0.60
     1 0.01
                                     0.39
##
     2 0.01
                      0.58
                                     0.42
##
    3 0.00
                      0.59
                                     0.41
```

As you can see, the most difference between them is gender:

cluster 3: movie enthdusiasts are mainly guys cluster 1: normal movie consumers are mostly girls cluster 2: specific kind of movie lover are more elder but quite equal on gender

Factor Analysis

```
#hobbies_pca
#movie_pca
```

```
#music pca
eigvec.hobbies<- hobbies_pca$rotation
pcafactors.hobbies<- eigvec.hobbies[,1:4]</pre>
pcafactors.hobbies
                                            PC2
##
                                 PC1
                                                         PC3
                                                                     PC4
## History
                         0.188458129 -0.09972504
                                                 0.191659752 -0.22991541
## Psychology
                         0.230036558
                                      0.01786097
                                                 0.099845621 -0.12092486
## Politics
                         0.123498901 -0.20221515
                                                 0.261041540 -0.21465574
## Mathematics
                         0.071298342 -0.28497563 -0.148794306 -0.11696119
## Physics
                         0.117537829 -0.32127215 -0.264318100 -0.13787033
## Internet
                        -0.047107481 -0.24945405 0.114615245 0.10689102
## PC
                        -0.040810044 -0.37916578 -0.026702872 -0.01947711
## Economy.Management
                        -0.004247973 -0.19189231 0.297016846
                                                              0.01081594
## Biology
                         0.275152415  0.02013486  -0.351237734  0.16443892
## Chemistry
                         0.220249354 -0.02970157 -0.402713435
                                                              0.09655225
## Reading
                         0.273290822
                                      0.165733285 -0.15102913 0.150868856 -0.07075296
## Geography
## Foreign.languages
                         0.196795893
                                      0.01943294 0.224850707 -0.01840982
## Medicine
                         0.283815963 -0.01061050 -0.296379491 0.11658962
## Law
                         0.139885598 -0.14966276 0.276167023 -0.02315421
## Cars
                         -0.054065830 -0.35287817 0.054454401 0.15197566
## Art.exhibitions
                         0.307286358
                                      0.08363239
                                                 0.106223775 -0.05528705
## Religion
                         0.234554023 -0.02118824 -0.009334782 -0.16050540
## Countryside..outdoors
                         0.196673276 -0.02578241 -0.009371219 0.11783931
## Dancing
                         0.232312679
                                      0.05907080
                                                 0.086621432
                                                              0.24672526
## Musical.instruments
                         0.216399667 -0.01219800 -0.012291430 -0.08626889
## Writing
                         0.231718611
                                      0.07397364 0.067636420 -0.15644741
## Passive.sport
                         -0.023439504 -0.15300983 0.051616951 0.20587472
                         0.069058573 -0.20429023 0.043485929 0.24414843
## Active.sport
## Gardening
                         0.09462840 0.186510020
## Celebrities
                         0.015776035
                                                              0.34123592
## Shopping
                         0.083917204
                                      0.12707686 0.199581102 0.39774969
## Science.and.technology
                         0.097311047 -0.33700031 -0.117622329 -0.03484404
## Theatre
                         0.293866571
                                      ## Fun.with.friends
                         0.062460243 -0.05187930 0.139364342 0.26018379
                         0.074602609 -0.25199639
## Adrenaline.sports
                                                 0.062705429
                                                             0.22378600
                         0.087440530 0.03835047 -0.026758239 0.25545973
## Pets
unrot.fact.hobbies<- sweep(pcafactors.hobbies,MARGIN=2,hobbies_pca$sdev[1:4],
`*`)
unrot.fact.hobbies
##
                                 PC1
                                            PC2
                                                        PC3
                                                                    PC4
## History
                         0.388019198 -0.17891805
                                                 0.30682331 -0.34052832
## Psychology
                         0.473625633
                                      0.03204461
                                                 0.15984036 -0.17910213
## Politics
                         0.254273693 -0.36279694
                                                 0.41789489 -0.31792717
## Mathematics
                         0.146797198 -0.51127864 -0.23820109 -0.17323152
## Physics
                         0.242000355 -0.57639873 -0.42314025 -0.20420011
## Internet
                         -0.096990282 -0.44754889 0.18348468 0.15831657
```

```
## PC
                           -0.084024396 -0.68026646 -0.04274796 -0.02884760
## Economy.Management
                           -0.008746213 -0.34427659
                                                      0.47548685
                                                                   0.01601952
## Biology
                            0.566515332
                                         0.03612423 -0.56228772
                                                                   0.24355091
## Chemistry
                            0.453474616 -0.05328799 -0.64469388
                                                                   0.14300379
                                                      0.12018498 -0.25440813
## Reading
                            0.562682471
                                         0.36318598
## Geography
                            0.341230685 -0.27096341
                                                      0.24152219 -0.10479239
## Foreign.languages
                            0.405185944
                                         0.03486491
                                                      0.35995788 -0.02726684
## Medicine
                            0.584352837 -0.01903645 -0.47446653
                                                                   0.17268119
## Law
                            0.288012505 -0.26851199
                                                      0.44210889 -0.03429376
## Cars
                           -0.111316929 -0.63310351
                                                      0.08717469
                                                                   0.22509155
## Art.exhibitions
                            0.632676378
                                          0.15004601
                                                      0.17005099 -0.08188580
## Religion
                            0.482926708 -0.03801411 -0.01494382 -0.23772497
## Countryside..outdoors
                            0.404933485 -0.04625658 -0.01500215
                                                                   0.17453211
## Dancing
                            0.478311973
                                         0.10597972
                                                      0.13867009
                                                                   0.36542543
## Musical.instruments
                            0.445548441 -0.02188459 -0.01967704 -0.12777307
## Writing
                            0.477088837
                                          0.13271712
                                                      0.10827746 -0.23171467
## Passive.sport
                           -0.048259938 -0.27451702
                                                      0.08263229
                                                                   0.30492158
## Active.sport
                            0.142185706 -0.36651987
                                                      0.06961554
                                                                   0.36160888
## Gardening
                            0.397145038
                                         0.06215972 -0.12853207
                                                                   0.28080963
## Celebrities
                                          0.16977409
                                                      0.29857923
                                                                   0.50540541
                            0.032481508
                            0.172778359
                                         0.22799031
                                                      0.31950440
                                                                   0.58910810
## Shopping
## Science.and.technology
                            0.200355138 -0.60461683 -0.18829865 -0.05160760
## Theatre
                            0.605046182
                                          0.24867236
                                                      0.17749724 -0.04820240
## Fun.with.friends
                            0.128600309 -0.09307736
                                                      0.22310490
                                                                   0.38535888
## Adrenaline.sports
                            0.153600402 -0.45211014
                                                      0.10038356
                                                                   0.33145003
## Pets
                            0.180032587
                                         0.06880511 -0.04283660
                                                                   0.37836208
communalities.hobbies<- rowSums(unrot.fact.hobbies^2)</pre>
communalities.hobbies # 1 - this would be your unique variance
##
                  History
                                        Psychology
                                                                  Politics
##
                0.3926706
                                         0.2829746
                                                                 0.4719906
##
              Mathematics
                                           Physics
                                                                  Internet
##
                0.3697042
                                         0.6115450
                                                                 0.2684379
                               Economy.Management
##
                        PC
                                                                   Biology
                                                                 0.6977291
##
                0.4724821
                                         0.3449472
##
                Chemistry
                                           Reading
                                                                 Geography
                                                                 0.2591740
##
                0.6445591
                                         0.5276835
##
        Foreign.languages
                                         Medicine
                                                                       Law
##
                0.2957044
                                         0.5967679
                                                                 0.3516862
##
                      Cars
                                  Art.exhibitions
                                                                  Religion
                0.4714771
##
                                                                 0.2913998
                                         0.4584158
##
    Countryside..outdoors
                                           Dancing
                                                      Musical.instruments
##
                0.1967973
                                         0.3927792
                                                                 0.2157055
##
                                    Passive.sport
                  Writing
                                                              Active.sport
##
                0.3106433
                                         0.1774939
                                                                 0.2901609
                                      Celebrities
##
                Gardening
                                                                  Shopping
##
                0.2569626
                                         0.3744625
                                                                 0.5309634
```

Theatre

0.4617476

Fun.with.friends

0.2234787

Science.and.technology

0.4438234

##

```
##
        Adrenaline.sports
                                              Pets
##
                0.3479326
                                        0.1821387
rot.fact.hobbies<- varimax(unrot.fact.hobbies)</pre>
View(unrot.fact.hobbies)
rot.fact.hobbies
## $loadings
##
## Loadings:
##
                           PC1
                                  PC2
                                         PC3
                                                 PC4
## History
                            0.586 -0.128   0.113 -0.141
## Psychology
                            0.522
## Politics
                            0.524 -0.320 0.267 -0.154
## Mathematics
                                  -0.405 -0.217 -0.388
## Physics
                                  -0.435 -0.404 -0.500
## Internet
                                  -0.492 0.147
## PC
                                  -0.627
                                                 -0.275
## Economy.Management
                            0.209 -0.398 0.362 0.110
## Biology
                            0.107
                                         -0.826
## Chemistry
                                          -0.795 -0.109
## Reading
                            0.597 0.382 -0.152
## Geography
                            0.430 -0.272
                                                  0.212
## Foreign.languages
                            0.498
## Medicine
                            0.190
                                         -0.748
## Law
                            0.450 -0.316 0.183
                                                  0.126
## Cars
                           -0.123 -0.673
## Art.exhibitions
                            0.614 0.121 -0.206
                                                  0.157
## Religion
                            0.475
                                         -0.217 -0.137
## Countryside..outdoors
                            0.252 -0.105 -0.295 0.188
## Dancing
                            0.303
                                         -0.275
                                                  0.473
## Musical.instruments
                            0.399
                                         -0.232
## Writing
                            0.519 0.161 -0.120
## Passive.sport
                           -0.114 -0.358
                                                  0.191
                                  -0.465 -0.137
## Active.sport
                                                  0.234
                                                 0.259
## Gardening
                            0.151
                                         -0.408
## Celebrities
                                                  0.607
## Shopping
                                                  0.726
## Science.and.technology 0.110 -0.537 -0.246 -0.287
## Theatre
                            0.579 0.204 -0.194
                                                  0.215
## Fun.with.friends
                                  -0.235
                                                  0.406
## Adrenaline.sports
                                  -0.542 -0.112
                                                  0.197
## Pets
                                          -0.248 0.344
##
##
                                 PC3
                    PC1
                           PC2
                                       PC4
                  3.592 3.122 3.077 2.423
## SS loadings
## Proportion Var 0.112 0.098 0.096 0.076
## Cumulative Var 0.112 0.210 0.306 0.382
##
## $rotmat
```

```
##
              [,1] \qquad [,2] \qquad [,3]
## [1,] 0.80414921 -0.03239952 -0.571263073 0.1610988
## [2,] -0.02266617 0.94671379 0.004990906 0.3212388
## [3,] 0.45001608 -0.14193505 0.765086252 0.4381586
## [4,] -0.38770584 -0.28729377 -0.297113816 0.8239356
fact.load.hobbies<- rot.fact.hobbies$loadings[1:9,1:4]</pre>
fact.load.hobbies
##
                            PC1
                                       PC2
                                                   PC3
                                                               PC4
## History
                     0.58618096 -0.12767314 0.11336796 -0.141102100
## Psychology
                     ## Politics
                     0.52401884 -0.31967865 0.26711833 -0.154428509
## Mathematics
                     0.08960413 -0.40521328 -0.21718646 -0.387695145
## Physics
                     0.09641880 -0.43480146 -0.40419073 -0.499825939
## Internet
                    -0.04665964 -0.49208454 0.14651686 0.051442991
                     -0.06020201 -0.62694011 0.02047003 -0.274563127
## PC
## Economy.Management 0.20853604 -0.39773858 0.36230697 0.109533743
## Biology
                     scale.hobbies<- scale(hobbies_transformed[-1])</pre>
scale.hobbies
                                                                        Ρ
##
          Psychology
                      Politics Mathematics
                                              Physics
                                                        Internet
C
##
     [1,] 1.4817895 -1.2335329
                                 0.4925588 0.76311405 0.8918804 -0.104995
2
##
     [2,] -0.1094996 1.0850805
                                1.9709672 -0.05248933 -0.1947290 0.652470
2
                               1.9709672 -0.05248933 -0.1947290 -0.862460
##
     [3,] -0.9051442 -1.2335329
6
     [4,] 0.6861450 1.8579516
##
                               1.2317630 -0.86809270 -1.2813384 -1.619925
9
##
     [5,] -0.9051442   0.3122093   -0.2466454   -0.05248933   -2.3679478   -0.862460
6
##
     [6,] -0.1094996 1.0850805
                               -0.2466454 0.76311405 -0.1947290 0.652470
2
##
     [7,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -2.3679478 -1.619925
9
##
     [8,] -0.9051442  0.3122093  -0.9858495  -0.86809270  0.8918804  0.652470
2
     [9,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -3.4545571 -1.619925
##
9
    [10,] -0.9051442  0.3122093  0.4925588 -0.86809270  0.8918804 -1.619925
##
9
##
    [11,] -0.1094996  0.3122093  -0.2466454  -0.86809270  -0.1947290  1.409935
5
    [12,] -0.9051442 1.8579516 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
    [13,] 0.6861450 1.0850805 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
```

```
##
    [14,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.104995
2
    [15,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
    [16,] 1.4817895 0.3122093 0.4925588 0.76311405 -0.1947290 1.409935
##
5
    [17,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
    [18,] -0.9051442 -0.4606618 -0.9858495 0.76311405 -1.2813384 -0.104995
##
2
    [19,] 1.4817895 0.3122093 1.9709672 2.39432079 0.8918804 1.409935
##
5
    ##
5
    ##
2
##
    [22,] 0.6861450 1.0850805 0.4925588 -0.86809270 0.8918804 1.409935
5
##
    [23,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
2
##
    [24,] -0.9051442   0.3122093   -0.2466454   0.76311405   -0.1947290   -0.104995
2
##
   [25,] 1.4817895 1.8579516 -0.2466454 -0.86809270 0.8918804 0.652470
2
    ##
6
    [27,] -0.1094996 -1.2335329 -0.2466454 0.76311405 0.8918804 -0.862460
##
6
    ##
6
   [29,] -1.7007887 -1.2335329 -0.9858495 -0.05248933 0.8918804 -0.862460
##
6
##
    [30,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.104995
2
    ##
2
    [32,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -0.862460
##
6
    [33,] 1.4817895 0.3122093 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [34,] -0.1094996 1.8579516 -0.2466454 -0.86809270 0.8918804 0.652470
##
2
    [35,] 1.4817895 1.0850805 0.4925588 -0.86809270 0.8918804 0.652470
##
2
    [36,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
##
    [37,] 1.4817895 0.3122093 0.4925588 0.76311405 0.8918804 -0.104995
2
    [38,] -0.1094996 1.8579516 0.4925588 0.76311405 -0.1947290 -0.104995
##
```

```
##
    [39,] 0.6861450 1.0850805 0.4925588 -0.05248933 0.8918804 -0.862460
6
    [40,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
##
    [41,] -1.7007887 -1.2335329 -0.2466454 -0.86809270 0.8918804 0.652470
2
##
    [42,] 0.6861450 1.8579516
                               1.9709672 2.39432079 0.8918804 1.409935
5
    [43,] 1.4817895 -1.2335329
                               1.9709672 -0.86809270 0.8918804 1.409935
##
5
##
    [44,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
2
    [45,] 1.4817895 1.8579516
                               0.4925588 1.57871742 -0.1947290 -0.104995
##
2
    [46,] 1.4817895 1.8579516
                               1.9709672 2.39432079 0.8918804 1.409935
##
5
##
    [47,] -0.1094996 -1.2335329 -0.2466454 -0.05248933 0.8918804 0.652470
2
##
    [48,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 0.8918804 -0.104995
2
##
    [49,] 0.6861450 0.3122093 -0.2466454 -0.05248933 -0.1947290 -0.862460
6
    [50,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
    [51,] 0.6861450 -1.2335329
                               1.2317630 -0.86809270 -0.1947290 -0.862460
##
6
                               1.9709672 2.39432079 0.8918804 1.409935
    [52,] 0.6861450 1.0850805
##
5
##
    [53,] 0.6861450 0.3122093
                               0.4925588 -0.05248933 -0.1947290 -0.862460
6
    [54,] -0.1094996 1.0850805 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
##
    [55,] -0.1094996 1.0850805
                               -0.9858495 1.57871742 -1.2813384 -1.619925
9
    [56,] 1.4817895 -0.4606618 -0.2466454 0.76311405 0.8918804 0.652470
##
2
    [57,] 0.6861450 1.0850805
                               1.2317630 0.76311405 -0.1947290 0.652470
##
2
    [58,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
    ##
2
    [60,] 0.6861450 1.8579516 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
                               1.2317630 1.57871742 0.8918804 0.652470
    [61,] 1.4817895 1.0850805
##
2
##
    [62,] -0.1094996 0.3122093
                               0.4925588 1.57871742 0.8918804 0.652470
2
##
    [63,] 0.6861450 1.0850805
                                1.2317630 2.39432079 0.8918804 1.409935
```

```
##
   [64,] -0.9051442   0.3122093   -0.9858495   -0.05248933   -0.1947290   -0.104995
2
   [65,] -0.9051442 -0.4606618 -0.9858495 0.76311405 0.8918804 -0.862460
##
6
   [66,] -0.9051442   0.3122093   -0.2466454   -0.86809270   0.8918804   -0.104995
##
2
                          1.9709672 2.39432079 -0.1947290 -0.104995
##
   [67,] -0.9051442 -0.4606618
2
                           1.2317630 -0.05248933 -1.2813384 -1.619925
##
   [68,] -0.1094996 0.3122093
9
##
   [69,] -0.9051442 0.3122093
                          1.9709672 -0.05248933 0.8918804 -0.862460
6
   [70,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
##
   2
##
   6
##
   [73,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
   ##
5
##
   2
   [76,] 1.4817895 1.0850805 -0.2466454 -0.86809270 0.8918804 0.652470
##
2
   [77,] -0.9051442 1.8579516 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
   [78,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [79,] 1.4817895 -1.2335329 0.4925588 -0.86809270 -0.1947290 0.652470
##
2
##
   2
    [81,] 0.6861450 1.0850805 -0.9858495 -0.05248933 0.8918804 -0.104995
##
2
   [82,] -0.9051442 -1.2335329 -0.9858495 -0.05248933 0.8918804 1.409935
##
5
   [83,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
   [84,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
   [85,] 1.4817895 1.0850805 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
   [86,] -0.1094996 -1.2335329
                          1.9709672 2.39432079 0.8918804 1.409935
##
5
##
   [87,] 1.4817895 1.8579516 1.2317630 1.57871742 0.8918804 0.652470
2
##
    [88,] 0.6861450 1.8579516 -0.9858495 -0.86809270 0.8918804 -0.862460
```

```
##
    9
    [90,] -0.1094996   0.3122093   -0.9858495   -0.86809270   -1.2813384   -1.619925
##
9
    [91,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
    [92,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
                            0.4925588 0.76311405 -1.2813384 -0.862460
##
    [93,] -0.1094996 -0.4606618
6
    ##
5
    [95,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
##
    [96,] 0.6861450 1.0850805 -0.9858495 -0.05248933 0.8918804 1.409935
5
    [97,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -2.3679478 -1.619925
##
9
    ##
5
    [99,] -1.7007887 -1.2335329 -0.9858495 -0.05248933 -1.2813384 0.652470
##
2
##
   [100,] 0.6861450 -1.2335329
                            1.9709672 2.39432079 0.8918804 -1.619925
9
   [101,] -1.7007887 -0.4606618 -0.2466454 0.76311405 0.8918804 1.409935
##
5
  [102,] -1.7007887 1.0850805 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
##
   [103,] 1.4817895 1.8579516 1.2317630 1.57871742 0.8918804 0.652470
2
   [104,] 0.6861450 1.0850805 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
   [105,] 0.6861450 1.8579516 -0.2466454 -0.05248933 -1.2813384 -0.104995
##
2
   [106,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
   [107,] 0.6861450 0.3122093 0.4925588 -0.86809270 -0.1947290 0.652470
##
2
   [108,] -0.9051442   1.0850805   -0.9858495   0.76311405   -0.1947290   -1.619925
##
9
  ##
2
   [110,] -0.1094996    1.0850805   -0.2466454   -0.05248933   -0.1947290    1.409935
##
5
   [111,] 0.6861450 -1.2335329 -0.2466454 0.76311405 0.8918804 -0.862460
##
6
   [112,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
## [113,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 -1.2813384 -1.619925
```

```
##
   [114,] -0.9051442 -1.2335329 -0.9858495 -0.05248933 -1.2813384 -0.862460
6
## [115,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
2
  [116,] 1.4817895 0.3122093 -0.9858495 0.76311405 0.8918804 -0.104995
##
2
   [117,] 0.6861450 -0.4606618 -0.9858495 -0.05248933 -1.2813384 -1.619925
##
9
                                1.9709672 -0.05248933 0.8918804 1.409935
##
  [118,] -0.9051442 -0.4606618
5
                                1.2317630 -0.05248933 -0.1947290 0.652470
##
   [119,] -0.9051442 1.0850805
2
                                1.2317630 -0.05248933 0.8918804 -1.619925
## [120,] 0.6861450 -0.4606618
9
   [121,] -0.1094996 1.0850805
                                1.9709672 2.39432079 -2.3679478 0.652470
##
2
## [122,] -0.1094996 0.3122093
                                1.2317630 0.76311405 -0.1947290 0.652470
2
## [123,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
## [124,] -0.1094996 -1.2335329 -0.9858495 0.76311405 -1.2813384 -0.104995
2
##
  [125,] 0.6861450 1.0850805 -0.9858495 0.76311405 -0.1947290 1.409935
5
   [126,] 0.6861450 1.0850805
                                -0.2466454 -0.05248933 -1.2813384 -0.862460
##
  [127,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.104995
##
2
##
   [128,] 0.6861450 1.0850805 0.4925588 -0.05248933 0.8918804 0.652470
2
   [129,] 1.4817895 0.3122093 0.4925588 2.39432079 0.8918804 1.409935
##
5
##
   [130,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
## [131,] -0.1094996 1.8579516
                                -0.2466454 -0.86809270 0.8918804 0.652470
2
## [132,] -0.1094996 1.0850805 -0.9858495 -0.86809270 0.8918804 0.652470
2
   [133,] 1.4817895 -0.4606618 1.2317630 -0.86809270 0.8918804 -0.104995
##
2
## [134,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -2.3679478 -1.619925
9
   [135,] -0.1094996 0.3122093
                                -0.9858495 -0.05248933 -1.2813384 -0.104995
##
2
## [136,] -0.9051442 -1.2335329   0.4925588 -0.05248933 -0.1947290   0.652470
2
   [137,] -0.9051442 1.8579516 -0.2466454 1.57871742 0.8918804 0.652470
##
2
## [138,] -0.9051442 0.3122093 0.4925588 0.76311405 0.8918804 0.652470
```

```
##
   [139,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
9
   [140,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 -0.1947290 -0.104995
##
2
  [141,] 0.6861450 0.3122093 -0.2466454 -0.05248933 -1.2813384 -1.619925
##
9
   [142,] 1.4817895 -1.2335329 1.9709672 2.39432079 0.8918804 1.409935
##
5
   [143,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 0.8918804 1.409935
##
5
   [144,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
   [145,] 0.6861450 -1.2335329 -0.9858495 1.57871742 0.8918804 1.409935
##
5
##
   [146,] 0.6861450 -0.4606618 -0.9858495 -0.05248933 -0.1947290 -0.862460
6
## [147,] -0.1094996 1.8579516 -0.9858495 -0.86809270 0.8918804 1.409935
5
                              1.9709672 2.39432079 0.8918804 0.652470
##
   [148,] -0.9051442 0.3122093
2
                              1.2317630 1.57871742 0.8918804 1.409935
## [149,] 0.6861450 0.3122093
5
##
  [150,] -0.1094996 -1.2335329
                              1.9709672 2.39432079 -1.2813384 1.409935
                              0.4925588 0.76311405 -0.1947290 0.652470
   [151,] -0.1094996 1.0850805
##
2
                              -0.2466454 -0.05248933 -1.2813384 -0.104995
   [152,] 0.6861450 1.0850805
##
2
##
   [153,] 1.4817895 1.8579516 -0.2466454 -0.86809270 -0.1947290 -0.862460
6
   ##
6
                             0.4925588 1.57871742 0.8918804 1.409935
   [155,] -1.7007887 1.8579516
##
5
   [156,] 1.4817895 -0.4606618 0.4925588 -0.05248933 -1.2813384 -0.862460
##
6
   ##
6
   [158,] 0.6861450 0.3122093 -0.2466454 -0.05248933 -0.1947290 0.652470
##
2
   [159,] -0.9051442 -1.2335329   0.4925588 -0.05248933   0.8918804 -0.104995
##
2
                              0.4925588 -0.05248933 -0.1947290 -0.104995
   [160,] 0.6861450 1.0850805
##
2
   [161,] -0.1094996 1.8579516
                              1.9709672 1.57871742 0.8918804 0.652470
##
2
   [162,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
## [163,] -0.1094996 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.862460
```

```
##
   [164,] 1.4817895 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.104995
2
   [165,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
  [166,] 0.6861450 1.8579516 -0.2466454 -0.86809270 0.8918804 0.652470
##
2
   [167,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 -2.3679478 -0.862460
##
6
   [168,] -0.1094996   0.3122093   -0.9858495   -0.05248933   -0.1947290   -0.104995
##
2
   [169,] 0.6861450 1.0850805 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [170,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [171,] 0.6861450 1.8579516 1.9709672 0.76311405 -1.2813384 -1.619925
##
9
##
   [172,] 0.6861450 1.0850805 -0.9858495 -0.86809270 0.8918804 1.409935
5
                              0.4925588 0.76311405 0.8918804 1.409935
##
   [173,] 0.6861450 1.0850805
5
   ##
5
   ##
9
   [176,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
                              1.9709672 1.57871742 0.8918804 1.409935
   [177,] -1.7007887 -1.2335329
##
5
   [178,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
   [179,] 0.6861450 -1.2335329 0.4925588 0.76311405 -1.2813384 -0.104995
##
2
   [180,] 1.4817895 0.3122093 -0.2466454 -0.05248933 0.8918804 -0.104995
##
2
   [181,] 1.4817895 1.8579516
                              1.2317630 0.76311405 0.8918804 -0.104995
##
2
   [182,] 0.6861450 -0.4606618 -0.2466454 0.76311405 -1.2813384 -0.104995
##
2
   [183,] -0.9051442   0.3122093   -0.2466454   -0.05248933   -0.1947290   -0.862460
##
6
   [184,] 1.4817895 1.8579516 -0.2466454 -0.05248933 -0.1947290 -1.619925
##
9
   [185,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [186,] 1.4817895 -0.4606618 1.9709672 -0.05248933 -1.2813384 -0.862460
##
6
##
   [187,] -0.1094996   0.3122093   -0.9858495   -0.86809270   -2.3679478   -1.619925
9
## [188,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
```

```
[189,] -1.7007887 0.3122093 -0.9858495 2.39432079 0.8918804 1.409935
##
5
   ##
2
  [191,] -0.1094996 -0.4606618 1.9709672 0.76311405 0.8918804 0.652470
##
2
   [192,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
##
  [193,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [194,] -0.1094996 -1.2335329 -0.9858495 0.76311405 -1.2813384 -0.862460
##
6
  [195,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
   [196,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
##
   [197,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
2
   [198,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
   [199,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -1.2813384 0.652470
##
2
##
   [200,] -0.9051442 -1.2335329 -0.9858495 -0.05248933 -1.2813384 -0.104995
2
                               -0.9858495 0.76311405 0.8918804 1.409935
   [201,] -0.9051442 0.3122093
##
5
   [202,] 1.4817895 -1.2335329
                               -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
##
   [203,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
2
## [204,] -0.9051442 -1.2335329
                               0.4925588 -0.05248933 0.8918804 0.652470
2
                               1.2317630 0.76311405 0.8918804 0.652470
   [205,] -0.9051442 -1.2335329
##
2
   [206,] 0.6861450 -1.2335329 -0.9858495 -0.05248933 -2.3679478 -0.862460
##
6
                               1.2317630 1.57871742 -0.1947290 0.652470
##
   [207,] -0.1094996 1.8579516
2
                               -0.9858495 -0.86809270 -0.1947290 -0.862460
   [208,] -0.9051442 1.0850805
##
6
   [209,] -0.1094996 0.3122093
                               -0.9858495 -0.86809270 -2.3679478 -1.619925
##
9
                               1.2317630 0.76311405 -0.1947290 1.409935
   [210,] 0.6861450 1.0850805
##
5
   [211,] 0.6861450 1.8579516
                               1.2317630 2.39432079 -0.1947290 1.409935
##
5
##
   [212,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
5
## [213,] -0.1094996 1.0850805 1.9709672 2.39432079 0.8918804 1.409935
```

```
##
   [214,] -0.1094996  0.3122093  0.4925588  1.57871742  0.8918804  0.652470
2
## [215,] -0.1094996  0.3122093  0.4925588  0.76311405 -0.1947290 -0.104995
2
## [216,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -1.619925
9
   ##
9
  [218,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 0.8918804 0.652470
##
2
   [219,] -1.7007887    1.8579516   -0.2466454    1.57871742    0.8918804    0.652470
##
2
## [220,] -0.1094996 1.0850805 -0.9858495 -0.05248933 0.8918804 -0.104995
2
   [221,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -1.2813384 0.652470
##
2
## [222,] 0.6861450 -1.2335329 1.2317630 1.57871742 0.8918804 1.409935
5
##
   [223,] -0.1094996 -1.2335329 -0.2466454 -0.05248933 -1.2813384 -0.862460
6
## [224,] 1.4817895 -0.4606618
                              0.4925588 -0.05248933 0.8918804 -0.104995
2
##
   [225,] 0.6861450 0.3122093 -0.9858495 0.76311405 0.8918804 0.652470
2
   [226,] -0.1094996 1.0850805 1.2317630 1.57871742 0.8918804 0.652470
##
2
## [227,] -1.7007887 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.104995
2
   [228,] 0.6861450 0.3122093
                              0.4925588 1.57871742 -0.1947290 0.652470
##
2
## [229,] -0.1094996 -0.4606618
                              2
                              1.2317630 -0.05248933 0.8918804 1.409935
##
   [230,] -1.7007887 -1.2335329
5
   [231,] 0.6861450 1.0850805
                              0.4925588 -0.86809270 -0.1947290 -0.862460
##
6
   [232,] 0.6861450 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.104995
##
2
   [233,] -0.9051442 1.0850805
                              1.2317630 -0.86809270 0.8918804 0.652470
##
2
  [234,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
   [235,] -1.7007887 -1.2335329
                              1.9709672 1.57871742 0.8918804 -0.862460
##
6
   [236,] 1.4817895 1.0850805
                              -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
##
   [237,] 0.6861450 1.8579516 0.4925588 -0.05248933 0.8918804 -0.104995
2
## [238,] -0.9051442 0.3122093 1.2317630 -0.86809270 -0.1947290 -1.619925
```

```
##
   [239,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.862460
6
   ##
9
   ##
5
                              1.2317630 2.39432079 -0.1947290 -0.104995
##
   [242,] 0.6861450 1.0850805
   [243,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
                              1.2317630 -0.86809270 -0.1947290 -0.104995
##
   [244,] 1.4817895 -0.4606618
2
   [245,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
   [246,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 -2.3679478 -1.619925
##
9
## [247,] -0.1094996 -0.4606618
                              1.9709672 1.57871742 0.8918804 1.409935
5
   [248,] -0.9051442 -1.2335329 -0.9858495 -0.05248933 -1.2813384 -1.619925
##
9
   [249,] 1.4817895 0.3122093 -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
##
   [250,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
2
   [251,] -1.7007887 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
  [252,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [253,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [254,] -0.1094996 -1.2335329 -0.9858495 2.39432079 0.8918804 1.409935
##
5
##
   [255,] 0.6861450 0.3122093 -0.2466454 -0.86809270 0.8918804 -0.104995
2
   [256,] 1.4817895 -1.2335329
                              -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
   [257,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
   [258,] -0.9051442 1.0850805
                              1.9709672 0.76311405 0.8918804 1.409935
##
5
                              1.2317630 1.57871742 0.8918804 -0.104995
##
   [259,] -0.9051442 -0.4606618
2
                              -0.9858495 -0.05248933 -2.3679478 -0.862460
##
   [260,] 0.6861450 1.0850805
6
                              -0.9858495  0.76311405  -1.2813384  -0.104995
   [261,] -0.1094996 0.3122093
##
2
##
   [262,] -0.9051442 1.0850805
                              1.2317630 -0.05248933 0.8918804 1.409935
5
## [263,] 1.4817895 1.0850805 0.4925588 -0.05248933 -1.2813384 -0.104995
```

```
[264,] 0.6861450 -0.4606618 0.4925588 -0.05248933 -1.2813384 -0.862460
##
6
   [265,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
## [266,] -1.7007887 -1.2335329 -0.2466454 -0.86809270 0.8918804 1.409935
5
                               1.2317630 0.76311405 -0.1947290 0.652470
##
   [267,] -0.1094996 -1.2335329
                               0.4925588 1.57871742 -1.2813384 -0.862460
## [268,] 0.6861450 1.0850805
6
                               1.9709672 0.76311405 0.8918804 -0.862460
##
   [269,] -0.9051442 -0.4606618
6
  [270,] -0.1094996    0.3122093    -0.2466454    -0.05248933    -1.2813384    -0.862460
##
6
   [271,] 1.4817895 0.3122093
                               -0.9858495 -0.86809270 0.8918804 0.652470
##
2
## [272,] -1.7007887 0.3122093 -0.2466454 -0.86809270 -0.1947290 0.652470
2
   [273,] 0.6861450 -0.4606618 0.4925588 -0.05248933 -1.2813384 -1.619925
##
9
   [274,] 0.6861450 0.3122093 -0.2466454 -0.86809270 0.8918804 0.652470
##
2
##
   [275,] 1.4817895 1.8579516 -0.9858495 -0.86809270 -1.2813384 -0.104995
2
   [276,] 1.4817895 1.0850805 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
  [277,] -1.7007887 -1.2335329  0.4925588 -0.86809270  0.8918804 -1.619925
##
9
   [278,] -0.1094996    1.0850805   -0.2466454   -0.05248933    0.8918804    1.409935
##
5
## [279,] -0.1094996 0.3122093 0.4925588 0.76311405 0.8918804 -0.104995
2
##
   [280,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
9
   [281,] 0.6861450 -0.4606618 -0.9858495 -0.05248933 -0.1947290 -0.862460
##
6
   ##
2
   [283,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
                               1.9709672 0.76311405 0.8918804 1.409935
##
  [284,] -0.9051442 -0.4606618
                               1.2317630 -0.86809270 0.8918804 0.652470
##
   [285,] -1.7007887 -1.2335329
2
  [286,] -0.1094996 -0.4606618 -0.2466454 -0.86809270 -0.1947290 -0.862460
##
6
##
   [287,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
2
## [288,] -0.1094996 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.862460
```

```
##
   [289,] -0.9051442 -1.2335329 -0.9858495 0.76311405 0.8918804 0.652470
2
   ##
2
  [291,] -0.1094996  0.3122093  -0.9858495  -0.86809270  -3.4545571  -1.619925
##
9
   [292,] -0.1094996   0.3122093   -0.2466454   -0.86809270   -0.1947290   -1.619925
##
9
   [293,] 0.6861450 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
   [294,] -1.7007887 -1.2335329   1.9709672   2.39432079   0.8918804   0.652470
##
2
   [295,] 1.4817895 1.0850805 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [296,] -0.1094996 0.3122093
                              -0.9858495 -0.86809270 -2.3679478 -1.619925
##
9
##
   [297,] -0.9051442 0.3122093
                              1.2317630 0.76311405 0.8918804 1.409935
5
                              0.4925588 0.76311405 0.8918804 -0.104995
##
   [298,] 0.6861450 -1.2335329
2
   [299,] 1.4817895 0.3122093 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
##
   [300,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
                              0.4925588 -0.05248933 0.8918804 -0.104995
   [301,] 0.6861450 0.3122093
##
2
   [302,] 1.4817895 -0.4606618 -0.2466454 1.57871742 -1.2813384 0.652470
##
2
##
   [303,] 0.6861450 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.862460
6
   ##
2
                              -0.9858495 -0.86809270 -1.2813384 -1.619925
##
   [305,] 1.4817895 1.0850805
9
   [306,] 1.4817895 1.8579516
                              1.2317630 -0.05248933 0.8918804 -0.862460
##
6
   [307,] 0.6861450 -1.2335329
                              1.2317630 -0.86809270 0.8918804 1.409935
##
5
   [308,] -0.9051442 -0.4606618
                              1.9709672 0.76311405 0.8918804 1.409935
##
5
   [309,] 0.6861450 1.0850805 -0.2466454 -0.05248933 -1.2813384 -0.104995
##
2
   [310,] -0.1094996 -1.2335329
                              0.4925588 0.76311405 -1.2813384 -0.104995
##
2
   [311,] -1.7007887 -1.2335329 -0.2466454 -0.05248933 -0.1947290 0.652470
##
2
##
   [312,] -0.1094996  0.3122093  0.4925588 -0.86809270 -0.1947290 -0.104995
2
## [313,] -1.7007887 -1.2335329 -0.2466454 -0.05248933 -1.2813384 -0.104995
```

```
##
   [314,] 0.6861450 1.0850805 -0.9858495 -0.86809270 0.8918804 0.652470
2
   [315,] 0.6861450 -0.4606618 1.9709672 2.39432079 0.8918804 1.409935
##
5
## [316,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
2
   [317,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
2
   [319,] 1.4817895 -1.2335329 0.4925588 -0.86809270 0.8918804 0.652470
##
2
  [320,] 1.4817895 1.0850805 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
   [321,] -0.9051442  0.3122093  0.4925588  0.76311405  0.8918804  1.409935
##
5
## [322,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.862460
6
   ##
6
## [324,] 0.6861450 0.3122093 0.4925588 0.76311405 -0.1947290 0.652470
2
## [325,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -0.104995
2
   [326,] -0.1094996   0.3122093   -0.9858495   0.76311405   0.8918804   -0.104995
##
2
                              1.2317630 -0.86809270 -1.2813384 -1.619925
  [327,] 0.6861450 1.0850805
##
9
##
   [328,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 0.8918804 1.409935
5
## [329,] 1.4817895 1.0850805
                              1.9709672 -0.86809270 0.8918804 1.409935
5
   [330,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 -0.1947290 0.652470
##
2
## [331,] -0.1094996 -0.4606618
                             -0.9858495 -0.05248933 -0.1947290 -0.104995
2
                              0.4925588 2.39432079 0.8918804 -0.862460
## [332,] -0.1094996 -0.4606618
6
   [333,] -0.1094996 -0.4606618
                              1.2317630 1.57871742 0.8918804 -0.862460
##
6
  [334,] -0.1094996 0.3122093 0.4925588 -0.05248933 0.8918804 -0.104995
##
2
                              -0.9858495 -0.86809270 0.8918804 0.652470
   [335,] 0.6861450 0.3122093
##
2
   [336,] -0.9051442 -0.4606618
                              0.4925588 -0.05248933 -1.2813384 1.409935
##
5
##
   [337,] -1.7007887 0.3122093
                              1.9709672 2.39432079 -1.2813384 0.652470
2
## [338,] -0.1094996 1.0850805
                              1.2317630 2.39432079 -1.2813384 -0.104995
```

```
[339,] -0.9051442 -1.2335329   0.4925588 -0.86809270   0.8918804 -0.862460
##
6
   [340,] -0.9051442    1.8579516   -0.9858495   -0.86809270   -2.3679478   -0.862460
##
6
   [341,] -0.1094996   1.0850805   -0.9858495   -0.05248933   -1.2813384   -1.619925
##
9
   [342,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
                               1.2317630 0.76311405 -1.2813384 -0.104995
##
  [343,] -0.1094996 -0.4606618
2
   [344,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
## [345,] -1.7007887 1.0850805 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
   ##
9
## [347,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 0.652470
2
   [348,] -0.9051442 -1.2335329 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
                               0.4925588 0.76311405 -0.1947290 0.652470
## [349,] -0.9051442 -1.2335329
2
## [350,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 -0.1947290 0.652470
2
   [351,] -0.9051442 -1.2335329 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
                               1.9709672 1.57871742 0.8918804 -0.104995
  [352,] -0.1094996 -0.4606618
##
2
##
   [353,] -1.7007887 -1.2335329 -0.9858495 2.39432079 0.8918804 -0.104995
2
   [354,] 0.6861450 1.0850805
                               -0.2466454 -0.05248933 -2.3679478 -0.862460
##
6
                                1.2317630 1.57871742 -0.1947290 -0.104995
##
   [355,] 0.6861450 1.0850805
2
   [356,] -0.9051442 1.0850805
                                1.2317630 -0.05248933 0.8918804 1.409935
##
5
   [357,] -0.9051442 1.0850805
                                1.9709672 2.39432079 0.8918804 0.652470
##
2
   [358,] -0.1094996 -1.2335329
                                0.4925588 -0.05248933 -1.2813384 -0.104995
##
2
## [359,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 -0.1947290 0.652470
   [360,] -0.9051442 -0.4606618
                                -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [361,] 0.6861450 0.3122093
                               1.9709672 -0.86809270 0.8918804 -0.104995
##
2
##
   [362,] 1.4817895 -1.2335329 -0.9858495 -0.05248933 -0.1947290 1.409935
5
   [363,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
```

```
##
   [364,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.862460
6
   [365,] -0.1094996 -0.4606618 -0.2466454 -0.86809270 -0.1947290 0.652470
##
2
   [366,] 1.4817895 1.0850805 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [367,] -1.7007887 -0.4606618 1.9709672 -0.05248933 0.8918804 1.409935
##
5
   [368,] -1.7007887 -0.4606618 -0.9858495 -0.86809270 -0.1947290 1.409935
##
5
   [369,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
                                1.2317630 0.76311405 0.8918804 0.652470
   [370,] -0.1094996 1.0850805
##
2
   [371,] 0.6861450 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.862460
##
6
##
  [372,] 1.4817895 -1.2335329
                                1.9709672 0.76311405 -1.2813384 -0.104995
2
   [373,] -0.1094996  0.3122093  -0.9858495  0.76311405  0.8918804  1.409935
##
5
   [374,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
##
   [375,] -0.9051442 -1.2335329 -0.9858495 -0.05248933 -2.3679478 -1.619925
9
   [376,] -1.7007887 -1.2335329
                                0.4925588 -0.05248933 0.8918804 -0.862460
##
6
   [377,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
##
   [378,] 1.4817895 1.0850805
                                 1.9709672 1.57871742 0.8918804 0.652470
2
   [379,] 0.6861450 -1.2335329
                                1.9709672 -0.86809270 -0.1947290 -1.619925
##
9
    [380,] 1.4817895 1.0850805
                                0.4925588 0.76311405 0.8918804 1.409935
##
5
   [381,] 0.6861450 -1.2335329
                                -0.2466454 -0.86809270 -0.1947290 -0.104995
##
2
   [382,] 1.4817895 0.3122093
                                 -0.2466454 -0.86809270 -0.1947290 -0.862460
##
6
   [383,] -0.9051442 -0.4606618
                                -0.9858495 -0.86809270 0.8918804 0.652470
##
2
                                1.9709672 -0.05248933 0.8918804 1.409935
##
  [384,] -0.9051442 -0.4606618
                                 1.9709672 -0.86809270 0.8918804 -1.619925
##
   [385,] 1.4817895 -1.2335329
9
   [386,] -1.7007887 -1.2335329
                                 0.4925588 1.57871742 0.8918804 1.409935
##
5
##
   [387,] 0.6861450 0.3122093
                                0.4925588 1.57871742 -0.1947290 -0.104995
2
   [388,] 0.6861450 0.3122093 -0.2466454 -0.05248933 0.8918804 -0.104995
##
```

```
##
   [389,] 1.4817895 0.3122093 1.2317630 -0.05248933 -1.2813384 0.652470
2
   [390,] 1.4817895 -1.2335329 -0.2466454 -0.86809270 0.8918804 -1.619925
##
9
                                 0.4925588 -0.05248933 -0.1947290 -0.104995
   [391,] -0.1094996 1.0850805
##
2
                                 1.2317630 -0.86809270 -2.3679478 -1.619925
##
   [392,] -0.9051442 -1.2335329
9
                                 0.4925588 -0.86809270 -1.2813384 -0.862460
##
   [393,] -0.1094996 -0.4606618
6
                                 -0.9858495 -0.86809270 -0.1947290 0.652470
##
   [394,] -0.9051442 0.3122093
2
                                 1.2317630 -0.05248933 0.8918804 1.409935
   [395,] 0.6861450 -0.4606618
##
5
##
    [396,] -1.7007887 -1.2335329
                                 1.2317630 0.76311405 0.8918804 1.409935
5
                                 1.2317630 0.76311405 -2.3679478 -0.104995
##
   [397,] -0.1094996 -1.2335329
2
                                 1.2317630 -0.86809270 0.8918804 1.409935
##
   [398,] -0.1094996 -0.4606618
5
                                 1.2317630 0.76311405 0.8918804 1.409935
##
   [399,] 0.6861450 0.3122093
5
##
   [400,] 1.4817895 0.3122093
                                 1.2317630 1.57871742 -1.2813384 0.652470
2
                                 1.9709672 2.39432079 0.8918804 0.652470
   [401,] -0.9051442 0.3122093
##
2
   [402,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
##
   [403,] -1.7007887 0.3122093
                                -0.9858495 -0.86809270 0.8918804 1.409935
5
   [404,] 0.6861450 -1.2335329 -0.2466454 -0.05248933 -1.2813384 0.652470
##
2
    [405,] -0.9051442 -1.2335329 -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
   [406,] 0.6861450 1.8579516
                                -0.2466454   0.76311405   -0.1947290   -0.862460
##
6
   [407,] -1.7007887 -1.2335329
                                -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [408,] 0.6861450 1.0850805
                                -0.2466454 -0.05248933 -0.1947290 -0.104995
##
2
   [409,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -2.3679478 -0.862460
##
6
                                0.4925588 0.76311405 0.8918804 -0.104995
   [410,] -0.9051442 -1.2335329
##
2
   [411,] -1.7007887 -1.2335329
                                 1.2317630 1.57871742 0.8918804 1.409935
##
5
   [412,] 0.6861450 1.8579516 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
   [413,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
```

```
##
6
  [415,] 1.4817895 0.3122093 0.4925588 -0.86809270 0.8918804 0.652470
##
2
  [416,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
##
                              1.9709672 -0.05248933 -0.1947290 -0.862460
##
   [417,] -0.9051442 -1.2335329
6
                              1.9709672 0.76311405 0.8918804 1.409935
   [418,] 0.6861450 1.0850805
##
5
   [419,] -0.9051442 -0.4606618 -0.9858495 -0.05248933 -1.2813384 -1.619925
##
9
   [420,] 1.4817895 -0.4606618 -0.9858495 -0.05248933 -1.2813384 -0.862460
##
6
   ##
2
## [422,] -0.1094996 0.3122093
                             1.2317630 1.57871742 0.8918804 1.409935
5
   [423,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
## [424,] 0.6861450 -0.4606618 -0.9858495 -0.05248933 -0.1947290 0.652470
2
## [425,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
2
   [426,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [427,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -3.4545571 -1.619925
##
9
##
   [428,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.862460
6
   [429,] -0.1094996  0.3122093  -0.2466454  -0.86809270  0.8918804  -0.862460
##
6
##
   [430,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
## [431,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -0.862460
6
                              1.9709672 2.39432079 0.8918804 1.409935
## [432,] -1.7007887 -0.4606618
5
   [433,] 1.4817895 1.0850805 -0.2466454 0.76311405 -0.1947290 1.409935
##
5
                             1.9709672 -0.05248933 0.8918804 0.652470
##
  [434,] -0.9051442 1.0850805
   [435,] -0.1094996 -0.4606618 -0.9858495 2.39432079 -0.1947290 -0.862460
##
  [436,] -0.9051442 -1.2335329 -0.9858495 0.76311405 -1.2813384 -0.862460
##
6
##
   [437,] -0.9051442 -1.2335329 -0.2466454 0.76311405 -0.1947290 -0.104995
2
## [438,] 1.4817895 0.3122093 -0.9858495 0.76311405 -0.1947290 -0.862460
```

```
##
   [439,] 1.4817895 -0.4606618 -0.9858495 -0.05248933 -0.1947290 0.652470
2
  ##
2
  [441,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
                              -0.2466454 -0.05248933 -2.3679478 -0.862460
##
   [442,] 1.4817895 -0.4606618
6
                              0.4925588 -0.05248933 -1.2813384 0.652470
   [443,] -0.9051442 0.3122093
##
2
                              0.4925588 -0.05248933 -1.2813384 -1.619925
##
   [444,] 1.4817895 1.8579516
9
                              1.2317630 1.57871742 -0.1947290 -1.619925
   [445,] 1.4817895 1.0850805
##
9
   [446,] -0.9051442 0.3122093
                              -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
##
   [447,] 0.6861450 -0.4606618
                              0.4925588 -0.86809270 0.8918804 -0.862460
6
                              0.4925588 0.76311405 -1.2813384 -0.104995
##
   [448,] 0.6861450 1.8579516
2
                              1.2317630 -0.86809270 -2.3679478 -1.619925
##
   [449,] -0.1094996 0.3122093
9
##
   [450,] -0.9051442 -1.2335329   0.4925588 -0.05248933 -1.2813384 -0.862460
6
   [451,] -1.7007887 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.862460
##
6
  [452,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -0.104995
##
2
   ##
2
   [454,] -0.9051442 -1.2335329 -0.2466454 -0.86809270 -1.2813384 -0.862460
##
6
                              0.4925588 -0.86809270 0.8918804 -0.862460
##
   [455,] 0.6861450 0.3122093
6
  [456,] -0.1094996 -0.4606618 -0.2466454 -0.86809270 -0.1947290 -0.104995
##
2
   [457,] -0.1094996 1.8579516
                              1.9709672 1.57871742 0.8918804 1.409935
##
5
   [458,] 1.4817895 0.3122093
                              1.9709672 1.57871742 0.8918804 1.409935
##
5
   [459,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 1.409935
##
   [460,] -0.9051442 -1.2335329
                              -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [461,] -1.7007887 1.8579516 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [462,] -0.1094996 1.0850805 0.4925588 -0.05248933 -0.1947290 -0.104995
##
2
## [463,] -0.1094996  0.3122093  0.4925588  0.76311405 -1.2813384 -0.104995
```

```
##
   6
   [465,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
## [466,] -0.9051442  0.3122093  -0.2466454  -0.05248933  0.8918804  0.652470
2
                               -0.9858495 -0.86809270 -0.1947290 0.652470
##
   [467,] -1.7007887 -0.4606618
2
                               0.4925588 -0.86809270 -0.1947290 -1.619925
## [468,] -0.9051442 0.3122093
9
                               1.2317630 -0.05248933 -0.1947290 -0.104995
##
   [469,] -0.9051442 1.0850805
2
                               0.4925588 -0.05248933 0.8918804 1.409935
## [470,] -0.9051442 -0.4606618
5
##
   [471,] -0.1094996 -0.4606618
                               -0.2466454 -0.86809270 0.8918804 0.652470
2
## [472,] -0.1094996 -0.4606618
                               0.4925588 1.57871742 -0.1947290 0.652470
2
                               1.9709672 1.57871742 -1.2813384 -1.619925
## [473,] -1.7007887 -1.2335329
9
## [474,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -0.104995
2
##
  [475,] -0.1094996 0.3122093
                               1.9709672 2.39432079 0.8918804 1.409935
5
                               0.4925588 -0.05248933 -0.1947290 -0.862460
   [476,] 1.4817895 0.3122093
##
6
  [477,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
##
   [478,] -0.9051442 -0.4606618
                               1.2317630 -0.05248933 -1.2813384 -0.862460
6
## [479,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
   [480,] -0.1094996 0.3122093
                               -0.9858495 -0.05248933 -0.1947290 -0.862460
##
6
## [481,] -0.9051442 0.3122093
                               0.4925588 -0.05248933 -0.1947290 0.652470
2
  [482,] 1.4817895 -0.4606618 -0.9858495 1.57871742 -0.1947290 1.409935
##
5
   [483,] -0.9051442 1.0850805
                               1.2317630 -0.05248933 -0.1947290 0.652470
##
2
  [484,] 0.6861450 -1.2335329
                               1.2317630 1.57871742 -0.1947290 -0.862460
##
6
   [485,] -0.9051442 -0.4606618
                               1.2317630 -0.86809270 -0.1947290 -0.104995
##
2
   [486,] -1.7007887 -1.2335329
                               -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
##
   [487,] 1.4817895 1.0850805
                               0.4925588 -0.05248933 -1.2813384 -0.104995
2
## [488,] 1.4817895 -0.4606618 -0.9858495 0.76311405 0.8918804 1.409935
```

```
[489,] -0.9051442 1.8579516 0.4925588 1.57871742 -0.1947290 0.652470
##
2
   [490,] 0.6861450 1.8579516 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
   [491,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
##
   [492,] -0.1094996 -0.4606618 -0.2466454 -0.86809270 -1.2813384 -0.104995
##
   [493,] 1.4817895 -0.4606618 0.4925588 -0.05248933 -0.1947290 -0.104995
##
2
   [494,] -1.7007887  0.3122093  -0.2466454  -0.05248933  0.8918804  -0.104995
##
2
                                1.2317630 0.76311405 -0.1947290 -0.862460
   [495,] 0.6861450 -0.4606618
##
6
   [496,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 -1.2813384 -0.104995
##
2
##
   [497,] -0.1094996 1.0850805
                                0.4925588 0.76311405 -1.2813384 -0.862460
6
   [498,] 1.4817895 0.3122093 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [499,] 0.6861450 0.3122093 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
##
   [500,] -0.9051442 1.0850805 -0.2466454 -0.05248933 0.8918804 1.409935
5
                                 0.4925588 1.57871742 -0.1947290 0.652470
   [501,] 0.6861450 0.3122093
##
2
                                 1.2317630 -0.86809270 -0.1947290 -0.862460
   [502,] -0.9051442 -0.4606618
##
6
   [503,] -1.7007887 1.0850805
                                 0.4925588 -0.86809270 0.8918804 1.409935
##
5
   [504,] 0.6861450 -1.2335329
                                 1.9709672 2.39432079 0.8918804 1.409935
##
5
                                 1.9709672 -0.86809270 0.8918804 -0.104995
##
   [505,] -0.1094996 0.3122093
2
## [506,] -0.1094996 -0.4606618
                                 0.4925588 1.57871742 -0.1947290 -0.104995
2
   [507,] -0.1094996 0.3122093
                                -0.2466454 0.76311405 0.8918804 1.409935
##
5
   [508,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -0.862460
##
6
   [509,] 0.6861450 1.8579516 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
   [510,] -1.7007887 -1.2335329
                                -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [511,] 0.6861450 -0.4606618 0.4925588 2.39432079 -1.2813384 1.409935
##
5
   [512,] -0.1094996 -1.2335329   1.2317630   2.39432079 -0.1947290   1.409935
##
5
  [513,] -1.7007887 1.8579516 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
```

```
[514,] -1.7007887 1.0850805 1.9709672 0.76311405 0.8918804 1.409935
##
5
   [515,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
  [516,] 0.6861450 0.3122093 1.2317630 -0.86809270 0.8918804 0.652470
##
2
   [517,] -0.1094996 -1.2335329 -0.9858495 -0.05248933 0.8918804 1.409935
##
5
   [518,] 1.4817895 0.3122093 -0.2466454 1.57871742 0.8918804 -0.104995
##
2
   [519,] 0.6861450 0.3122093 -0.9858495 -0.05248933 -1.2813384 -1.619925
##
9
   [520,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.104995
##
2
   [521,] -0.1094996  0.3122093  0.4925588 -0.05248933  0.8918804 -0.104995
##
2
##
  [522,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
6
   ##
6
                               1.2317630 1.57871742 -0.1947290 1.409935
##
   [524,] -1.7007887 -0.4606618
5
                               0.4925588 -0.05248933 0.8918804 -0.862460
##
   [525,] 0.6861450 -1.2335329
6
   [526,] -0.1094996 0.3122093
                               0.4925588 0.76311405 -1.2813384 -0.104995
##
2
                               1.9709672 2.39432079 0.8918804 0.652470
  [527,] -0.1094996 0.3122093
##
2
   [528,] -0.9051442 0.3122093
                               1.9709672 2.39432079 0.8918804 0.652470
##
2
## [529,] -0.1094996 -0.4606618
                               1.9709672 2.39432079 0.8918804 0.652470
2
##
   [530,] -0.1094996    1.8579516   -0.9858495   -0.86809270    0.8918804   -0.862460
6
   [531,] 1.4817895 -0.4606618
                               0.4925588 1.57871742 0.8918804 -0.862460
##
6
   [532,] 1.4817895 1.8579516
                               0.4925588 1.57871742 0.8918804 1.409935
##
5
   [533,] -0.1094996   0.3122093   -0.9858495   -0.86809270   0.8918804   -0.862460
##
6
   [534,] 0.6861450 -0.4606618 0.4925588 -0.05248933 0.8918804 0.652470
##
2
   [535,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [536,] 1.4817895 1.0850805 0.4925588 -0.05248933 0.8918804 -1.619925
##
9
##
   [537,] 1.4817895 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.862460
6
   [538,] 1.4817895 1.8579516 -0.2466454 1.57871742 0.8918804 -0.104995
##
```

```
##
   [539,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
2
   [540,] 0.6861450 1.8579516 -0.9858495 2.39432079 0.8918804 1.409935
##
5
  [541,] 0.6861450 0.3122093 0.4925588 2.39432079 0.8918804 1.409935
##
5
   [542,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
  [543,] 0.6861450 1.0850805 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
   [544,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
## [545,] -1.7007887 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
9
   [546,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
## [547,] -0.9051442 0.3122093
                                1.2317630 1.57871742 0.8918804 1.409935
5
   [548,] -0.1094996    1.8579516   -0.9858495   -0.86809270   -1.2813384   -0.104995
##
2
   [549,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [550,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [551,] 0.6861450 1.0850805
                                 0.4925588 -0.86809270 -0.1947290 -0.862460
##
6
                                 0.4925588 -0.86809270 -1.2813384 -0.862460
   [552,] -0.1094996 -1.2335329
##
6
   [553,] 1.4817895 1.8579516
                                 0.4925588 -0.86809270 0.8918804 -0.862460
##
6
   [554,] 0.6861450 1.0850805
                                 0.4925588 -0.86809270 -1.2813384 -0.862460
##
6
##
   [555,] 1.4817895 0.3122093
                                 1.9709672 0.76311405 -0.1947290 0.652470
2
   [556,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
   [557,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [558,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [559,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
                                 -0.9858495 -0.86809270 0.8918804 -0.862460
##
   [560,] -1.7007887 -1.2335329
6
   [561,] -0.9051442  0.3122093  -0.9858495  -0.05248933  0.8918804  1.409935
##
5
##
   [562,] 0.6861450 1.0850805 -0.2466454 0.76311405 -0.1947290 0.652470
2
## [563,] -1.7007887 -0.4606618 -0.9858495 0.76311405 0.8918804 1.409935
```

```
##
   [564,] -0.9051442 -1.2335329 -0.9858495 -0.05248933 0.8918804 -0.104995
2
## [565,] -1.7007887 1.8579516 -0.2466454 -0.05248933 -1.2813384 -0.104995
2
## [566,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 0.8918804 1.409935
5
                                0.4925588 -0.86809270 0.8918804 -0.862460
##
   [567,] 0.6861450 -0.4606618
6
   [568,] -0.9051442 -1.2335329  0.4925588 -0.05248933 -2.3679478 -0.104995
##
2
   [569,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
                                0.4925588 1.57871742 -0.1947290 -0.104995
## [570,] 1.4817895 1.0850805
2
   [571,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
## [572,] -0.9051442 -1.2335329
                                1.2317630 0.76311405 0.8918804 1.409935
5
   [573,] 0.6861450 -0.4606618 0.4925588 -0.86809270 0.8918804 -1.619925
##
9
## [574,] -1.7007887 -1.2335329 -0.9858495 0.76311405 0.8918804 -0.104995
2
## [575,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.104995
2
   [576,] 1.4817895 -0.4606618 -0.2466454 0.76311405 -1.2813384 -0.862460
##
                                0.4925588 0.76311405 0.8918804 1.409935
   [577,] -0.9051442 -0.4606618
##
5
##
   [578,] 0.6861450 1.0850805
                                1.2317630 0.76311405 0.8918804 -0.862460
6
## [579,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
2
                                1.9709672 1.57871742 0.8918804 1.409935
##
   [580,] 1.4817895 -0.4606618
5
                                -0.2466454 -0.05248933 -2.3679478 -0.104995
   [581,] 1.4817895 0.3122093
##
2
   [582,] 0.6861450 -0.4606618
                                0.4925588 -0.86809270 0.8918804 -0.104995
##
2
   [583,] 0.6861450 1.0850805
                                0.4925588 -0.05248933 -1.2813384 -0.862460
##
6
   [584,] 1.4817895 1.8579516 -0.2466454 -0.05248933 0.8918804 1.409935
##
   [585,] -0.9051442 -0.4606618
                                -0.2466454 -0.05248933 -1.2813384 -0.104995
##
2
  [586,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
##
   [587,] -0.9051442 1.8579516 -0.9858495 -0.86809270 0.8918804 1.409935
5
## [588,] -0.1094996 -1.2335329 -0.9858495 -0.05248933 -1.2813384 -0.862460
```

```
##
    [589,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.862460
6
    [590,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
   [591,] 0.6861450 0.3122093 1.9709672 2.39432079 -0.1947290 0.652470
##
2
    [592,] 1.4817895 1.0850805 -0.9858495 -0.05248933 -1.2813384 -1.619925
##
9
   [593,] 1.4817895 1.8579516 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
    [594,] 0.6861450 -1.2335329 -0.9858495 -0.05248933 -3.4545571 -1.619925
##
9
    [595,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.104995
##
2
    [596,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 -3.4545571 -0.862460
##
6
##
   [597,] 0.6861450 -1.2335329 -0.9858495 -0.05248933 0.8918804 1.409935
5
    [598,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
   [599,] -0.9051442 -1.2335329 -0.2466454 -0.05248933 -0.1947290 1.409935
##
5
    [600,] -0.1094996  0.3122093  1.2317630 -0.05248933 -0.1947290  0.652470
##
2
    [601.] 1.4817895 0.3122093 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
    [602,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 -0.1947290 -1.619925
##
9
##
    [603,] 0.6861450 0.3122093 -0.2466454 0.76311405 -1.2813384 -1.619925
9
    [604,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.862460
##
6
    [605,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
    [606,] -0.9051442 -0.4606618 -0.2466454 2.39432079 -1.2813384 -1.619925
##
9
    [607,] -0.9051442 -1.2335329 -0.2466454 -0.05248933 -0.1947290 0.652470
##
2
    [608,] -0.1094996    1.8579516   -0.9858495   -0.05248933   -2.3679478   -0.862460
##
6
   [609,] 1.4817895 1.8579516
                                 1.9709672 2.39432079 -0.1947290 -0.862460
##
6
    [610,] 1.4817895 -0.4606618
                                 1.9709672 -0.05248933 0.8918804 1.409935
##
5
                                 -0.2466454 -0.05248933 0.8918804 1.409935
##
    [611,] -0.9051442 0.3122093
5
##
    [612,] 1.4817895 0.3122093
                                 0.4925588 -0.86809270 0.8918804 -0.104995
2
  [613,] -0.1094996 1.0850805 0.4925588 1.57871742 0.8918804 1.409935
##
```

```
##
   [614,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
   [615,] 1.4817895 1.0850805 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [616,] 0.6861450 -0.4606618 -0.2466454 0.76311405 -2.3679478 -1.619925
##
9
                                0.4925588 1.57871742 0.8918804 1.409935
##
    [617,] 0.6861450 -0.4606618
5
   [618,] 1.4817895 1.8579516 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [619,] -1.7007887    1.8579516   -0.9858495   -0.86809270    0.8918804    1.409935
##
5
   [620,] -0.9051442 -0.4606618 1.9709672 2.39432079 0.8918804 0.652470
##
2
    [621,] -0.1094996   0.3122093   -0.9858495   -0.86809270   -0.1947290   -0.862460
##
6
##
   [622,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -3.4545571 -1.619925
9
   [623,] -0.1094996   0.3122093   -0.9858495   -0.86809270   0.8918804   -0.104995
##
2
   [624,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
##
   [625,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -1.619925
9
   [626,] -0.1094996  0.3122093  0.4925588 -0.86809270  0.8918804  0.652470
##
2
   [627,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -0.1947290 0.652470
##
2
##
   [628,] -0.1094996 0.3122093
                                0.4925588 -0.86809270 0.8918804 0.652470
2
   [629,] 0.6861450 -0.4606618
                                1.2317630 1.57871742 -0.1947290 0.652470
##
2
##
    [630,] -1.7007887 1.0850805
                                -0.9858495 -0.86809270 -0.1947290 -1.619925
9
   [631,] 0.6861450 -1.2335329
                                0.4925588 -0.86809270 0.8918804 1.409935
##
5
   [632,] -0.1094996 0.3122093
                                1.2317630 0.76311405 -0.1947290 0.652470
##
2
   [633,] 0.6861450 -0.4606618
                                ##
2
   [634,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
   [635,] -0.1094996 -0.4606618
                                -0.2466454 -0.05248933 -0.1947290 -1.619925
##
9
                                -0.9858495 0.76311405 -1.2813384 -0.104995
##
   [636,] -0.1094996 0.3122093
2
##
   [637,] 0.6861450 0.3122093 -0.9858495 -0.86809270 0.8918804 0.652470
2
   [638,] 0.6861450 -0.4606618 1.9709672 2.39432079 0.8918804 1.409935
##
```

```
##
   [639,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.862460
6
   [640,] -1.7007887 -1.2335329  0.4925588 -0.86809270  0.8918804  1.409935
##
5
   [641,] 1.4817895 0.3122093 0.4925588 0.76311405 -0.1947290 -0.104995
##
2
   [642,] -0.9051442 -0.4606618 -0.2466454 -0.05248933 0.8918804 -0.104995
##
                               1.2317630 2.39432079 -0.1947290 -0.104995
##
  [643,] -1.7007887 -0.4606618
2
   [644,] 0.6861450 1.0850805 -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
                               1.2317630 -0.05248933 -0.1947290 -0.104995
   [645,] -0.1094996 0.3122093
##
2
   [646,] -0.9051442 1.8579516 0.4925588 1.57871742 0.8918804 0.652470
##
2
  [647,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
   [648,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
   [649,] -0.9051442 -1.2335329 -0.2466454 -0.86809270 -0.1947290 -0.104995
##
2
##
   [650,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
   ##
5
   [652,] -0.1094996 1.8579516 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
##
   [653,] -0.9051442 1.0850805
                               1.2317630 -0.05248933 0.8918804 1.409935
5
   [654,] -0.9051442   0.3122093   -0.9858495   -0.86809270   -0.1947290   -1.619925
##
9
                               0.4925588 -0.05248933 -0.1947290 -0.862460
##
   [655,] -0.9051442 1.0850805
6
   [656,] -0.9051442 -1.2335329
                               0.4925588 -0.86809270 -1.2813384 -0.862460
##
6
   [657,] 1.4817895 1.8579516
                                1.9709672 2.39432079 -0.1947290 1.409935
##
5
   [658,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
   [659,] -0.1094996 0.3122093
                               1.9709672 0.76311405 0.8918804 1.409935
##
   [660,] -0.9051442 1.0850805
                               0.4925588 0.76311405 0.8918804 -0.862460
##
6
   [661,] 0.6861450 -0.4606618 -0.2466454 -0.86809270 -1.2813384 -0.862460
##
6
##
   [662,] 0.6861450 -1.2335329 -0.2466454 -0.05248933 -0.1947290 -0.862460
6
## [663,] -0.9051442 -1.2335329 1.2317630 -0.05248933 -0.1947290 -0.104995
```

```
##
2
   [665,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
   [666,] 0.6861450 1.0850805 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
                              -0.9858495 -0.86809270 -1.2813384 -0.104995
##
   [667,] 0.6861450 0.3122093
2
   [668,] 0.6861450 1.0850805 -0.2466454 -0.05248933 0.8918804 0.652470
##
2
                              1.2317630 1.57871742 -1.2813384 1.409935
##
   [669,] 1.4817895 -0.4606618
5
   [670,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.104995
##
2
   [671,] 0.6861450 0.3122093
                              -0.2466454 -0.05248933 -1.2813384 -0.104995
##
2
##
   [672,] 0.6861450 0.3122093
                              0.4925588 0.76311405 -0.1947290 0.652470
2
   ##
6
   [674,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
##
   [675,] -0.9051442 1.0850805 0.4925588 0.76311405 -0.1947290 1.409935
5
   [676,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 0.8918804 -0.104995
##
2
   [677,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
##
   [678,] -0.9051442   0.3122093   1.2317630   -0.86809270   0.8918804   -0.104995
2
   [679,] -0.1094996 -1.2335329 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
##
   [680,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 0.652470
2
   [681,] 0.6861450 -1.2335329
                              0.4925588 -0.05248933 0.8918804 -0.104995
##
2
   [682,] 0.6861450 -1.2335329 -0.2466454 1.57871742 0.8918804 0.652470
##
2
   [683,] -0.1094996 -0.4606618
                              1.2317630 -0.05248933 -0.1947290 0.652470
##
2
   [684,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
                              0.4925588 -0.86809270 0.8918804 1.409935
##
   [685,] -1.7007887 -1.2335329
5
   [686,] -0.1094996   0.3122093   -0.2466454   -0.86809270   -0.1947290   -0.104995
##
2
   [687,] -0.1094996  0.3122093  0.4925588  0.76311405 -1.2813384 -0.104995
##
2
## [688,] -0.9051442 0.3122093 -0.9858495 0.76311405 0.8918804 1.409935
```

```
##
   [689,] 1.4817895 -1.2335329 0.4925588 -0.86809270 0.8918804 1.409935
5
                              0.4925588 -0.86809270 -0.1947290 -0.104995
##
   [690,] -0.1094996 0.3122093
2
   [691,] 0.6861450 0.3122093 0.4925588 -0.05248933 -0.1947290 0.652470
##
2
   [692,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
                              0.4925588 0.76311405 0.8918804 0.652470
##
   [693,] 1.4817895 1.8579516
2
   [694,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
                              1.9709672 0.76311405 0.8918804 1.409935
   [695,] 1.4817895 1.8579516
##
5
##
   [696,] 1.4817895 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.862460
6
##
   [697,] -0.1094996 -0.4606618 -0.2466454 -0.86809270 -1.2813384 -0.862460
6
   ##
2
   [699,] 1.4817895 0.3122093 -0.9858495 -0.05248933 0.8918804 -0.104995
##
2
##
   [700,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
   [701,] -0.1094996 -1.2335329
                              -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
                              0.4925588 0.76311405 0.8918804 -0.104995
   [702,] 1.4817895 0.3122093
##
2
   [703,] 1.4817895 1.8579516
                              1.9709672 2.39432079 0.8918804 1.409935
##
5
   [704,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
##
   [705,] 0.6861450 -1.2335329
                              -0.9858495 -0.86809270 -0.1947290 -0.104995
2
   [706,] 1.4817895 0.3122093
                              1.2317630 2.39432079 0.8918804 -0.104995
##
2
   ##
2
   [708,] -0.1094996 -1.2335329
                              0.4925588 -0.05248933 -1.2813384 -0.862460
##
6
                              0.4925588 0.76311405 -0.1947290 0.652470
##
   [709,] -0.1094996 0.3122093
2
   [710,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
   [711,] 1.4817895 -0.4606618
                              1.9709672 1.57871742 -1.2813384 -0.104995
##
2
##
   [712,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -1.619925
9
   [713,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 0.8918804 0.652470
##
```

```
##
   [714,] 0.6861450 1.0850805 -0.9858495 -0.86809270 -1.2813384 -1.619925
9
   ##
2
   [716,] -1.7007887   0.3122093   -0.2466454   0.76311405   -0.1947290   1.409935
##
5
                            1.9709672 2.39432079 -0.1947290 0.652470
##
   [717,] 1.4817895 1.8579516
2
9
##
   [719,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
2
## [720,] -0.1094996 -0.4606618 1.2317630 -0.05248933 -0.1947290 0.652470
2
   [721,] 0.6861450 0.3122093 -0.2466454 0.76311405 -1.2813384 0.652470
##
2
## [722,] -1.7007887 1.0850805 0.4925588 -0.05248933 -1.2813384 -1.619925
9
   [723,] -0.1094996   0.3122093   -0.2466454   -0.05248933   -2.3679478   -0.862460
##
6
                            0.4925588 -0.86809270 -0.1947290 -1.619925
   [724,] -0.1094996 1.0850805
##
9
   [725,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -1.2813384 -1.619925
##
9
   ##
2
  [727,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [728,] -1.7007887 -1.2335329
                            0.4925588 0.76311405 0.8918804 -0.104995
##
2
## [729,] -0.1094996 -0.4606618
                            1.9709672 -0.86809270 0.8918804 1.409935
5
                            1.2317630 1.57871742 0.8918804 1.409935
##
   [730,] 0.6861450 -0.4606618
5
   [731,] 1.4817895 1.8579516 -0.9858495 -0.86809270 -2.3679478 -0.862460
##
6
   [732,] -0.9051442 0.3122093
                             1.2317630 -0.05248933 0.8918804 0.652470
##
2
   [733,] 0.6861450 1.8579516
                             0.4925588 -0.05248933 0.8918804 -0.862460
##
6
                             1.9709672 0.76311405 -1.2813384 -0.104995
## [734,] 1.4817895 1.8579516
2
                             1.9709672 0.76311405 -1.2813384 -0.104995
##
   [735,] -0.9051442 -1.2335329
2
   [736,] 0.6861450 0.3122093
                             0.4925588 0.76311405 -3.4545571 -1.619925
##
9
##
   [737,] 1.4817895 1.0850805 -0.2466454 0.76311405 -0.1947290 -0.862460
6
## [738,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
```

```
##
   [739,] -1.7007887   0.3122093   1.2317630   1.57871742   0.8918804   1.409935
5
                                1.9709672 2.39432079 0.8918804 1.409935
##
   [740,] 0.6861450 1.8579516
5
   [741,] -0.1094996 1.8579516
                                0.4925588 -0.05248933 0.8918804 0.652470
##
2
                                1.9709672 0.76311405 -1.2813384 -1.619925
##
   [742,] -1.7007887 -1.2335329
9
                                1.2317630 0.76311405 0.8918804 0.652470
##
   [743,] 1.4817895 0.3122093
2
                                0.4925588 0.76311405 -0.1947290 1.409935
##
   [744,] -0.9051442 -0.4606618
5
## [745,] -1.7007887 -1.2335329 -0.9858495 0.76311405 -0.1947290 0.652470
2
   [746,] 0.6861450 0.3122093
                                1.2317630 1.57871742 0.8918804 1.409935
##
5
## [747,] -1.7007887 -1.2335329
                                1.9709672 -0.86809270 0.8918804 -0.104995
2
   [748,] 0.6861450 -0.4606618 -0.9858495 -0.05248933 -3.4545571 0.652470
##
2
   [749,] -0.1094996 -0.4606618 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
##
   [750,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.104995
2
                                1.2317630 0.76311405 -1.2813384 -0.104995
   [751,] 1.4817895 -0.4606618
##
2
   [752,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
##
   [753,] 1.4817895 -1.2335329
                                0.4925588 -0.86809270 -0.1947290 -0.862460
6
   [754,] 0.6861450 1.0850805 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [755,] -0.9051442 1.0850805
                                1.2317630 0.76311405 -0.1947290 0.652470
##
2
   [756,] -0.1094996 0.3122093
                                1.2317630 1.57871742 0.8918804 0.652470
##
2
   [757,] 0.6861450 0.3122093
                                0.4925588 0.76311405 0.8918804 1.409935
##
5
   [758,] 0.6861450 -1.2335329
                                -0.9858495 1.57871742 -0.1947290 -1.619925
##
9
                                0.4925588 1.57871742 -0.1947290 1.409935
##
   [759,] -0.9051442 -1.2335329
                                1.2317630 -0.05248933 -1.2813384 -0.104995
   [760,] 0.6861450 -0.4606618
##
2
   [761,] -0.1094996 1.8579516
                                0.4925588 0.76311405 -1.2813384 -0.104995
##
2
##
   [762,] -0.9051442 0.3122093
                                0.4925588 0.76311405 0.8918804 1.409935
5
                                0.4925588 0.76311405 -0.1947290 0.652470
## [763,] -0.1094996 1.8579516
```

```
##
   2
   [765,] 0.6861450 -1.2335329 -0.2466454 -0.05248933 -1.2813384 -1.619925
##
9
   [766,] 1.4817895 -1.2335329 0.4925588 1.57871742 0.8918804 1.409935
##
5
                            0.4925588 0.76311405 -0.1947290 0.652470
##
   [767,] 0.6861450 1.0850805
2
## [768,] -0.9051442 1.0850805 0.4925588 -0.86809270 -3.4545571 -1.619925
9
##
   [769,] -0.1094996  0.3122093  -0.2466454  -0.05248933  -0.1947290  0.652470
2
## [770,] 0.6861450 1.0850805
                            1.2317630 1.57871742 -0.1947290 0.652470
2
   [771,] -0.9051442   0.3122093   -0.2466454   0.76311405   -0.1947290   -0.104995
##
2
## [772,] -0.9051442 1.0850805 0.4925588 -0.86809270 0.8918804 0.652470
2
   [773,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
## [774,] -0.1094996 0.3122093 0.4925588 0.76311405 -1.2813384 -0.104995
2
##
   9
   [776,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 0.8918804 1.409935
##
5
  [777,] -0.1094996 1.8579516 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
##
   2
## [779,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 0.8918804 -1.619925
9
##
   [780,] 1.4817895 1.0850805 -0.2466454 -0.05248933 0.8918804 -0.104995
2
   [781,] 0.6861450 1.0850805
                            1.2317630 -0.86809270 -0.1947290 -0.104995
##
2
   [782,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 -2.3679478 -0.862460
##
6
   [783,] 1.4817895 -1.2335329
                            0.4925588 0.76311405 0.8918804 0.652470
##
2
  [784,] -0.1094996  0.3122093  -0.2466454  0.76311405  0.8918804  1.409935
##
                             -0.2466454 -0.05248933 -0.1947290 -0.862460
##
   [785,] 1.4817895 1.8579516
6
  [786,] -0.1094996 1.0850805 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
##
   [787,] -0.9051442 1.0850805 -0.2466454 -0.05248933 0.8918804 -1.619925
9
## [788,] 0.6861450 1.8579516 0.4925588 -0.05248933 -0.1947290 -1.619925
```

```
##
   6
   [790,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [791,] 0.6861450 -1.2335329 0.4925588 1.57871742 -0.1947290 -0.862460
##
6
   [792,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
  [793,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
                             1.2317630 1.57871742 -2.3679478 0.652470
##
   [794,] -0.1094996 0.3122093
2
  [795,] -1.7007887 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [796,] 0.6861450 1.0850805
                             1.2317630 1.57871742 -0.1947290 0.652470
##
2
   [797,] 0.6861450 1.0850805
##
                             1.2317630 1.57871742 -1.2813384 0.652470
2
                             -0.2466454 -0.86809270 0.8918804 1.409935
##
   [798,] -0.9051442 0.3122093
5
   [799,] 0.6861450 1.8579516 -0.2466454 -0.05248933 0.8918804 -0.862460
##
6
##
   [800,] -0.9051442  0.3122093  1.2317630  0.76311405  0.8918804  1.409935
5
   ##
2
   [802,] -1.7007887 -1.2335329 -0.9858495 -0.05248933 -1.2813384 -0.862460
##
6
##
   [803,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
   [804,] -0.1094996   0.3122093   -0.9858495   -0.86809270   0.8918804   -0.104995
##
2
   ##
6
   [806,] 0.6861450 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
   [807,] 1.4817895 1.8579516 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [808,] -0.1094996 1.8579516 -0.9858495 -0.86809270 0.8918804 -0.862460
##
6
   [809,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
   [810,] -0.1094996    1.8579516   -0.9858495   -0.86809270   -0.1947290    1.409935
##
5
   [811,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
##
   [812,] 1.4817895 1.0850805 -0.2466454 0.76311405 -1.2813384 -0.104995
2
## [813,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
```

```
##
   [814,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.104995
2
   [815,] 0.6861450 0.3122093 0.4925588 -0.05248933 0.8918804 -0.104995
##
2
   [816,] 1.4817895 0.3122093
                           1.2317630 1.57871742 -0.1947290 -0.104995
##
2
   [817,] 0.6861450 1.8579516 0.4925588 0.76311405 0.8918804 0.652470
##
2
   ##
5
                           -0.9858495 -0.86809270 -0.1947290 1.409935
##
   [819,] -0.9051442 1.0850805
5
                           0.4925588 0.76311405 0.8918804 -0.104995
   [820,] -0.1094996 0.3122093
##
2
   [821,] 1.4817895 -1.2335329 0.4925588 -0.86809270 0.8918804 -0.862460
##
6
   [822,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   [823,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [824,] 0.6861450 0.3122093 -0.9858495 -0.86809270 -0.1947290 -0.104995
##
2
##
   [825,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.104995
2
   [826,] -0.9051442 -1.2335329 -0.2466454 -0.86809270 -0.1947290 0.652470
##
2
  [827,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
##
   [828,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
   [829,] -1.7007887 1.0850805 0.4925588 -0.05248933 0.8918804 -0.104995
##
2
##
   [830,] 0.6861450 1.8579516 -0.2466454 -0.86809270 0.8918804 0.652470
2
   [831,] 0.6861450 -1.2335329
                           1.9709672 1.57871742 0.8918804 1.409935
##
5
   [832,] -0.1094996  0.3122093  0.4925588 -0.05248933  0.8918804 -0.104995
##
2
   ##
6
   [834,] 1.4817895 1.8579516 -0.2466454 1.57871742 0.8918804 -0.104995
##
2
   ##
2
   ##
5
##
   [837,] -0.1094996 1.0850805 -0.9858495 -0.86809270 -0.1947290 0.652470
2
## [838,] -0.9051442 1.0850805 1.2317630 2.39432079 -0.1947290 -0.104995
```

```
##
   [839,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -0.862460
6
   [840,] -0.1094996  0.3122093  -0.9858495  -0.86809270  0.8918804  -0.862460
##
6
   [841,] 0.6861450 0.3122093 0.4925588 -0.05248933 0.8918804 -0.104995
##
2
   [842,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
  [843,] -0.9051442   0.3122093   -0.2466454   -0.05248933   -1.2813384   1.409935
##
5
   ##
2
   [845,] 0.6861450 1.8579516 1.9709672 2.39432079 0.8918804 1.409935
##
5
##
   [846,] -0.1094996   0.3122093   -0.2466454   -0.86809270   -1.2813384   -0.104995
2
##
   [847,] -1.7007887 -1.2335329 -0.2466454 -0.05248933 0.8918804 0.652470
2
   [848,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
   [849,] 1.4817895 -0.4606618 -0.9858495 -0.05248933 0.8918804 -0.104995
##
2
##
   [850,] -0.9051442  0.3122093  1.9709672  1.57871742  0.8918804  0.652470
2
   [851,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
                              1.9709672 -0.05248933 0.8918804 -0.104995
##
   [852,] 1.4817895 1.0850805
2
##
   [853,] 0.6861450 -1.2335329
                              0.4925588 -0.86809270 -0.1947290 0.652470
2
   [854,] -0.1094996 -0.4606618
                              ##
2
                              0.4925588 0.76311405 -0.1947290 0.652470
##
   [855,] -1.7007887 -0.4606618
2
   [856,] 0.6861450 0.3122093
                              1.2317630 1.57871742 0.8918804 1.409935
##
5
   [857,] -0.9051442 0.3122093
                              1.2317630 -0.86809270 0.8918804 -0.862460
##
6
   [858,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   ##
2
                              -0.2466454 -0.86809270 0.8918804 -0.104995
   [860,] -1.7007887 1.0850805
##
2
   [861,] 1.4817895 1.0850805
                              -0.9858495 0.76311405 0.8918804 0.652470
##
2
##
   [862,] -0.9051442 1.0850805 -0.2466454 -0.86809270 -0.1947290 -0.104995
2
## [863,] -0.9051442 1.0850805 1.2317630 -0.05248933 0.8918804 1.409935
```

```
##
   [864,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -0.1947290 0.652470
2
   [865,] 0.6861450 -0.4606618 0.4925588 -0.86809270 -0.1947290 0.652470
##
2
   [866,] -0.9051442  0.3122093  0.4925588 -0.05248933 -0.1947290  0.652470
##
2
                                -0.2466454 0.76311405 0.8918804 1.409935
##
   [867,] 0.6861450 0.3122093
5
                                0.4925588 0.76311405 0.8918804 0.652470
##
   [868,] 1.4817895 1.0850805
2
   [869,] -1.7007887  0.3122093  -0.2466454  -0.05248933  -0.1947290  -0.104995
##
2
   [870,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
                                0.4925588 -0.05248933 -1.2813384 -0.862460
##
    [871,] -0.9051442 0.3122093
6
##
   [872,] 0.6861450 1.0850805
                                 1.9709672 2.39432079 0.8918804 1.409935
5
   [873,] -0.1094996 -1.2335329 -0.9858495 1.57871742 -0.1947290 0.652470
##
2
   [874,] 0.6861450 -0.4606618 -0.2466454 -0.86809270 -0.1947290 0.652470
##
2
##
   [875,] -0.1094996 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
   [876,] 0.6861450 -1.2335329
                                -0.9858495 -0.86809270 0.8918804 1.409935
##
5
                                 1.9709672 1.57871742 0.8918804 1.409935
   [877,] -0.9051442 1.0850805
##
5
##
   [878,] 1.4817895 1.8579516
                                0.4925588 -0.86809270 -0.1947290 0.652470
2
   [879,] 0.6861450 1.0850805
                                 1.2317630 -0.05248933 -0.1947290 0.652470
##
2
                                 1.2317630 2.39432079 -2.3679478 0.652470
##
    [880,] -0.9051442 0.3122093
2
   [881,] -0.1094996 -0.4606618
                                -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
   [882,] 0.6861450 -0.4606618
                                 -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
   [883,] -0.1094996 -1.2335329
                                -0.9858495 -0.86809270 -0.1947290 -1.619925
##
9
   [884,] 0.6861450 0.3122093 -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
                                1.2317630 -0.05248933 0.8918804 -0.104995
   [885,] -0.9051442 -1.2335329
##
2
   [886,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 -1.2813384 -1.619925
##
9
##
   [887,] -1.7007887 1.0850805
                                 1.2317630 1.57871742 0.8918804 1.409935
5
## [888,] -0.1094996 -0.4606618   0.4925588 -0.86809270 -1.2813384 -0.104995
```

```
##
   [889,] 1.4817895 0.3122093 -0.9858495 -0.86809270 0.8918804 0.652470
2
   [890,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   ##
5
   ##
2
                             1.2317630 1.57871742 -0.1947290 0.652470
##
   [893,] -0.9051442 0.3122093
2
   [894,] -0.9051442  0.3122093  0.4925588 -0.05248933 -1.2813384 -0.862460
##
6
   [895,] -0.1094996 -1.2335329 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [896,] -0.9051442 -0.4606618 -0.9858495 -0.05248933 -2.3679478 -0.862460
##
6
   [897,] -0.9051442 1.0850805 -0.9858495 -0.86809270 0.8918804 0.652470
##
2
   [898,] -0.1094996 -0.4606618 1.2317630 -0.05248933 -1.2813384 -0.862460
##
6
   [899,] 0.6861450 1.0850805 -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
                             0.4925588 0.76311405 0.8918804 1.409935
##
   [900,] 0.6861450 1.0850805
   [901,] -0.1094996    1.8579516   -0.2466454   -0.86809270   -0.1947290   -0.862460
##
   [902,] -0.9051442 1.8579516 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
##
   [903,] 0.6861450 -1.2335329 0.4925588 0.76311405 -0.1947290 -0.104995
2
                             1.9709672 0.76311405 0.8918804 1.409935
   [904,] -1.7007887 0.3122093
##
5
   [905,] -0.1094996   0.3122093   -0.2466454   -0.05248933   -0.1947290   0.652470
##
2
   [906,] -0.9051442 1.0850805
                             -0.9858495 -0.86809270 0.8918804 -0.104995
##
2
                             -0.9858495 -0.86809270 0.8918804 -0.104995
## [907,] -0.9051442 1.0850805
2
   [908,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.104995
##
2
   ##
                             -0.2466454 -0.05248933 0.8918804 0.652470
   [910,] 0.6861450 0.3122093
##
2
   [911,] -0.1094996 1.0850805
                             1.2317630 -0.05248933 0.8918804 -0.104995
##
2
   [912,] 0.6861450 0.3122093
##
                             1.9709672 0.76311405 -1.2813384 -0.104995
2
## [913,] -0.9051442 -0.4606618   0.4925588 -0.05248933 -1.2813384 -0.862460
```

```
##
   [914,] 0.6861450 0.3122093 0.4925588 -0.86809270 -1.2813384 -0.862460
6
   [915,] 0.6861450 1.0850805 0.4925588 -0.05248933 -1.2813384 -1.619925
##
9
   [916,] -0.9051442 -0.4606618 -0.2466454 -0.86809270 0.8918804 -0.862460
##
6
   [917,] -0.9051442    1.8579516   -0.9858495   -0.86809270    0.8918804    1.409935
##
5
   [918,] -0.9051442   0.3122093   0.4925588 -0.05248933   0.8918804   0.652470
##
2
   [919,] 0.6861450 0.3122093 -0.2466454 -0.05248933 -0.1947290 -0.862460
##
6
   [920,] 1.4817895 0.3122093 -0.2466454 -0.86809270 -2.3679478 -1.619925
##
9
   [921,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
##
  [922,] -0.9051442 -0.4606618
                             0.4925588 0.76311405 0.8918804 0.652470
2
   [923,] 1.4817895 1.8579516 0.4925588 1.57871742 0.8918804 1.409935
##
5
   [924,] -0.9051442 -0.4606618 -0.9858495 -0.05248933 0.8918804 0.652470
##
2
   [925,] 0.6861450 -0.4606618 -0.9858495 -0.86809270 -1.2813384 -1.619925
##
9
   [926,] 0.6861450 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.104995
##
2
   [927,] -1.7007887 0.3122093 0.4925588 -0.86809270 0.8918804 1.409935
##
5
##
   [928,] 1.4817895 -1.2335329 -0.9858495 -0.86809270 -0.1947290 -0.862460
6
   [929,] -0.9051442 -0.4606618 -0.9858495 -0.86809270 -0.1947290 -0.862460
##
6
##
   [930,] -0.1094996  0.3122093  0.4925588  0.76311405 -1.2813384  0.652470
2
## [931,] -0.9051442 -0.4606618 -0.9858495 -0.05248933 0.8918804 0.652470
2
## [932,] -0.9051442 0.3122093 -0.2466454 -0.86809270 -0.1947290 1.409935
5
   ##
5
   ##
   [935,] 1.4817895 -0.4606618
                             ##
6
   [936,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
##
   [937,] -0.9051442 -1.2335329 -0.2466454 -0.86809270 -1.2813384 -0.862460
6
  [938,] 1.4817895 -1.2335329 1.9709672 1.57871742 0.8918804 -0.104995
##
```

```
[939,] 0.6861450 0.3122093 1.9709672 0.76311405 -0.1947290 -0.104995
##
2
   [940,] 1.4817895 -0.4606618
                               0.4925588 1.57871742 -0.1947290 -1.619925
##
9
                               0.4925588 0.76311405 0.8918804 1.409935
   [941,] -0.1094996 -0.4606618
##
5
   [942,] 0.6861450 1.8579516 -0.2466454 -0.86809270 0.8918804 -0.104995
##
2
                               -0.9858495 -0.86809270 0.8918804 -0.862460
##
   [943,] -0.1094996 1.0850805
6
                               1.2317630 0.76311405 -0.1947290 -0.862460
##
   [944,] -0.9051442 0.3122093
6
   ##
9
                               1.9709672 2.39432079 0.8918804 1.409935
##
   [946,] -0.9051442 0.3122093
5
##
   [947,] -0.9051442 -1.2335329 -0.9858495 -0.86809270 0.8918804 1.409935
5
   [948,] -1.7007887 -1.2335329 -0.9858495 -0.86809270 -1.2813384 -0.862460
##
6
                               1.9709672 1.57871742 -1.2813384 -0.104995
##
   [949,] -0.9051442 -0.4606618
2
##
   [950,] -0.1094996 -1.2335329 -0.2466454 -0.86809270 -1.2813384 -0.862460
6
   [951,] -1.7007887 0.3122093
                               -0.9858495 -0.86809270 0.8918804 1.409935
##
5
                               0.4925588 1.57871742 0.8918804 1.409935
   [952,] -1.7007887 -0.4606618
##
5
##
   [953,] -0.9051442 0.3122093
                               1.9709672 1.57871742 -0.1947290 1.409935
5
   [954,] 0.6861450 0.3122093
                               0.4925588 -0.05248933 -1.2813384 -1.619925
##
9
   [955,] 1.4817895 -1.2335329
                               1.2317630 -0.86809270 0.8918804 -0.862460
##
6
   [956,] 1.4817895 -1.2335329
                               1.9709672 1.57871742 -1.2813384 -0.862460
##
6
   [957,] -0.9051442 -0.4606618
                               -0.2466454   0.76311405   -0.1947290   -0.104995
##
2
   [958,] -0.1094996 0.3122093
                               -0.9858495 -0.86809270 -0.1947290 0.652470
##
2
                               -0.9858495 -0.86809270 -2.3679478 -1.619925
##
   [959,] 0.6861450 -0.4606618
9
                               0.4925588 -0.86809270 0.8918804 -0.862460
   [960,] 0.6861450 -0.4606618
##
6
   [961,] -0.1094996 0.3122093
                               0.4925588 0.76311405 0.8918804 -0.104995
##
2
##
   [962,] 1.4817895 1.8579516
                               1.9709672 0.76311405 0.8918804 1.409935
5
## [963,] -0.1094996 -1.2335329  0.4925588  1.57871742 -1.2813384 -1.619925
```

```
[964,] 1.4817895 1.8579516 -0.9858495 1.57871742 0.8918804 1.409935
##
5
   [965,] 0.6861450 -0.4606618 -0.2466454 -0.05248933 -0.1947290 -0.104995
##
2
   [966,] 1.4817895 -1.2335329 -0.9858495 0.76311405 0.8918804 -0.862460
##
6
   [967,] 1.4817895 1.8579516 -0.9858495 -0.86809270 -3.4545571 -1.619925
##
9
   [968,] -0.9051442 0.3122093
                              1.9709672 2.39432079 -0.1947290 -0.104995
##
2
                              1.9709672 1.57871742 0.8918804 1.409935
##
   [969,] -1.7007887 -1.2335329
5
                              0.4925588 -0.86809270 0.8918804 1.409935
  [970,] -0.1094996 -1.2335329
##
5
   [971,] -0.1094996 -0.4606618
                              1.2317630 1.57871742 0.8918804 1.409935
##
5
##
   [972,] -0.9051442 0.3122093
                              0.4925588 0.76311405 -0.1947290 0.652470
2
                              0.4925588 0.76311405 -0.1947290 -0.862460
##
   [973,] 0.6861450 -0.4606618
6
   [974,] 0.6861450 -1.2335329 -0.9858495 -0.05248933 0.8918804 1.409935
##
5
##
   [975,] 0.6861450 0.3122093
                              1.9709672 0.76311405 0.8918804 -0.862460
6
   [976,] 0.6861450 0.3122093 -0.9858495 1.57871742 0.8918804 -1.619925
##
9
                              1.2317630 0.76311405 -0.1947290 0.652470
   [977,] 1.4817895 -0.4606618
##
2
##
   6
   [979,] -0.1094996   0.3122093   -0.2466454   -0.05248933   0.8918804   -0.104995
##
2
                              0.4925588 -0.05248933 0.8918804 -0.104995
##
   [980,] -0.1094996 1.8579516
2
   [981,] 1.4817895 1.8579516 -0.9858495 -0.05248933 -0.1947290 -1.619925
##
9
   [982,] 1.4817895 -0.4606618 -0.9858495 -0.05248933 0.8918804 -1.619925
##
9
   [983,] -0.9051442 0.3122093
                              0.4925588 1.57871742 -0.1947290 0.652470
##
2
   ##
9
                              -0.9858495 -0.86809270 -0.1947290 -0.862460
   [985,] -1.7007887 1.0850805
##
6
   [986,] -0.1094996 -0.4606618 -0.9858495 -0.05248933 -1.2813384 -0.862460
##
6
##
   [987,] 1.4817895 0.3122093
                              1.9709672 0.76311405 -0.1947290 0.652470
2
   [988,] 1.4817895 1.0850805 -0.2466454 -0.05248933 0.8918804 -0.862460
##
```

```
[989,] 1.4817895 1.8579516 1.2317630 2.39432079 0.8918804 1.409935
5
   [990,] 1.4817895 1.8579516 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
   ##
5
   [992,] -1.7007887 -0.4606618 -0.9858495 -0.86809270 0.8918804 1.409935
##
5
##
  [993,] -0.9051442 0.3122093
                               1.9709672 2.39432079 -0.1947290 -0.104995
2
##
   [994,] 0.6861450 1.8579516 -0.9858495 -0.86809270 -1.2813384 -0.862460
6
   [995,] 1.4817895 -0.4606618 -0.9858495 -0.86809270 0.8918804 -1.619925
##
9
   [996,] 0.6861450 0.3122093
                               1.2317630 -0.05248933 0.8918804 0.652470
##
2
## [997,] -1.7007887 -1.2335329
                               -0.9858495 -0.86809270 -0.1947290 0.652470
2
## [998,] 1.4817895 -1.2335329
                               -0.2466454 -0.86809270 -0.1947290 -1.619925
9
                               1.9709672 2.39432079 0.8918804 1.409935
## [999,] 0.6861450 -0.4606618
5
                               1.9709672 0.76311405 0.8918804 1.409935
## [1000,] 1.4817895 0.3122093
                               -0.9858495 -0.86809270 -1.2813384 -1.619925
## [1001,] -0.1094996 -0.4606618
                               -0.9858495 -0.86809270 0.8918804 -0.104995
## [1002,] -0.9051442 0.3122093
                               -0.9858495 0.76311405 0.8918804 1.409935
## [1003,] -0.9051442 -1.2335329
## [1004,] 0.6861450 0.3122093
                               -0.9858495 -0.86809270 -1.2813384 -1.619925
## [1005,] 0.6861450 -1.2335329
                               -0.2466454 -0.05248933 0.8918804 1.409935
                               -0.9858495 -0.05248933 -0.1947290 -0.104995
## [1006,] 0.6861450 -0.4606618
                               1.9709672 1.57871742 0.8918804 1.409935
## [1007,] -1.7007887 -1.2335329
## [1008,] -0.1094996 0.3122093
                               0.4925588 -0.86809270 -1.2813384 0.652470
## [1009,] 1.4817895 0.3122093 -0.9858495 -0.86809270 0.8918804 0.652470
## [1010,] -0.1094996 -1.2335329 -0.2466454 -0.05248933 -0.1947290 -0.862460
6
##
          Economy.Management
                              Biology Chemistry
                                                   Reading Geography
##
     [1,]
                  1.7524146 0.2323720 0.6102413 -0.1052355 -0.0650566
##
     [2,]
                  1.7524146 -1.2074790 -0.8433995 0.5632416 0.7171715
##
     [3,]
                  1.0090552 -1.2074790 -0.8433995 1.2317188 -0.8472847
##
     [4,]
                 -0.4776636   0.2323720   0.6102413   1.2317188   0.7171715
     [5,]
##
             -0.4776636 0.2323720 0.6102413 1.2317188 -0.8472847
```

```
##
      [6,]
                   -1.2210230 0.9522975 1.3370617 -0.1052355 -0.0650566
##
                               1.6722230
                                         2.0638820 -0.1052355 -0.0650566
      [7,]
                    0.2656958
                   -1.2210230 -0.4875535 -0.1165791 -0.7737127 -0.0650566
##
      [8,]
##
                   -1.2210230
                               0.2323720 -0.8433995
                                                     1.2317188 -1.6295129
      [9,]
##
     [10,]
                    1.0090552 -0.4875535 -0.8433995 0.5632416 0.7171715
                    0.2656958 -0.4875535 -0.8433995 -0.1052355 -0.0650566
##
     [11,]
##
                   -1.2210230 -1.2074790 -0.8433995 -0.1052355 1.4993997
     [12,]
                   -1.2210230
                                         2.0638820
                                                     1.2317188 -0.0650566
##
     [13,]
                               1.6722230
##
                    0.2656958 -1.2074790 -0.8433995
                                                     0.5632416 -1.6295129
     [14,]
##
     [15,]
                    0.2656958 -0.4875535 -0.8433995
                                                     0.5632416 -1.6295129
##
     [16,]
                    0.2656958
                               1.6722230 -0.1165791 -0.1052355 -0.0650566
##
                   -1.2210230
                               0.9522975 -0.8433995 -1.4421898 -1.6295129
     [17,]
##
                   -1.2210230
                               1.6722230
                                          2.0638820 0.5632416 -0.8472847
     [18,]
##
     [19,]
                    0.2656958
                               0.2323720
                                          0.6102413 -0.1052355 -1.6295129
##
                    1.0090552 -0.4875535 -0.8433995 -0.1052355
                                                                0.7171715
     [20,]
                               0.9522975
                                          1.3370617 -0.1052355 -0.0650566
##
     [21,]
                   -0.4776636
##
     [22,]
                    1.7524146
                               0.2323720 -0.8433995 -1.4421898
                                                                1.4993997
##
                    0.2656958
                               0.2323720 -0.1165791 -0.7737127 -0.0650566
     [23,]
##
     [24,]
                   -0.4776636
                               1.6722230
                                         2.0638820
                                                     1.2317188 -0.0650566
##
                   -0.4776636
                               0.2323720 -0.1165791
                                                     0.5632416 0.7171715
     [25,]
##
                    1.7524146 -1.2074790 -0.8433995
                                                     0.5632416 -0.8472847
     [26,]
                               1.6722230
                                          2.0638820
                                                     0.5632416 -0.0650566
##
     [27,]
                   -1.2210230
##
                   -0.4776636
                               1.6722230 2.0638820 -0.7737127 -0.8472847
     [28,]
##
     [29,]
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 0.7171715
                               0.9522975 -0.1165791
                                                     1.2317188 -0.0650566
##
     [30,]
                    1.0090552
##
     [31,]
                    0.2656958
                               0.2323720 -0.8433995
                                                     0.5632416
                                                                0.7171715
                   -0.4776636 -0.4875535 -0.1165791
                                                     1.2317188
##
                                                                 1.4993997
     [32,]
                    0.2656958 -1.2074790 -0.8433995 -0.1052355 -0.0650566
##
     [33,]
##
                    1.0090552
                               0.9522975
                                          0.6102413
                                                     1.2317188
                                                                1.4993997
     [34,]
                               0.2323720 -0.8433995 -0.1052355 -0.8472847
##
                    1.0090552
     [35,]
                   -1.2210230 -1.2074790 -0.8433995
                                                     1.2317188 -0.0650566
##
     [36,]
##
     [37,]
                   -0.4776636
                               1.6722230
                                          2.0638820
                                                     1.2317188 -0.0650566
##
     [38,]
                   -0.4776636
                               1.6722230
                                          0.6102413 -0.7737127 -0.8472847
                    1.7524146
                               1.6722230 -0.8433995 1.2317188 -0.0650566
##
     [39,]
                               0.2323720
                                          2.0638820 -0.1052355 -0.0650566
##
     [40,]
                   -0.4776636
##
                    0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.0650566
     [41,]
                   -1.2210230 -1.2074790 2.0638820 1.2317188 -0.0650566
##
     [42,]
##
                    1.7524146
                              1.6722230 -0.1165791 -0.1052355 -0.8472847
     [43,]
                    1.7524146 -1.2074790 -0.8433995 -0.1052355
                                                                1.4993997
##
     [44,]
##
                    1.0090552 0.2323720 -0.1165791 1.2317188
                                                                0.7171715
     [45,]
                   -0.4776636 -1.2074790 -0.8433995 -0.1052355 -1.6295129
##
     [46,]
##
     [47,]
                   -0.4776636 -0.4875535 -0.8433995
                                                     1.2317188
                                                                0.7171715
##
     [48,]
                    1.0090552 -0.4875535 -0.8433995
                                                     1.2317188 -0.0650566
                               0.2323720 -0.1165791 -0.7737127 -0.0650566
##
     [49,]
                    1.0090552
                                                     1.2317188 -0.8472847
##
                    0.2656958 -0.4875535 -0.8433995
     [50,]
##
     [51,]
                   -1.2210230
                               1.6722230
                                          2.0638820
                                                     0.5632416 -0.0650566
##
     [52,]
                   -0.4776636
                               1.6722230
                                           2.0638820 -0.1052355 -0.0650566
                   -0.4776636
##
                               0.2323720
                                           1.3370617
                                                     1.2317188 -0.0650566
     [53,]
##
     [54,]
                   -0.4776636
                               0.9522975 -0.1165791
                                                     0.5632416
                                                                1.4993997
##
     [55,]
                   -1.2210230 0.2323720 1.3370617 1.2317188 -0.0650566
```

```
##
     [56,]
                    ##
                    1.0090552 -0.4875535 -0.8433995 1.2317188 -0.8472847
     [57,]
##
     [58,]
                    0.2656958
                              0.2323720 -0.8433995 1.2317188 -0.8472847
##
                   -1.2210230
                              1.6722230
                                         1.3370617 -1.4421898
                                                                1.4993997
     [59,]
##
     [60,]
                   -0.4776636 -1.2074790 -0.8433995 1.2317188
                                                                1.4993997
##
                    1.0090552 -0.4875535 -0.1165791
                                                    1.2317188
     [61,]
                                                                0.7171715
##
                    1.0090552 -1.2074790 -0.8433995 -1.4421898 -0.0650566
     [62,]
                                         0.6102413 -0.7737127
##
     [63,]
                    0.2656958 0.2323720
                                                                1.4993997
##
                    1.0090552 -1.2074790 -0.8433995 -0.7737127 -0.0650566
     [64,]
##
     [65,]
                   -1.2210230
                              1.6722230
                                         2.0638820 -0.7737127 -1.6295129
##
     [66,]
                   -0.4776636 -1.2074790 -0.8433995 -1.4421898
                                                               1.4993997
##
                   -0.4776636 -1.2074790 -0.1165791 -1.4421898
     [67,]
                                                               0.7171715
##
                   1.7524146 -0.4875535 -0.1165791 -0.1052355 -0.0650566
     [68,]
##
     [69,]
                    1.0090552 0.2323720
                                         2.0638820 -0.7737127 -0.0650566
##
                   -1.2210230
                              1.6722230
                                         2.0638820 -0.1052355 -1.6295129
     [70,]
                   0.2656958 -1.2074790 -0.8433995 -0.7737127 -1.6295129
##
     [71,]
##
     [72,]
                    1.0090552 -1.2074790 -0.8433995 -0.1052355
                                                               0.7171715
##
                   -1.2210230 -1.2074790 -0.8433995 -0.7737127 -0.8472847
     [73,]
##
     [74,]
                    0.2656958 -0.4875535 -0.1165791 -0.7737127 0.7171715
##
                    1.0090552 -1.2074790 -0.8433995 -1.4421898
                                                                0.7171715
     [75,]
##
                    1.7524146 0.9522975 -0.8433995 -0.7737127
                                                                1.4993997
     [76,]
                   -0.4776636 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
     [77,]
##
                   -1.2210230
                              1.6722230
                                         2.0638820
                                                    1.2317188
     [78,]
                                                               1.4993997
##
     [79,]
                    1.0090552
                              1.6722230
                                         2.0638820
                                                    1.2317188
                                                               1.4993997
                    1.7524146
                              0.2323720 -0.8433995 -1.4421898 -0.0650566
##
     [80,]
##
     [81,]
                    0.2656958 -0.4875535 -0.8433995 -0.7737127 -0.8472847
                    1.0090552 -1.2074790 -0.1165791 -0.7737127 -0.0650566
##
     [82,]
                   -1.2210230 -0.4875535 -0.8433995 1.2317188 -0.0650566
##
     [83,]
##
                              1.6722230
                                         0.6102413 -0.7737127 -0.8472847
     [84,]
                    0.2656958
                                         1.3370617 1.2317188
##
                   -1.2210230
                              0.9522975
                                                               1.4993997
     [85,]
                    0.2656958 -0.4875535 -0.1165791 -0.7737127 -0.0650566
##
     [86,]
##
     [87,]
                    1.7524146
                              0.9522975
                                         1.3370617 1.2317188
                                                               1.4993997
##
     [88,]
                    1.0090552
                              0.2323720 -0.1165791 -0.1052355
                                                                0.7171715
                   -1.2210230
                              0.9522975 -0.8433995 1.2317188
                                                                1.4993997
##
     [89,]
                   -0.4776636 -0.4875535 -0.8433995 0.5632416 -0.0650566
##
     [90,]
##
                   -1.2210230 -0.4875535 -0.1165791 -0.1052355 -1.6295129
     [91,]
                              1.6722230 -0.8433995 -1.4421898 -1.6295129
##
     [92,]
                   -1.2210230
##
     [93,]
                   -0.4776636 -0.4875535 -0.1165791 1.2317188
                                                               0.7171715
                   0.2656958 -0.4875535 -0.1165791 -1.4421898
##
     [94,]
                                                               1.4993997
##
                    0.2656958 -0.4875535 -0.1165791 -0.7737127 -0.0650566
     [95,]
                   -0.4776636 -0.4875535 -0.8433995 -1.4421898
##
     [96,]
                                                               1.4993997
                                         1.3370617 -1.4421898 -1.6295129
##
     [97,]
                   -1.2210230
                              0.2323720
##
     [98,]
                   -0.4776636 -1.2074790 -0.8433995 -0.1052355 -1.6295129
                   -1.2210230 -0.4875535 -0.8433995 -0.1052355
##
     [99,]
                                                                1.4993997
##
                   -1.2210230
                              0.2323720
                                         2.0638820 -0.1052355
    [100,]
                                                                1.4993997
##
    [101,]
                   -0.4776636
                              1.6722230
                                         2.0638820 -0.1052355 -0.8472847
##
    [102,]
                   -1.2210230 -1.2074790 -0.8433995
                                                    1.2317188
                                                                0.7171715
                   -0.4776636 0.9522975
                                         1.3370617
                                                     1.2317188
##
    [103,]
                                                                1.4993997
##
    [104,]
                   -0.4776636 -0.4875535 -0.8433995
                                                     1.2317188
                                                                1.4993997
                   1.0090552 -0.4875535 -0.1165791 -0.7737127 0.7171715
    [105,]
```

```
-1.2210230 -1.2074790 1.3370617 -0.1052355 -1.6295129
##
    [106,]
##
    [107,]
                   1.7524146 -0.4875535 -0.8433995 -0.7737127 -0.0650566
##
    [108,]
                   -0.4776636
                              1.6722230 2.0638820 1.2317188 -0.8472847
                   -1.2210230 -1.2074790 -0.8433995 -0.7737127 -1.6295129
##
    [109,]
##
    [110,]
                   1.0090552 -0.4875535 -0.1165791 -1.4421898 -0.8472847
##
    [111,]
                   -0.4776636
                              1.6722230 -0.8433995 -1.4421898
                                                               1.4993997
                   -1.2210230
                              0.2323720 -0.1165791 1.2317188 -0.0650566
##
    [112,]
    [113,]
##
                   -1.2210230
                              1.6722230
                                         1.3370617
                                                    1.2317188 -0.0650566
##
    [114,]
                   -1.2210230
                              0.2323720
                                         0.6102413 -1.4421898 -0.8472847
                   -0.4776636 -1.2074790 -0.8433995
                                                   1.2317188 -0.0650566
##
    [115,]
##
                   -0.4776636
                             0.2323720
                                         0.6102413 -0.1052355 0.7171715
    [116,]
##
    [117,]
                   -1.2210230 -1.2074790
                                        0.6102413 1.2317188 -1.6295129
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.8472847
##
    [118,]
##
    [119,]
                   -0.4776636 -0.4875535 -0.1165791 0.5632416 0.7171715
                   -1.2210230 -0.4875535
                                         1.3370617 -0.1052355
##
    [120,]
                                                                0.7171715
                   1.7524146 0.2323720
                                        2.0638820 1.2317188
                                                               1.4993997
##
    [121,]
##
                   0.2656958 -0.4875535 -0.1165791 -1.4421898 -1.6295129
    [122,]
##
                   -1.2210230 -1.2074790 -0.8433995 1.2317188 -0.0650566
    [123,]
    [124,]
                   ##
                   0.2656958 -0.4875535 -0.1165791 0.5632416 0.7171715
##
    [125,]
                   -0.4776636  0.2323720  -0.1165791
                                                    1.2317188 -0.8472847
##
    [126,]
##
    [127,]
                   -1.2210230 -1.2074790 -0.8433995
                                                    0.5632416 -0.8472847
                   0.2656958 -0.4875535 -0.8433995
##
    [128,]
                                                    0.5632416
                                                               1.4993997
##
                   -1.2210230
                              0.2323720
                                         2.0638820
                                                    1.2317188
                                                               1.4993997
    [129,]
##
                   -1.2210230
                              1.6722230
                                         1.3370617 -0.1052355 -0.8472847
    [130,]
##
    [131,]
                   1.0090552 -1.2074790 -0.8433995
                                                    1.2317188
                                                               1.4993997
##
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -1.6295129
    [132,]
##
    [133,]
                   -0.4776636
                             0.9522975 -0.8433995
                                                   0.5632416 1.4993997
                              0.2323720 -0.8433995
##
                   -1.2210230
                                                    1.2317188 -0.0650566
    [134,]
    [135,]
                   0.2656958
                              0.2323720
                                         0.6102413 -0.1052355 -0.0650566
##
##
                   -1.2210230
                              0.2323720 -0.8433995
                                                   0.5632416 0.7171715
    [136,]
                   0.2656958
                              1.6722230
                                        2.0638820 -0.1052355 -0.0650566
##
    [137,]
##
    [138,]
                   -0.4776636
                              0.9522975
                                         0.6102413
                                                    0.5632416
                                                               1.4993997
##
    [139,]
                   -0.4776636
                              1.6722230
                                         1.3370617
                                                   1.2317188 -0.0650566
##
    [140,]
                   -1.2210230
                              0.2323720 -0.1165791 -0.1052355 -1.6295129
                   -1.2210230 -1.2074790 -0.8433995
##
                                                   0.5632416 -0.0650566
    [141,]
                                        1.3370617 0.5632416 -1.6295129
##
    [142,]
                   1.7524146 0.2323720
                   1.0090552 -1.2074790 -0.8433995 0.5632416 0.7171715
##
    [143,]
                   -0.4776636 -1.2074790 -0.8433995 -0.1052355 -1.6295129
##
    [144,]
    [145,]
                              1.6722230 2.0638820 -0.7737127 -0.0650566
##
                   -1.2210230
##
                   -1.2210230 -0.4875535 -0.8433995 -0.1052355 -0.0650566
    [146,]
##
    [147,]
                   0.2656958 -0.4875535 -0.8433995
                                                   0.5632416
                                                               0.7171715
##
    [148,]
                   -0.4776636 -0.4875535
                                         0.6102413 1.2317188
                                                               1.4993997
##
    [149,]
                    0.2656958 0.2323720
                                         1.3370617 -1.4421898
                                                               0.7171715
                    0.2656958 -0.4875535
                                         0.6102413 -0.7737127 -0.0650566
##
    [150,]
##
    [151,]
                    1.7524146 -0.4875535 -0.1165791 0.5632416
                                                              0.7171715
##
                   -1.2210230 -0.4875535 -0.8433995 -0.1052355
                                                               0.7171715
    [152,]
                    1.7524146 -0.4875535 -0.1165791 -0.7737127 -0.0650566
##
    [153,]
##
    [154,]
                    0.2656958 -0.4875535 -0.8433995 0.5632416 -0.8472847
                    1.7524146 -0.4875535 -0.1165791 -1.4421898 1.4993997
   [155,]
```

```
-1.2210230 0.9522975 0.6102413 0.5632416 -0.0650566
##
   [156,]
##
   [157,]
                 -1.2210230 -1.2074790 -0.8433995
                                              1.2317188 0.7171715
##
   [158,]
                 -0.4776636 -0.4875535 -0.1165791
                                              0.5632416 -0.0650566
                 -1.2210230
                           0.2323720
##
   [159,]
                                    0.6102413
                                               0.5632416
                                                        0.7171715
                 1.0090552
##
   [160,]
                          0.9522975 -0.1165791
                                              0.5632416
                                                         1.4993997
##
   [161,]
                 1.7524146 -0.4875535
                                     0.6102413 -1.4421898
                                                         1.4993997
                 -1.2210230
                           1.6722230
                                    2.0638820
                                              1.2317188 -0.8472847
##
   [162,]
##
   [163,]
                 -0.4776636 -1.2074790 -0.8433995 -0.1052355
                                                         1.4993997
##
   [164,]
                 0.2656958 0.2323720 0.6102413 -0.7737127 -0.8472847
                 -1.2210230 -0.4875535 -0.8433995
                                              0.5632416 -1.6295129
##
   [165,]
##
                 1.0090552 -1.2074790 -0.8433995
                                              1.2317188 0.7171715
   [166,]
                 0.2656958 -0.4875535 1.3370617 0.5632416 -0.0650566
##
   [167,]
                 ##
   [168,]
##
   [169,]
                 1.7524146 -1.2074790 -0.8433995 0.5632416 -0.0650566
                 -1.2210230 -0.4875535 -0.8433995
                                              1.2317188 -0.0650566
##
   [170,]
##
                 [171,]
##
   [172,]
                 1.7524146 -1.2074790 -0.8433995 0.5632416 -0.0650566
##
                 -0.4776636 -0.4875535 -0.1165791 -0.7737127 1.4993997
   [173,]
                 [174,]
##
                 0.2656958 -1.2074790 -0.8433995 0.5632416 1.4993997
##
   [175,]
                 -1.2210230 0.2323720 -0.8433995 1.2317188 -1.6295129
##
   [176,]
                 1.0090552 -1.2074790 -0.1165791 -1.4421898 -1.6295129
##
   [177,]
                 -1.2210230 -1.2074790 -0.8433995 0.5632416 -0.0650566
##
   [178,]
##
                 -1.2210230 0.2323720 0.6102413 0.5632416 -0.0650566
   [179,]
##
   [180,]
                 ##
   [181,]
                 1.7524146 -1.2074790 -0.8433995
                                              1.2317188 0.7171715
##
                 0.2656958 -0.4875535 -0.1165791 -0.1052355 -0.0650566
   [182,]
##
   [183,]
                 -0.4776636
                          1.6722230 1.3370617 0.5632416 -0.8472847
                          0.9522975 -0.1165791
##
                 -0.4776636
                                               1.2317188 1.4993997
   [184,]
   [185,]
                 -1.2210230 -1.2074790 -0.8433995
                                              1.2317188 -0.0650566
##
##
                 -1.2210230
                          1.6722230 -0.8433995
                                               1.2317188 -0.8472847
   [186,]
                 1.0090552 -1.2074790 -0.8433995
                                              1.2317188 -0.0650566
##
   [187,]
##
   [188,]
                 -1.2210230 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
   [189,]
                 -1.2210230 -0.4875535 2.0638820
                                              1.2317188 0.7171715
##
   [190,]
                 0.2656958 -1.2074790 -0.8433995
                                               1.2317188 -0.8472847
                                               1.2317188 -0.0650566
##
                 0.2656958
                          1.6722230 1.3370617
   [191,]
   [192,]
                 -1.2210230 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
                 ##
   [193,]
##
   [194,]
                 1.0090552 -1.2074790 -0.8433995 0.5632416 -0.0650566
##
   [195,]
##
                 1.4993997
   [196,]
##
   [197,]
                 0.2656958 0.2323720 -0.8433995 0.5632416
                                                         0.7171715
##
   [198,]
                 1.0090552 -1.2074790 -0.8433995 -1.4421898
                                                         0.7171715
##
   [199,]
                 -1.2210230 -1.2074790 -0.8433995 -0.7737127 -1.6295129
                 0.2656958 -0.4875535 -0.8433995 0.5632416 -0.0650566
##
   [200,]
##
   [201,]
                  0.2656958 -1.2074790 -0.8433995 -0.1052355 0.7171715
##
                  1.7524146 -1.2074790 -0.8433995 1.2317188
                                                        1.4993997
   [202,]
                  0.2656958 1.6722230
                                    1.3370617 -1.4421898 -0.0650566
##
   [203,]
##
   [204,]
                 0.2656958
                          1.6722230 2.0638820 -0.1052355 -1.6295129
                 0.2656958 -1.2074790 -0.1165791 1.2317188 -0.8472847
   [205,]
```

```
-1.2210230 0.9522975 1.3370617 1.2317188 -0.0650566
##
    [206,]
##
    [207,]
                   -0.4776636 -0.4875535
                                        1.3370617 1.2317188 -0.0650566
##
    [208,]
                   -0.4776636
                              0.2323720 -0.1165791
                                                   1.2317188
                                                              1.4993997
                   -1.2210230
                              0.2323720 -0.1165791 -0.1052355 -0.0650566
##
    [209,]
##
    [210,]
                   0.2656958 -0.4875535 -0.1165791
                                                   0.5632416
                                                               1.4993997
                              1.6722230
##
    [211,]
                   1.0090552
                                        1.3370617
                                                    1.2317188
                                                               0.7171715
                   1.0090552 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [212,]
    [213,]
##
                   1.0090552
                              0.2323720
                                         0.6102413
                                                    1.2317188
                                                              0.7171715
                                         2.0638820
##
    [214,]
                   1.0090552
                              1.6722230
                                                    1.2317188
                                                               0.7171715
    [215,]
                   -0.4776636
                              1.6722230
                                        2.0638820
                                                   0.5632416
                                                               1.4993997
##
##
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.0650566
    [216,]
                                        1.3370617 -0.1052355 -1.6295129
##
    [217,]
                   -1.2210230
                              0.9522975
                   0.2656958 -0.4875535 -0.1165791 1.2317188
##
                                                              1.4993997
    [218,]
                             1.6722230
##
    [219,]
                   -0.4776636
                                        2.0638820 -0.1052355 -0.0650566
                   0.2656958 -1.2074790 -0.8433995 -1.4421898
##
    [220,]
                                                              1.4993997
##
                  -1.2210230
                              1.6722230 2.0638820 -0.1052355 -1.6295129
    [221,]
##
                   0.2656958 -0.4875535 -0.8433995 -0.1052355
                                                              1.4993997
    [222,]
##
                  -0.4776636 -1.2074790 -0.8433995 -0.1052355 -0.0650566
    [223,]
                             1.6722230 0.6102413 1.2317188 -0.0650566
    [224,]
                   -0.4776636
##
                   1.0090552 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [225,]
                   1.0090552 -0.4875535 -0.1165791 0.5632416
##
    [226,]
                                                              0.7171715
##
    [227,]
                   0.2656958 -1.2074790 -0.8433995 -1.4421898
                                                               0.7171715
                             0.9522975
                                        1.3370617 1.2317188
##
    [228,]
                   -0.4776636
                                                               1.4993997
##
                   0.2656958
                              0.9522975
                                         2.0638820
                                                   0.5632416 -0.0650566
    [229,]
##
                   1.4993997
    [230,]
##
    [231,]
                   1.7524146 -0.4875535 -0.1165791 1.2317188
                                                               0.7171715
##
                   1.0090552 -0.4875535 -0.8433995 -0.1052355
                                                               0.7171715
    [232,]
##
    [233,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898
                                                              1.4993997
                                        1.3370617 0.5632416 -1.6295129
##
                   -0.4776636 0.9522975
    [234,]
    [235,]
                   1.7524146 -0.4875535 -0.1165791 -1.4421898 -1.6295129
##
##
                  -1.2210230 -0.4875535
                                        0.6102413
                                                   1.2317188
                                                              0.7171715
    [236,]
                   -0.4776636 0.2323720 1.3370617
                                                    1.2317188 -0.8472847
##
    [237,]
##
    [238,]
                   1.7524146 -1.2074790 -0.8433995
                                                   0.5632416
                                                              1.4993997
                   1.0090552 -0.4875535 -0.8433995 -1.4421898 -0.8472847
##
    [239,]
##
    [240,]
                   1.0090552 -0.4875535 -0.1165791 -1.4421898 -0.0650566
##
    [241,]
                   -1.2210230 -0.4875535 -0.8433995 -0.7737127 -0.8472847
##
    [242,]
                   1.0090552 -0.4875535 -0.8433995
                                                   0.5632416 -1.6295129
##
    [243,]
                                                   1.2317188 -0.8472847
##
    [244,]
                   -0.4776636
                             1.6722230 0.6102413
    [245,]
                  -1.2210230 0.2323720 -0.8433995
                                                    1.2317188 -1.6295129
##
##
                   0.2656958 -1.2074790 -0.8433995
                                                    1.2317188 1.4993997
    [246,]
##
    [247,]
                   1.0090552 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
    [248,]
                   0.2656958
                             1.6722230
                                        1.3370617
                                                    1.2317188 1.4993997
##
    [249,]
                   0.2656958 -0.4875535 -0.1165791
                                                    1.2317188 -0.8472847
                              1.6722230
                                        2.0638820 -0.1052355 -0.0650566
##
                   -1.2210230
    [250,]
##
    [251,]
                   1.0090552 -1.2074790 -0.8433995
                                                   1.2317188 -0.8472847
##
                   -0.4776636
                              1.6722230
                                        2.0638820
                                                    0.5632416 -1.6295129
    [252,]
                   -0.4776636 -1.2074790 -0.8433995 1.2317188 -0.0650566
##
    [253,]
##
    [254,]
                   -1.2210230 0.2323720 -0.8433995 -1.4421898 -1.6295129
                   1.0090552 -1.2074790 -0.8433995 -0.7737127 -1.6295129
##
    [255,]
```

```
-1.2210230 0.9522975 1.3370617 1.2317188 -0.0650566
##
    [256,]
                   0.2656958 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [257,]
##
    [258,]
                  -0.4776636 -0.4875535 -0.1165791 -1.4421898 -0.0650566
##
                  -1.2210230 -1.2074790 -0.8433995
                                                  1.2317188
    [259,]
                                                             1.4993997
##
    [260,]
                  -0.4776636
                            0.9522975
                                       0.6102413
                                                  1.2317188 0.7171715
##
    [261,]
                   0.2656958
                             0.2323720
                                       0.6102413 -0.1052355 -0.0650566
                   1.7524146 -0.4875535 -0.8433995 1.2317188 -1.6295129
##
    [262,]
##
    [263,]
                  -0.4776636 -0.4875535 -0.1165791 1.2317188 -0.0650566
                             0.9522975 -0.8433995 -0.1052355 -0.0650566
##
    [264,]
                  0.2656958
                  -0.4776636
                             1.6722230 2.0638820 -0.1052355 -0.8472847
##
    [265,]
##
                  -1.2210230 -0.4875535 -0.1165791 -0.1052355 -1.6295129
    [266,]
                  1.0090552 0.2323720 -0.8433995 1.2317188 1.4993997
##
    [267,]
                  -0.4776636
                             0.2323720 -0.1165791
                                                  1.2317188 -0.8472847
##
    [268,]
##
    [269,]
                  -1.2210230
                             1.6722230 2.0638820 -1.4421898 -1.6295129
                  -1.2210230
                             1.6722230
                                       1.3370617
                                                  1.2317188 -0.0650566
##
    [270,]
##
                  -0.4776636 -0.4875535 -0.8433995
                                                  0.5632416 0.7171715
    [271,]
##
    [272,]
                  -0.4776636 -0.4875535 -0.8433995
                                                  0.5632416 -0.0650566
##
                  -1.2210230
                             1.6722230 2.0638820
                                                   1.2317188 -0.0650566
    [273,]
                                                  0.5632416 0.7171715
##
    [274,]
                   1.0090552 0.2323720 -0.1165791
                   0.2656958 -1.2074790 -0.8433995
                                                  0.5632416 -0.8472847
##
    [275,]
                   0.2656958 -0.4875535 -0.1165791 1.2317188 -0.0650566
##
   [276,]
##
                   1.0090552 -1.2074790 -0.8433995
                                                  0.5632416 -1.6295129
    [277,]
                   1.0090552 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [278,]
                                                  1.2317188 1.4993997
##
                  -0.4776636
                             1.6722230 2.0638820
    [279,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
   [280,]
##
    [281,]
                  -0.4776636
                             0.2323720 -0.8433995 -0.1052355 -1.6295129
##
                  -1.2210230
                             1.6722230 2.0638820 -0.7737127 0.7171715
   [282,]
##
    [283,]
                   1.7524146 -0.4875535 -0.8433995 -1.4421898 -1.6295129
                   ##
    [284,]
   [285,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 0.7171715
##
##
                  -0.4776636
                             1.6722230 1.3370617 1.2317188 -0.8472847
    [286,]
                  -0.4776636 -0.4875535 -0.8433995 -0.1052355 -0.0650566
##
    [287,]
##
    [288,]
                   1.0090552
                             0.9522975 -0.1165791 0.5632416 0.7171715
##
    [289,]
                   0.2656958
                             0.2323720 -0.1165791 -1.4421898 -0.0650566
##
    [290,]
                   1.0090552 -0.4875535 -0.1165791 -0.7737127 0.7171715
                                                  1.2317188 -0.0650566
                             1.6722230 2.0638820
##
                  -1.2210230
   [291,]
    [292,]
                  1.7524146 0.2323720 -0.8433995
                                                  0.5632416 -0.0650566
##
##
                  -0.4776636 -1.2074790 -0.8433995
                                                  1.2317188
                                                             0.7171715
    [293,]
                  ##
   [294,]
    [295,]
                             0.2323720 -0.8433995 -0.1052355
##
                   1.7524146
                                                             0.7171715
##
                   [296,]
                                                             0.7171715
##
    [297,]
                  -0.4776636 -1.2074790 -0.8433995 -0.7737127
                                                            0.7171715
##
    [298,]
                  -1.2210230
                            0.9522975 1.3370617 1.2317188 -1.6295129
##
    [299,]
                  -1.2210230 -1.2074790 -0.8433995
                                                  1.2317188 -0.8472847
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.8472847
##
    [300,]
##
    [301,]
                  -0.4776636   0.9522975   -0.1165791   1.2317188   -0.8472847
##
                  -1.2210230 -0.4875535 0.6102413 0.5632416 0.7171715
    [302,]
                   1.0090552 -0.4875535 -0.8433995 -0.1052355 -0.8472847
##
   [303,]
##
    [304,]
                   1.7524146 -0.4875535 -0.1165791 1.2317188 0.7171715
                   1.0090552 0.2323720 -0.8433995 1.2317188 -0.8472847
   [305,]
```

```
-0.4776636 -0.4875535 -0.8433995 0.5632416 0.7171715
##
    [306,]
##
    [307,]
                   0.2656958
                              0.2323720 -0.8433995 -1.4421898
                                                              1.4993997
##
    [308,]
                   -1.2210230
                              1.6722230
                                        1.3370617 1.2317188 -0.8472847
##
    [309,]
                              1.6722230 -0.1165791 -1.4421898
                   0.2656958
                                                              0.7171715
##
    [310,]
                   -1.2210230
                              0.2323720
                                        ##
    [311,]
                   -0.4776636
                              1.6722230
                                        2.0638820 -1.4421898 -0.8472847
                   1.7524146
                              0.9522975
                                        0.6102413 1.2317188
##
    [312,]
                                                              1.4993997
    [313,]
##
                   -1.2210230 -1.2074790 -0.1165791 -1.4421898 -0.0650566
                              0.2323720 -0.1165791 -0.1052355 -0.0650566
##
    [314,]
                  -1.2210230
                   -0.4776636
                             0.2323720 -0.1165791 -0.1052355
                                                              1.4993997
##
    [315,]
##
                   1.0090552 -1.2074790 -0.8433995 -0.7737127 0.7171715
    [316,]
                             1.6722230 1.3370617 -1.4421898 -0.8472847
##
    [317,]
                   -1.2210230
                  -0.4776636 -0.4875535 -0.1165791 -0.1052355 -0.0650566
##
    [318,]
##
    [319,]
                   0.2656958
                             1.6722230 2.0638820 1.2317188 -0.8472847
                   1.0090552 -0.4875535 -0.8433995 1.2317188 0.7171715
##
    [320,]
##
                   -0.4776636 -0.4875535 -0.8433995 -1.4421898 -0.8472847
    [321,]
##
    [322,]
                  -1.2210230
                              1.6722230 -0.1165791 0.5632416 -0.8472847
##
                  -0.4776636 -1.2074790 -0.8433995 -0.1052355 1.4993997
    [323,]
                             1.6722230 2.0638820 -1.4421898 -1.6295129
##
    [324,]
                   -0.4776636
                   1.0090552 0.9522975 -0.1165791 -0.7737127 -0.0650566
##
    [325,]
                   0.2656958
                             1.6722230 2.0638820 -0.1052355
                                                              1.4993997
##
    [326,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
    [327,]
                   1.7524146 -1.2074790 -0.8433995 1.2317188 0.7171715
##
    [328,]
##
                   1.7524146 -1.2074790 -0.8433995 -1.4421898
                                                              1.4993997
    [329,]
                   ##
    [330,]
##
    [331,]
                   -1.2210230 -0.4875535 -0.8433995 -1.4421898 -0.0650566
##
                  -1.2210230
                             1.6722230 -0.1165791 0.5632416 -0.0650566
    [332,]
##
    [333,]
                  -1.2210230
                             1.6722230
                                        2.0638820
                                                   1.2317188 -0.0650566
                             0.2323720
                                        0.6102413
                                                   1.2317188
##
                  -0.4776636
                                                              1.4993997
    [334,]
    [335,]
                   0.2656958 -1.2074790 -0.8433995 1.2317188
                                                              1.4993997
##
##
                   1.0090552
                             0.2323720
                                        0.6102413 -0.7737127 -0.8472847
    [336,]
                   -1.2210230 0.2323720 2.0638820 -1.4421898 -0.0650566
##
    [337,]
##
    [338,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -1.6295129
                   1.0090552 -0.4875535 -0.8433995 -0.1052355 -1.6295129
##
    [339,]
##
    [340,]
                   0.2656958 -1.2074790 -0.8433995 -0.1052355
                                                              1.4993997
                  -1.2210230 -0.4875535 -0.1165791 1.2317188 0.7171715
##
    [341,]
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [342,]
                   1.0090552 -0.4875535
                                        0.6102413 -0.7737127 0.7171715
##
    [343,]
##
    [344,]
                   0.2656958 1.6722230 0.6102413 1.2317188 -0.8472847
    [345,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
##
                   1.7524146 -1.2074790 -0.1165791 0.5632416
                                                              0.7171715
    [346,]
##
    [347,]
                   -1.2210230 -1.2074790 -0.8433995 -0.1052355
                                                              0.7171715
##
    [348,]
                   1.0090552 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
    [349,]
                  -1.2210230
                             0.9522975 1.3370617 0.5632416 0.7171715
                             0.2323720 -0.8433995 -0.7737127 -0.0650566
##
                   1.0090552
    [350,]
##
    [351,]
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
                   -0.4776636
                             1.6722230
                                        2.0638820 0.5632416
                                                              0.7171715
    [352,]
                             1.6722230 2.0638820 -1.4421898 -0.8472847
##
    [353,]
                   -1.2210230
##
    [354,]
                   1.0090552 -0.4875535 -0.1165791 1.2317188
                                                              0.7171715
                   1.0090552 1.6722230 -0.1165791 1.2317188 -0.0650566
   [355,]
```

```
1.0090552 -1.2074790 -0.8433995 -0.1052355 -0.0650566
##
    [356,]
                   1.0090552 -0.4875535 -0.1165791 -0.7737127 0.7171715
##
    [357,]
##
    [358,]
                  -0.4776636   0.9522975   0.6102413   -1.4421898   -1.6295129
##
                  -1.2210230 -1.2074790 -0.1165791 -0.7737127 0.7171715
    [359,]
##
    [360,]
                  -1.2210230 -0.4875535 -0.8433995 1.2317188 -1.6295129
                   ##
    [361,]
                   0.2656958 -0.4875535 -0.1165791 0.5632416 -1.6295129
##
    [362,]
##
    [363,]
                  -0.4776636 -1.2074790 -0.1165791
                                                   1.2317188 -0.0650566
                  -1.2210230 -1.2074790 -0.8433995
##
    [364,]
                                                   1.2317188 0.7171715
                   1.7524146 -1.2074790 -0.8433995 -1.4421898
                                                              0.7171715
##
    [365,]
##
                   1.0090552 0.9522975 1.3370617 0.5632416
                                                              1.4993997
    [366,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
    [367,]
                  -0.4776636 -1.2074790 -0.8433995 -0.1052355 -0.0650566
##
    [368,]
##
    [369,]
                   1.0090552
                             0.9522975 -0.1165791 1.2317188 1.4993997
                   0.2656958
                             0.9522975 -0.1165791 -0.1052355 -0.0650566
##
    [370,]
##
                  -0.4776636
                              1.6722230
                                        1.3370617 1.2317188 0.7171715
    [371,]
##
    [372,]
                   0.2656958
                              1.6722230
                                        2.0638820
                                                   1.2317188 -0.8472847
##
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -0.8472847
    [373,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 1.4993997
##
    [374,]
                  -1.2210230
                             1.6722230
                                        2.0638820 -0.7737127 -0.8472847
##
    [375,]
##
                  -1.2210230
                              1.6722230
                                        2.0638820 0.5632416 -0.8472847
    [376,]
##
                  -1.2210230
                              1.6722230
                                        0.6102413 -1.4421898 -1.6295129
    [377,]
                              1.6722230
                                        2.0638820 1.2317188 0.7171715
##
    [378,]
                   1.7524146
##
    [379,]
                  -1.2210230 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [380,]
                  1.0090552
                             0.2323720 -0.1165791 -0.7737127 -0.0650566
##
    [381,]
                  -0.4776636
                              1.6722230 2.0638820 -0.7737127 -0.8472847
                  -0.4776636 -1.2074790 -0.8433995 1.2317188 -0.8472847
##
    [382,]
##
    [383,]
                  -1.2210230
                             1.6722230 -0.8433995 -0.7737127 -0.8472847
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 0.7171715
##
    [384,]
    [385,]
                  -1.2210230
                             ##
                  -1.2210230 -1.2074790 -0.8433995 0.5632416 -0.0650566
##
    [386,]
                   1.0090552 0.2323720
                                        0.6102413 -0.1052355 -0.0650566
##
    [387,]
##
    [388,]
                   0.2656958
                             1.6722230
                                        0.6102413 0.5632416 0.7171715
                              0.2323720 -0.8433995 -0.1052355 -0.8472847
##
    [389,]
                   1.7524146
##
    [390,]
                  -0.4776636
                             0.9522975
                                        0.6102413 -0.1052355 0.7171715
                                        1.3370617 0.5632416 -0.0650566
                   1.7524146
                             0.2323720
##
    [391,]
                  -0.4776636 -0.4875535 -0.8433995 0.5632416 -0.8472847
##
    [392,]
##
                  -0.4776636 -0.4875535 -0.8433995 -1.4421898 -0.8472847
    [393,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 1.4993997
##
    [394,]
                  -1.2210230 0.9522975 -0.8433995 -1.4421898 -0.8472847
##
    [395,]
##
                   0.2656958 -0.4875535 -0.8433995 -0.1052355 -0.0650566
    [396,]
##
    [397,]
                  -1.2210230 -1.2074790 -0.1165791 -0.7737127 -1.6295129
##
    [398,]
                  0.2656958 -1.2074790 -0.8433995 0.5632416 -1.6295129
##
    [399,]
                   1.7524146 -0.4875535 -0.1165791
                                                   1.2317188 0.7171715
                  -0.4776636
                             0.9522975 -0.1165791
                                                    1.2317188 -0.0650566
##
    [400,]
##
    [401,]
                  -0.4776636
                             1.6722230 2.0638820
                                                   1.2317188 1.4993997
##
    [402,]
                  -1.2210230 -1.2074790 -0.8433995 0.5632416 -1.6295129
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 1.4993997
##
    [403,]
##
    [404,]
                  -1.2210230 -1.2074790 -0.8433995 -0.1052355 -1.6295129
                  -1.2210230 1.6722230 -0.8433995 -1.4421898 0.7171715
   [405,]
```

```
1.0090552 0.2323720 -0.1165791 0.5632416 1.4993997
##
    [406,]
                   -1.2210230 -0.4875535 -0.8433995 1.2317188
##
    [407,]
                                                              1.4993997
##
    [408,]
                   1.0090552 0.2323720 -0.1165791 0.5632416 -0.0650566
                   -1.2210230 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [409,]
##
    [410,]
                   0.2656958 -1.2074790 -0.8433995 -0.1052355 1.4993997
                   0.2656958 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [411,]
                   1.0090552 -0.4875535 -0.8433995 -0.1052355 -0.0650566
##
    [412,]
    [413,]
##
                   -1.2210230 -1.2074790 -0.8433995
                                                   1.2317188 -0.8472847
                   -0.4776636 -0.4875535 -0.1165791 -0.7737127 0.7171715
##
    [414,]
                   1.0090552 -0.4875535 -0.8433995
                                                    1.2317188 0.7171715
##
    [415,]
                                        2.0638820
##
                   -0.4776636
                             1.6722230
                                                   1.2317188 -1.6295129
    [416,]
                             0.2323720
##
    [417,]
                   1.7524146
                                        0.6102413
                                                   0.5632416 -0.0650566
                  -0.4776636
                             0.2323720 -0.8433995 -0.7737127 -0.8472847
##
    [418,]
##
    [419,]
                   1.0090552 -0.4875535 -0.8433995 1.2317188 -0.8472847
                   -0.4776636
                              0.9522975
                                        0.6102413 -0.1052355 -1.6295129
##
    [420,]
##
                  -1.2210230 -1.2074790 -0.8433995 1.2317188 1.4993997
    [421,]
##
    [422,]
                   1.0090552
                             0.9522975 -0.1165791 1.2317188
                                                               1.4993997
##
                   0.2656958 -1.2074790 -0.8433995 -0.7737127 -0.8472847
    [423,]
                             1.6722230 1.3370617 0.5632416 -0.8472847
##
    [424,]
                   -0.4776636
                   1.7524146 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [425,]
                   ##
    [426,]
                  -1.2210230 -0.4875535 -0.8433995 -0.7737127 -1.6295129
##
    [427,]
                  -0.4776636 -1.2074790 -0.8433995
                                                   1.2317188 -0.8472847
##
    [428,]
##
                   0.2656958 -0.4875535 -0.8433995
                                                   1.2317188 -0.0650566
    [429,]
##
                   0.2656958 -0.4875535 -0.8433995 1.2317188 -0.8472847
    [430,]
##
    [431,]
                  -1.2210230
                              0.2323720 -0.1165791 1.2317188
                                                               1.4993997
##
                   0.2656958
                             0.2323720 0.6102413 -0.7737127 -0.0650566
    [432,]
##
    [433,]
                   -0.4776636
                             0.2323720 -0.8433995 0.5632416 -0.0650566
                   1.7524146 -1.2074790 -0.8433995 -0.1052355
##
                                                              0.7171715
    [434,]
##
                   -1.2210230
                              1.6722230
                                        2.0638820 -0.1052355 0.7171715
    [435,]
##
    [436,]
                  -1.2210230
                             0.9522975
                                        1.3370617 -1.4421898 -1.6295129
                   -0.4776636
                             1.6722230 2.0638820 -0.7737127 -0.0650566
##
    [437,]
##
    [438,]
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.8472847
##
    [439,]
                   0.2656958 -0.4875535 -0.8433995 1.2317188 -0.8472847
##
    [440,]
                   1.7524146 -1.2074790 -0.8433995 -0.7737127
                                                              0.7171715
                   0.2656958 -0.4875535 -0.8433995 -0.1052355
##
                                                               0.7171715
    [441,]
                             1.6722230
                                        2.0638820 1.2317188
##
    [442,]
                   -0.4776636
                                                               0.7171715
                  -0.4776636
                             0.2323720
                                        0.6102413 -0.7737127 -0.0650566
##
    [443,]
                   0.2656958 -0.4875535 -0.8433995 1.2317188 0.7171715
##
    [444,]
    [445,]
                   -0.4776636
                             0.9522975
                                        0.6102413 -0.1052355 -0.0650566
##
##
                   1.7524146 -1.2074790 -0.8433995 0.5632416 0.7171715
    [446,]
##
    [447,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
    [448,]
                   1.7524146
                              1.6722230
                                        1.3370617
                                                   1.2317188 1.4993997
##
    [449,]
                   1.7524146 -1.2074790 -0.8433995
                                                    0.5632416 -1.6295129
                              1.6722230
                                        2.0638820
                                                    1.2317188 -0.0650566
##
    [450,]
                   -0.4776636
##
    [451,]
                   -1.2210230
                              1.6722230
                                        0.6102413
                                                   1.2317188 -0.8472847
##
                   -0.4776636
                              0.9522975
                                         0.6102413 -1.4421898 -1.6295129
    [452,]
                              0.2323720 -0.8433995
                                                   0.5632416 1.4993997
##
    [453,]
                   1.7524146
##
    [454,]
                   -0.4776636
                              1.6722230
                                        2.0638820
                                                    1.2317188 -0.0650566
                   1.7524146 -0.4875535 -0.8433995 -0.1052355 0.7171715
   [455,]
```

```
##
    [456,]
##
    [457,]
                   1.7524146
                             0.9522975 1.3370617 -0.7737127
                                                             1.4993997
##
    [458,]
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.8472847
    [459,]
                             1.6722230
                                       2.0638820 1.2317188
                                                             1.4993997
##
                   1.7524146
##
    [460,]
                  -1.2210230
                             0.9522975 -0.1165791 -0.1052355
                                                              0.7171715
##
    [461,]
                   0.2656958 -1.2074790 -0.8433995 -0.1052355
                                                              1.4993997
                   1.0090552 -0.4875535 -0.1165791 -0.1052355
##
    [462,]
                                                              0.7171715
##
    [463,]
                  -0.4776636
                             ##
    [464,]
                  -0.4776636
                             0.9522975 -0.1165791 -0.1052355 -0.8472847
                   1.0090552 -0.4875535 -0.8433995 -1.4421898
                                                             1.4993997
##
    [465,]
##
                   1.4993997
    [466,]
##
    [467,]
                   1.0090552 -1.2074790 -0.8433995 -1.4421898 -1.6295129
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [468,]
##
    [469,]
                   1.7524146 -1.2074790 -0.8433995 -0.7737127 -0.0650566
                   0.2656958 -1.2074790 -0.8433995 -0.7737127 0.7171715
##
    [470,]
##
                  -0.4776636 -0.4875535 -0.8433995 -0.1052355 0.7171715
    [471,]
##
    [472,]
                   0.2656958
                             0.9522975
                                        1.3370617 -0.7737127 -0.0650566
##
                  -0.4776636
                             0.9522975 -0.1165791 -1.4421898 0.7171715
    [473,]
##
    [474,]
                  -0.4776636
                             1.6722230
                                       2.0638820 1.2317188 -0.0650566
                  -1.2210230
                             1.6722230
                                        2.0638820 -0.1052355 -1.6295129
##
    [475,]
##
                  -0.4776636
                             0.2323720 -0.1165791
                                                  1.2317188 -0.0650566
    [476,]
                                        1.3370617
##
    [477,]
                  -1.2210230
                             0.9522975
                                                   1.2317188 -0.8472847
                  -0.4776636 -0.4875535
                                        2.0638820
                                                   0.5632416 -0.8472847
##
    [478,]
##
    [479,]
                   1.7524146 -0.4875535 -0.1165791
                                                   1.2317188
                                                             1.4993997
   [480,]
##
                  -1.2210230
                             0.9522975
                                        1.3370617 -0.1052355 -0.0650566
##
    [481,]
                  -0.4776636
                             1.6722230
                                        1.3370617
                                                   0.5632416 -0.0650566
##
                  -1.2210230
                             0.2323720 -0.8433995
                                                  1.2317188 0.7171715
    [482,]
##
    [483,]
                   1.0090552
                             0.2323720 -0.1165791 -0.1052355 -0.8472847
                             1.6722230 2.0638820 -0.1052355 -0.0650566
##
                  -0.4776636
    [484,]
    [485,]
                   1.7524146 -1.2074790 -0.8433995 0.5632416 -0.0650566
##
                             0.9522975 -0.8433995 -1.4421898 -0.0650566
##
    [486,]
                   0.2656958
                   1.0090552 -0.4875535 -0.1165791 0.5632416 -0.8472847
##
    [487,]
##
    [488,]
                  -0.4776636
                             1.6722230 0.6102413 -1.4421898 -0.8472847
##
    [489,]
                  0.2656958 -0.4875535 -0.1165791 1.2317188 0.7171715
##
    [490,]
                  -0.4776636
                             0.2323720 -0.8433995 1.2317188
                                                             1.4993997
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [491,]
                             1.6722230 -0.1165791 -0.7737127 -0.0650566
##
    [492,]
                  -0.4776636
                  -1.2210230
                             1.6722230 -0.1165791 1.2317188 1.4993997
##
    [493,]
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
   [494,]
                             0.2323720 -0.1165791 -0.1052355 -0.0650566
##
    [495,]
                   1.0090552
##
                   1.0090552
                             0.9522975 -0.1165791 0.5632416 -0.0650566
    [496,]
##
    [497,]
                   1.0090552
                             0.2323720 0.6102413 -0.1052355 0.7171715
##
    [498,]
                   0.2656958 -0.4875535 -0.8433995 -0.1052355 -0.8472847
                  -1.2210230 -1.2074790 -0.8433995 1.2317188 -0.0650566
##
    [499,]
                             0.9522975 -0.8433995 -0.1052355 -1.6295129
##
                   0.2656958
    [500,]
##
    [501,]
                  -0.4776636
                             1.6722230 2.0638820 1.2317188 -0.0650566
##
                   1.7524146 -0.4875535 -0.1165791 0.5632416 -0.8472847
    [502,]
                   1.0090552 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
   [503,]
##
    [504,]
                  -1.2210230
                             1.6722230 -0.1165791 -1.4421898
                                                             1.4993997
                  -1.2210230 -1.2074790 2.0638820 -0.1052355 1.4993997
   [505,]
```

```
0.2656958 -0.4875535 1.3370617 -0.7737127 -0.8472847
##
    [506,]
##
    [507,]
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.8472847
##
    [508,]
                  -1.2210230 0.9522975 2.0638820 -0.7737127
                                                            0.7171715
                   1.0090552 -1.2074790 -0.8433995 -0.1052355
##
                                                             0.7171715
    [509,]
##
    [510,]
                   1.0090552 -1.2074790 -0.8433995 0.5632416
                                                             1.4993997
##
    [511,]
                   0.2656958
                             0.2323720 0.6102413 -0.7737127 -0.0650566
##
    [512,]
   [513,]
                  -1.2210230 -1.2074790 -0.8433995 1.2317188
##
                                                            1.4993997
                  -0.4776636 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [514,]
                  -1.2210230 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [515,]
##
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 -0.8472847
    [516,]
##
    [517,]
                   0.2656958
                            0.2323720 -0.8433995 -1.4421898 -0.0650566
                   1.0090552
                             1.6722230
                                       2.0638820
                                                 0.5632416
##
                                                            1.4993997
    [518,]
##
    [519,]
                  -1.2210230
                             1.6722230
                                       2.0638820 1.2317188 -0.8472847
                  -0.4776636 -1.2074790 -0.1165791 -1.4421898 -0.0650566
##
    [520,]
##
                  -0.4776636 -0.4875535 -0.1165791 -0.1052355 -0.0650566
    [521,]
##
                  -1.2210230
                            0.9522975
                                       1.3370617 -0.7737127 -1.6295129
    [522,]
##
                  0.2656958 -0.4875535 -0.8433995 -0.1052355
    [523,]
                                                            0.7171715
    [524,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898
                                                             1.4993997
##
                  -1.2210230
                             1.6722230
                                       1.3370617 -0.1052355
                                                             0.7171715
##
    [525,]
                  1.0090552
                             0.2323720
                                       0.6102413 -0.1052355 -0.0650566
##
    [526,]
##
    [527,]
                  -0.4776636
                             0.9522975
                                       2.0638820 -0.7737127
                                                             0.7171715
                  1.0090552 -0.4875535 -0.1165791 -0.1052355
##
    [528,]
                                                             0.7171715
##
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 -0.8472847
    [529,]
                            0.2323720 -0.8433995 -1.4421898 -0.0650566
##
                  -0.4776636
    [530,]
##
    [531,]
                   1.0090552
                             0.2323720 0.6102413 -0.7737127
                                                             0.7171715
##
                   1.7524146 -0.4875535 -0.1165791 -1.4421898
                                                             1.4993997
    [532,]
##
    [533,]
                   0.2656958 -1.2074790 -0.8433995 0.5632416
                                                            0.7171715
                   ##
    [534,]
                   0.2656958 -1.2074790 -0.8433995 0.5632416 -0.8472847
##
    [535,]
                            0.2323720 -0.1165791 -1.4421898 -0.0650566
##
                   1.7524146
    [536,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
    [537,]
##
    [538,]
                   0.2656958 -0.4875535 -0.1165791 -1.4421898
                                                            1.4993997
##
    [539,]
                  -0.4776636
                             1.6722230
                                       2.0638820 -0.7737127
                                                             0.7171715
##
    [540,]
                  -0.4776636
                             0.9522975
                                        1.3370617 -0.7737127
                                                             0.7171715
                  -1.2210230
                                       0.6102413 0.5632416 -1.6295129
##
                             1.6722230
   [541,]
                             1.6722230
                                       2.0638820 -0.1052355 -1.6295129
##
    [542,]
                  -0.4776636
                   1.0090552 -1.2074790 -0.8433995 -0.7737127 -0.0650566
##
    [543,]
                             ##
                   1.7524146
   [544,]
                             1.6722230
                                       2.0638820 -0.1052355 -0.0650566
##
    [545,]
                  -1.2210230
##
                  -0.4776636 -0.4875535 -0.8433995 -1.4421898 -1.6295129
    [546,]
##
    [547,]
                  0.2656958 -0.4875535 -0.1165791 -0.7737127
                                                            0.7171715
##
   [548,]
                  -1.2210230 -0.4875535 -0.8433995 1.2317188
                                                            1.4993997
##
    [549,]
                  -1.2210230
                             0.9522975 -0.8433995 -1.4421898 -1.6295129
                  1.7524146 -0.4875535 -0.8433995 -1.4421898 -0.0650566
##
    [550,]
##
    [551,]
                  -0.4776636
                            0.2323720 -0.8433995 1.2317188 -0.8472847
##
                  -0.4776636
                             0.2323720 -0.1165791 -0.1052355 -0.8472847
    [552,]
                  ##
    [553,]
##
    [554,]
                   0.2656958 -0.4875535 -0.1165791 -1.4421898 -0.8472847
##
                   1.0090552 0.2323720 -0.1165791 -0.7737127 -0.0650566
   [555,]
```

```
1.0090552 -1.2074790 -0.8433995 -0.1052355 0.7171715
##
    [556,]
                   1.0090552 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [557,]
##
    [558,]
                   0.2656958 -0.4875535 -0.8433995 -0.1052355 0.7171715
##
                             0.2323720 -0.1165791 0.5632416 -0.8472847
    [559,]
                  -0.4776636
##
    [560,]
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898
                                                              1.4993997
##
    [561,]
                   1.7524146
                             1.6722230 2.0638820 0.5632416 -0.8472847
                  -0.4776636
                             0.2323720 -0.8433995 -0.1052355
                                                              1.4993997
##
    [562,]
##
    [563,]
                   0.2656958 -0.4875535 -0.1165791 -1.4421898
                                                              0.7171715
                             0.2323720 0.6102413 -1.4421898
##
    [564,]
                   0.2656958
                                                              0.7171715
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [565,]
##
                  -0.4776636
                             0.2323720 0.6102413 1.2317188 -1.6295129
    [566,]
                   0.2656958 -1.2074790 -0.8433995 1.2317188 -1.6295129
##
    [567,]
                  -0.4776636
                             0.9522975 -0.1165791 -1.4421898 -1.6295129
##
    [568,]
##
    [569,]
                   0.2656958 -0.4875535 -0.8433995 -0.7737127 1.4993997
                  -0.4776636
                             0.2323720 -0.1165791 -0.7737127 -0.0650566
##
    [570,]
##
                  -0.4776636 -0.4875535 -0.8433995 -1.4421898 0.7171715
    [571,]
##
    [572,]
                   0.2656958
                             0.9522975
                                        0.6102413 0.5632416
                                                              1.4993997
##
                  -1.2210230
                             1.6722230
                                        1.3370617 -0.7737127 -0.0650566
    [573,]
                                                              1.4993997
##
    [574,]
                  -1.2210230 -1.2074790
                                        0.6102413 -1.4421898
                   0.2656958
                             1.6722230
                                        2.0638820 -1.4421898 -0.0650566
##
    [575,]
                  -1.2210230
                             0.9522975
                                        1.3370617 1.2317188 -0.0650566
##
    [576,]
                             0.2323720 -0.1165791 -1.4421898 0.7171715
##
                   0.2656958
    [577,]
                  -0.4776636 -0.4875535 -0.1165791 -0.1052355 -0.8472847
##
    [578,]
##
                  -0.4776636
                             1.6722230 2.0638820 1.2317188 -0.8472847
    [579,]
                  -1.2210230 -0.4875535 -0.1165791 -0.7737127 -0.8472847
##
    [580,]
##
    [581,]
                   1.7524146 -0.4875535 -0.8433995 -1.4421898 -1.6295129
                   0.2656958 -0.4875535 -0.1165791 -0.7737127 -0.8472847
##
    [582,]
                   0.2656958 -0.4875535 -0.1165791 0.5632416 1.4993997
##
    [583,]
                   1.0090552 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [584,]
    [585,]
                   ##
                   1.0090552 -0.4875535 -0.8433995 -1.4421898 -1.6295129
##
    [586,]
                  -1.2210230 -1.2074790 0.6102413 1.2317188 1.4993997
##
    [587,]
##
    [588,]
                  -1.2210230 -0.4875535
                                        0.6102413 -1.4421898 -0.8472847
##
    [589,]
                   0.2656958 -0.4875535 -0.8433995 0.5632416 1.4993997
##
    [590,]
                   1.7524146
                             0.2323720 -0.8433995
                                                   0.5632416 -0.0650566
                   1.0090552
                             0.9522975
                                        1.3370617
                                                   0.5632416 -0.8472847
##
    [591,]
                   1.7524146 -0.4875535 -0.1165791 -0.1052355 1.4993997
##
    [592,]
##
                   1.7524146
                              0.2323720 -0.8433995 -1.4421898 -0.0650566
    [593,]
##
    [594,]
                  -1.2210230
                             1.6722230 2.0638820 0.5632416 -0.0650566
                  -1.2210230 -0.4875535 -0.1165791 1.2317188 -0.0650566
##
    [595,]
##
                  -1.2210230
                             0.2323720 -0.8433995 0.5632416 -0.0650566
    [596,]
                  -0.4776636 -0.4875535 -0.1165791 -1.4421898 1.4993997
##
    [597,]
##
    [598,]
                  -0.4776636 -0.4875535 -0.1165791 -0.7737127 -0.8472847
##
    [599,]
                   1.7524146 -0.4875535 -0.1165791 -1.4421898 -0.0650566
##
    [600,]
##
    [601,]
                  -0.4776636   0.9522975   -0.1165791   1.2317188   -0.0650566
                  -1.2210230 0.2323720 -0.1165791 -0.1052355 -0.0650566
##
    [602,]
                   1.0090552 -0.4875535 -0.1165791 -1.4421898 -0.0650566
##
    [603,]
##
    [604,]
                   1.7524146 -0.4875535 -0.8433995 -1.4421898 0.7171715
                   0.2656958 -0.4875535 -0.8433995 1.2317188 -1.6295129
   [605,]
```

```
-1.2210230 0.2323720 -0.8433995 -1.4421898 1.4993997
##
    [606,]
                   -1.2210230 -0.4875535 -0.8433995 -0.7737127 -0.0650566
##
    [607,]
##
    [608,]
                   -0.4776636
                             1.6722230
                                        2.0638820 1.2317188 -0.8472847
                   1.0090552 -0.4875535
                                        1.3370617 -0.7737127 0.7171715
##
    [609,]
##
    [610,]
                   1.0090552 -1.2074790 -0.8433995 0.5632416 -0.8472847
##
    [611,]
                   -0.4776636
                             1.6722230
                                        2.0638820 -0.7737127 -1.6295129
                   1.7524146
                              1.6722230 -0.8433995 -0.7737127 -1.6295129
##
    [612,]
    [613,]
##
                   0.2656958 -0.4875535 -0.1165791 -0.7737127 -0.8472847
                   -0.4776636 -0.4875535 -0.8433995 0.5632416 -0.8472847
##
    [614,]
                   -1.2210230
                             0.2323720 -0.8433995 0.5632416 -0.0650566
##
    [615,]
                  -1.2210230 -0.4875535 -0.1165791 -0.1052355 -0.0650566
##
    [616,]
                              1.6722230 2.0638820 -1.4421898 0.7171715
##
    [617,]
                  -1.2210230
                   1.7524146 -1.2074790 -0.8433995
##
                                                   1.2317188 -0.0650566
    [618,]
##
    [619,]
                   1.0090552 -0.4875535 -0.1165791 1.2317188
                                                               1.4993997
                   1.4993997
##
    [620,]
##
                  -1.2210230 -1.2074790 -0.8433995 1.2317188
                                                              1.4993997
    [621,]
##
                  -1.2210230 -1.2074790 -0.8433995 -0.1052355 -1.6295129
    [622,]
##
                   1.0090552 -1.2074790 -0.8433995 0.5632416 -0.0650566
    [623,]
    [624,]
                   0.2656958 -0.4875535 -0.1165791 -1.4421898 -0.8472847
##
                   1.0090552 0.9522975 -0.1165791 -0.7737127 -1.6295129
##
    [625,]
                   -0.4776636 -1.2074790 -0.8433995 -1.4421898 0.7171715
##
    [626,]
##
    [627,]
                   1.0090552
                             0.9522975 -0.1165791 -0.1052355 -0.0650566
                   0.2656958
                              0.9522975
                                        1.3370617 -0.7737127 -0.0650566
##
    [628,]
##
                   0.2656958
                              0.2323720
                                        0.6102413 -1.4421898 -0.8472847
    [629,]
##
                   0.2656958 -0.4875535 -0.8433995 -0.7737127
                                                              1.4993997
    [630,]
##
    [631,]
                   1.0090552
                              0.2323720 -0.8433995 -1.4421898
                                                              0.7171715
##
                   0.2656958 -0.4875535 -0.1165791 1.2317188 -0.0650566
    [632,]
##
    [633,]
                   -0.4776636
                             -1.2210230 -1.2074790 -0.8433995 -1.4421898
                                                              1.4993997
##
    [634,]
                  -1.2210230
                              0.2323720 -0.1165791 0.5632416 -0.0650566
##
    [635,]
                                        1.3370617
##
    [636,]
                  -1.2210230
                             0.9522975
                                                   0.5632416
                                                               1.4993997
                   1.0090552
                              1.6722230 -0.1165791 -1.4421898 0.7171715
##
    [637,]
##
    [638,]
                   0.2656958
                              0.2323720
                                        1.3370617 -0.7737127 -0.8472847
##
    [639,]
                   -0.4776636
                              1.6722230 0.6102413 -0.1052355 0.7171715
##
    [640,]
                  -1.2210230 -0.4875535 -0.8433995
                                                   1.2317188 -0.8472847
                              0.9522975 -0.8433995
                                                   0.5632416
##
                   1.7524146
                                                              1.4993997
    [641,]
                   -1.2210230 -0.4875535 -0.1165791 -1.4421898 -1.6295129
##
    [642,]
                  -1.2210230
                              1.6722230 2.0638820
                                                   1.2317188 -0.0650566
##
    [643,]
                   0.2656958 -0.4875535 -0.1165791 1.2317188
##
                                                              0.7171715
    [644,]
                   0.2656958
                              0.9522975 -0.1165791
                                                   0.5632416
##
    [645,]
                                                               0.7171715
                                                               1.4993997
##
                   -0.4776636
                             0.9522975 -0.1165791 0.5632416
    [646,]
##
    [647,]
                   0.2656958 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [648,]
                   -1.2210230
                              1.6722230 -0.8433995
                                                   1.2317188 -0.0650566
                              0.9522975
##
    [649,]
                   -0.4776636
                                        1.3370617
                                                   1.2317188 -1.6295129
                   0.2656958
                              0.2323720
                                        1.3370617 -0.1052355
##
                                                              0.7171715
    [650,]
##
                  -1.2210230 -0.4875535 -0.8433995 -1.4421898 -0.8472847
    [651,]
##
                   1.7524146 -1.2074790 -0.8433995 -0.7737127
                                                               1.4993997
    [652,]
                   -1.2210230 -1.2074790 -0.8433995 -0.1052355 -0.0650566
##
    [653,]
##
    [654,]
                   -0.4776636 -1.2074790 -0.8433995 1.2317188
                                                               0.7171715
                   1.0090552 0.2323720 -0.1165791 -1.4421898 1.4993997
    [655,]
```

```
##
   [656,]
                          1.6722230 2.0638820 1.2317188 1.4993997
##
   [657,]
                 1.0090552
##
   [658,]
                 0.2656958 -1.2074790 -0.8433995 -1.4421898 -1.6295129
                 1.0090552 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
   [659,]
##
   [660,]
                 1.7524146 -0.4875535 -0.1165791 -0.7737127 -1.6295129
                 -0.4776636 -0.4875535 -0.8433995 0.5632416 0.7171715
##
   [661,]
                 0.2656958 -0.4875535 -0.8433995 0.5632416 -0.0650566
##
   [662,]
##
   [663,]
                 1.0090552 -0.4875535 -0.8433995 -0.1052355 -1.6295129
                 -1.2210230 -0.4875535 -0.1165791 0.5632416 0.7171715
##
   [664,]
                 ##
   [665,]
##
                -1.2210230 -0.4875535 -0.8433995 -0.1052355 -0.0650566
   [666,]
##
   [667,]
                -1.2210230 -1.2074790 -0.8433995 0.5632416 -0.0650566
                -0.4776636 -0.4875535 -0.8433995 -0.7737127 -0.8472847
##
   [668,]
##
   [669,]
                -1.2210230
                          1.6722230 0.6102413 0.5632416 -0.0650566
                -0.4776636
                          0.9522975 -0.1165791 -0.7737127 0.7171715
##
   [670,]
##
                 0.2656958 -0.4875535 -0.1165791 0.5632416 -0.0650566
   [671,]
##
   [672,]
                 ##
                -0.4776636 -0.4875535 -0.1165791 -0.1052355 -1.6295129
   [673,]
                -1.2210230 -0.4875535 -0.1165791 1.2317188 -0.8472847
##
   [674,]
                 1.7524146 -0.4875535 -0.1165791 -0.1052355 -0.0650566
##
   [675,]
##
                -0.4776636 -0.4875535 -0.1165791 1.2317188 -0.8472847
   [676,]
                -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
   [677,]
                -0.4776636 -0.4875535 -0.8433995 -0.1052355
##
   [678,]
                                                        0.7171715
##
                -1.2210230
                          0.2323720 -0.1165791 0.5632416
                                                        0.7171715
   [679,]
##
   [680,]
                -1.2210230 -0.4875535 -0.8433995
                                              1.2317188
                                                        1.4993997
##
   [681,]
                 0.2656958
                          1.6722230
                                    1.3370617
                                              1.2317188
                                                        1.4993997
##
                 0.2656958
                          1.6722230
                                    0.6102413
                                              1.2317188
                                                        1.4993997
   [682,]
##
   [683,]
                 -0.4776636 -0.4875535 -0.8433995 -0.1052355
                                                        0.7171715
                          1.6722230
                                    0.6102413 1.2317188
##
                -0.4776636
                                                        1.4993997
   [684,]
##
   [685,]
                 0.2323720 -0.1165791 0.5632416 -0.0650566
##
   [686,]
                -0.4776636
                 ##
   [687,]
##
   [688,]
                 0.2656958 -1.2074790 -0.1165791 -0.1052355
                                                       0.7171715
                                    0.6102413 1.2317188 -0.0650566
##
   [689,]
                 -1.2210230
                          1.6722230
##
   [690,]
                 1.7524146 -0.4875535
                                    2.0638820 -0.1052355
                                                        0.7171715
                 1.0090552 0.2323720 -0.1165791 1.2317188
##
                                                        1.4993997
   [691,]
   [692,]
                 -1.2210230 -1.2074790 -0.8433995
                                             0.5632416 -0.0650566
##
##
                 1.4993997
   [693,]
                 1.0090552 -0.4875535 -0.8433995 -1.4421898 -1.6295129
##
   [694,]
                 0.2656958 -0.4875535 -0.1165791 -0.7737127
##
   [695,]
                                                        0.7171715
##
                 0.2656958 -0.4875535 -0.8433995 0.5632416 -1.6295129
   [696,]
##
   [697,]
                 0.2656958 -0.4875535 -0.8433995 -1.4421898
                                                        0.7171715
##
   [698,]
                 1.7524146 -0.4875535 -0.8433995 1.2317188
                                                        0.7171715
                 ##
   [699,]
                -1.2210230 -0.4875535 -0.8433995 -1.4421898
                                                        1.4993997
##
   [700,]
##
   [701,]
                 -0.4776636 -1.2074790 -0.8433995 1.2317188 -1.6295129
##
                 -1.2210230 0.9522975
                                    0.6102413 -0.1052355
                                                        0.7171715
   [702,]
                 0.2656958 -0.4875535 -0.1165791 -0.1052355
##
   [703,]
                                                        1.4993997
##
   [704,]
                 0.2656958
                          0.2323720 0.6102413 -0.7737127
                                                        1.4993997
                 [705,]
```

```
##
    [706,]
                   1.7524146 -1.2074790 -0.8433995 -0.1052355 -0.0650566
##
    [707,]
##
    [708,]
                  -0.4776636
                             1.6722230 1.3370617 1.2317188 0.7171715
##
                   0.2656958 -1.2074790 -0.8433995 -0.7737127 -0.8472847
    [709,]
##
    [710,]
                  -1.2210230 -1.2074790 -0.8433995 -0.1052355 -0.0650566
##
    [711,]
                   0.2656958
                            0.2323720
                                       1.3370617 0.5632416 -1.6295129
                  -1.2210230 -1.2074790 -0.8433995 -0.1052355 -1.6295129
##
    [712,]
##
    [713,]
                  -1.2210230
                             0.2323720 -0.8433995 -0.7737127 -0.0650566
                  -1.2210230
                             0.9522975 -0.8433995 1.2317188 -0.0650566
##
    [714,]
                   1.0090552
                             0.2323720
                                       0.6102413 1.2317188 -0.0650566
##
    [715,]
##
                   0.2656958
                             0.9522975
                                        0.6102413 -0.1052355 -0.0650566
    [716,]
                             0.9522975
                                       1.3370617 -0.1052355 0.7171715
##
    [717,]
                   1.0090552
                  -1.2210230
                             0.9522975
                                       0.6102413 -0.1052355 -0.0650566
##
    [718,]
##
    [719,]
                  -1.2210230
                             1.6722230
                                       2.0638820 -0.1052355 0.7171715
                   0.2656958 -0.4875535 -0.8433995 -0.7737127 -0.8472847
##
    [720,]
##
                  -1.2210230
                             1.6722230
                                       0.6102413 1.2317188
                                                             1.4993997
    [721,]
##
    [722,]
                  0.2656958
                             1.6722230
                                       2.0638820 -1.4421898
                                                             1.4993997
##
                  -1.2210230 -1.2074790 -0.8433995 -0.1052355
                                                             0.7171715
    [723,]
                  0.2656958 -0.4875535 -0.8433995 1.2317188 -0.8472847
##
    [724,]
                  -1.2210230 -0.4875535 -0.8433995 -1.4421898 -1.6295129
##
    [725,]
                  1.0090552 -1.2074790 -0.8433995 -1.4421898 1.4993997
##
    [726,]
                  -0.4776636 -0.4875535 -0.8433995 -0.1052355 -0.8472847
##
    [727,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.8472847
##
    [728,]
##
                   1.7524146 -1.2074790 -0.8433995
                                                 0.5632416 -1.6295129
    [729,]
                                       2.0638820 -0.1052355 -0.0650566
##
                   0.2656958 1.6722230
    [730,]
##
    [731,]
                  -0.4776636 0.9522975 0.6102413
                                                  1.2317188
                                                             1.4993997
##
                   1.7524146 -0.4875535 -0.8433995
                                                  1.2317188
                                                             0.7171715
    [732,]
##
    [733,]
                   0.2656958 -0.4875535 -0.1165791
                                                  1.2317188
                                                             1.4993997
                   1.7524146 -0.4875535 -0.1165791
                                                  1.2317188
##
                                                             1.4993997
    [734,]
    [735,]
                  -1.2210230 -1.2074790 -0.1165791 1.2317188 -1.6295129
##
                  -0.4776636 -0.4875535 -0.1165791 1.2317188 -0.8472847
##
    [736,]
                  0.2656958
                            0.9522975 -0.1165791 0.5632416 -0.0650566
##
    [737,]
##
    [738,]
                  -0.4776636
                             0.2323720 -0.1165791 1.2317188 -0.0650566
                   0.2656958 -1.2074790 -0.1165791 -1.4421898 -0.0650566
##
    [739,]
##
    [740,]
                   1.7524146
                            0.2323720 -0.1165791 -1.4421898
                                                             1.4993997
                   1.7524146
                             0.2323720 -0.8433995 -0.1052355
##
                                                             1.4993997
    [741,]
                             1.6722230 2.0638820
                                                 1.2317188 -0.8472847
##
    [742,]
                   1.7524146
##
                   1.7524146
                            0.9522975 -0.8433995 1.2317188 0.7171715
    [743,]
                   1.0090552 -0.4875535 -0.1165791 -0.7737127 -1.6295129
##
   [744,]
    [745,]
                  -1.2210230
                             1.6722230 2.0638820 1.2317188 -1.6295129
##
##
                   0.2656958 -0.4875535 -0.1165791 -1.4421898 -0.0650566
    [746,]
##
    [747,]
                   0.2656958 -0.4875535 -0.1165791 -1.4421898
                                                             0.7171715
##
    [748,]
                  -1.2210230
                             1.6722230 -0.1165791 1.2317188
                                                             1.4993997
                             0.2323720 0.6102413 -0.7737127
##
    [749,]
                  -1.2210230
                                                             0.7171715
                  -1.2210230
                             0.2323720 -0.1165791 -1.4421898
##
    [750,]
                                                             0.7171715
##
    [751,]
                  ##
    [752,]
                  -1.2210230 -1.2074790 -0.8433995 1.2317188 -0.0650566
                            1.6722230 1.3370617 -1.4421898 -1.6295129
##
    [753,]
                   1.0090552
##
    [754,]
                  -0.4776636 -1.2074790 -0.8433995 1.2317188 -0.0650566
##
                   [755,]
```

```
0.2656958 0.9522975 1.3370617 1.2317188 0.7171715
##
    [756,]
##
    [757,]
                    0.2656958
                              0.2323720
                                          0.6102413
                                                    1.2317188
                                                                0.7171715
##
    [758,]
                   -0.4776636
                               1.6722230
                                          2.0638820 -0.1052355 -0.0650566
##
                    0.2656958 -0.4875535
                                          0.6102413 -1.4421898 -0.0650566
    [759,]
                   -1.2210230
##
    [760,]
                              1.6722230
                                          2.0638820
                                                    1.2317188
                                                               0.7171715
                    1.7524146 -0.4875535 -0.8433995
##
    [761,]
                                                    1.2317188
                                                                0.7171715
                   -1.2210230 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [762,]
    [763,]
##
                   1.0090552 -0.4875535 -0.1165791
                                                    0.5632416
                                                               1.4993997
                   -1.2210230
                              0.2323720 -0.8433995
                                                    1.2317188 -0.8472847
##
    [764,]
                   -0.4776636
                              1.6722230
                                         2.0638820
                                                    1.2317188 -0.0650566
##
    [765,]
                                          0.6102413 -0.7737127 -0.0650566
##
                   -1.2210230
                              0.2323720
    [766,]
                                         2.0638820 -1.4421898 -0.0650566
##
    [767,]
                   -0.4776636
                              1.6722230
                   -1.2210230
                              0.9522975
                                         1.3370617 0.5632416
##
                                                               0.7171715
    [768,]
##
    [769,]
                   1.7524146 -0.4875535 -0.1165791 -1.4421898 -0.0650566
                              0.9522975
                                         1.3370617
                                                    0.5632416
                                                               0.7171715
##
    [770,]
                    1.0090552
##
                   -0.4776636 -1.2074790 -0.1165791 -0.1052355
                                                               0.7171715
    [771,]
##
    [772,]
                    1.0090552 -0.4875535 -0.1165791 -0.7737127 -0.0650566
##
                   -1.2210230
                              0.2323720 -0.8433995 -0.1052355
                                                               0.7171715
    [773,]
##
    [774,]
                    0.2656958
                              ##
                    0.2656958 -0.4875535 -0.1165791 1.2317188
                                                               0.7171715
    [775,]
##
                    1.0090552 0.2323720 -0.8433995 0.5632416
                                                               1.4993997
    [776,]
##
                    1.7524146 -0.4875535 -0.8433995 -1.4421898 -0.0650566
    [777,]
                    0.2656958 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [778,]
##
    [779,]
                   -0.4776636 -1.2074790 -0.8433995 -0.1052355 -1.6295129
                              0.2323720 -0.1165791 1.2317188 -0.8472847
##
    [780,]
                    0.2656958
##
    [781,]
                    1.7524146 -0.4875535
                                         2.0638820 -0.1052355 0.7171715
##
                   -1.2210230
                              1.6722230
                                         0.6102413 1.2317188 -1.6295129
    [782,]
##
    [783,]
                    0.2656958
                              1.6722230
                                         1.3370617 1.2317188 -0.0650566
                              0.9522975 -0.1165791
                                                    0.5632416 0.7171715
##
    [784,]
                    0.2656958
##
    [785,]
                   -0.4776636
                              1.6722230
                                         2.0638820 -0.7737127 -0.0650566
##
                    0.2656958 -0.4875535 -0.8433995 -0.1052355 0.7171715
    [786,]
                   -0.4776636
                              1.6722230 2.0638820 0.5632416 -0.8472847
##
    [787,]
##
    [788,]
                   -0.4776636 -1.2074790 -0.8433995 0.5632416 -0.0650566
                              0.2323720 -0.1165791 -0.1052355 -0.8472847
##
    [789,]
                   1.0090552
##
    [790,]
                    0.2656958
                              0.9522975 -0.1165791 0.5632416 -0.0650566
                   -1.2210230
                              1.6722230 2.0638820 -0.7737127 -1.6295129
##
    [791,]
                              0.2323720 -0.8433995 0.5632416 -0.0650566
##
    [792,]
                   -0.4776636
##
    [793,]
                    0.2656958
                              0.2323720 -0.8433995 -1.4421898 -0.8472847
                              1.6722230 -0.8433995 1.2317188 -0.0650566
##
    [794,]
                    0.2656958
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [795,]
##
                    1.0090552
                              0.9522975 1.3370617 0.5632416 0.7171715
    [796,]
##
    [797,]
                    1.0090552 -0.4875535 -0.8433995 -1.4421898 -0.0650566
##
    [798,]
                    1.0090552 -1.2074790 -0.8433995 -1.4421898 -1.6295129
##
    [799,]
                    0.2656958 -0.4875535 -0.8433995 -0.1052355
                                                               1.4993997
                   -0.4776636
                              0.2323720 -0.1165791 1.2317188 -0.0650566
##
    [800,]
##
    [801,]
                   -1.2210230
                              1.6722230 2.0638820 -0.1052355 0.7171715
##
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.0650566
    [802,]
                   -1.2210230 0.9522975 -0.8433995 -0.1052355 1.4993997
##
    [803,]
##
    [804,]
                   -0.4776636 -0.4875535 -0.8433995 -0.7737127 -0.8472847
                   0.2656958 -1.2074790 -0.8433995 1.2317188 -0.0650566
    [805,]
```

```
##
    [806,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
    [807,]
##
    [808,]
                   1.7524146 -1.2074790 -0.8433995 -0.7737127
                                                              0.7171715
    [809,]
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898
##
                                                              0.7171715
##
    [810,]
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
    [811,]
                   -0.4776636
                             0.9522975 -0.1165791 1.2317188
##
    [812,]
                                                              0.7171715
    [813,]
##
                   1.7524146 -1.2074790 -0.8433995 -1.4421898
                                                              1.4993997
                  -1.2210230 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
    [814,]
                   1.0090552 0.2323720 -0.1165791 1.2317188 -0.8472847
##
    [815,]
                             1.6722230 2.0638820 -0.1052355 -0.8472847
##
                   0.2656958
    [816,]
                             0.2323720 -0.1165791 -0.7737127
##
    [817,]
                   1.0090552
                                                              0.7171715
                  -1.2210230
                             0.9522975 -0.8433995 -1.4421898
##
                                                              1.4993997
    [818,]
##
    [819,]
                   1.7524146 0.2323720 -0.8433995 -1.4421898
                                                               1.4993997
                  -0.4776636
                             1.6722230 2.0638820 -0.7737127
                                                               0.7171715
##
    [820,]
##
                   0.2656958 -1.2074790 -0.8433995 -0.1052355
                                                             0.7171715
    [821,]
##
    [822,]
                  -1.2210230 0.9522975 0.6102413 -0.7737127 -1.6295129
##
                   1.7524146 -1.2074790 -0.8433995 1.2317188 -0.8472847
    [823,]
##
    [824,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -0.0650566
                  -1.2210230 -1.2074790 -0.8433995 1.2317188 -0.0650566
##
    [825,]
                  -1.2210230 -0.4875535 -0.8433995 -0.1052355 -0.8472847
##
    [826,]
##
    [827,]
                  -1.2210230 0.9522975 -0.8433995
                                                  0.5632416 0.7171715
                   0.2656958 -0.4875535 -0.8433995 1.2317188 -0.0650566
##
    [828,]
##
                   0.2656958 -0.4875535 -0.1165791 -0.1052355 -0.8472847
    [829,]
                                                   1.2317188 0.7171715
##
                   1.7524146
                             0.2323720 -0.8433995
    [830,]
##
    [831,]
                  -1.2210230
                              1.6722230
                                        2.0638820
                                                   1.2317188
                                                              0.7171715
##
                   1.0090552
                             0.2323720
                                        0.6102413 -0.1052355 -0.0650566
    [832,]
##
    [833,]
                  -1.2210230
                             0.9522975
                                        0.6102413 1.2317188
                                                              1.4993997
                   1.7524146 -0.4875535 -0.1165791 1.2317188 -0.8472847
##
    [834,]
                   1.0090552 0.9522975 -0.1165791 -0.1052355 -0.0650566
##
    [835,]
                  -0.4776636 -1.2074790 -0.8433995 -0.7737127
##
                                                              0.7171715
    [836,]
                   0.2656958 0.2323720 0.6102413 0.5632416
##
    [837,]
                                                              0.7171715
##
    [838,]
                  -1.2210230
                             1.6722230
                                        2.0638820
                                                   1.2317188
                                                              1.4993997
##
    [839,]
                   1.0090552 0.2323720 -0.8433995 -0.7737127 -0.0650566
##
    [840,]
                   1.0090552 -0.4875535 -0.8433995 -0.7737127 -0.8472847
                  -0.4776636 -0.4875535 -0.1165791 -0.1052355 -0.0650566
##
    [841,]
                  -0.4776636 -0.4875535 -0.1165791 -0.1052355 -0.8472847
##
    [842,]
                  -1.2210230 -1.2074790 -0.8433995 1.2317188 -0.8472847
##
    [843,]
                   1.7524146 -1.2074790 -0.8433995 1.2317188 1.4993997
##
    [844,]
                   1.7524146 -0.4875535 -0.8433995
                                                   1.2317188 -1.6295129
##
    [845,]
##
                  -0.4776636 -1.2074790 0.6102413
                                                   1.2317188 0.7171715
    [846,]
##
    [847,]
                   0.2656958 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [848,]
                  -1.2210230 -0.4875535 -0.8433995 1.2317188 -0.8472847
##
    [849,]
                   1.7524146 -0.4875535 -0.1165791 -1.4421898 -0.8472847
                  -0.4776636 -0.4875535 -0.8433995
                                                   0.5632416 -0.0650566
##
    [850,]
                                        1.3370617
##
    [851,]
                  -1.2210230
                             1.6722230
                                                   1.2317188
                                                              0.7171715
##
                   1.7524146
                              0.2323720 -0.8433995 -1.4421898
                                                               1.4993997
    [852,]
                             0.2323720 -0.1165791 -1.4421898
##
    [853,]
                   1.7524146
                                                               1.4993997
##
    [854,]
                   0.2656958
                             0.2323720 0.6102413 0.5632416
                                                              0.7171715
                   0.2656958 -0.4875535 -0.8433995 -0.1052355 -0.8472847
   [855,]
```

```
1.0090552 0.9522975 -0.1165791 -0.7737127 -0.0650566
##
    [856,]
                   1.0090552 -0.4875535 1.3370617 -0.1052355 0.7171715
##
    [857,]
##
    [858,]
                   1.0090552 -1.2074790 -0.8433995 0.5632416 -0.8472847
##
                   0.2656958 -0.4875535 -0.8433995
                                                  1.2317188 -0.0650566
    [859,]
##
    [860,]
                   1.7524146 -0.4875535 -0.8433995 -0.7737127 1.4993997
                   ##
    [861,]
                  -0.4776636 -0.4875535 -0.1165791 0.5632416 -0.8472847
##
    [862,]
##
    [863,]
                   1.7524146 -0.4875535 -0.8433995 -0.7737127 0.7171715
                   0.2656958 -1.2074790 -0.8433995  0.5632416 -1.6295129
##
    [864,]
                  -0.4776636 -1.2074790 -0.8433995 0.5632416 -0.0650566
##
    [865,]
##
                   0.2656958 -0.4875535 -0.8433995 -0.7737127 -0.0650566
    [866,]
                            0.9522975 1.3370617 1.2317188
##
    [867,]
                  -0.4776636
                                                             0.7171715
                   0.2656958
                             0.9522975 -0.1165791 -0.1052355
##
                                                             0.7171715
    [868,]
##
    [869,]
                  -0.4776636 -1.2074790 -0.1165791 0.5632416
                                                             1.4993997
                  -1.2210230
                             0.9522975 -0.1165791 0.5632416
                                                             0.7171715
##
    [870,]
##
                  -1.2210230 -0.4875535 -0.1165791 0.5632416 -0.0650566
    [871,]
##
    [872,]
                   1.0090552
                             0.2323720 2.0638820 -0.1052355
                                                             1.4993997
##
                  -1.2210230
                             1.6722230 2.0638820 -0.7737127 -1.6295129
    [873,]
##
    [874,]
                  -0.4776636 -0.4875535 -0.8433995 -0.7737127 -0.0650566
                   1.0090552 0.2323720 -0.1165791 -1.4421898 -0.8472847
##
    [875,]
##
                  -1.2210230 -0.4875535 -0.8433995 -1.4421898 -0.8472847
    [876,]
##
                  -1.2210230
                             1.6722230 2.0638820 -1.4421898 -0.8472847
    [877,]
                  1.0090552 -0.4875535 -0.8433995 1.2317188
##
    [878,]
                                                            1.4993997
##
                  -0.4776636
                             0.9522975
                                       1.3370617 -0.1052355
                                                             0.7171715
    [879,]
                  1.7524146 -0.4875535 -0.1165791 0.5632416 -0.0650566
##
    [880,]
##
    [881,]
                   1.0090552 -0.4875535 -0.1165791 -1.4421898 -0.8472847
                            0.9522975 -0.8433995 1.2317188 0.7171715
##
                  -1.2210230
    [882,]
##
    [883,]
                  -1.2210230
                             1.6722230 2.0638820
                                                  0.5632416 -0.0650566
                  -0.4776636 -0.4875535 -0.8433995
                                                  1.2317188 -0.8472847
##
    [884,]
##
    [885,]
                  1.7524146 -1.2074790 -0.8433995 1.2317188 -0.0650566
                                                  0.5632416 -0.8472847
##
                   1.0090552 0.9522975
                                       0.6102413
    [886,]
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 0.7171715
##
    [887,]
##
    [888,]
                   1.0090552 0.2323720 -0.1165791 -0.1052355
                                                             0.7171715
##
    [889,]
                   0.2656958
                             1.6722230 2.0638820
                                                  1.2317188 -0.0650566
##
    [890,]
                   0.2656958
                             0.2323720 -0.8433995 1.2317188
                                                             1.4993997
                  -0.4776636 -0.4875535 -0.8433995 -1.4421898
##
                                                             1.4993997
    [891,]
                   ##
    [892,]
##
                   0.2656958 -1.2074790 -0.1165791 -1.4421898 -0.0650566
    [893,]
                   1.0090552 -0.4875535 0.6102413 -0.7737127 -0.8472847
##
    [894,]
                  -0.4776636 -0.4875535 -0.1165791 -0.7737127
##
    [895,]
                                                             1.4993997
##
                  -1.2210230 -0.4875535 -0.1165791 -1.4421898
                                                             0.7171715
    [896,]
                  -0.4776636 -1.2074790 -0.8433995 1.2317188
##
    [897,]
                                                             0.7171715
##
    [898,]
                  -0.4776636 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [899,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 0.7171715
##
    [900,]
##
    [901,]
                   0.2656958 -1.2074790 -0.8433995 0.5632416 -0.8472847
##
    [902,]
                  -1.2210230 -1.2074790 -0.8433995 -0.7737127 -0.0650566
                  -0.4776636 -0.4875535 -0.1165791 0.5632416 -0.0650566
##
   [903,]
##
    [904,]
                  -1.2210230 0.2323720 2.0638820 -0.1052355
                                                             1.4993997
                  1.7524146 -0.4875535 -0.1165791 -0.7737127 0.7171715
  [905,]
```

```
1.0090552 -1.2074790 -0.8433995 -0.1052355 0.7171715
##
    [906,]
                   1.7524146 -1.2074790 -0.8433995 -1.4421898 -0.0650566
##
    [907,]
##
    [908,]
                   0.2656958 -1.2074790 -0.8433995 -0.1052355 -1.6295129
##
                  -0.4776636 -0.4875535
                                       0.6102413
                                                  0.5632416 -0.0650566
    [909,]
##
    [910,]
                   0.2656958 -0.4875535 -0.8433995 -0.7737127 -0.8472847
                   1.7524146 -0.4875535 -0.8433995
##
    [911,]
                                                   1.2317188 -0.0650566
                   1.0090552 -0.4875535
                                       2.0638820
                                                   1.2317188 -0.0650566
##
    [912,]
   [913,]
##
                  -0.4776636
                             0.2323720
                                       0.6102413
                                                   0.5632416 -0.8472847
                             0.2323720 -0.1165791
##
    [914,]
                  -0.4776636
                                                   1.2317188 -0.0650566
                                                   1.2317188 1.4993997
##
                  -0.4776636 -0.4875535
                                       0.6102413
    [915,]
                                                  0.5632416 -0.0650566
##
                   1.0090552 -0.4875535 -0.1165791
    [916,]
##
    [917,]
                  -1.2210230 -1.2074790 -0.8433995
                                                  0.5632416 -0.0650566
    [918,]
                  1.0090552 -0.4875535 -0.1165791 -1.4421898 -0.0650566
##
                  -0.4776636 0.2323720 0.6102413
##
    [919,]
                                                  0.5632416 -0.0650566
                  -0.4776636 -1.2074790
                                       2.0638820
                                                  1.2317188 -0.8472847
##
    [920,]
##
                  -1.2210230 -0.4875535 -0.1165791 0.5632416 -1.6295129
   [921,]
##
   [922,]
                  -1.2210230 -0.4875535 -0.8433995 -0.7737127 -0.0650566
##
                  1.7524146
                             1.6722230 -0.1165791 -0.7737127 1.4993997
    [923,]
                             0.9522975 -0.1165791 1.2317188 -0.8472847
##
    [924,]
                  -1.2210230
                  -0.4776636
                             0.9522975 -0.1165791 -1.4421898 -0.0650566
##
    [925,]
##
                  -1.2210230 -0.4875535 -0.8433995 1.2317188 -1.6295129
   [926,]
                  0.2656958 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [927,]
                             1.6722230 -0.1165791 -1.4421898 1.4993997
##
    [928,]
                  -1.2210230
##
                  -1.2210230
                             1.6722230
                                       2.0638820
                                                  0.5632416 -0.8472847
    [929,]
                                       0.6102413
##
                  0.2656958 -0.4875535
                                                  1.2317188
   [930,]
##
    [931,]
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.0650566
                  -0.4776636 -0.4875535 -0.1165791 -0.7737127 -0.0650566
##
   [932,]
                  -0.4776636   0.9522975   2.0638820   -0.7737127   -1.6295129
##
    [933,]
                   1.0090552 -0.4875535 -0.1165791 0.5632416 0.7171715
##
    [934,]
##
   [935,]
                  0.2656958 -0.4875535 -0.1165791 0.5632416 -0.8472847
                  -1.2210230 -1.2074790 -0.8433995
##
                                                  1.2317188 -1.6295129
    [936,]
                  -0.4776636 -1.2074790 0.6102413 -1.4421898 -0.8472847
##
    [937,]
##
    [938,]
                  -0.4776636
                             0.9522975 -0.1165791 1.2317188
                                                             1.4993997
##
    [939,]
                  -0.4776636
                             0.9522975 0.6102413 1.2317188
                                                              1.4993997
##
    [940,]
                   1.7524146
                             1.6722230 -0.1165791 -1.4421898
                                                             1.4993997
                  -1.2210230 -0.4875535 -0.8433995 -0.7737127 -1.6295129
##
    [941,]
                  -0.4776636 -0.4875535 -0.8433995 1.2317188 -0.8472847
##
    [942,]
##
                  -1.2210230 -1.2074790 -0.1165791 -0.1052355
                                                             1.4993997
    [943,]
                  ##
   [944,]
    [945,]
                  -0.4776636   0.2323720   -0.8433995   -0.1052355
##
                                                             1.4993997
##
                  1.0090552 -1.2074790 -0.8433995 -1.4421898 -1.6295129
    [946,]
                  0.2656958 -0.4875535 -0.1165791 -0.1052355 -0.8472847
##
    [947,]
##
   [948,]
                  -0.4776636 -0.4875535 -0.1165791 -0.7737127 -0.8472847
                             1.6722230 2.0638820 0.5632416 -0.0650566
##
    [949,]
                  -1.2210230
                  -1.2210230 -1.2074790 -0.1165791 -1.4421898 -1.6295129
##
    [950,]
##
    [951,]
                  1.0090552 -0.4875535 0.6102413 -0.7737127 -0.8472847
##
    [952,]
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 -0.0650566
                   ##
   [953,]
##
    [954,]
                  -0.4776636
                             1.6722230 2.0638820 0.5632416 -0.0650566
                   [955,]
```

```
##
    [956,]
                   -1.2210230 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [957,]
##
    [958,]
                   -1.2210230 -1.2074790 -0.8433995 -1.4421898 -1.6295129
    [959,]
                  -1.2210230
                              0.9522975
                                        1.3370617 -0.1052355
##
                                                              0.7171715
##
    [960,]
                   1.0090552 -0.4875535 -0.1165791 -1.4421898 -0.8472847
##
    [961,]
                   -0.4776636 -0.4875535
                                        0.6102413 1.2317188 -0.0650566
                   0.2656958
                              1.6722230
                                        1.3370617 -0.1052355
                                                              1.4993997
##
    [962,]
    [963,]
##
                   1.0090552
                              0.2323720 -0.1165791 1.2317188
                                                              0.7171715
                              0.2323720 -0.1165791 -1.4421898 -0.0650566
##
    [964,]
                   0.2656958
                   1.0090552
                              0.2323720
                                        0.6102413 -0.1052355 -0.0650566
##
    [965,]
##
                   -1.2210230
                              0.2323720 -0.8433995
                                                   1.2317188
                                                              1.4993997
    [966,]
##
    [967,]
                   0.2656958
                             0.9522975 -0.8433995
                                                    1.2317188
                                                              0.7171715
                   -0.4776636
                             0.9522975
                                                    1.2317188
##
                                        0.6102413
                                                               0.7171715
    [968,]
##
    [969,]
                   0.2656958 -0.4875535 -0.8433995 -1.4421898 -0.8472847
                   1.0090552 -1.2074790 -0.8433995
                                                   0.5632416 -1.6295129
##
    [970,]
##
                   1.7524146 -1.2074790 -0.8433995
                                                   0.5632416 -1.6295129
    [971,]
##
    [972,]
                  -0.4776636 -0.4875535 -0.1165791 0.5632416 0.7171715
##
                  -1.2210230
                             1.6722230 2.0638820
                                                    1.2317188 -0.0650566
    [973,]
##
    [974,]
                  -1.2210230 -1.2074790 -0.1165791
                                                   0.5632416 -0.8472847
                  -0.4776636
                             0.2323720
                                        1.3370617
                                                    1.2317188 -0.8472847
##
    [975,]
##
                  -1.2210230
                              0.2323720 -0.8433995
                                                   1.2317188
                                                              1.4993997
    [976,]
##
    [977,]
                   1.0090552 -0.4875535
                                        0.6102413
                                                   0.5632416 -0.0650566
                   -0.4776636 -1.2074790 -0.8433995 -0.7737127
##
    [978,]
                                                              1.4993997
##
    [979,]
                   1.7524146
                             0.2323720 -0.1165791
                                                   1.2317188
                                                               0.7171715
    [980,]
##
                   1.7524146
                             0.2323720 -0.1165791 -0.1052355
                                                               1.4993997
##
    [981,]
                  -0.4776636 -0.4875535 -0.8433995
                                                   1.2317188 -1.6295129
##
                  -1.2210230 -0.4875535 -0.8433995
                                                   1.2317188 0.7171715
    [982,]
##
    [983,]
                  -0.4776636 -1.2074790 -0.8433995 -1.4421898 -1.6295129
                   1.0090552 -0.4875535 -0.8433995 -0.1052355 -0.0650566
##
    [984,]
##
    [985,]
                   1.0090552 -1.2074790 -0.8433995
                                                   0.5632416 -0.0650566
##
                   0.2656958 -1.2074790 -0.8433995
                                                   1.2317188 -0.8472847
    [986,]
                   0.2656958 -0.4875535 -0.8433995
                                                   1.2317188 -0.0650566
##
    [987,]
##
    [988,]
                   -0.4776636
                              0.2323720 -0.8433995 -1.4421898
                                                              0.7171715
##
    [989,]
                   1.7524146
                              1.6722230
                                        2.0638820
                                                   1.2317188
                                                               0.7171715
##
    [990,]
                   0.2656958
                              0.2323720
                                        0.6102413
                                                   1.2317188
                                                               1.4993997
                   0.2656958 -1.2074790 -0.8433995 -0.1052355
##
                                                               0.7171715
    [991,]
                   -0.4776636 -1.2074790 -0.8433995 -0.7737127 -0.8472847
##
    [992,]
##
                  -1.2210230 0.9522975
                                        1.3370617 -0.7737127
                                                              0.7171715
    [993,]
                   1.0090552 -1.2074790 -0.8433995 -0.1052355 -0.8472847
##
    [994,]
                  -1.2210230 0.9522975 -0.8433995 1.2317188 -0.8472847
##
    [995,]
##
                   1.0090552 -1.2074790 -0.1165791 -1.4421898
                                                              1.4993997
    [996,]
##
    [997,]
                   -0.4776636 -0.4875535 -0.8433995 -1.4421898
                                                               0.7171715
##
    [998,]
                   0.2656958 -0.4875535 -0.8433995 -1.4421898
                                                               0.7171715
                  -0.4776636
##
   [999,]
                             0.2323720 -0.1165791 0.5632416 -0.8472847
                   0.2656958
                              0.9522975
                                        0.6102413 -0.1052355
## [1000,]
                                                              0.7171715
## [1001,]
                   -0.4776636
                              1.6722230
                                        2.0638820 -0.7737127 -0.0650566
## [1002,]
                   1.0090552 -0.4875535 -0.8433995 -0.1052355 -0.8472847
                   -0.4776636 -1.2074790 -0.8433995 -1.4421898 -0.8472847
## [1003,]
## [1004,]
                   1.0090552 0.2323720 -0.1165791 0.5632416 -0.8472847
## [1005,]
```

```
## [1006,]
                    -1.2210230 -0.4875535 -0.8433995 1.2317188 0.7171715
                    -0.4776636 -0.4875535 -0.8433995 -1.4421898 -0.8472847
   [1007,]
##
   [1008,]
                    -1.2210230 -1.2074790 -0.8433995 0.5632416 -1.6295129
##
                                0.2323720
                                            0.6102413 -0.7737127
   [1009,]
                     0.2656958
                                                                    1.4993997
##
   [1010,]
                    -1.2210230
                                1.6722230
                                            0.6102413 -1.4421898
                                                                   1.4993997
##
           Foreign.languages
                                 Medicine
                                                  Law
                                                            Cars Art.exhibitions
##
                    1.0693999
                               0.3491648 -1.0102910 -1.1695589
                                                                       -1.2050590
      [1,]
##
      [2,]
                    1.0693999 -1.0991162 -0.2055639 -0.4751118
                                                                       -0.4490903
##
                                           0.5991631 -1.1695589
      [3,]
                    1.0693999 -0.3749757
                                                                        1.8188158
##
      [4,]
                    0.1919881 -0.3749757
                                           2.2086173 -1.1695589
                                                                        1.8188158
                               0.3491648 -0.2055639
##
      [5,]
                   -0.6854236
                                                       0.2193353
                                                                       -1.2050590
##
      [6,]
                    0.1919881
                               1.0733052
                                           0.5991631
                                                       1.6082294
                                                                       -0.4490903
##
                    0.1919881
                               1.7974457
                                           0.5991631
                                                       0.9137823
                                                                       -1.2050590
      [7,]
##
      [8,]
                    0.1919881 -1.0991162 -0.2055639 -1.1695589
                                                                       -1.2050590
##
                   -2.4402471 -1.0991162 -1.0102910 -1.1695589
                                                                       -1.2050590
      [9,]
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
##
     [10,]
                                                                        1.0628471
##
     [11,]
                    1.0693999 -0.3749757
                                           1.4038902 -0.4751118
                                                                       -0.4490903
##
                   -1.5628354 -1.0991162
                                           0.5991631 -1.1695589
                                                                        1.8188158
     [12,]
                                                                       -1.2050590
##
     [13,]
                    1.0693999 1.7974457 -0.2055639
                                                       0.2193353
##
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                        0.3068784
     [14,]
##
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                        1.0628471
     [15,]
                    0.1919881 -0.3749757
##
     [16,]
                                          1.4038902
                                                       1.6082294
                                                                        0.3068784
##
                              1.7974457 -1.0102910 -1.1695589
     [17,]
                   -0.6854236
                                                                       -1.2050590
                               0.3491648 -1.0102910 -1.1695589
##
     [18,]
                   -1.5628354
                                                                       -1.2050590
                    0.1919881 -0.3749757 -1.0102910 -0.4751118
##
     [19,]
                                                                       -1.2050590
##
     [20,]
                    0.1919881 -0.3749757 -1.0102910
                                                       0.9137823
                                                                       -0.4490903
##
                              1.0733052 -0.2055639
                    0.1919881
                                                       1.6082294
                                                                       -0.4490903
     [21,]
                    0.1919881 -0.3749757 -1.0102910 -1.1695589
##
     [22,]
                                                                       -0.4490903
##
     [23,]
                               0.3491648 -0.2055639 -0.4751118
                   -0.6854236
                                                                       -1.2050590
##
                    0.1919881
                               1.0733052 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
     [24,]
##
     [25,]
                    1.0693999
                               1.0733052
                                           2.2086173
                                                       0.2193353
                                                                        1.0628471
##
                    1.0693999 -1.0991162
                                           0.5991631 -1.1695589
                                                                       -0.4490903
     [26,]
##
     [27,]
                   -0.6854236 -0.3749757 -1.0102910
                                                       0.9137823
                                                                       -0.4490903
                               1.0733052 -1.0102910
##
     [28,]
                    0.1919881
                                                     -1.1695589
                                                                       -0.4490903
##
     [29,]
                    0.1919881 -0.3749757
                                           0.5991631
                                                       1.6082294
                                                                       -1.2050590
##
                               0.3491648 -0.2055639
                                                     -0.4751118
                    1.0693999
                                                                        1.0628471
     [30,]
     [31,]
                               1.0733052
                                          1.4038902
                                                       0.9137823
##
                    0.1919881
                                                                       -0.4490903
##
                    0.1919881 -1.0991162 -1.0102910
                                                       0.2193353
                                                                        1.0628471
     [32,]
                   -0.6854236 -1.0991162 -0.2055639
##
     [33,]
                                                       0.2193353
                                                                        1.0628471
##
                    1.0693999
                               1.7974457
                                           1.4038902 -1.1695589
     [34,]
                                                                        1.8188158
##
     [35,]
                    1.0693999
                               0.3491648 -0.2055639
                                                       1.6082294
                                                                        0.3068784
##
     [36,]
                    1.0693999 -1.0991162
                                           2.2086173
                                                       0.9137823
                                                                       -0.4490903
##
     [37,]
                    0.1919881
                               1.7974457
                                           0.5991631
                                                       0.9137823
                                                                        0.3068784
##
     [38,]
                    0.1919881
                               0.3491648
                                           0.5991631 -0.4751118
                                                                       -0.4490903
##
                    1.0693999
                               1.0733052
                                           0.5991631 -1.1695589
     [39,]
                                                                        1.0628471
##
     [40,]
                   -2.4402471
                               1.7974457 -1.0102910
                                                      0.9137823
                                                                       -1.2050590
##
     [41,]
                   -0.6854236 -0.3749757 -0.2055639 -1.1695589
                                                                       -1.2050590
##
                               0.3491648 -1.0102910 -1.1695589
     [42,]
                   -0.6854236
                                                                       -1.2050590
##
     [43,]
                    1.0693999
                               1.0733052
                                          0.5991631
                                                       0.2193353
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -0.2055639 -0.4751118
                                                                        1.8188158
     [44,]
```

```
##
     [45,]
                   -0.6854236 -1.0991162 1.4038902 -1.1695589
                                                                         0.3068784
##
     [46,]
                   -1.5628354 -0.3749757 -1.0102910 -1.1695589
                                                                        -1.2050590
##
     [47,]
                    1.0693999 -0.3749757 -1.0102910
                                                       1.6082294
                                                                         1.8188158
##
                                0.3491648 -1.0102910 -0.4751118
     [48,]
                    1.0693999
                                                                        -1.2050590
##
     [49,]
                    1.0693999
                                0.3491648 -0.2055639 -0.4751118
                                                                        -0.4490903
##
     [50,]
                    0.1919881 -1.0991162 -1.0102910
                                                       0.2193353
                                                                        -1.2050590
##
                                1.7974457 -1.0102910 -1.1695589
     [51,]
                    0.1919881
                                                                         0.3068784
##
     [52,]
                    0.1919881
                                1.7974457 -0.2055639
                                                       0.9137823
                                                                        0.3068784
##
     [53,]
                    0.1919881 -0.3749757 -0.2055639
                                                       0.2193353
                                                                         1.0628471
##
     [54,]
                    1.0693999
                                1.0733052
                                           0.5991631
                                                       1.6082294
                                                                        1.8188158
##
     [55,]
                    0.1919881
                                0.3491648 -0.2055639 -0.4751118
                                                                         1.8188158
##
     [56,]
                    1.0693999
                                0.3491648
                                           0.5991631 -0.4751118
                                                                         0.3068784
##
                    1.0693999 -0.3749757
                                            1.4038902
                                                       0.2193353
                                                                         1.8188158
     [57,]
##
     [58,]
                   -0.6854236
                                0.3491648 -0.2055639 -1.1695589
                                                                         1.8188158
                    0.1919881
                                1.7974457 -1.0102910 -0.4751118
##
     [59,]
                                                                        -1.2050590
     [60,]
##
                   -0.6854236 -1.0991162
                                           0.5991631 -1.1695589
                                                                         1.0628471
##
     [61,]
                    0.1919881
                                0.3491648 -0.2055639
                                                       0.2193353
                                                                         1.8188158
##
                   -0.6854236
                                0.3491648
                                            0.5991631
     [62,]
                                                       0.9137823
                                                                        0.3068784
##
     [63,]
                    0.1919881
                                0.3491648
                                            0.5991631
                                                       1.6082294
                                                                        -0.4490903
##
                   -0.6854236 -0.3749757
                                            1.4038902
                                                                        0.3068784
     [64,]
                                                       1.6082294
##
                    1.0693999
                                1.7974457 -1.0102910 -1.1695589
                                                                        -0.4490903
     [65,]
##
                   -0.6854236
                                0.3491648 -1.0102910 -0.4751118
                                                                        -1.2050590
     [66,]
                   -1.5628354 -1.0991162 -1.0102910
##
     [67,]
                                                       0.9137823
                                                                        -0.4490903
##
                    0.1919881
                                0.3491648
                                           0.5991631 -1.1695589
                                                                        -0.4490903
     [68,]
     [69,]
##
                    0.1919881 -1.0991162
                                           1.4038902
                                                       0.2193353
                                                                        -0.4490903
##
     [70,]
                   -0.6854236
                                1.0733052 -1.0102910
                                                      -0.4751118
                                                                        0.3068784
##
                   -0.6854236 -1.0991162
                                           2.2086173
                                                       1.6082294
                                                                        -0.4490903
     [71,]
                   -1.5628354 -1.0991162
##
     [72,]
                                            2.2086173
                                                       1.6082294
                                                                        -1.2050590
                   -0.6854236 -1.0991162 -1.0102910
##
                                                       0.2193353
                                                                        -1.2050590
     [73,]
##
                    1.0693999 -1.0991162 -0.2055639
                                                       1.6082294
                                                                        -0.4490903
     [74,]
##
     [75,]
                    1.0693999 -1.0991162
                                           0.5991631
                                                       1.6082294
                                                                        0.3068784
##
                                1.7974457 -0.2055639
     [76,]
                    1.0693999
                                                       1.6082294
                                                                         1.8188158
##
     [77,]
                   -0.6854236 -1.0991162
                                            0.5991631
                                                        1.6082294
                                                                        -1.2050590
##
     [78,]
                    1.0693999
                                0.3491648 -1.0102910
                                                      -1.1695589
                                                                         1.0628471
##
     [79,]
                    1.0693999
                                1.0733052 -1.0102910
                                                      -1.1695589
                                                                         1.8188158
##
                    1.0693999 -0.3749757
                                            2.2086173
                                                       0.9137823
                                                                        -0.4490903
     [80,]
##
     [81,]
                   -0.6854236 -0.3749757
                                            2.2086173
                                                       0.2193353
                                                                        -0.4490903
##
                    0.1919881 -1.0991162
                                            1.4038902
                                                                        0.3068784
     [82,]
                                                       1.6082294
##
     [83,]
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                        1.8188158
##
     [84,]
                    0.1919881
                                1.7974457
                                            2.2086173
                                                       0.9137823
                                                                        0.3068784
##
     [85,]
                    1.0693999
                                0.3491648
                                            0.5991631
                                                       0.2193353
                                                                        0.3068784
##
     [86,]
                   -0.6854236
                                0.3491648 -0.2055639
                                                       0.2193353
                                                                         1.8188158
##
     [87,]
                    0.1919881
                                1.0733052
                                            1.4038902
                                                       0.9137823
                                                                        1.8188158
##
     [88,]
                    1.0693999 -1.0991162
                                            1.4038902 -1.1695589
                                                                        -0.4490903
##
                    1.0693999 -1.0991162
     [89,]
                                            0.5991631 -1.1695589
                                                                         0.3068784
##
     [90,]
                    0.1919881 -0.3749757 -0.2055639 -1.1695589
                                                                         1.0628471
##
     [91,]
                    0.1919881
                                1.0733052 -1.0102910
                                                       0.2193353
                                                                        -1.2050590
                                1.7974457 -1.0102910 -1.1695589
##
     [92,]
                    1.0693999
                                                                        -1.2050590
##
     [93,]
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
                                                                         1.8188158
##
                   -1.5628354 -1.0991162 -0.2055639 1.6082294
                                                                        0.3068784
     [94,]
```

```
##
     [95,]
                    0.1919881 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
##
     [96,]
                    0.1919881 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       0.3068784
##
     [97,]
                   -2.4402471
                              1.7974457 -1.0102910 -1.1695589
                                                                       -1.2050590
##
                    0.1919881 -1.0991162 -0.2055639 -0.4751118
     [98,]
                                                                       -1.2050590
##
     [99,]
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
                                                                        0.3068784
##
    [100,]
                    0.1919881 -1.0991162 -1.0102910 -0.4751118
                                                                       -0.4490903
                              1.7974457 -1.0102910 -0.4751118
##
    [101,]
                    0.1919881
                                                                       0.3068784
    [102,]
##
                   -0.6854236 -1.0991162 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
##
    [103,]
                    1.0693999
                              1.7974457
                                           1.4038902 -0.4751118
                                                                        1.0628471
##
    [104,]
                    1.0693999 -0.3749757
                                           1.4038902
                                                       1.6082294
                                                                       -0.4490903
##
                   -0.6854236 -0.3749757
                                           2.2086173
                                                       0.9137823
    [105,]
                                                                        1.0628471
##
    [106,]
                   -0.6854236 -1.0991162
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
    [107,]
##
    [108,]
                   -2.4402471
                              1.7974457 -0.2055639
                                                       0.9137823
                                                                       1.8188158
                    0.1919881 -1.0991162 -1.0102910 -0.4751118
##
    [109,]
                                                                       -1.2050590
##
                   -0.6854236
                              0.3491648 -0.2055639
                                                       1.6082294
                                                                       -0.4490903
    [110,]
##
    [111,]
                    0.1919881
                               0.3491648 -1.0102910 -1.1695589
                                                                       -1.2050590
##
                               0.3491648 -0.2055639 -1.1695589
    [112,]
                    1.0693999
                                                                       1.8188158
##
    [113,]
                               1.7974457 -0.2055639 -1.1695589
                    0.1919881
                                                                        1.0628471
                   -2.4402471 -1.0991162 -1.0102910
                                                       0.9137823
##
    [114,]
                                                                       -0.4490903
                               0.3491648 -1.0102910 -0.4751118
##
    [115,]
                    1.0693999
                                                                        1.8188158
##
                    1.0693999
                               1.0733052 -0.2055639
                                                       1.6082294
                                                                        1.0628471
    [116,]
##
    [117,]
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
##
                   -1.5628354 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
    [118,]
##
                   -0.6854236 -0.3749757 -1.0102910 -0.4751118
                                                                       1.0628471
    [119,]
##
    [120,]
                   -2.4402471
                               0.3491648 -1.0102910 -1.1695589
                                                                       -0.4490903
##
                    0.1919881
                               0.3491648
                                          0.5991631 -0.4751118
                                                                       -1.2050590
    [121,]
##
    [122,]
                   -1.5628354
                               0.3491648
                                           1.4038902
                                                       1.6082294
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.9137823
    [123,]
                                                                        1.8188158
                   -0.6854236
                               0.3491648
                                          0.5991631 -0.4751118
##
    [124,]
                                                                        1.0628471
##
    [125,]
                    0.1919881
                               1.0733052
                                           1.4038902
                                                       0.9137823
                                                                       1.8188158
                               0.3491648
                                           0.5991631 -1.1695589
##
    [126,]
                    0.1919881
                                                                        1.0628471
##
    [127,]
                    1.0693999 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -0.4490903
##
    [128,]
                    0.1919881
                               0.3491648 -0.2055639
                                                       0.9137823
                                                                       0.3068784
##
    [129,]
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                        1.8188158
##
                   -0.6854236
                              1.7974457 -0.2055639 -1.1695589
                                                                       0.3068784
    [130,]
                    0.1919881 -0.3749757 2.2086173 -1.1695589
##
    [131,]
                                                                        1.0628471
##
                    0.1919881 -1.0991162 -1.0102910
    [132,]
                                                       0.9137823
                                                                       -1.2050590
##
    [133,]
                    1.0693999
                              0.3491648 -0.2055639 -1.1695589
                                                                       -1.2050590
                    0.1919881 -0.3749757 -1.0102910 -1.1695589
##
    [134,]
                                                                        1.8188158
##
                               1.0733052
                                           0.5991631
                                                       0.2193353
                                                                       0.3068784
    [135,]
                   -0.6854236
##
    [136,]
                    1.0693999 -0.3749757
                                           2.2086173
                                                       0.9137823
                                                                       1.0628471
##
    [137,]
                   -0.6854236
                               1.7974457 -0.2055639 -0.4751118
                                                                       -1.2050590
##
    [138,]
                    1.0693999
                               0.3491648 -0.2055639
                                                       1.6082294
                                                                       1.0628471
                               1.7974457 -1.0102910 -1.1695589
##
                    1.0693999
                                                                       -1.2050590
    [139,]
##
    [140,]
                    0.1919881 -1.0991162 0.5991631 -1.1695589
                                                                        1.0628471
##
                    1.0693999 -0.3749757 -0.2055639
                                                       0.2193353
    [141,]
                                                                        1.8188158
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
##
    [142,]
                                                                       -1.2050590
##
    [143,]
                   -0.6854236 -1.0991162 -0.2055639 -0.4751118
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -1.0102910 0.9137823
                                                                       -1.2050590
    [144,]
```

```
1.7974457 -1.0102910 -1.1695589
##
    [145,]
                   -0.6854236
                                                                       1.0628471
##
    [146,]
                   0.1919881
                               1.0733052 -0.2055639 -1.1695589
                                                                      -0.4490903
##
    [147,]
                   1.0693999
                               0.3491648
                                         2.2086173 0.9137823
                                                                      -0.4490903
                                                                      -1.2050590
##
                   0.1919881 -0.3749757 -0.2055639 -0.4751118
    [148,]
##
    [149,]
                   0.1919881
                              0.3491648 0.5991631 -1.1695589
                                                                      -0.4490903
##
    [150,]
                   -0.6854236 -0.3749757 -1.0102910 -0.4751118
                                                                      -1.2050590
                   0.1919881 -0.3749757 -1.0102910 0.2193353
##
    [151,]
                                                                       0.3068784
##
    [152,]
                   -1.5628354
                              0.3491648 -0.2055639 -0.4751118
                                                                       0.3068784
##
    [153,]
                   1.0693999
                               1.7974457 0.5991631 -1.1695589
                                                                      -1.2050590
##
    [154,]
                   -0.6854236 -0.3749757 -0.2055639 0.9137823
                                                                       0.3068784
##
                    1.0693999 -0.3749757
                                          1.4038902 -0.4751118
                                                                      -1.2050590
    [155,]
##
    [156,]
                   1.0693999 1.0733052
                                          2.2086173 -0.4751118
                                                                       0.3068784
##
                   1.0693999 -1.0991162
                                          2.2086173 -1.1695589
                                                                      -1.2050590
    [157,]
##
    [158,]
                   -1.5628354 -0.3749757 -0.2055639 -0.4751118
                                                                      -0.4490903
                   0.1919881 -0.3749757 -1.0102910 -1.1695589
##
    [159,]
                                                                       1.0628471
##
                   0.1919881 0.3491648 0.5991631 0.2193353
                                                                       0.3068784
    [160,]
##
                   0.1919881 -1.0991162 -0.2055639
                                                      0.9137823
                                                                       0.3068784
    [161,]
##
                   0.1919881 1.0733052 -1.0102910 -1.1695589
    [162,]
                                                                      -0.4490903
                   1.0693999 -1.0991162 0.5991631 0.9137823
##
    [163,]
                                                                      -1.2050590
                   -1.5628354 -0.3749757 -1.0102910 -1.1695589
##
                                                                      -1.2050590
    [164,]
                   0.1919881 -1.0991162 -0.2055639 -1.1695589
##
    [165,]
                                                                       0.3068784
##
                   1.0693999 -0.3749757
                                         2.2086173 -0.4751118
                                                                       1.0628471
    [166,]
##
    [167,]
                   0.1919881 -0.3749757 -1.0102910 -1.1695589
                                                                       0.3068784
##
                   -2.4402471 -0.3749757 -0.2055639 -0.4751118
    [168,]
                                                                      -1.2050590
##
                   -0.6854236 -1.0991162 2.2086173 -0.4751118
                                                                      -1.2050590
    [169,]
##
    [170,]
                   1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                       1.0628471
##
                   0.1919881 1.0733052
                                          1.4038902 -1.1695589
                                                                      -0.4490903
    [171,]
##
    [172,]
                   -0.6854236 -1.0991162
                                          2.2086173 -1.1695589
                                                                      -1.2050590
##
                   0.1919881 -0.3749757
                                          0.5991631 -0.4751118
                                                                      -0.4490903
    [173,]
                   0.1919881 -0.3749757 -1.0102910
##
    [174,]
                                                      1.6082294
                                                                      -1.2050590
##
                   -0.6854236
                              0.3491648
                                          0.5991631
                                                      1.6082294
                                                                       1.8188158
    [175,]
                               1.7974457 -1.0102910
##
    [176,]
                   1.0693999
                                                      1.6082294
                                                                      -1.2050590
##
    [177,]
                   -0.6854236 -1.0991162 -0.2055639
                                                      1.6082294
                                                                       0.3068784
##
    [178,]
                   -1.5628354 -0.3749757 -1.0102910 -1.1695589
                                                                       0.3068784
##
    [179,]
                   1.0693999
                              0.3491648 -1.0102910 -1.1695589
                                                                      -0.4490903
##
                   0.1919881
                              0.3491648 0.5991631 -1.1695589
                                                                       1.0628471
    [180,]
                   0.1919881 -1.0991162 -1.0102910
##
    [181,]
                                                      1.6082294
                                                                      -1.2050590
##
                              0.3491648 0.5991631
                                                      1.6082294
    [182,]
                   -0.6854236
                                                                       0.3068784
##
    [183,]
                   0.1919881
                              1.7974457 -0.2055639 -0.4751118
                                                                       0.3068784
                              0.3491648 -1.0102910 -1.1695589
##
    [184,]
                   -0.6854236
                                                                       1.0628471
##
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
                                                                       1.8188158
    [185,]
##
    [186,]
                   -0.6854236 -1.0991162 -0.2055639 -0.4751118
                                                                       0.3068784
##
    [187,]
                   -1.5628354 -1.0991162 -0.2055639 -1.1695589
                                                                      -0.4490903
##
    [188,]
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
                                                                      -0.4490903
                   -0.6854236 1.7974457 0.5991631 0.2193353
##
                                                                      -1.2050590
    [189,]
##
    [190,]
                   1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                      -0.4490903
##
    [191,]
                   -0.6854236 1.0733052 -1.0102910 -0.4751118
                                                                      -1.2050590
                   -2.4402471 -1.0991162 -1.0102910 -1.1695589
##
    [192,]
                                                                       1.8188158
##
    [193,]
                   1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                      -0.4490903
##
                   -1.5628354 -0.3749757 -1.0102910 -1.1695589
                                                                       0.3068784
    [194,]
```

```
0.5991631
##
    [195,]
                    0.1919881 -1.0991162
                                                       0.2193353
                                                                        0.3068784
##
    [196,]
                    0.1919881
                                0.3491648
                                           0.5991631
                                                       0.9137823
                                                                       -0.4490903
##
    [197,]
                    1.0693999
                                1.0733052 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
                   -0.6854236 -1.0991162 -1.0102910
##
    [198,]
                                                       0.2193353
                                                                       -1.2050590
##
    [199,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.9137823
                                                                       -1.2050590
    [200,]
##
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.9137823
                                                                        0.3068784
                    0.1919881 -0.3749757 -0.2055639
##
    [201,]
                                                       0.2193353
                                                                       -0.4490903
    [202,]
##
                    1.0693999 -1.0991162
                                           2.2086173
                                                      -1.1695589
                                                                       -1.2050590
##
    [203,]
                    1.0693999
                                0.3491648 -1.0102910
                                                       0.9137823
                                                                       -1.2050590
##
    [204,]
                                1.7974457
                                            0.5991631
                    0.1919881
                                                       0.9137823
                                                                        0.3068784
##
                   -1.5628354 -1.0991162 -1.0102910
                                                                       -1.2050590
    [205,]
                                                      -1.1695589
##
    [206,]
                    1.0693999
                                1.7974457 -1.0102910
                                                      -1.1695589
                                                                         1.0628471
##
                    1.0693999
                                0.3491648
                                           2.2086173
                                                       0.9137823
                                                                         1.8188158
    [207,]
##
    [208,]
                    0.1919881
                                0.3491648
                                           2.2086173
                                                       0.9137823
                                                                       -0.4490903
##
    [209,]
                    0.1919881 -0.3749757 -1.0102910
                                                       0.2193353
                                                                        1.8188158
##
                   -0.6854236 -0.3749757
                                            1.4038902
                                                       0.2193353
                                                                        0.3068784
    [210,]
##
    [211,]
                    1.0693999
                                1.0733052
                                           2.2086173
                                                       0.9137823
                                                                        1.8188158
##
    [212,]
                    1.0693999 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
##
    [213,]
                                0.3491648
                                           1.4038902
                                                       0.2193353
                    0.1919881
                                                                        1.8188158
                                            1.4038902
##
    [214,]
                    1.0693999
                                1.7974457
                                                       1.6082294
                                                                        0.3068784
                                1.7974457
                                           1.4038902
##
    [215,]
                    1.0693999
                                                       0.9137823
                                                                        1.0628471
##
                   -2.4402471 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
    [216,]
##
    [217,]
                   -0.6854236
                                1.7974457
                                           0.5991631 -1.1695589
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -0.2055639
                                                      -1.1695589
    [218,]
                                                                         1.0628471
##
                    1.0693999
                               1.7974457
                                           0.5991631
                                                       0.9137823
                                                                       -1.2050590
    [219,]
##
    [220,]
                   -0.6854236 -1.0991162
                                           0.5991631
                                                       1.6082294
                                                                       -0.4490903
##
                    1.0693999
                               0.3491648 -0.2055639
    [221,]
                                                       0.9137823
                                                                        0.3068784
##
    [222,]
                    1.0693999
                                0.3491648 0.5991631
                                                       0.9137823
                                                                        1.0628471
##
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
    [223,]
                                                                       -1.2050590
                    0.1919881 -0.3749757 -0.2055639 -0.4751118
##
    [224,]
                                                                        0.3068784
##
                   -1.5628354 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
    [225,]
                              0.3491648 -0.2055639
##
    [226,]
                    0.1919881
                                                       1.6082294
                                                                        0.3068784
##
    [227,]
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
                                                                       -1.2050590
##
    [228,]
                    1.0693999
                                1.0733052 0.5991631
                                                       0.9137823
                                                                        1.0628471
##
    [229,]
                    0.1919881
                                1.0733052 -0.2055639 -1.1695589
                                                                        1.8188158
##
                   -0.6854236 -0.3749757 -0.2055639 -0.4751118
                                                                       -0.4490903
    [230,]
##
    [231,]
                    1.0693999 -0.3749757 -1.0102910 -0.4751118
                                                                        0.3068784
##
                               1.0733052
                                           1.4038902
                                                       0.2193353
                                                                       -0.4490903
    [232,]
                    1.0693999
##
    [233,]
                    1.0693999 -1.0991162
                                           0.5991631 -1.1695589
                                                                       -1.2050590
##
    [234,]
                   -0.6854236
                              0.3491648 -0.2055639 -0.4751118
                                                                       -0.4490903
##
                   -1.5628354 -1.0991162
                                            0.5991631
                                                       0.2193353
                                                                       -1.2050590
    [235,]
##
    [236,]
                    0.1919881 -1.0991162
                                            2.2086173 -0.4751118
                                                                       -1.2050590
##
    [237,]
                    1.0693999 -0.3749757
                                            2.2086173 -0.4751118
                                                                        1.8188158
##
    [238,]
                    1.0693999 -0.3749757 -1.0102910
                                                       0.9137823
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
    [239,]
##
    [240,]
                   -0.6854236 -0.3749757
                                           0.5991631 -0.4751118
                                                                         1.0628471
##
                   -0.6854236 -0.3749757
                                            1.4038902
                                                       1.6082294
    [241,]
                                                                        0.3068784
##
    [242,]
                    1.0693999
                               0.3491648
                                           2.2086173
                                                       0.9137823
                                                                        0.3068784
##
    [243,]
                    1.0693999 -0.3749757 -0.2055639 -1.1695589
                                                                        1.8188158
##
                    1.0693999 1.7974457 -1.0102910 -1.1695589
                                                                       -0.4490903
    [244,]
```

```
0.3491648 -1.0102910 -1.1695589
##
    [245,]
                   -0.6854236
                                                                       -1.2050590
##
    [246,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                        1.8188158
##
    [247,]
                   -2.4402471 -1.0991162
                                          2.2086173 0.2193353
                                                                       -1.2050590
##
    [248,]
                    1.0693999
                               1.7974457
                                           0.5991631 -1.1695589
                                                                        1.0628471
##
    [249,]
                    1.0693999
                               0.3491648
                                           2.2086173 -1.1695589
                                                                        0.3068784
##
    [250,]
                   -1.5628354
                               1.7974457 -1.0102910 -1.1695589
                                                                       -0.4490903
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
##
    [251,]
                                                                       -1.2050590
##
    [252,]
                    0.1919881
                               1.0733052 -1.0102910 -0.4751118
                                                                        0.3068784
##
    [253,]
                    1.0693999 -0.3749757 -1.0102910 -0.4751118
                                                                       -0.4490903
##
    [254,]
                   -1.5628354 -0.3749757 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
                   -1.5628354
                               1.7974457
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
    [255,]
##
    [256,]
                    1.0693999
                               1.0733052 -1.0102910 -1.1695589
                                                                        1.0628471
##
                   -1.5628354 -1.0991162
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
    [257,]
##
    [258,]
                    0.1919881 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -0.4490903
##
    [259,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       -1.2050590
##
                    0.1919881
                               0.3491648
                                           1.4038902
                                                       0.9137823
                                                                       -0.4490903
    [260,]
##
                   -0.6854236
                               0.3491648
                                           0.5991631
                                                       0.2193353
                                                                        0.3068784
    [261,]
##
    [262,]
                    1.0693999 -1.0991162
                                           1.4038902 -0.4751118
                                                                        0.3068784
                                           0.5991631 -1.1695589
##
    [263,]
                    1.0693999
                               0.3491648
                                                                        1.0628471
                    1.0693999 -0.3749757
                                           1.4038902
##
    [264,]
                                                       0.2193353
                                                                        0.3068784
                               1.7974457
                                           0.5991631
##
    [265,]
                   -0.6854236
                                                       0.2193353
                                                                        1.0628471
##
                   -0.6854236 -0.3749757 -0.2055639 -1.1695589
                                                                       -1.2050590
    [266,]
##
    [267,]
                    1.0693999 -0.3749757 -1.0102910 0.2193353
                                                                        0.3068784
##
                    0.1919881 -0.3749757 -0.2055639 -1.1695589
    [268,]
                                                                        0.3068784
##
                    0.1919881
                               0.3491648 -1.0102910 -1.1695589
                                                                       -1.2050590
    [269,]
##
    [270,]
                    1.0693999
                               1.7974457
                                           1.4038902 -1.1695589
                                                                       -0.4490903
##
                    0.1919881 -0.3749757 -0.2055639 -1.1695589
                                                                       -0.4490903
    [271,]
##
    [272,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       1.6082294
                                                                       -0.4490903
##
                    0.1919881
                               1.7974457 -1.0102910 -1.1695589
                                                                        1.8188158
    [273,]
                                           1.4038902 -0.4751118
##
    [274,]
                    1.0693999
                               0.3491648
                                                                        1.0628471
##
                   -1.5628354 -0.3749757
                                           2.2086173
                                                       0.9137823
                                                                        0.3068784
    [275,]
                    1.0693999 -0.3749757
                                           0.5991631
##
    [276,]
                                                       0.2193353
                                                                        1.8188158
##
    [277,]
                    0.1919881 -1.0991162 -0.2055639 -1.1695589
                                                                       -1.2050590
##
    [278,]
                    1.0693999 -0.3749757
                                           1.4038902
                                                       0.2193353
                                                                       -1.2050590
##
    [279,]
                    0.1919881
                               0.3491648 -0.2055639
                                                       0.9137823
                                                                        0.3068784
##
                   -1.5628354 -1.0991162
                                          2.2086173 -1.1695589
                                                                       -1.2050590
    [280,]
                   -0.6854236
##
    [281,]
                               0.3491648 -0.2055639 -0.4751118
                                                                        0.3068784
                               1.7974457 -1.0102910
                                                       0.9137823
##
    [282,]
                    0.1919881
                                                                        0.3068784
##
    [283,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.9137823
                                                                       -1.2050590
    [284,]
##
                    0.1919881
                               0.3491648 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
##
                   -0.6854236 -1.0991162 -1.0102910
                                                                       -1.2050590
    [285,]
                                                       0.9137823
##
    [286,]
                    1.0693999
                               1.7974457 -1.0102910 -1.1695589
                                                                        1.0628471
##
    [287,]
                    1.0693999 -0.3749757 -0.2055639
                                                       0.9137823
                                                                        1.8188158
##
    [288,]
                    0.1919881
                               0.3491648 -0.2055639
                                                     -0.4751118
                                                                        0.3068784
##
                    1.0693999 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
    [289,]
##
    [290,]
                    0.1919881
                               0.3491648
                                           2.2086173
                                                       0.2193353
                                                                       -1.2050590
##
    [291,]
                    0.1919881
                               1.7974457
                                           0.5991631 -1.1695589
                                                                        1.8188158
##
    [292,]
                    0.1919881 -1.0991162
                                           0.5991631
                                                       0.2193353
                                                                       -0.4490903
##
    [293,]
                    1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                        0.3068784
##
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                        0.3068784
    [294,]
```

```
1.0693999 -0.3749757 1.4038902 -0.4751118
##
    [295,]
                                                                        1.0628471
##
    [296,]
                    0.1919881 -0.3749757 -0.2055639 -0.4751118
                                                                       -0.4490903
##
    [297,]
                    1.0693999 -1.0991162 -1.0102910
                                                      1.6082294
                                                                       -0.4490903
                               1.7974457 -1.0102910 -0.4751118
##
    [298,]
                   -0.6854236
                                                                       0.3068784
##
    [299,]
                    0.1919881 -0.3749757 -1.0102910 -1.1695589
                                                                       0.3068784
    [300,]
##
                    0.1919881
                               0.3491648 -0.2055639
                                                      0.2193353
                                                                       0.3068784
                               0.3491648 -0.2055639 -1.1695589
##
    [301,]
                    0.1919881
                                                                       1.8188158
    [302,]
##
                   -2.4402471 -0.3749757 -0.2055639 -0.4751118
                                                                       0.3068784
##
    [303,]
                    1.0693999
                               0.3491648
                                           1.4038902
                                                      0.2193353
                                                                       0.3068784
    [304,]
                                           0.5991631
                                                      0.9137823
##
                    0.1919881
                               0.3491648
                                                                       -1.2050590
##
                    0.1919881 -0.3749757
                                           1.4038902 -1.1695589
                                                                       -1.2050590
    [305,]
##
    [306,]
                    1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                       0.3068784
                                           0.5991631
##
                    0.1919881 -1.0991162
                                                      1.6082294
                                                                       -0.4490903
    [307,]
##
    [308,]
                    1.0693999
                               1.7974457 -1.0102910 -1.1695589
                                                                       -0.4490903
                               1.0733052
##
    [309,]
                    0.1919881
                                           1.4038902
                                                      0.9137823
                                                                       -0.4490903
##
                    0.1919881 -0.3749757 -1.0102910 -0.4751118
                                                                       0.3068784
    [310,]
##
    [311,]
                   -1.5628354
                              1.7974457 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
                    1.0693999 -0.3749757 -0.2055639
    [312,]
                                                      0.9137823
                                                                       0.3068784
##
    [313,]
                   -2.4402471 -1.0991162 -1.0102910
                                                      0.2193353
                                                                       -1.2050590
                    0.1919881 -1.0991162 -0.2055639 -0.4751118
##
                                                                       0.3068784
    [314,]
                    1.0693999 0.3491648 0.5991631
##
    [315,]
                                                      1.6082294
                                                                       1.8188158
##
                   -0.6854236 -1.0991162 -1.0102910 -0.4751118
                                                                       -0.4490903
    [316,]
##
    [317,]
                   -2.4402471 -0.3749757 0.5991631 -0.4751118
                                                                       0.3068784
##
                   -0.6854236 -0.3749757 -1.0102910
                                                      0.9137823
    [318,]
                                                                       -1.2050590
##
                    0.1919881
                              1.7974457 -0.2055639 -1.1695589
                                                                       -1.2050590
    [319,]
##
    [320,]
                    1.0693999 -0.3749757 -0.2055639
                                                     -0.4751118
                                                                       0.3068784
##
                    0.1919881 -0.3749757 -0.2055639
                                                      0.9137823
                                                                       0.3068784
    [321,]
##
    [322,]
                    0.1919881
                              1.7974457 0.5991631 -1.1695589
                                                                       -0.4490903
##
                   -0.6854236 -1.0991162
                                           2.2086173
                                                      0.2193353
                                                                       0.3068784
    [323,]
                   -0.6854236
                               1.7974457 -1.0102910 -1.1695589
                                                                       -1.2050590
##
    [324,]
##
    [325,]
                   -0.6854236
                               1.0733052 -0.2055639
                                                     -1.1695589
                                                                       -0.4490903
                              1.7974457 -0.2055639
##
    [326,]
                    0.1919881
                                                      1.6082294
                                                                       0.3068784
##
    [327,]
                   -0.6854236 -0.3749757 -0.2055639
                                                     -1.1695589
                                                                       -1.2050590
##
    [328,]
                    0.1919881 -0.3749757 -0.2055639
                                                      0.9137823
                                                                       0.3068784
##
    [329,]
                    1.0693999 -1.0991162
                                          0.5991631
                                                       1.6082294
                                                                       -1.2050590
##
                   -0.6854236 -0.3749757 -1.0102910
                                                      0.2193353
                                                                       -1.2050590
    [330,]
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
##
    [331,]
                                                                       -0.4490903
##
                   -0.6854236
                               1.7974457 -0.2055639
    [332,]
                                                       1.6082294
                                                                       0.3068784
##
    [333,]
                   -0.6854236
                               1.7974457 -0.2055639 -0.4751118
                                                                       -0.4490903
##
    [334,]
                   -0.6854236
                               0.3491648 -0.2055639 -0.4751118
                                                                       0.3068784
##
                    1.0693999 -0.3749757 -0.2055639 -1.1695589
                                                                       -1.2050590
    [335,]
##
                   -1.5628354 -0.3749757 -0.2055639
                                                       1.6082294
                                                                       0.3068784
    [336,]
##
    [337,]
                   -0.6854236 1.0733052 -1.0102910 -0.4751118
                                                                       -1.2050590
##
    [338,]
                   -2.4402471 -1.0991162
                                          1.4038902
                                                       1.6082294
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -0.2055639 -1.1695589
    [339,]
                                                                        1.0628471
                                           2.2086173
##
    [340,]
                   -0.6854236 -0.3749757
                                                     0.2193353
                                                                       -0.4490903
##
                    0.1919881 -0.3749757
                                           0.5991631 -1.1695589
    [341,]
                                                                       -1.2050590
##
    [342,]
                   -0.6854236 -1.0991162 -1.0102910
                                                      0.9137823
                                                                       0.3068784
##
    [343,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       0.3068784
##
                    0.1919881 -0.3749757 -0.2055639 -1.1695589
                                                                       0.3068784
    [344,]
```

```
-0.6854236 -1.0991162 -1.0102910 -1.1695589
##
    [345,]
                                                                      -1.2050590
##
    [346,]
                    1.0693999 -1.0991162 0.5991631
                                                      0.2193353
                                                                       0.3068784
##
    [347,]
                   -2.4402471 -1.0991162 -1.0102910
                                                      0.9137823
                                                                       0.3068784
##
                    0.1919881 -1.0991162 -1.0102910 -0.4751118
                                                                      -1.2050590
    [348,]
##
    [349,]
                   -1.5628354 0.3491648 -1.0102910 -1.1695589
                                                                      -0.4490903
##
    [350,]
                    0.1919881 -1.0991162 -1.0102910
                                                      0.2193353
                                                                      -0.4490903
                   -2.4402471 -1.0991162 -1.0102910
##
    [351,]
                                                      0.9137823
                                                                      -1.2050590
##
    [352,]
                    1.0693999
                               1.7974457 -0.2055639
                                                      -0.4751118
                                                                      -0.4490903
##
    [353,]
                   -0.6854236
                               1.7974457 -1.0102910
                                                      0.2193353
                                                                      -1.2050590
    [354,]
##
                    1.0693999 -0.3749757
                                           1.4038902
                                                      0.2193353
                                                                       1.0628471
##
                               0.3491648
                                           0.5991631
                                                      0.2193353
    [355,]
                    0.1919881
                                                                       1.0628471
##
    [356,]
                    0.1919881 -0.3749757
                                           1.4038902
                                                      0.9137823
                                                                      -1.2050590
                                                                      -1.2050590
##
                    0.1919881 -0.3749757 -0.2055639
                                                      0.2193353
    [357,]
##
    [358,]
                   0.9137823
                                                                      -0.4490903
##
    [359,]
                   -0.6854236 -1.0991162 -1.0102910
                                                     -1.1695589
                                                                      -1.2050590
##
                    1.0693999 -0.3749757 -0.2055639
                                                      0.2193353
                                                                       0.3068784
    [360,]
##
                   -0.6854236 -1.0991162 -1.0102910
                                                      0.2193353
                                                                      -0.4490903
    [361,]
##
                               0.3491648 -1.0102910
    [362,]
                    1.0693999
                                                      0.9137823
                                                                       1.8188158
##
    [363,]
                               0.3491648 -0.2055639
                                                      0.9137823
                                                                      -1.2050590
                    1.0693999
                    1.0693999 -0.3749757 -1.0102910
##
    [364,]
                                                      0.2193353
                                                                      -1.2050590
                   -0.6854236 -1.0991162 -1.0102910
##
    [365,]
                                                     -0.4751118
                                                                      -0.4490903
##
                    1.0693999
                               1.0733052
                                          1.4038902
                                                      1.6082294
                                                                       1.0628471
    [366,]
##
    [367,]
                    0.1919881 -1.0991162 -0.2055639
                                                      0.2193353
                                                                      -1.2050590
##
                    0.1919881 -1.0991162 -0.2055639
                                                      1.6082294
    [368,]
                                                                      -1.2050590
##
                    1.0693999
                               1.0733052 -0.2055639
                                                      0.9137823
                                                                      -1.2050590
    [369,]
##
    [370,]
                   -1.5628354
                               0.3491648
                                          0.5991631
                                                      1.6082294
                                                                      -0.4490903
                                                                      -0.4490903
##
                               1.7974457 -1.0102910
                                                     -0.4751118
    [371,]
                    1.0693999
##
    [372,]
                   -0.6854236
                               1.7974457 -0.2055639 -0.4751118
                                                                       0.3068784
##
                    0.1919881 -1.0991162 -1.0102910
                                                      0.9137823
                                                                      -0.4490903
    [373,]
                    0.1919881 -1.0991162 -1.0102910
##
    [374,]
                                                      1.6082294
                                                                      -1.2050590
##
                   -0.6854236
                               1.7974457 -1.0102910 -0.4751118
                                                                      -1.2050590
    [375,]
                               0.3491648 -1.0102910
##
    [376,]
                   -0.6854236
                                                      0.2193353
                                                                      -1.2050590
##
    [377,]
                   -0.6854236
                               0.3491648 -1.0102910 -1.1695589
                                                                      -1.2050590
##
    [378,]
                    1.0693999
                               1.7974457 0.5991631
                                                      0.9137823
                                                                       1.8188158
##
    [379,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       1.0628471
##
                   -0.6854236 -0.3749757 1.4038902
                                                      0.2193353
    [380,]
                                                                       0.3068784
    [381,]
                               1.0733052 -1.0102910 -0.4751118
##
                    0.1919881
                                                                      -1.2050590
                    0.1919881 -1.0991162 0.5991631 -0.4751118
##
    [382,]
                                                                       1.0628471
##
    [383,]
                    0.1919881
                               1.0733052 -0.2055639
                                                      1.6082294
                                                                      -0.4490903
##
    [384,]
                   -0.6854236 -1.0991162 -1.0102910 -0.4751118
                                                                      -0.4490903
##
                    1.0693999
                               0.3491648 -0.2055639 -1.1695589
                                                                       1.0628471
    [385,]
##
                    0.1919881
                               0.3491648
                                          0.5991631
                                                      0.9137823
                                                                       0.3068784
    [386,]
##
    [387,]
                    0.1919881
                               1.0733052 -1.0102910 -0.4751118
                                                                      -0.4490903
##
    [388,]
                    1.0693999
                               1.7974457
                                           1.4038902
                                                      0.2193353
                                                                       0.3068784
##
                    1.0693999
                               0.3491648 -0.2055639 -0.4751118
                                                                       0.3068784
    [389,]
##
    [390,]
                               0.3491648 -1.0102910 -0.4751118
                    1.0693999
                                                                       1.8188158
##
                    1.0693999
                               0.3491648 0.5991631
                                                      0.9137823
                                                                      -0.4490903
    [391,]
##
    [392,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       1.0628471
##
    [393,]
                   -1.5628354
                               0.3491648 -0.2055639
                                                      0.2193353
                                                                      -0.4490903
                   -1.5628354 -1.0991162 -1.0102910 0.2193353
                                                                      -1.2050590
##
    [394,]
```

```
-1.5628354 1.0733052 -0.2055639
##
    [395,]
                                                     0.9137823
                                                                     -0.4490903
##
    [396,]
                   1.0693999 -1.0991162 -1.0102910
                                                     1.6082294
                                                                     -1.2050590
##
    [397,]
                   0.1919881 -1.0991162 -1.0102910 -0.4751118
                                                                      0.3068784
##
    [398,]
                   0.1919881 -1.0991162 -1.0102910
                                                     0.2193353
                                                                      0.3068784
                                         2.2086173
##
    [399,]
                   1.0693999 0.3491648
                                                     0.2193353
                                                                      1.0628471
    [400,]
##
                   0.1919881 -0.3749757
                                          0.5991631 -1.1695589
                                                                      1.8188158
                   ##
    [401,]
                                                                      1.0628471
##
    [402,]
                   -0.6854236 -0.3749757 -1.0102910 -1.1695589
                                                                     -1.2050590
##
    [403,]
                   -2.4402471 -1.0991162 -1.0102910
                                                     1.6082294
                                                                     -1.2050590
                   -0.6854236 -0.3749757 -1.0102910
    [404,]
                                                     0.2193353
                                                                     -0.4490903
##
##
                   1.0693999 -0.3749757 -1.0102910 -1.1695589
                                                                      1.0628471
    [405,]
##
    [406,]
                   1.0693999 -0.3749757
                                         1.4038902 -0.4751118
                                                                      0.3068784
##
                   1.0693999 -1.0991162 -1.0102910
                                                     0.9137823
                                                                     -1.2050590
    [407,]
##
    [408,]
                   1.0693999 0.3491648 1.4038902 -0.4751118
                                                                      1.8188158
                   0.1919881 -0.3749757 -1.0102910 -1.1695589
##
    [409,]
                                                                      0.3068784
##
                   -0.6854236 -0.3749757 -1.0102910
                                                     0.2193353
                                                                      1.8188158
    [410,]
##
    [411,]
                   -2.4402471 -1.0991162 -1.0102910
                                                     1.6082294
                                                                     -1.2050590
##
                   1.0693999 -0.3749757 2.2086173
    [412,]
                                                     1.6082294
                                                                     -0.4490903
##
    [413,]
                   -0.6854236 -1.0991162 -0.2055639 -1.1695589
                                                                     -1.2050590
                  -1.5628354 -0.3749757 -0.2055639
                                                     0.9137823
##
                                                                     -0.4490903
    [414,]
                   1.0693999 -1.0991162 -1.0102910 -1.1695589
##
    [415,]
                                                                      0.3068784
##
                   1.0693999 1.7974457 0.5991631 -1.1695589
                                                                     -1.2050590
    [416,]
##
    [417,]
                   -1.5628354 -1.0991162 -0.2055639 -0.4751118
                                                                      0.3068784
##
                   -1.5628354 0.3491648 -0.2055639 -0.4751118
    [418,]
                                                                      1.0628471
##
                   1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                     -0.4490903
    [419,]
##
    [420,]
                   -1.5628354 1.7974457
                                          1.4038902 -1.1695589
                                                                      0.3068784
##
                   -0.6854236 -0.3749757
                                          1.4038902 -1.1695589
                                                                      0.3068784
    [421,]
                                          0.5991631 -0.4751118
##
    [422,]
                   -0.6854236
                             0.3491648
                                                                      1.8188158
##
                   0.1919881 -0.3749757 -0.2055639
                                                     1.6082294
                                                                     -0.4490903
    [423,]
                   1.0693999 1.7974457 0.5991631
##
    [424,]
                                                     0.2193353
                                                                      1.0628471
##
                  -2.4402471 -1.0991162 -1.0102910
                                                     1.6082294
                                                                     -1.2050590
    [425,]
                   1.0693999 -1.0991162 0.5991631
##
    [426,]
                                                     0.2193353
                                                                      1.8188158
##
    [427,]
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
                                                                     -0.4490903
##
    [428,]
                   0.1919881 -0.3749757 -1.0102910 -1.1695589
                                                                      1.8188158
##
    [429,]
                   -0.6854236 -0.3749757 0.5991631 -1.1695589
                                                                      1.0628471
##
                   0.1919881 -0.3749757 -0.2055639 -0.4751118
                                                                      0.3068784
    [430,]
                   1.0693999 0.3491648 -0.2055639 -1.1695589
##
    [431,]
                                                                     -0.4490903
##
                   0.1919881 -0.3749757 -1.0102910
                                                     1.6082294
                                                                     -0.4490903
    [432,]
##
    [433,]
                   1.0693999 -0.3749757 -0.2055639 -1.1695589
                                                                      0.3068784
                   0.1919881 -1.0991162 -1.0102910 -1.1695589
##
    [434,]
                                                                     -0.4490903
##
                              1.7974457 0.5991631
                                                    1.6082294
                                                                      0.3068784
    [435,]
                   0.1919881
                               1.7974457 -1.0102910 -1.1695589
##
                   0.1919881
                                                                     -1.2050590
    [436,]
##
    [437,]
                   -1.5628354
                              1.7974457 -1.0102910
                                                     0.9137823
                                                                     -0.4490903
##
    [438,]
                   -0.6854236 -1.0991162 0.5991631 -1.1695589
                                                                     -1.2050590
                   0.1919881 -0.3749757 -1.0102910 -1.1695589
##
                                                                     -1.2050590
    [439,]
##
    [440,]
                   1.0693999 -0.3749757 -0.2055639
                                                     0.9137823
                                                                     -1.2050590
##
                   0.1919881 -0.3749757 -0.2055639
                                                     0.2193353
                                                                     -0.4490903
    [441,]
##
    [442,]
                   -2.4402471 1.7974457 -1.0102910 -1.1695589
                                                                     -1.2050590
##
    [443,]
                   -0.6854236 -0.3749757 -0.2055639 -0.4751118
                                                                      1.0628471
##
                   1.0693999 -0.3749757 1.4038902 -1.1695589
                                                                     -1.2050590
    [444,]
```

```
0.1919881
                               1.0733052 -1.0102910 -0.4751118
##
    [445,]
                                                                        1.0628471
##
    [446,]
                    0.1919881 -1.0991162
                                           1.4038902 -1.1695589
                                                                       -1.2050590
##
    [447,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
##
                    1.0693999
                                1.7974457
                                           1.4038902 -1.1695589
    [448,]
                                                                        1.8188158
##
    [449,]
                    1.0693999 -1.0991162
                                           1.4038902
                                                       0.2193353
                                                                       -0.4490903
##
    [450,]
                   -0.6854236
                                1.7974457 -0.2055639 -0.4751118
                                                                       -1.2050590
                                1.7974457 -0.2055639
##
    [451,]
                   -1.5628354
                                                       0.9137823
                                                                       -1.2050590
    [452,]
##
                   -0.6854236
                                1.7974457 -0.2055639 -0.4751118
                                                                       -0.4490903
##
    [453,]
                    1.0693999
                                1.7974457
                                           0.5991631
                                                       0.9137823
                                                                        1.8188158
    [454,]
                                1.7974457 -0.2055639 -0.4751118
##
                   -0.6854236
                                                                       -1.2050590
##
                    1.0693999 -0.3749757
                                           2.2086173 -1.1695589
    [455,]
                                                                        0.3068784
##
    [456,]
                    1.0693999
                                0.3491648 -1.0102910 -0.4751118
                                                                        1.0628471
##
                   -1.5628354
                                1.0733052
                                           1.4038902
                                                       1.6082294
                                                                       -1.2050590
    [457,]
##
    [458,]
                   -0.6854236 -0.3749757 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
    [459,]
                    1.0693999
                                1.7974457
                                           2.2086173
                                                       1.6082294
                                                                        1.8188158
##
                    1.0693999
                                1.7974457 -1.0102910 -1.1695589
                                                                        1.8188158
    [460,]
##
    [461,]
                    1.0693999 -1.0991162
                                           0.5991631
                                                       0.9137823
                                                                       -1.2050590
##
                                           0.5991631
    [462,]
                    0.1919881
                               0.3491648
                                                       0.9137823
                                                                        0.3068784
##
    [463,]
                   -0.6854236
                               0.3491648
                                           0.5991631 -1.1695589
                                                                       -1.2050590
                    0.1919881 -0.3749757 -1.0102910 -1.1695589
##
    [464,]
                                                                        1.0628471
                    1.0693999 -0.3749757 -0.2055639
##
    [465,]
                                                       0.2193353
                                                                       -0.4490903
##
                    1.0693999 -0.3749757
                                           0.5991631 -1.1695589
                                                                       -0.4490903
    [466,]
##
    [467,]
                    0.1919881 -1.0991162
                                           1.4038902
                                                       1.6082294
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -0.2055639
                                                      -1.1695589
    [468,]
                                                                       -1.2050590
##
                    0.1919881 -0.3749757 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
    [469,]
##
    [470,]
                    0.1919881
                               0.3491648 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
##
                   -0.6854236 -0.3749757 -1.0102910
                                                       0.9137823
    [471,]
                                                                       -0.4490903
##
    [472,]
                   -1.5628354 -0.3749757 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
##
                   -2.4402471 -0.3749757 -1.0102910
                                                      -0.4751118
    [473,]
                                                                       -1.2050590
                                1.7974457 -0.2055639
##
    [474,]
                   -0.6854236
                                                       0.9137823
                                                                        0.3068784
##
                   -1.5628354
                                1.7974457
                                           0.5991631
                                                       1.6082294
                                                                        0.3068784
    [475,]
##
    [476,]
                   -0.6854236 -0.3749757
                                           0.5991631 -1.1695589
                                                                       -0.4490903
##
    [477,]
                   -0.6854236
                               1.7974457 -1.0102910 -1.1695589
                                                                        1.8188158
##
    [478,]
                   -1.5628354 -0.3749757 -1.0102910 -1.1695589
                                                                        0.3068784
##
    [479,]
                    1.0693999 -0.3749757 -0.2055639
                                                       0.9137823
                                                                        1.0628471
##
                               1.7974457 -0.2055639 -0.4751118
                                                                       -0.4490903
    [480,]
                    0.1919881
                                                                        1.0628471
##
    [481,]
                    1.0693999
                                1.0733052 -0.2055639
                                                       0.2193353
                                1.7974457 -1.0102910 -0.4751118
##
    [482,]
                    1.0693999
                                                                        1.8188158
##
    [483,]
                   -2.4402471 -0.3749757
                                           0.5991631 -0.4751118
                                                                       -0.4490903
    [484,]
##
                    0.1919881
                               1.7974457 -0.2055639 -1.1695589
                                                                       -1.2050590
##
                    0.1919881 -1.0991162
                                           0.5991631 -1.1695589
    [485,]
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                       -1.2050590
    [486,]
##
    [487,]
                    1.0693999
                                0.3491648
                                           2.2086173 -1.1695589
                                                                        1.8188158
##
    [488,]
                   -0.6854236
                                1.7974457
                                           1.4038902
                                                       1.6082294
                                                                       -0.4490903
##
                    1.0693999
                                0.3491648
                                           2.2086173
                                                       0.9137823
                                                                        0.3068784
    [489,]
##
    [490,]
                                0.3491648
                                           1.4038902 -1.1695589
                                                                       -1.2050590
                    1.0693999
##
                    0.1919881
                                0.3491648
                                           0.5991631 -1.1695589
    [491,]
                                                                       -1.2050590
##
    [492,]
                    0.1919881
                                1.7974457 -1.0102910 -1.1695589
                                                                       -0.4490903
##
    [493,]
                    1.0693999
                                1.0733052 -1.0102910 -1.1695589
                                                                        1.0628471
##
                   -1.5628354 -1.0991162 -1.0102910 1.6082294
                                                                       -1.2050590
    [494,]
```

```
1.0733052 0.5991631 -0.4751118
##
    [495,]
                    0.1919881
                                                                         1.0628471
##
    [496,]
                    0.1919881
                                0.3491648 -0.2055639 -1.1695589
                                                                         0.3068784
##
    [497,]
                   -1.5628354
                                0.3491648 -0.2055639 -0.4751118
                                                                        -1.2050590
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
##
    [498,]
                                                                        1.8188158
##
    [499,]
                    1.0693999
                                1.0733052 0.5991631 -0.4751118
                                                                        -0.4490903
##
    [500,]
                   -1.5628354 -1.0991162 -1.0102910
                                                       0.2193353
                                                                        -0.4490903
                               1.0733052 -1.0102910 -0.4751118
##
    [501,]
                    0.1919881
                                                                        0.3068784
    [502,]
##
                    1.0693999 -0.3749757 -0.2055639
                                                      -0.4751118
                                                                        -0.4490903
##
    [503,]
                    0.1919881 -1.0991162 -0.2055639
                                                       1.6082294
                                                                        -1.2050590
    [504,]
                                1.0733052 -1.0102910 -1.1695589
##
                    0.1919881
                                                                        0.3068784
##
                    0.1919881
                                0.3491648 -1.0102910
                                                       1.6082294
    [505,]
                                                                        1.0628471
##
    [506,]
                   -1.5628354 -0.3749757 -0.2055639
                                                       0.2193353
                                                                        -0.4490903
                                0.3491648 -1.0102910 -0.4751118
##
                   -1.5628354
                                                                        -1.2050590
    [507,]
##
    [508,]
                   -1.5628354
                               0.3491648 -1.0102910 -0.4751118
                                                                        0.3068784
##
    [509,]
                    1.0693999 -1.0991162 -0.2055639
                                                       0.2193353
                                                                        -1.2050590
##
                    1.0693999
                               1.7974457
                                           1.4038902 -1.1695589
                                                                        -1.2050590
    [510,]
##
    [511,]
                    0.1919881 -0.3749757
                                            0.5991631
                                                       1.6082294
                                                                        0.3068784
##
    [512,]
                    1.0693999
                               0.3491648 -0.2055639
                                                       1.6082294
                                                                        0.3068784
##
    [513,]
                    1.0693999 -1.0991162
                                            2.2086173
                                                       0.2193353
                                                                        0.3068784
                   -0.6854236 -0.3749757 -1.0102910
                                                       0.9137823
##
    [514,]
                                                                        -0.4490903
                   -0.6854236 -1.0991162
##
    [515,]
                                           0.5991631
                                                       0.2193353
                                                                        -0.4490903
##
                    0.1919881 -1.0991162 -1.0102910
                                                       0.2193353
    [516,]
                                                                        1.0628471
##
    [517,]
                    1.0693999
                                0.3491648
                                           0.5991631
                                                       1.6082294
                                                                        0.3068784
##
                    1.0693999
                                1.7974457
                                            2.2086173
    [518,]
                                                       0.2193353
                                                                        1.0628471
##
                    0.1919881
                                1.7974457 -1.0102910 -1.1695589
                                                                        -0.4490903
    [519,]
##
    [520,]
                    0.1919881
                               -0.3749757
                                            0.5991631
                                                       0.2193353
                                                                        1.8188158
##
                    1.0693999
                                0.3491648
                                            0.5991631 -0.4751118
                                                                         0.3068784
    [521,]
##
    [522,]
                   -0.6854236
                                1.0733052
                                            0.5991631 -0.4751118
                                                                         0.3068784
##
                    0.1919881 -0.3749757
                                            0.5991631 -0.4751118
                                                                        -0.4490903
    [523,]
                    0.1919881 -1.0991162 -1.0102910
##
    [524,]
                                                       0.2193353
                                                                        -1.2050590
##
                   -0.6854236
                                1.7974457 -1.0102910 -1.1695589
                                                                        0.3068784
    [525,]
##
    [526,]
                   -0.6854236
                                0.3491648
                                            0.5991631
                                                       0.2193353
                                                                        0.3068784
##
    [527,]
                   -1.5628354
                                1.7974457
                                            0.5991631
                                                       0.9137823
                                                                        0.3068784
    [528,]
##
                    0.1919881 -0.3749757
                                            0.5991631 -0.4751118
                                                                        1.0628471
##
    [529,]
                   -0.6854236
                                0.3491648
                                            0.5991631
                                                       1.6082294
                                                                        -1.2050590
##
                    0.1919881 -0.3749757
                                            2.2086173 -0.4751118
                                                                        -1.2050590
    [530,]
    [531,]
##
                    0.1919881
                               1.0733052
                                            0.5991631 -1.1695589
                                                                        0.3068784
##
                    0.1919881 -1.0991162 -0.2055639
    [532,]
                                                       0.2193353
                                                                        1.0628471
##
    [533,]
                    1.0693999 -1.0991162 -0.2055639
                                                      -1.1695589
                                                                        0.3068784
##
    [534,]
                    1.0693999 -0.3749757 -0.2055639
                                                       0.2193353
                                                                        -0.4490903
##
                               0.3491648 -1.0102910 -1.1695589
                                                                        -1.2050590
    [535,]
                   -0.6854236
##
    [536,]
                    0.1919881 -0.3749757 -1.0102910
                                                       1.6082294
                                                                        0.3068784
##
    [537,]
                    1.0693999 -1.0991162
                                            2.2086173
                                                       1.6082294
                                                                        -0.4490903
##
    [538,]
                    1.0693999
                                0.3491648
                                           0.5991631
                                                       0.9137823
                                                                        -0.4490903
##
                   -1.5628354
                                1.7974457
                                            0.5991631 -0.4751118
                                                                        -0.4490903
    [539,]
##
    [540,]
                    0.1919881
                                1.7974457
                                            2.2086173
                                                       0.2193353
                                                                        1.0628471
##
                   -1.5628354
                                1.7974457 -1.0102910
                                                       1.6082294
    [541,]
                                                                        1.0628471
##
    [542,]
                   -0.6854236
                                0.3491648 -1.0102910
                                                      -0.4751118
                                                                        -1.2050590
##
    [543,]
                    0.1919881 -0.3749757 -0.2055639
                                                       0.9137823
                                                                        1.0628471
##
                   -1.5628354 -0.3749757 2.2086173
                                                       1.6082294
                                                                        -0.4490903
    [544,]
```

```
-1.5628354 1.7974457 -1.0102910 -0.4751118
##
    [545,]
                                                                        0.3068784
##
    [546,]
                   -2.4402471 -1.0991162 -1.0102910
                                                       1.6082294
                                                                        0.3068784
##
    [547,]
                    1.0693999
                               0.3491648 -0.2055639
                                                       1.6082294
                                                                        1.8188158
##
                    1.0693999 -0.3749757 -0.2055639 -1.1695589
    [548,]
                                                                        1.0628471
##
    [549,]
                   -0.6854236
                               0.3491648 -0.2055639 -0.4751118
                                                                       -1.2050590
##
    [550,]
                    0.1919881
                               0.3491648 -1.0102910 -1.1695589
                                                                       -0.4490903
                                           0.5991631 -1.1695589
##
    [551,]
                    1.0693999 -0.3749757
                                                                        0.3068784
    [552,]
##
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
##
    [553,]
                    1.0693999
                               0.3491648
                                           2.2086173 -0.4751118
                                                                        1.8188158
##
    [554,]
                    0.1919881 -0.3749757
                                           1.4038902
                                                       0.2193353
                                                                       -1.2050590
##
                   -0.6854236 0.3491648
                                           0.5991631
                                                       1.6082294
    [555,]
                                                                        0.3068784
##
    [556,]
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                        0.3068784
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
##
                                                                       -1.2050590
    [557,]
##
    [558,]
                    1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                        0.3068784
##
    [559,]
                    0.1919881 -0.3749757 -0.2055639 -0.4751118
                                                                        1.8188158
##
                   -1.5628354 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
    [560,]
##
                    0.1919881
                               1.7974457
                                           2.2086173
                                                       1.6082294
                                                                        1.8188158
    [561,]
##
                    0.1919881 -0.3749757 -0.2055639
    [562,]
                                                      -0.4751118
                                                                        0.3068784
##
    [563,]
                   -0.6854236 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       -0.4490903
                    1.0693999 0.3491648
                                          1.4038902
                                                       0.9137823
##
                                                                       -0.4490903
    [564,]
                    1.0693999 -1.0991162 -1.0102910
##
    [565,]
                                                       0.9137823
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 -0.2055639
                                                       1.6082294
                                                                        1.8188158
    [566,]
##
    [567,]
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
                                                                        0.3068784
##
                   -1.5628354 -0.3749757 -1.0102910
                                                       0.9137823
                                                                       -0.4490903
    [568,]
##
                    1.0693999 -0.3749757 -1.0102910 -0.4751118
                                                                       -1.2050590
    [569,]
##
    [570,]
                    0.1919881
                               0.3491648
                                           2.2086173
                                                      -0.4751118
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -1.0102910
    [571,]
                                                       1.6082294
                                                                       -1.2050590
##
    [572,]
                    1.0693999
                               0.3491648
                                          1.4038902
                                                       1.6082294
                                                                       -0.4490903
##
                   -0.6854236
                               1.0733052 -0.2055639
                                                     -0.4751118
    [573,]
                                                                       -1.2050590
                    1.0693999 -1.0991162 -1.0102910 -0.4751118
##
    [574,]
                                                                       -1.2050590
##
                    1.0693999
                               1.0733052 -1.0102910
                                                       0.9137823
                                                                       -1.2050590
    [575,]
##
    [576,]
                    0.1919881
                               1.7974457
                                           0.5991631
                                                       0.2193353
                                                                        1.0628471
##
    [577,]
                   -0.6854236 -0.3749757
                                           0.5991631
                                                       1.6082294
                                                                        0.3068784
##
    [578,]
                   -0.6854236
                               0.3491648 -0.2055639 -0.4751118
                                                                       -0.4490903
##
    [579,]
                    1.0693999
                               1.0733052 -1.0102910 -1.1695589
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
    [580,]
    [581,]
                                                                       -1.2050590
##
                   -1.5628354 -1.0991162
                                          0.5991631
                                                       0.2193353
##
                   -1.5628354 -1.0991162
                                           0.5991631 -0.4751118
    [582,]
                                                                       -0.4490903
##
    [583,]
                    1.0693999 -0.3749757 -0.2055639 -1.1695589
                                                                       -1.2050590
                                           2.2086173
##
    [584,]
                   -0.6854236 -1.0991162
                                                       0.2193353
                                                                       -1.2050590
##
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
    [585,]
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       -1.2050590
    [586,]
##
    [587,]
                    1.0693999 -1.0991162
                                           0.5991631 -1.1695589
                                                                       -1.2050590
##
    [588,]
                    0.1919881 -0.3749757
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
##
                   -1.5628354 -0.3749757 -0.2055639 -0.4751118
                                                                       -0.4490903
    [589,]
##
    [590,]
                    0.1919881
                               0.3491648
                                           1.4038902
                                                       0.2193353
                                                                        1.8188158
##
    [591,]
                    0.1919881 -0.3749757
                                           0.5991631
                                                       0.2193353
                                                                        1.0628471
##
    [592,]
                    1.0693999
                               0.3491648
                                           1.4038902
                                                       0.9137823
                                                                        0.3068784
##
    [593,]
                    1.0693999
                               1.7974457
                                           0.5991631
                                                       1.6082294
                                                                        0.3068784
##
                   -0.6854236 1.7974457 -1.0102910 -0.4751118
                                                                       -0.4490903
    [594,]
```

```
1.0693999 -1.0991162 -1.0102910 -0.4751118
##
    [595,]
                                                                        1.0628471
##
    [596,]
                    0.1919881
                              1.7974457 -1.0102910 -0.4751118
                                                                       -1.2050590
##
    [597,]
                   -2.4402471 -1.0991162 -0.2055639
                                                     -0.4751118
                                                                       -0.4490903
##
    [598,]
                   -1.5628354 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
                   -0.6854236 -1.0991162 -1.0102910
##
    [599,]
                                                       0.2193353
                                                                       -0.4490903
    [600,]
##
                   -0.6854236 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
                   -1.5628354 -0.3749757 -0.2055639
##
    [601,]
                                                       0.2193353
                                                                       0.3068784
##
    [602,]
                    1.0693999
                              0.3491648 -1.0102910
                                                      -1.1695589
                                                                        1.0628471
##
    [603,]
                   -0.6854236 -1.0991162 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
    [604,]
                    0.1919881 -1.0991162 -0.2055639
                                                                        0.3068784
##
                                                     -0.4751118
##
                   -0.6854236 0.3491648 0.5991631
                                                       0.9137823
    [605,]
                                                                        1.8188158
##
    [606,]
                   -2.4402471 -1.0991162 -1.0102910
                                                       1.6082294
                                                                        0.3068784
##
                   -2.4402471 -0.3749757 -1.0102910
                                                       0.9137823
                                                                       -1.2050590
    [607,]
##
    [608,]
                   -0.6854236
                               1.7974457 -1.0102910 -0.4751118
                                                                       -1.2050590
                               1.0733052 -0.2055639
##
    [609,]
                   -1.5628354
                                                       0.9137823
                                                                       -0.4490903
##
                    0.1919881 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       0.3068784
    [610,]
##
    [611,]
                    1.0693999
                               1.7974457 -1.0102910
                                                     -0.4751118
                                                                       -1.2050590
##
                    0.1919881 -0.3749757 0.5991631
    [612,]
                                                       0.2193353
                                                                       -1.2050590
##
    [613,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
                   -0.6854236 -1.0991162 -0.2055639
##
                                                       0.2193353
                                                                        1.0628471
    [614,]
                                                       0.2193353
                    0.1919881 -1.0991162 -1.0102910
##
    [615,]
                                                                       1.0628471
##
                    1.0693999
                               0.3491648 -1.0102910
                                                     -0.4751118
                                                                       -0.4490903
    [616,]
##
    [617,]
                   -1.5628354
                               1.7974457 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
##
                    1.0693999 -1.0991162
                                          2.2086173
    [618,]
                                                       1.6082294
                                                                        1.8188158
##
                    1.0693999 -0.3749757 -0.2055639
                                                       1.6082294
                                                                       -0.4490903
    [619,]
##
    [620,]
                    0.1919881 -0.3749757
                                          0.5991631
                                                       0.9137823
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 -1.0102910
    [621,]
                                                       0.9137823
                                                                       0.3068784
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
##
    [622,]
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 1.4038902 -0.4751118
    [623,]
                                                                        0.3068784
                   -2.4402471 -1.0991162 -0.2055639
##
    [624,]
                                                       0.2193353
                                                                       -0.4490903
##
    [625,]
                    1.0693999
                              0.3491648 -0.2055639 -1.1695589
                                                                       0.3068784
                    1.0693999 -0.3749757 -0.2055639 -0.4751118
##
    [626,]
                                                                       -1.2050590
##
    [627,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
    [628,]
##
                   -0.6854236 0.3491648 -0.2055639
                                                     -1.1695589
                                                                       -0.4490903
##
    [629,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
##
                    1.0693999 -1.0991162
                                          0.5991631 -1.1695589
    [630,]
                                                                       1.8188158
    [631,]
##
                    0.1919881 -1.0991162 -0.2055639
                                                       0.9137823
                                                                       -1.2050590
##
                               1.7974457
                                           0.5991631 -0.4751118
    [632,]
                    1.0693999
                                                                        0.3068784
##
    [633,]
                   -2.4402471
                              1.0733052
                                           0.5991631
                                                       0.2193353
                                                                       -0.4490903
##
    [634,]
                   -2.4402471 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -0.4490903
##
                    0.1919881 -0.3749757 -1.0102910 -1.1695589
                                                                        1.0628471
    [635,]
##
                    1.0693999
                               1.7974457 -0.2055639 -1.1695589
                                                                       -0.4490903
    [636,]
##
    [637,]
                   -0.6854236 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       0.3068784
##
    [638,]
                    0.1919881 -0.3749757 -1.0102910 -0.4751118
                                                                       1.0628471
##
                    0.1919881
                               1.0733052 0.5991631 -1.1695589
                                                                       -0.4490903
    [639,]
##
    [640,]
                    0.1919881 -0.3749757 -1.0102910 0.9137823
                                                                       -1.2050590
##
                    1.0693999
                               1.7974457 -1.0102910 -0.4751118
                                                                       -0.4490903
    [641,]
                   -1.5628354 -1.0991162 -1.0102910
##
    [642,]
                                                       0.2193353
                                                                       -1.2050590
##
    [643,]
                   -2.4402471
                               1.7974457 -1.0102910 -0.4751118
                                                                        1.0628471
##
                    1.0693999 -0.3749757 -0.2055639 -0.4751118
                                                                       1.0628471
    [644,]
```

```
1.0733052 -0.2055639 -0.4751118
##
    [645,]
                    1.0693999
                                                                         1.0628471
##
    [646,]
                   -1.5628354 -0.3749757
                                           0.5991631
                                                       1.6082294
                                                                        1.0628471
##
    [647,]
                   -0.6854236 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
##
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.2193353
    [648,]
                                                                       -1.2050590
##
    [649,]
                   -0.6854236
                               1.7974457 -0.2055639 -0.4751118
                                                                       -0.4490903
##
                    1.0693999 -0.3749757
                                           0.5991631 -0.4751118
                                                                       -0.4490903
    [650,]
##
    [651,]
                   -1.5628354 -0.3749757 -1.0102910
                                                       0.9137823
                                                                        1.0628471
##
    [652,]
                    1.0693999 -1.0991162
                                            1.4038902
                                                       0.9137823
                                                                       -1.2050590
##
    [653,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
    [654,]
                                            1.4038902 -0.4751118
##
                    1.0693999
                                1.0733052
                                                                       -1.2050590
##
                                0.3491648
                                           0.5991631
                                                       1.6082294
                                                                       -0.4490903
    [655,]
                   -1.5628354
##
    [656,]
                    1.0693999
                                0.3491648 -1.0102910 -1.1695589
                                                                        0.3068784
##
                    1.0693999
                                1.7974457
                                           0.5991631
                                                       0.2193353
                                                                        1.8188158
    [657,]
##
    [658,]
                    0.1919881
                                0.3491648 -1.0102910 -1.1695589
                                                                        0.3068784
##
    [659,]
                   -0.6854236 -1.0991162
                                           1.4038902
                                                       0.9137823
                                                                       -0.4490903
##
                    0.1919881 -0.3749757
                                           0.5991631 -1.1695589
                                                                        0.3068784
    [660,]
##
    [661,]
                    1.0693999
                                0.3491648 -0.2055639 -1.1695589
                                                                        1.0628471
##
                                0.3491648 -0.2055639
    [662,]
                   -0.6854236
                                                       0.2193353
                                                                        0.3068784
##
    [663,]
                    0.1919881
                                0.3491648 -1.0102910
                                                       0.2193353
                                                                       -0.4490903
                   -1.5628354 -0.3749757 -1.0102910 -1.1695589
##
    [664,]
                                                                         1.0628471
                               1.7974457 -1.0102910
                                                                       -0.4490903
##
    [665,]
                    0.1919881
                                                       0.2193353
##
                    0.1919881 -1.0991162 -0.2055639 -0.4751118
                                                                        1.8188158
    [666,]
##
    [667,]
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                        1.8188158
##
                   -0.6854236 -0.3749757 -0.2055639 -0.4751118
    [668,]
                                                                        0.3068784
##
                    0.1919881
                               1.7974457 -1.0102910 -1.1695589
                                                                        1.0628471
    [669,]
##
    [670,]
                    0.1919881 -0.3749757 -0.2055639
                                                       0.9137823
                                                                         1.0628471
##
                    0.1919881 -0.3749757
                                           0.5991631
                                                                       -0.4490903
    [671,]
                                                       0.2193353
##
    [672,]
                    0.1919881
                               0.3491648
                                           0.5991631
                                                       0.9137823
                                                                        1.0628471
##
                    0.1919881
                               0.3491648
                                           0.5991631
                                                       0.2193353
    [673,]
                                                                        1.0628471
                    0.1919881 -0.3749757 -0.2055639 -1.1695589
##
    [674,]
                                                                        0.3068784
##
                   -0.6854236 -1.0991162
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
    [675,]
                   -2.4402471 -0.3749757 -0.2055639 -0.4751118
##
    [676,]
                                                                        0.3068784
##
    [677,]
                    0.1919881 -1.0991162
                                            2.2086173 -0.4751118
                                                                        0.3068784
##
    [678,]
                   -0.6854236 -0.3749757
                                            1.4038902
                                                       0.9137823
                                                                       -0.4490903
##
    [679,]
                    0.1919881
                                0.3491648 -0.2055639
                                                      -0.4751118
                                                                        1.8188158
##
                    1.0693999
                                0.3491648 -1.0102910
                                                      -1.1695589
    [680,]
                                                                         1.8188158
    [681,]
##
                    0.1919881
                                1.7974457
                                           0.5991631
                                                       0.9137823
                                                                       -0.4490903
##
                    1.0693999
                                           0.5991631
                                                       0.9137823
    [682,]
                                1.7974457
                                                                        1.0628471
##
    [683,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
##
    [684,]
                   -0.6854236
                                1.7974457
                                           1.4038902
                                                       0.2193353
                                                                       -1.2050590
##
                   -0.6854236
                                0.3491648 -0.2055639
                                                       0.2193353
                                                                        0.3068784
    [685,]
##
                    0.1919881
                                1.7974457
                                            1.4038902
                                                       0.2193353
                                                                        1.0628471
    [686,]
##
    [687,]
                   -0.6854236
                                0.3491648
                                            0.5991631
                                                       0.2193353
                                                                        0.3068784
##
    [688,]
                    1.0693999 -1.0991162 -0.2055639
                                                       1.6082294
                                                                        1.0628471
                                0.3491648 -1.0102910
##
                   -0.6854236
                                                      -1.1695589
                                                                        0.3068784
    [689,]
##
    [690,]
                    1.0693999 -0.3749757
                                           1.4038902
                                                       1.6082294
                                                                        1.0628471
##
                    1.0693999
                                0.3491648 -0.2055639
                                                       1.6082294
    [691,]
                                                                        0.3068784
##
    [692,]
                    1.0693999 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -0.4490903
##
    [693,]
                    0.1919881
                               1.0733052 -0.2055639
                                                      -0.4751118
                                                                        1.0628471
##
                   -1.5628354 -1.0991162 1.4038902 0.2193353
                                                                       -0.4490903
    [694,]
```

```
1.0693999 -1.0991162
                                           0.5991631 0.9137823
##
    [695,]
                                                                        0.3068784
##
    [696,]
                    0.1919881 -0.3749757
                                           0.5991631 -0.4751118
                                                                        1.0628471
##
    [697,]
                    1.0693999
                               0.3491648
                                           0.5991631 -1.1695589
                                                                       -1.2050590
##
    [698,]
                    1.0693999 -1.0991162
                                           0.5991631 -0.4751118
                                                                       -0.4490903
                               0.3491648 -0.2055639 -1.1695589
##
    [699,]
                    1.0693999
                                                                       -0.4490903
##
    [700,]
                    0.1919881
                               0.3491648 -1.0102910 -0.4751118
                                                                       -0.4490903
                   -1.5628354 -1.0991162 -1.0102910
##
    [701,]
                                                       1.6082294
                                                                       -1.2050590
    [702,]
##
                   -0.6854236
                               1.7974457 -1.0102910 -0.4751118
                                                                       -0.4490903
##
    [703,]
                   -0.6854236
                               0.3491648 -1.0102910
                                                       1.6082294
                                                                       -0.4490903
##
    [704,]
                   -0.6854236
                                          0.5991631
                               0.3491648
                                                       0.2193353
                                                                       -0.4490903
##
                    1.0693999
                               0.3491648 -0.2055639
                                                      -0.4751118
                                                                       -1.2050590
    [705,]
##
    [706,]
                    1.0693999
                               1.7974457
                                          0.5991631
                                                       0.9137823
                                                                        1.8188158
                    0.1919881 -1.0991162 -1.0102910
##
                                                       0.9137823
                                                                       -1.2050590
    [707,]
##
    [708,]
                   -1.5628354
                               1.0733052 -0.2055639 -0.4751118
                                                                        1.0628471
##
    [709,]
                   -0.6854236 -0.3749757
                                           1.4038902
                                                       1.6082294
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -1.0102910
                                                       1.6082294
                                                                        0.3068784
    [710,]
##
    [711,]
                   -0.6854236 -0.3749757 -0.2055639 -1.1695589
                                                                       -0.4490903
##
                   -0.6854236 -1.0991162 -1.0102910 -0.4751118
    [712,]
                                                                       -0.4490903
##
    [713,]
                    1.0693999
                               0.3491648 -1.0102910 -1.1695589
                                                                        1.0628471
                    1.0693999 -0.3749757
                                           0.5991631 -0.4751118
##
    [714,]
                                                                        1.0628471
                               1.0733052
##
    [715,]
                    1.0693999
                                           0.5991631
                                                       0.2193353
                                                                        0.3068784
##
                   -0.6854236
                               0.3491648 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
    [716,]
##
    [717,]
                    0.1919881
                               1.0733052 2.2086173
                                                       0.2193353
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -1.0102910 -0.4751118
    [718,]
                                                                        1.8188158
##
                    1.0693999
                               1.0733052 -0.2055639
                                                       0.2193353
                                                                        0.3068784
    [719,]
##
    [720,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       -1.2050590
##
                   -0.6854236 -0.3749757 -1.0102910 -0.4751118
    [721,]
                                                                        1.0628471
##
    [722,]
                    1.0693999 1.7974457 -1.0102910 -0.4751118
                                                                        1.8188158
##
                    1.0693999 -1.0991162 -0.2055639 -0.4751118
    [723,]
                                                                        1.0628471
                    1.0693999 -0.3749757
                                           2.2086173 -0.4751118
##
    [724,]
                                                                        0.3068784
##
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
    [725,]
##
    [726,]
                    1.0693999 -1.0991162 1.4038902
                                                       0.2193353
                                                                       -0.4490903
##
    [727,]
                   -1.5628354 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
    [728,]
                   -2.4402471 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
    [729,]
                    0.1919881 -1.0991162 -1.0102910
                                                       0.2193353
                                                                        0.3068784
##
                    0.1919881
                               1.7974457
                                           0.5991631
                                                       0.2193353
                                                                       -0.4490903
    [730,]
##
    [731,]
                    1.0693999
                               1.7974457 -0.2055639
                                                       0.2193353
                                                                        1.8188158
##
                    1.0693999 -0.3749757
                                           0.5991631 -0.4751118
                                                                       -0.4490903
    [732,]
##
    [733,]
                    1.0693999 -0.3749757
                                           0.5991631 -1.1695589
                                                                       -0.4490903
##
    [734,]
                    1.0693999
                               0.3491648
                                           1.4038902 -1.1695589
                                                                        0.3068784
##
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                        0.3068784
    [735,]
##
    [736,]
                   -2.4402471 -1.0991162 -0.2055639 -1.1695589
                                                                        0.3068784
##
    [737,]
                   -0.6854236
                               0.3491648
                                           2.2086173
                                                       0.2193353
                                                                        1.0628471
##
    [738,]
                    1.0693999
                               0.3491648 -0.2055639
                                                      -1.1695589
                                                                        1.0628471
##
                    1.0693999 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
    [739,]
##
    [740,]
                               1.0733052
                                           1.4038902
                                                       0.9137823
                                                                       -0.4490903
                    1.0693999
##
                    0.1919881
                               0.3491648
                                           1.4038902
                                                       1.6082294
    [741,]
                                                                        0.3068784
##
    [742,]
                    1.0693999
                               1.0733052 -0.2055639 -1.1695589
                                                                        1.8188158
##
    [743,]
                    1.0693999
                               1.0733052
                                           1.4038902 -0.4751118
                                                                        0.3068784
##
                   -0.6854236 -0.3749757 -0.2055639 -0.4751118
                                                                       -0.4490903
    [744,]
```

```
0.1919881
                                1.7974457 -1.0102910
##
    [745,]
                                                       0.9137823
                                                                         0.3068784
##
    [746,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       1.6082294
                                                                        -0.4490903
##
    [747,]
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                        -0.4490903
##
    [748,]
                   -0.6854236 -0.3749757 -1.0102910 -0.4751118
                                                                         1.8188158
##
    [749,]
                   -1.5628354 -0.3749757 -0.2055639 -0.4751118
                                                                         1.0628471
##
    [750,]
                    1.0693999
                                0.3491648
                                           1.4038902 -1.1695589
                                                                         0.3068784
##
                                1.7974457
                                            0.5991631
    [751,]
                   -1.5628354
                                                       1.6082294
                                                                        1.8188158
##
    [752,]
                    0.1919881 -0.3749757 -0.2055639 -1.1695589
                                                                         1.8188158
##
    [753,]
                    1.0693999
                                1.0733052
                                           1.4038902 -1.1695589
                                                                         0.3068784
##
    [754,]
                                0.3491648 -1.0102910 -1.1695589
                    1.0693999
                                                                        -0.4490903
##
                    1.0693999 -0.3749757 -0.2055639
                                                       0.9137823
    [755,]
                                                                         0.3068784
##
    [756,]
                    1.0693999
                                1.7974457 -1.0102910 -1.1695589
                                                                        -1.2050590
##
                    0.1919881 -0.3749757 -0.2055639
                                                       0.2193353
                                                                        -0.4490903
    [757,]
##
    [758,]
                    1.0693999
                                1.7974457 -1.0102910 -1.1695589
                                                                         1.0628471
##
    [759,]
                    0.1919881 -0.3749757 -1.0102910
                                                        1.6082294
                                                                        -1.2050590
##
                   -0.6854236
                                1.7974457 -0.2055639
                                                       0.9137823
                                                                        1.8188158
    [760,]
##
    [761,]
                    1.0693999
                                0.3491648
                                           1.4038902 -1.1695589
                                                                        -0.4490903
##
                   -0.6854236 -1.0991162 -1.0102910
    [762,]
                                                       1.6082294
                                                                        -1.2050590
##
    [763,]
                    1.0693999
                                1.0733052
                                           1.4038902
                                                       1.6082294
                                                                        -0.4490903
                    0.1919881 -1.0991162 -1.0102910
##
    [764,]
                                                      -1.1695589
                                                                         1.8188158
                                1.7974457 -1.0102910
                                                                        -0.4490903
##
    [765,]
                    1.0693999
                                                      -1.1695589
##
                    1.0693999
                                1.0733052
                                           0.5991631
                                                       1.6082294
                                                                        -0.4490903
    [766,]
##
    [767,]
                    1.0693999
                                1.7974457 -0.2055639
                                                       1.6082294
                                                                        -0.4490903
##
                    0.1919881
                                1.7974457
                                           0.5991631
                                                       0.2193353
    [768,]
                                                                        0.3068784
##
                   -0.6854236 -0.3749757
                                            1.4038902
                                                       0.2193353
                                                                        -1.2050590
    [769,]
##
    [770,]
                    0.1919881
                                1.0733052
                                            1.4038902
                                                       0.9137823
                                                                        1.0628471
##
                   -0.6854236 -0.3749757 -1.0102910
                                                      -0.4751118
                                                                         0.3068784
    [771,]
                   -0.6854236 -0.3749757 -0.2055639
##
    [772,]
                                                       1.6082294
                                                                        -0.4490903
##
                    0.1919881 -1.0991162 -0.2055639
                                                       0.2193353
                                                                        -0.4490903
    [773,]
                   -0.6854236
                               0.3491648
                                           0.5991631
                                                       0.2193353
                                                                        -0.4490903
##
    [774,]
##
                    1.0693999 -1.0991162 -0.2055639
                                                      -0.4751118
                                                                        0.3068784
    [775,]
                                0.3491648 0.5991631
##
    [776,]
                    1.0693999
                                                       0.2193353
                                                                         1.8188158
##
    [777,]
                    1.0693999
                                0.3491648 -0.2055639
                                                       1.6082294
                                                                        0.3068784
##
    [778,]
                   -0.6854236 -1.0991162 -1.0102910
                                                        1.6082294
                                                                        -1.2050590
##
    [779,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.2193353
                                                                        0.3068784
##
                    0.1919881 -0.3749757 -0.2055639
                                                      -0.4751118
    [780,]
                                                                         1.8188158
##
    [781,]
                    1.0693999
                                0.3491648
                                           1.4038902
                                                       0.9137823
                                                                        0.3068784
##
                   -0.6854236
                                0.3491648 -1.0102910
    [782,]
                                                      -1.1695589
                                                                         1.0628471
##
    [783,]
                    1.0693999
                                1.7974457
                                            0.5991631
                                                       0.2193353
                                                                        1.8188158
##
    [784,]
                   -1.5628354
                                0.3491648 -0.2055639
                                                       0.9137823
                                                                        0.3068784
##
                    0.1919881
                                1.7974457 -0.2055639
                                                       1.6082294
                                                                         1.0628471
    [785,]
##
    [786,]
                    1.0693999
                                0.3491648
                                            2.2086173
                                                       0.9137823
                                                                        0.3068784
##
    [787,]
                   -0.6854236
                                1.7974457
                                            1.4038902
                                                       1.6082294
                                                                        -0.4490903
##
    [788,]
                   -0.6854236
                              -0.3749757
                                            2.2086173
                                                       0.9137823
                                                                        0.3068784
##
                    0.1919881
                                0.3491648
                                            1.4038902 -1.1695589
                                                                        -0.4490903
    [789,]
##
    [790,]
                    0.1919881 -1.0991162
                                            0.5991631
                                                       0.2193353
                                                                         1.8188158
##
    [791,]
                    0.1919881
                                1.0733052 -1.0102910 -1.1695589
                                                                        -0.4490903
##
    [792,]
                   -0.6854236
                                1.7974457 -0.2055639 -1.1695589
                                                                         1.0628471
##
    [793,]
                   -1.5628354 -1.0991162 -1.0102910
                                                       1.6082294
                                                                        -1.2050590
##
                    0.1919881 -0.3749757 1.4038902 0.2193353
    [794,]
                                                                        1.0628471
```

```
-2.4402471 -1.0991162 -1.0102910
##
    [795,]
                                                       1.6082294
                                                                       -1.2050590
##
                                1.0733052
                                                       1.6082294
    [796,]
                    0.1919881
                                           1.4038902
                                                                        0.3068784
##
    [797,]
                    0.1919881
                                0.3491648
                                           1.4038902
                                                       0.9137823
                                                                        1.8188158
                                                                       -1.2050590
##
    [798,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       1.6082294
##
    [799,]
                    1.0693999
                                1.0733052
                                           2.2086173
                                                       0.9137823
                                                                       -0.4490903
##
    [800,]
                    0.1919881
                                0.3491648 -0.2055639
                                                       0.2193353
                                                                        1.0628471
                                1.7974457 -1.0102910
##
    [801,]
                   -0.6854236
                                                      -1.1695589
                                                                       -1.2050590
##
    [802,]
                   -1.5628354 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
    [803,]
                    1.0693999 -1.0991162 -1.0102910
                                                      -0.4751118
                                                                       -1.2050590
    [804,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.2193353
##
                                                                        0.3068784
##
                    1.0693999 -1.0991162 -1.0102910
                                                       0.9137823
    [805,]
                                                                        1.0628471
##
    [806,]
                    1.0693999 0.3491648 -0.2055639
                                                      -1.1695589
                                                                        1.8188158
##
                    0.1919881 -1.0991162
                                           0.5991631
                                                       1.6082294
                                                                       -1.2050590
    [807,]
##
    [808,]
                    0.1919881 -1.0991162
                                           1.4038902
                                                       1.6082294
                                                                       -0.4490903
                   -0.6854236 -1.0991162 -1.0102910
##
    [809,]
                                                       0.2193353
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
    [810,]
##
    [811,]
                   -0.6854236
                                0.3491648
                                           0.5991631 -0.4751118
                                                                        1.8188158
##
                                           0.5991631 -0.4751118
    [812,]
                    0.1919881
                                1.0733052
                                                                        1.0628471
##
    [813,]
                   -1.5628354 -1.0991162
                                           2.2086173
                                                       1.6082294
                                                                       -1.2050590
                   -1.5628354 -1.0991162 -1.0102910
##
    [814,]
                                                       1.6082294
                                                                       -1.2050590
                                0.3491648 -1.0102910
##
    [815,]
                    1.0693999
                                                       1.6082294
                                                                        1.8188158
##
                    1.0693999
                                1.7974457 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
    [816,]
##
    [817,]
                    1.0693999 -0.3749757 1.4038902
                                                       0.9137823
                                                                        0.3068784
##
                                1.0733052 -1.0102910 -1.1695589
    [818,]
                   -2.4402471
                                                                        0.3068784
##
                    1.0693999 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
    [819,]
##
    [820,]
                    0.1919881
                               1.7974457
                                           0.5991631
                                                       1.6082294
                                                                       -0.4490903
##
                    1.0693999 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
    [821,]
##
    [822,]
                    1.0693999
                              0.3491648 -1.0102910
                                                       0.2193353
                                                                        0.3068784
##
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
    [823,]
                   -0.6854236 -1.0991162 -0.2055639 -0.4751118
                                                                       -0.4490903
##
    [824,]
##
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
    [825,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
##
    [826,]
                                                                        1.0628471
##
    [827,]
                    1.0693999
                                0.3491648 -1.0102910 -1.1695589
                                                                        1.8188158
##
    [828,]
                    0.1919881
                                0.3491648 -0.2055639 -1.1695589
                                                                        1.8188158
##
    [829,]
                    0.1919881 -0.3749757 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
##
                    1.0693999
                                0.3491648
                                           2.2086173 -1.1695589
                                                                        1.0628471
    [830,]
##
    [831,]
                    1.0693999
                                1.7974457
                                           2.2086173 -1.1695589
                                                                        0.3068784
##
                                0.3491648
                                           2.2086173
                                                       1.6082294
    [832,]
                    1.0693999
                                                                        1.8188158
##
    [833,]
                    1.0693999
                                1.0733052 -1.0102910 -1.1695589
                                                                        1.8188158
##
    [834,]
                    0.1919881 -0.3749757
                                           1.4038902 -1.1695589
                                                                        1.0628471
##
                    1.0693999
                                1.0733052
                                            0.5991631
                                                       0.9137823
    [835,]
                                                                        0.3068784
##
    [836,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
##
    [837,]
                    0.1919881 -0.3749757 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
##
    [838,]
                    1.0693999
                                1.7974457 -1.0102910 -1.1695589
                                                                        1.0628471
##
                   -0.6854236 -1.0991162
                                           1.4038902 -0.4751118
                                                                        0.3068784
    [839,]
##
    [840,]
                    0.1919881
                               0.3491648
                                           2.2086173
                                                       0.2193353
                                                                       -0.4490903
##
                   -1.5628354 -0.3749757 -0.2055639
                                                       0.2193353
    [841,]
                                                                       -1.2050590
##
    [842,]
                    1.0693999 -0.3749757 -0.2055639
                                                       0.2193353
                                                                       -1.2050590
##
    [843,]
                   -0.6854236 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
                                                                        0.3068784
##
                    1.0693999 1.0733052 2.2086173 1.6082294
    [844,]
```

```
1.0693999
                                            0.5991631
                                                        0.9137823
##
    [845,]
                                0.3491648
                                                                         1.8188158
##
    [846,]
                    1.0693999 -1.0991162
                                            0.5991631
                                                        0.2193353
                                                                         0.3068784
##
    [847,]
                    1.0693999 -0.3749757 -1.0102910
                                                        0.2193353
                                                                        -0.4490903
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
##
    [848,]
                                                                         1.8188158
##
    [849,]
                   -0.6854236 -1.0991162 -0.2055639 -1.1695589
                                                                        -0.4490903
##
    [850,]
                   -1.5628354
                                0.3491648 -1.0102910 -1.1695589
                                                                         1.0628471
                                1.0733052
                                            0.5991631 -0.4751118
##
    [851,]
                    1.0693999
                                                                        -1.2050590
##
    [852,]
                    0.1919881
                                1.0733052
                                            0.5991631
                                                        1.6082294
                                                                         1.8188158
##
    [853,]
                    0.1919881 -0.3749757
                                            1.4038902
                                                        1.6082294
                                                                        -0.4490903
##
    [854,]
                                            0.5991631
                                                                         0.3068784
                   -0.6854236
                                0.3491648
                                                        0.2193353
##
                   -0.6854236 -1.0991162 -1.0102910
                                                        0.9137823
                                                                         0.3068784
    [855,]
##
    [856,]
                   -0.6854236 -0.3749757
                                            0.5991631
                                                        1.6082294
                                                                         0.3068784
##
                    1.0693999 -0.3749757
                                            0.5991631 -1.1695589
                                                                         0.3068784
    [857,]
##
    [858,]
                    0.1919881 -1.0991162 -1.0102910 -0.4751118
                                                                        -1.2050590
                                            0.5991631
                                                        0.9137823
##
    [859,]
                    1.0693999 -0.3749757
                                                                        -1.2050590
##
                    0.1919881 -1.0991162 -0.2055639
                                                        1.6082294
                                                                        -0.4490903
    [860,]
##
    [861,]
                    0.1919881 -0.3749757
                                            1.4038902
                                                        1.6082294
                                                                         0.3068784
##
                                            0.5991631
    [862,]
                    1.0693999
                                0.3491648
                                                        0.2193353
                                                                         1.0628471
##
    [863,]
                    1.0693999 -1.0991162
                                            0.5991631
                                                        1.6082294
                                                                        -0.4490903
                    0.1919881 -1.0991162 -1.0102910
##
    [864,]
                                                        0.2193353
                                                                        -1.2050590
                                                                        -0.4490903
                                0.3491648
                                           0.5991631
                                                        0.2193353
##
    [865,]
                    0.1919881
##
                   -0.6854236
                                0.3491648 -0.2055639
                                                        0.2193353
                                                                         0.3068784
    [866,]
##
    [867,]
                    0.1919881
                                1.7974457
                                           0.5991631 -0.4751118
                                                                         0.3068784
##
                   -0.6854236
                                1.0733052 -0.2055639
                                                        0.9137823
    [868,]
                                                                        -1.2050590
##
                    0.1919881 -0.3749757 -1.0102910
                                                        0.2193353
                                                                        -0.4490903
    [869,]
##
    [870,]
                    1.0693999
                                1.0733052 -1.0102910
                                                      -1.1695589
                                                                        -0.4490903
##
                    0.1919881 -0.3749757
                                            2.2086173
                                                      -0.4751118
                                                                         0.3068784
    [871,]
##
    [872,]
                    0.1919881
                                1.0733052
                                            2.2086173
                                                        1.6082294
                                                                         1.8188158
##
                   -1.5628354
                                1.7974457 -1.0102910
                                                        1.6082294
                                                                         0.3068784
    [873,]
                    0.1919881 -0.3749757 -1.0102910
##
    [874,]
                                                        0.9137823
                                                                         0.3068784
##
                   -0.6854236 -0.3749757
                                            0.5991631
                                                      -0.4751118
                                                                        -1.2050590
    [875,]
##
    [876,]
                   -2.4402471
                                1.7974457 -1.0102910
                                                        1.6082294
                                                                         0.3068784
##
    [877,]
                   -0.6854236
                                1.7974457 -1.0102910
                                                        1.6082294
                                                                         0.3068784
##
    [878,]
                    1.0693999
                                0.3491648
                                            0.5991631
                                                        0.9137823
                                                                         0.3068784
##
    [879,]
                    0.1919881
                                1.7974457
                                            2.2086173
                                                        0.9137823
                                                                         1.8188158
##
                   -0.6854236 -0.3749757
                                            1.4038902
                                                        1.6082294
                                                                        -0.4490903
    [880,]
##
    [881,]
                   -0.6854236 -0.3749757
                                            1.4038902
                                                        0.2193353
                                                                        -1.2050590
##
                                1.0733052 -1.0102910
    [882,]
                    1.0693999
                                                      -0.4751118
                                                                         1.0628471
##
    [883,]
                    0.1919881
                                1.0733052 -1.0102910 -1.1695589
                                                                         0.3068784
##
    [884,]
                    1.0693999 -0.3749757
                                            1.4038902
                                                      -1.1695589
                                                                        -0.4490903
##
                    1.0693999 -1.0991162 -1.0102910
                                                                         1.8188158
    [885,]
                                                        1.6082294
##
    [886,]
                    0.1919881
                                1.7974457
                                            2.2086173
                                                        0.9137823
                                                                        -0.4490903
##
    [887,]
                    0.1919881 -1.0991162 -0.2055639
                                                        1.6082294
                                                                        -1.2050590
##
    [888,]
                   -0.6854236
                                1.0733052 -0.2055639
                                                        0.2193353
                                                                         0.3068784
##
                    0.1919881
                                1.7974457
                                            0.5991631
                                                       -1.1695589
                                                                         0.3068784
    [889,]
##
    [890,]
                    1.0693999
                                1.0733052 -0.2055639
                                                        0.9137823
                                                                         1.0628471
##
    [891,]
                   -0.6854236 -1.0991162
                                            1.4038902
                                                        1.6082294
                                                                        -1.2050590
##
    [892,]
                   -0.6854236 -0.3749757 -0.2055639
                                                        0.9137823
                                                                         0.3068784
##
    [893,]
                    0.1919881 -1.0991162 -1.0102910
                                                        1.6082294
                                                                        -0.4490903
##
                    0.1919881 0.3491648 -0.2055639
                                                        0.2193353
                                                                        -0.4490903
    [894,]
```

```
-0.6854236 -1.0991162 -1.0102910 -1.1695589
##
    [895,]
                                                                        1.0628471
                                                                       -0.4490903
##
    [896,]
                   -0.6854236 -0.3749757 -1.0102910 -0.4751118
##
    [897,]
                    0.1919881 -1.0991162 -0.2055639 -0.4751118
                                                                        1.0628471
##
    [898,]
                   -0.6854236 -0.3749757
                                           1.4038902
                                                       0.2193353
                                                                       -0.4490903
##
    [899,]
                   -0.6854236 -0.3749757 -1.0102910 -1.1695589
                                                                        1.8188158
##
    [900,]
                   -0.6854236 -1.0991162
                                           1.4038902
                                                       0.9137823
                                                                       -1.2050590
                    0.1919881 -0.3749757
                                           2.2086173 -0.4751118
##
    [901,]
                                                                       -0.4490903
    [902,]
##
                   -1.5628354 -1.0991162
                                           0.5991631 -1.1695589
                                                                       -0.4490903
##
    [903,]
                   -2.4402471 -0.3749757
                                           1.4038902 -1.1695589
                                                                       -1.2050590
    [904,]
                              0.3491648 -1.0102910
                                                                       -0.4490903
##
                    0.1919881
                                                       0.2193353
##
                    1.0693999 -0.3749757 -0.2055639
                                                                        1.8188158
    [905,]
                                                       0.2193353
##
    [906,]
                    1.0693999
                               0.3491648
                                           2.2086173
                                                       1.6082294
                                                                        0.3068784
##
                    1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                       -0.4490903
    [907,]
##
    [908,]
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                        1.0628471
                   -0.6854236 -0.3749757 -0.2055639
##
    [909,]
                                                       0.2193353
                                                                       -0.4490903
##
                    1.0693999
                               1.0733052
                                           1.4038902
                                                       0.2193353
                                                                        0.3068784
    [910,]
##
    [911,]
                    1.0693999
                               0.3491648
                                           1.4038902
                                                       0.9137823
                                                                        1.8188158
##
    [912,]
                   -0.6854236 -1.0991162
                                           1.4038902
                                                       0.9137823
                                                                       -0.4490903
                              0.3491648 -0.2055639
##
    [913,]
                   -0.6854236
                                                       0.9137823
                                                                       -0.4490903
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
##
    [914,]
                                                                        1.8188158
                                          1.4038902 -0.4751118
##
    [915,]
                    1.0693999 0.3491648
                                                                        1.0628471
##
                    0.1919881 -1.0991162 -0.2055639
                                                       0.2193353
                                                                        0.3068784
    [916,]
##
    [917,]
                   -1.5628354 -1.0991162
                                          1.4038902
                                                       0.9137823
                                                                       -0.4490903
##
                    0.1919881 -1.0991162 -1.0102910
                                                       0.9137823
    [918,]
                                                                        0.3068784
##
                   -0.6854236 -1.0991162 -0.2055639 -1.1695589
                                                                        1.8188158
    [919,]
##
    [920,]
                    0.1919881 -0.3749757
                                           2.2086173 -1.1695589
                                                                        1.8188158
##
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
    [921,]
                               0.3491648 -0.2055639
##
    [922,]
                   -1.5628354
                                                       0.9137823
                                                                        0.3068784
##
                               0.3491648
                                          1.4038902
                                                       1.6082294
                                                                       -0.4490903
    [923,]
                    1.0693999
                               0.3491648 -1.0102910 -1.1695589
##
    [924,]
                    1.0693999
                                                                        1.8188158
##
    [925,]
                    1.0693999 -0.3749757 -1.0102910 -0.4751118
                                                                        1.8188158
                    0.1919881 -0.3749757 -1.0102910 -0.4751118
##
    [926,]
                                                                        0.3068784
##
    [927,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -0.4490903
##
    [928,]
                    0.1919881
                               0.3491648 -0.2055639
                                                       1.6082294
                                                                        0.3068784
##
    [929,]
                    0.1919881
                               0.3491648 -0.2055639
                                                     -1.1695589
                                                                        0.3068784
##
                   -2.4402471
                               0.3491648
                                          1.4038902 -1.1695589
    [930,]
                                                                        1.0628471
                               0.3491648 -0.2055639
##
    [931,]
                   -0.6854236
                                                       0.9137823
                                                                        0.3068784
##
                    0.1919881 -0.3749757 -0.2055639
    [932,]
                                                       0.2193353
                                                                        0.3068784
##
    [933,]
                   -0.6854236
                              0.3491648 -0.2055639
                                                       0.2193353
                                                                        0.3068784
##
    [934,]
                    0.1919881
                               0.3491648
                                          0.5991631 -1.1695589
                                                                       -0.4490903
##
                    1.0693999 -0.3749757 -0.2055639
                                                       0.2193353
                                                                       -0.4490903
    [935,]
##
    [936,]
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                       -1.2050590
##
    [937,]
                    0.1919881 -0.3749757 -1.0102910 -0.4751118
                                                                       -0.4490903
##
    [938,]
                    0.1919881
                               0.3491648 -0.2055639
                                                       0.2193353
                                                                        0.3068784
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
##
                                                                        1.8188158
    [939,]
##
    [940,]
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
                                                                        1.0628471
##
                   -0.6854236 -1.0991162 -1.0102910 -1.1695589
                                                                       -0.4490903
    [941,]
##
    [942,]
                    1.0693999 0.3491648 -0.2055639 -1.1695589
                                                                        1.8188158
##
    [943,]
                    1.0693999 -1.0991162 -0.2055639 -1.1695589
                                                                       -1.2050590
##
                   -0.6854236 -0.3749757 2.2086173 1.6082294
                                                                       -0.4490903
    [944,]
```

```
-1.5628354 0.3491648 -0.2055639
##
    [945,]
                                                       0.9137823
                                                                        0.3068784
##
    [946,]
                    0.1919881 -1.0991162
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
##
    [947,]
                    1.0693999
                               0.3491648
                                           0.5991631
                                                       1.6082294
                                                                       -0.4490903
##
                   -0.6854236 -0.3749757 -0.2055639
                                                     -1.1695589
                                                                        0.3068784
    [948,]
##
    [949,]
                    0.1919881
                               1.7974457 -1.0102910 -0.4751118
                                                                        0.3068784
##
    [950,]
                   -0.6854236 -1.0991162 -1.0102910
                                                       0.9137823
                                                                       -0.4490903
                   -0.6854236 -1.0991162
##
    [951,]
                                           0.5991631
                                                       0.2193353
                                                                       -1.2050590
##
    [952,]
                   -1.5628354 -1.0991162 -0.2055639
                                                       1.6082294
                                                                       -1.2050590
##
    [953,]
                    1.0693999 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
    [954,]
                               1.7974457
                                           0.5991631
                                                       0.2193353
##
                    1.0693999
                                                                       -1.2050590
##
                    0.1919881
                               0.3491648
                                           0.5991631 -0.4751118
    [955,]
                                                                        0.3068784
##
    [956,]
                   -2.4402471 -0.3749757
                                           1.4038902 -1.1695589
                                                                       -0.4490903
                                                                       -1.2050590
##
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
    [957,]
##
    [958,]
                   -2.4402471 -1.0991162 -1.0102910
                                                       1.6082294
                                                                       -1.2050590
##
    [959,]
                    1.0693999
                               1.7974457 -1.0102910 -0.4751118
                                                                       -0.4490903
##
                    0.1919881
                               0.3491648 -1.0102910 -1.1695589
                                                                       -1.2050590
    [960,]
##
    [961,]
                    1.0693999 -0.3749757
                                           1.4038902
                                                       0.2193353
                                                                        1.0628471
##
    [962,]
                   -0.6854236
                               1.7974457
                                           1.4038902
                                                       0.9137823
                                                                       -0.4490903
##
    [963,]
                    1.0693999
                               0.3491648 -1.0102910
                                                       0.2193353
                                                                        0.3068784
                                           0.5991631
##
    [964,]
                   -1.5628354 -0.3749757
                                                       1.6082294
                                                                       -0.4490903
                                           0.5991631
##
    [965,]
                    0.1919881
                               0.3491648
                                                       0.2193353
                                                                        0.3068784
##
                    1.0693999 -1.0991162 -0.2055639
                                                     -0.4751118
                                                                        0.3068784
    [966,]
##
    [967,]
                    1.0693999
                               1.7974457
                                          2.2086173 -1.1695589
                                                                        1.8188158
##
                   -0.6854236
                               0.3491648 -0.2055639
                                                       0.9137823
    [968,]
                                                                        1.8188158
##
                   -1.5628354 -0.3749757 -1.0102910
                                                       0.2193353
                                                                       -1.2050590
    [969,]
##
    [970,]
                    0.1919881 -1.0991162 -0.2055639
                                                     -0.4751118
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 -1.0102910
    [971,]
                                                       1.6082294
                                                                        1.0628471
##
    [972,]
                    1.0693999 -0.3749757 -0.2055639
                                                       0.9137823
                                                                        0.3068784
##
                    1.0693999
                               1.7974457
                                           0.5991631
                                                       0.2193353
    [973,]
                                                                        1.0628471
                   -2.4402471 -1.0991162 -1.0102910 -1.1695589
##
    [974,]
                                                                        1.0628471
                    1.0693999
##
                               0.3491648
                                          0.5991631 -0.4751118
                                                                        0.3068784
    [975,]
##
    [976,]
                    1.0693999
                               0.3491648 -0.2055639 -1.1695589
                                                                        1.8188158
##
    [977,]
                    1.0693999
                               0.3491648 -0.2055639
                                                       0.9137823
                                                                       -0.4490903
##
    [978,]
                    0.1919881 -1.0991162 -1.0102910
                                                       0.2193353
                                                                       -0.4490903
##
    [979,]
                    0.1919881 -0.3749757
                                           0.5991631 -1.1695589
                                                                        0.3068784
##
                    1.0693999
                              0.3491648
                                           2.2086173
                                                       0.9137823
                                                                        0.3068784
    [980,]
##
    [981,]
                   -1.5628354 -1.0991162 0.5991631 -0.4751118
                                                                        1.0628471
##
                   -1.5628354 -1.0991162 -1.0102910 -1.1695589
    [982,]
                                                                        1.0628471
##
    [983,]
                    0.1919881 -0.3749757 -1.0102910 0.9137823
                                                                        0.3068784
##
    [984,]
                   -1.5628354 -1.0991162 -0.2055639 -1.1695589
                                                                        0.3068784
##
                   -1.5628354 -1.0991162 -1.0102910 -0.4751118
                                                                        0.3068784
    [985,]
##
    [986,]
                    0.1919881 -1.0991162 -1.0102910 -1.1695589
                                                                        1.0628471
##
    [987,]
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
                                                                        1.0628471
##
    [988,]
                    1.0693999 -0.3749757 -1.0102910 -1.1695589
                                                                        1.0628471
##
                    1.0693999
                               1.7974457
                                          0.5991631 -0.4751118
                                                                        0.3068784
    [989,]
##
    [990,]
                               1.0733052
                                           0.5991631
                                                       0.2193353
                    1.0693999
                                                                        1.0628471
##
    [991,]
                   -0.6854236 -0.3749757 -0.2055639
                                                       0.9137823
                                                                       -1.2050590
##
    [992,]
                    0.1919881 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
##
    [993,]
                   -1.5628354 -1.0991162 -1.0102910 -0.4751118
                                                                       -1.2050590
##
                    1.0693999 -1.0991162 1.4038902 -1.1695589
                                                                       -0.4490903
    [994,]
```

```
-0.6854236   0.3491648   0.5991631   -0.4751118
                                                                       1.0628471
    [995,]
##
    [996,]
                   1.0693999 -1.0991162
                                           1.4038902 0.9137823
                                                                      -0.4490903
##
    [997,]
                   -0.6854236 -0.3749757 -1.0102910 -1.1695589
                                                                      -0.4490903
##
                               0.3491648 0.5991631
    [998,]
                   1.0693999
                                                      0.2193353
                                                                       1.8188158
##
    [999,]
                    1.0693999
                               0.3491648 -0.2055639 -1.1695589
                                                                      -1.2050590
##
   [1000,]
                    1.0693999
                               0.3491648 -0.2055639
                                                      0.2193353
                                                                       0.3068784
                                                                      -1.2050590
                   -1.5628354 0.3491648 -0.2055639 -1.1695589
##
   [1001,]
##
   [1002,]
                   -2.4402471 -1.0991162 0.5991631 -0.4751118
                                                                      -0.4490903
                   -0.6854236 -1.0991162 -1.0102910 -0.4751118
   [1003,]
                                                                      -1.2050590
   [1004,]
                   0.1919881 -0.3749757 -0.2055639 -1.1695589
                                                                      -1.2050590
##
   [1005,]
                   0.1919881 0.3491648 -0.2055639 -0.4751118
                                                                       0.3068784
                   1.0693999 -0.3749757 -1.0102910 -1.1695589
##
   [1006,]
                                                                       1.8188158
                   -1.5628354 -1.0991162 -1.0102910 1.6082294
##
   [1007,]
                                                                      -1.2050590
##
   [1008,]
                    1.0693999 -1.0991162 -1.0102910 -1.1695589
                                                                      -1.2050590
                              0.3491648 -1.0102910 -1.1695589
##
   [1009,]
                    1.0693999
                                                                       1.8188158
##
   [1010,]
                   0.1919881 1.7974457 -1.0102910 0.2193353
                                                                      -1.2050590
##
             Religion Countryside..outdoors
                                                 Dancing Musical.instruments
##
      [1,] -0.9652426
                                   1.0942820 0.3673575
                                                                    0.4472073
##
      [2,] -0.9652426
                                   -2.2498173 -1.0093811
                                                                   -0.8754263
##
                                   1.0942820 1.7440961
            2.0600329
                                                                    1.7698410
      [3,]
##
                                   -2.2498173 -1.0093811
                                                                   -0.8754263
      [4,]
            1.3037140
##
            1.3037140
                                   0.2582572 -1.0093811
                                                                    0.4472073
      [5,]
                                   1.0942820 -1.0093811
##
      [6,] -0.2089237
                                                                    1.7698410
##
      [7,] -0.9652426
                                   0.2582572 0.3673575
                                                                   -0.2141095
##
      [8,] -0.2089237
                                   -1.4137925 -1.0093811
                                                                   -0.8754263
##
      [9,] -0.2089237
                                   0.2582572 -1.0093811
                                                                   -0.2141095
##
                                   0.2582572 1.7440961
                                                                    0.4472073
     [10,] 1.3037140
##
     [11,] -0.2089237
                                   0.2582572 -1.0093811
                                                                   -0.8754263
##
                                   1.0942820 -1.0093811
     [12,] -0.9652426
                                                                   -0.8754263
##
     [13,] -0.9652426
                                   1.0942820 0.3673575
                                                                    1.1085242
##
     [14,] -0.9652426
                                   1.0942820 0.3673575
                                                                    0.4472073
                                   -0.5777676 -1.0093811
##
                                                                   -0.8754263
     [15,] -0.2089237
##
     [16,] -0.9652426
                                   1.0942820 -1.0093811
                                                                    1.7698410
##
     [17,] -0.2089237
                                   1.0942820 -0.3210118
                                                                   -0.2141095
##
     [18,] -0.9652426
                                   1.0942820 0.3673575
                                                                   -0.8754263
##
     [19,] -0.9652426
                                   -0.5777676 0.3673575
                                                                   -0.8754263
                                   0.2582572 -1.0093811
##
     [20,] -0.9652426
                                                                    1.7698410
##
                                   1.0942820 -1.0093811
     [21,] -0.9652426
                                                                    1.7698410
##
     [22,] -0.9652426
                                   0.2582572 -1.0093811
                                                                   -0.2141095
##
     [23,]
           1.3037140
                                   0.2582572
                                               0.3673575
                                                                   -0.2141095
##
     [24,] -0.2089237
                                   -0.5777676
                                               1.7440961
                                                                    1.7698410
##
     [25,] -0.2089237
                                   1.0942820
                                               1.7440961
                                                                    1.1085242
##
     [26,] -0.9652426
                                   -1.4137925
                                               1.0557268
                                                                   -0.8754263
##
     [27,]
            1.3037140
                                   1.0942820
                                               0.3673575
                                                                   -0.2141095
##
     [28,] -0.9652426
                                   -0.5777676 -1.0093811
                                                                   -0.8754263
##
     [29,] -0.9652426
                                   -0.5777676
                                              0.3673575
                                                                   -0.8754263
##
     [30,] -0.2089237
                                   1.0942820
                                              1.0557268
                                                                   -0.2141095
##
     [31,] -0.2089237
                                   0.2582572 -1.0093811
                                                                   -0.8754263
##
     [32,] -0.9652426
                                   1.0942820
                                              1.0557268
                                                                   -0.8754263
##
     [33,] -0.2089237
                                   -1.4137925 -1.0093811
                                                                   -0.2141095
```

| ## | [34,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
|----------|------------------|--|--------------------------|
| ## | [35,] 2.0600329 | 1.0942820 -0.3210118 | 0.4472073 |
| ## | [36,] 0.5473952 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [37,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [38,] 2.0600329 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [39,] -0.2089237 | 0.2582572 1.7440961 | 0.4472073 |
| ## | [40,] 0.5473952 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [41,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [42,] 2.0600329 | 1.0942820 -0.3210118 | 1.1085242 |
| ## | [43,] -0.2089237 | -0.5777676 -1.0093811 | -0.2141095 |
| ## | [44,] -0.9652426 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [45,] 1.3037140 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [46,] 1.3037140 | -1.4137925 1.7440961 | 1.7698410 |
| ## | [47,] 1.3037140 | 1.0942820 0.3673575 | 1.1085242 |
| ## | [48,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [49,] -0.2089237 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [50,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [51,] 1.3037140 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [52,] 0.5473952 | -0.5777676 1.7440961 | -0.2141095 |
| ## | [53,] -0.2089237 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [54,] 2.0600329 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [55,] -0.2089237 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [56,] -0.2089237 | 0.2582572 1.0557268 | -0.2141095 |
| ## | [57,] -0.2089237 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [58,] 1.3037140 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [59,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [60,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [61,] 1.3037140 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [62,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [63,] -0.9652426 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [64,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [65,] -0.9652426 | -2.2498173 -0.3210118 | -0.8754263 |
| ## | [66,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [67,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [68,] -0.2089237 | -0.5777676 1.7440961 | -0.2141095 |
| ## | [69,] 2.0600329 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [70,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [71,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [72,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [73,] -0.2089237 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [74,] 2.0600329 | 1.0942820 0.3673373 | 0.4472073 |
| ## | [75,] -0.2089237 | 1.0942820 -1.0093811 | 1.7698410 |
| | [76,] 2.0600329 | 1.0942820 -0.3210118 | 1.7698410 |
| ## ## | | -0.5777676 0.3673575 | -0.8754263 |
| | [77,] -0.2089237 | | |
| ## | [78,] -0.9652426 | 1.0942820 1.7440961 1.0942820 1.7440961 | -0.8754263 -0.2141095 |
| ## | [79,] -0.9652426 | | |
| ## | [80,] -0.9652426 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [81,] -0.9652426 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [82,] -0.2089237 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [83,] 1.3037140 | 1.0942820 -1.0093811 | 0.4472073 |

| ## | [84,] -0.9652426 | 1.0942820 0.3673575 | -0.8754263 |
|----|-------------------|-----------------------|------------|
| ## | [85,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [86,] -0.9652426 | 1.0942820 -0.3210118 | 1.1085242 |
| ## | [87,] 2.0600329 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [88,] -0.2089237 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [89,] 2.0600329 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [90,] 0.5473952 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [91,] 1.3037140 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [92,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [93,] 1.3037140 | 1.0942820 0.3673575 | -0.2141095 |
| ## | [94,] -0.9652426 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [95,] -0.2089237 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [96,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [97,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [98,] 1.3037140 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [99,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [100,] -0.2089237 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [101,] 1.3037140 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [102,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [103,] -0.2089237 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [104,] 2.0600329 | 0.2582572 1.0557268 | 1.1085242 |
| ## | [105,] 0.5473952 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [106,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [107,] -0.2089237 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [108,] 1.3037140 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [109,] -0.9652426 | -2.2498173 -1.0093811 | 1.7698410 |
| ## | [110,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [111,] -0.2089237 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [112,] 0.5473952 | 1.0942820 0.3673575 | -0.2141095 |
| ## | [113,] 0.5473952 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [114,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [115,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [116,] -0.2089237 | 0.2582572 1.7440961 | 0.4472073 |
| ## | [117,] -0.2089237 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [118,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [119,] -0.9652426 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [120,] -0.2089237 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [121,] -0.2089237 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [122,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [123,] 0.5473952 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [124,] 1.3037140 | 0.2582572 -1.0093811 | 1.7698410 |
| ## | [125,] 0.5473952 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [126,] -0.2089237 | 1.0942820 1.0557268 | 1.7698410 |
| ## | [127,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [128,] 1.3037140 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [129,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [130,] 2.0600329 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [131,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [132,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [133,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| | | | |

| ## | [134,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
|----------|--|--|-------------------------|
| ## | [135,] -0.9652426 | -0.5777676 0.3673575 | -0.2141095 |
| ## | [136,] -0.2089237 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [137,] 2.0600329 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [138,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [139,] 2.0600329 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [140,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [141,] 2.0600329 | 1.0942820 -1.0093811 | 1.1085242 |
| ## | [142,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [143,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [144,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [145,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [146,] 0.5473952 | -1.4137925 -1.0093811 | -0.2141095 |
| ## | [147,] 2.0600329 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [148,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [149,] 2.0600329 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [150,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [151,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [152,] 1.3037140 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [153,] -0.2089237 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [154,] 1.3037140 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [155,] -0.2089237 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [156,] -0.9652426 | -0.5777676 1.0553611 | 1.7698410 |
| ## | [157,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [158,] 1.3037140 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [159,] -0.9652426 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [160,] 1.3037140 | 1.0942820 0.3673575 | 1.1085242 |
| ## | | -1.4137925 1.0557268 | 1.7698410 |
| ## | | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [162,] -0.9652426 [163,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| | | | |
| ## ## | | -2.2498173 -0.3210118 -2.2498173 -1.0093811 | -0.8754263 |
| ## | [165,] -0.2089237 | 1.0942820 1.0557268 | -0.8754263 1.1085242 |
| | [166,] 0.5473952 | | |
| ## | [167,] -0.9652426 | 0.2582572 -1.0093811 | 0.4472073 |
| | [168,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [169,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [170,] -0.2089237 | -0.5777676 -1.0093811 | 1.1085242 |
| ## | [171,] 0.5473952 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [172,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [173,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [174,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [175,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [176,] -0.9652426 | 0.2582572 -1.0093811 | 1.7698410 |
| | [177,] -0.9652426 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [178,] -0.9652426 | 1.0942820 -1.0093811 | 0.4472073 |
| ## | [179,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [180,] 1.3037140 | 1.0942820 0.3673575 | 1.1085242 |
| ## | [181,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [182,] 1.3037140 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [183,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| | | | |

| ## | [184,] -0.9652426 | 1.0942820 0.3673575 | -0.8754263 |
|----|-------------------|-----------------------|------------|
| ## | [185,] 0.5473952 | -2.2498173 -0.3210118 | -0.8754263 |
| ## | [186,] 2.0600329 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [187,] 0.5473952 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [188,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [189,] 2.0600329 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [190,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [191,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [192,] -0.9652426 | -0.5777676 1.0557268 | 1.7698410 |
| ## | [193,] -0.9652426 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [194,] 0.5473952 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [195,] -0.9652426 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [196,] -0.2089237 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [197,] -0.9652426 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [198,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [199,] -0.9652426 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [200,] -0.9652426 | 0.2582572 1.0557268 | -0.2141095 |
| ## | [201,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [202,] -0.9652426 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [203,] -0.9652426 | -1.4137925 1.7440961 | -0.2141095 |
| ## | [204,] -0.2089237 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [205,] -0.9652426 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [206,] 1.3037140 | 0.2582572 1.0557268 | 0.4472073 |
| ## | [207,] 0.5473952 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [208,] -0.2089237 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [209,] -0.9652426 | 0.2582572 -0.3210118 | 0.4472073 |
| ## | [210,] 1.3037140 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [211,] 1.3037140 | 1.0942820 1.0557268 | -0.2141095 |
| ## | [212,] -0.9652426 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [213,] -0.9652426 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [214,] 0.5473952 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [215,] -0.2089237 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [216,] -0.9652426 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [217,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [218,] 0.5473952 | 0.2582572 0.3673575 | 1.1085242 |
| ## | [219,] -0.2089237 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [220,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [221,] -0.2089237 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [222,] -0.9652426 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [223,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [224,] 0.5473952 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [225,] 0.5473952 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [226,] 0.5473952 | 0.2582572 | 0.4472073 |
| ## | [227,] -0.2089237 | 1.0942820 1.0557268 | -0.8754263 |
| ## | [228,] 1.3037140 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [229,] 0.5473952 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [230,] -0.2089237 | 1.0942820 -0.3210118 | 1.1085242 |
| ## | [231,] 0.5473952 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [232,] -0.9652426 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [233,] -0.9652426 | 1.0942820 -0.3210118 | 1.7698410 |

| ## | [234,] -0.2089237 | 0.2582572 1.0557268 | -0.8754263 |
|----|-------------------|-----------------------|------------|
| ## | [235,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [236,] 2.0600329 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [237,] -0.2089237 | -1.4137925 -0.3210118 | -0.2141095 |
| ## | [238,] -0.9652426 | 0.2582572 1.0557268 | -0.2141095 |
| ## | [239,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [240,] -0.2089237 | -0.5777676 0.3673575 | -0.2141095 |
| ## | [241,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [242,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [243,] 1.3037140 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [244,] -0.2089237 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [245,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [246,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [247,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [248,] -0.9652426 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [249,] -0.9652426 | -1.4137925 0.3673575 | 1.1085242 |
| ## | [250,] 2.0600329 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [251,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [252,] -0.2089237 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [253,] -0.2089237 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [254,] 2.0600329 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [255,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [256,] 2.0600329 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [257,] -0.9652426 | -1.4137925 0.3673575 | -0.2141095 |
| ## | [258,] 1.3037140 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [259,] 0.5473952 | 1.0942820 -1.0093811 | 0.4472073 |
| ## | [260,] 0.5473952 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [261,] 0.5473952 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [262,] -0.2089237 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [263,] -0.2089237 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [264,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [265,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [266,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [267,] -0.9652426 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [268,] 1.3037140 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [269,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [270,] 2.0600329 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [271,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [272,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [273,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [274,] -0.9652426 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [275,] -0.9652426 | 1.0942820 1.0557268 | -0.2141095 |
| ## | [276,] 0.5473952 | -1.4137925 0.3673575 | -0.2141095 |
| ## | [277,] 0.5473952 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [278,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [279,] -0.2089237 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [280,] 0.5473952 | -1.4137925 -1.0093811 | -0.2141095 |
| ## | [281,] 0.5473952 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [282,] -0.9652426 | 0.2582572 0.3673575 | 1.7698410 |
| ## | [283,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| | | | |

| ## | [284,] -0.9652426 | 0.2582572 -0.3210118 | -0.2141095 |
|----------|--|---|--------------------------|
| ## | [285,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [286,] 1.3037140 | -1.4137925 0.3673575 | -0.8754263 |
| ## | [287,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [288,] -0.2089237 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [289,] 1.3037140 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [290,] -0.9652426 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [291,] 2.0600329 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [292,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [293,] -0.9652426 | -1.4137925 0.3673575 | -0.8754263 |
| ## | [294,] -0.9652426 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [295,] -0.9652426 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [296,] 1.3037140 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [297,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [298,] 1.3037140 | -0.5777676 -1.0093811 | -0.2141095 |
| ## | [299,] -0.2089237 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [300,] -0.9652426 | -0.5777676 -0.3210118 | 0.4472073 |
| ## | [301,] 2.0600329 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [302,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [303,] 2.0600329 | 0.2582572 1.0557268 | -0.2141095 |
| ## | [304,] -0.9652426 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [305,] -0.2089237 | -2.2498173 0.3673575 | -0.8754263 |
| ## | [306,] 0.5473952 | 1.0942820 1.0557268 | 1.7698410 |
| ## | [307,] -0.2089237 | -0.5777676 1.0557268 | 1.1085242 |
| ## | [308,] -0.2089237 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [309,] -0.2089237 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [310,] -0.9652426 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [311,] -0.2089237 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [312,] 0.5473952 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [313,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [314,] 1.3037140 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [315,] 1.3037140 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [316,] 0.5473952 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [317,] -0.9652426 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [318,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [319,] 2.0600329 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [320,] 2.0600329 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [321,] 0.5473952 | 1.0942820 0.3673575 | 1.1085242 |
| ## | [322,] 0.5473952 | 0.2582572 1.7440961 | 1.1085242 |
| ## | . , . | 0.2582572 1.7440301 | 1.7698410 |
| ## | | -0.5777676 -1.0093811 | 0.4472073 |
| ## | _ | 0.2582572 -0.3210118 | -0.2141095 |
| ## | | 0.2582572 -0.3210116 | 0.4472073 |
| ## | [326,] 0.5473952 [327,] -0.9652426 | 0.2582572 | -0.8754263 |
| | | | -0.8754263 |
| ## ## | [328,] -0.9652426 | 0.2582572 -1.0093811 -0.5777676 -1.0093811 | -0.8754263 -0.8754263 |
| ## | [329,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [330,] -0.2089237 [331,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 -0.8754263 |
| ## | | -0.5777676 -1.0093811 -0.5777676 1.7440961 | 0.4472073 |
| ## | | 1.0942820 1.0557268 | -0.8754263 |
| ## | [333,] 2.0600329 | 1.0342020 1.033/200 | -0.0/34203 |

| ## | [334,] 0.5473952 | -0.5777676 -0.3210118 | 1.7698410 |
|----|-------------------|-----------------------|------------|
| ## | [335,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [336,] 1.3037140 | 0.2582572 1.0557268 | 1.1085242 |
| ## | [337,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [338,] 0.5473952 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [339,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [340,] -0.2089237 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [341,] 2.0600329 | -0.5777676 -1.0093811 | -0.2141095 |
| ## | [342,] -0.9652426 | -0.5777676 1.7440961 | 0.4472073 |
| ## | [343,] -0.9652426 | -1.4137925 1.0557268 | -0.2141095 |
| ## | [344,] -0.9652426 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [345,] -0.9652426 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [346,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [347,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [348,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [349,] -0.9652426 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [350,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [351,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [352,] 0.5473952 | 1.0942820 0.3673575 | 1.1085242 |
| ## | [353,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [354,] -0.2089237 | -1.4137925 -0.3210118 | 1.1085242 |
| ## | [355,] 2.0600329 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [356,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [357,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [358,] -0.9652426 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [359,] -0.2089237 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [360,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [361,] -0.9652426 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [362,] 2.0600329 | 1.0942820 1.0557268 | 1.7698410 |
| ## | [363,] -0.9652426 | -1.4137925 -0.3210118 | 1.1085242 |
| ## | [364,] -0.2089237 | -1.4137925 -0.3210118 | 1.7698410 |
| ## | [365,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [366,] 1.3037140 | 1.0942820 -1.0093811 | 0.4472073 |
| ## | [367,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [368,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [369,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [370,] -0.9652426 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [371,] -0.9652426 | 1.0942820 1.0557268 | -0.2141095 |
| ## | [372,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [373,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [374,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [375,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [376,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [377,] -0.9652426 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [378,] 1.3037140 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [379,] -0.9652426 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [380,] 1.3037140 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [381,] -0.2089237 | -0.5777676 1.0557268 | 1.7698410 |
| ## | [382,] -0.9652426 | -2.2498173 -0.3210118 | -0.8754263 |
| ## | [383,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| | | | |

| ## | [384,] -0.9652426 | -1.4137925 -1.0093811 | -0.2141095 |
|----|-------------------|-----------------------|------------|
| ## | [385,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [386,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [387,] 0.5473952 | -1.4137925 -0.3210118 | 0.4472073 |
| ## | [388,] 0.5473952 | -0.5777676 0.3673575 | -0.2141095 |
| ## | [389,] 2.0600329 | 0.2582572 0.3673575 | 1.7698410 |
| ## | [390,] -0.9652426 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [391,] 1.3037140 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [392,] 0.5473952 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [393,] -0.2089237 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [394,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [395,] -0.2089237 | -0.5777676 -1.0093811 | 1.1085242 |
| ## | [396,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [397,] -0.9652426 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [398,] 1.3037140 | -0.5777676 -0.3210118 | 0.4472073 |
| ## | [399,] 1.3037140 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [400,] 2.0600329 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [401,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [402,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [403,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [404,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [405,] 2.0600329 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [406,] 2.0600329 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [407,] 2.0600329 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [408,] 0.5473952 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [409,] 2.0600329 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [410,] -0.2089237 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [411,] -0.9652426 | -1.4137925 -1.0093811 | 1.7698410 |
| ## | [412,] 0.5473952 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [413,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [414,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [415,] 0.5473952 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [416,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [417,] 0.5473952 | 0.2582572 1.0557268 | 1.1085242 |
| ## | [418,] 1.3037140 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [419,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [420,] 2.0600329 | -1.4137925 1.0557268 | -0.2141095 |
| ## | [421,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [422,] -0.2089237 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [423,] -0.9652426 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [424,] 1.3037140 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [425,] -0.9652426 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [426,] 0.5473952 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [427,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [428,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [429,] -0.2089237 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [430,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [431,] 2.0600329 | 1.0942820 1.0557268 | -0.2141095 |
| ## | [432,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [433,] -0.9652426 | 0.2582572 -1.0093811 | 1.7698410 |
| | | | |

| ## | [434,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
|----|-------------------|-----------------------|------------|
| ## | [435,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [436,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [437,] 0.5473952 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [438,] -0.9652426 | -2.2498173 -0.3210118 | -0.2141095 |
| ## | [439,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [440,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [441,] -0.9652426 | -0.5777676 1.0557268 | -0.2141095 |
| ## | [442,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [443,] 0.5473952 | -0.5777676 -0.3210118 | 1.7698410 |
| ## | [444,] 2.0600329 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [445,] -0.2089237 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [446,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [447,] -0.9652426 | -2.2498173 -1.0093811 | 0.4472073 |
| ## | [448,] 2.0600329 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [449,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [450,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [451,] -0.2089237 | -2.2498173 -0.3210118 | -0.8754263 |
| ## | [452,] -0.2089237 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [453,] 0.5473952 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [454,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [455,] -0.9652426 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [456,] 0.5473952 | 0.2582572 1.0557268 | 0.4472073 |
| ## | [457,] 1.3037140 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [458,] 0.5473952 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [459,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [460,] 1.3037140 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [461,] 2.0600329 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [462,] 0.5473952 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [463,] -0.9652426 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [464,] 2.0600329 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [465,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [466,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [467,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [468,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [469,] 1.3037140 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [470,] 0.5473952 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [471,] 1.3037140 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [472,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [473,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [474,] 0.5473952 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [475,] 0.5473952 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [476,] -0.2089237 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [477,] -0.2089237 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [478,] -0.9652426 | -0.5777676 -0.3210118 | 1.1085242 |
| ## | [479,] 1.3037140 | -0.5777676 1.0557268 | 0.4472073 |
| ## | [480,] -0.2089237 | -0.5777676 -0.3210118 | 1.1085242 |
| ## | [481,] -0.2089237 | 0.2582572 1.0557268 | 0.4472073 |
| ## | [482,] 0.5473952 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [483,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| | _ , _ | | |

| ## | [484,] -0.2089237 | -2.2498173 -0.3210118 | -0.2141095 |
|----|-------------------|-----------------------|------------|
| ## | [485,] -0.9652426 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [486,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [487,] -0.2089237 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [488,] 2.0600329 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [489,] -0.9652426 | 1.0942820 -1.0093811 | 1.1085242 |
| ## | [490,] -0.2089237 | -1.4137925 0.3673575 | -0.8754263 |
| ## | [491,] 0.5473952 | -1.4137925 1.0557268 | -0.8754263 |
| ## | [492,] -0.2089237 | -0.5777676 1.7440961 | 0.4472073 |
| ## | [493,] 1.3037140 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [494,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [495,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [496,] -0.2089237 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [497,] 0.5473952 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [498,] 0.5473952 | -1.4137925 0.3673575 | 1.7698410 |
| ## | [499,] 0.5473952 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [500,] -0.9652426 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [501,] 2.0600329 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [502,] 1.3037140 | 0.2582572 0.3673575 | 1.7698410 |
| ## | [503,] -0.9652426 | -1.4137925 -1.0093811 | 0.4472073 |
| ## | [504,] 2.0600329 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [505,] -0.9652426 | 1.0942820 1.7440961 | 0.4472073 |
| ## | [506,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [507,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [508,] -0.2089237 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [509,] -0.2089237 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [510,] -0.9652426 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [511,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [512,] -0.9652426 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [513,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [514,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [515,] -0.2089237 | 0.2582572 -1.0093811 | 1.7698410 |
| ## | [516,] 1.3037140 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [517,] 0.5473952 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [518,] -0.2089237 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [519,] 0.5473952 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [520,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [521,] 0.5473952 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [522,] 0.5473952 | 0.2582572 0.3673575 | 1.7698410 |
| ## | [523,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [524,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [525,] 0.5473952 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [526,] 0.5473952 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [527,] -0.2089237 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [528,] 0.5473952 | 0.2582572 1.0557268 | 1.1085242 |
| ## | [529,] 0.5473952 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [530,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [531,] 2.0600329 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [532,] 1.3037140 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [533,] -0.9652426 | 0.2582572 1.7440961 | -0.2141095 |
| | | | |

| ## | [534,] -0.2089237 | 0.2582572 -0.3210118 | -0.2141095 |
|----|-------------------|-----------------------|------------|
| ## | [535,] -0.9652426 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [536,] 2.0600329 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [537,] -0.2089237 | -2.2498173 -1.0093811 | 0.4472073 |
| ## | [538,] 0.5473952 | 1.0942820 -1.0093811 | 1.1085242 |
| ## | [539,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [540,] -0.2089237 | -2.2498173 -1.0093811 | 1.7698410 |
| ## | [541,] 1.3037140 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [542,] -0.2089237 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [543,] 0.5473952 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [544,] -0.2089237 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [545,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [546,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [547,] 1.3037140 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [548,] 1.3037140 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [549,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [550,] -0.9652426 | -1.4137925 0.3673575 | -0.8754263 |
| ## | [551,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [552,] 2.0600329 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [553,] 1.3037140 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [554,] 0.5473952 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [555,] 1.3037140 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [556,] -0.2089237 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [557,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [558,] -0.9652426 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [559,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [560,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [561,] 1.3037140 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [562,] 1.3037140 | 1.0942820 -0.3210118 | 0.4472073 |
| ## | [563,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [564,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [565,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [566,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [567,] 0.5473952 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [568,] -0.9652426 | -0.5777676 -0.3210118 | 0.4472073 |
| ## | [569,] -0.9652426 | 1.0942820 1.0557268 | -0.2141095 |
| ## | [570,] -0.2089237 | -0.5777676 1.0557268 | 1.7698410 |
| ## | [571,] -0.9652426 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [572,] 0.5473952 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [573,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [574,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [575,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [576,] -0.2089237 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [577,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [578,] -0.9652426 | -2.2498173 1.0557268 | 1.1085242 |
| ## | [579,] -0.9652426 | 1.0942820 0.3673575 | -0.2141095 |
| ## | [580,] -0.9652426 | -1.4137925 -1.0093811 | -0.2141095 |
| ## | [581,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [582,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [583,] -0.2089237 | 1.0942820 -0.3210118 | -0.8754263 |
| | | | |

| ## [585,] -0.9652426 | 172073 172073 172073 198410 141095 172073 185242 1754263 141095 1754263 1754263 1754263 |
|---|--|
| ## [586,] -0.9652426 | 172073 198410 141095 172073 185242 1754263 141095 172073 172073 172073 1754263 1754263 |
| ## [587,] 2.0600329 | 598410 141095 172073 085242 754263 141095 754263 172073 598410 754263 |
| ## [588,] -0.9652426 | 141095 172073 185242 754263 141095 754263 172073 1598410 754263 |
| ## [589,] -0.9652426 | 172073 085242 754263 141095 754263 172073 598410 754263 |
| ## [590,] -0.9652426 | 085242 754263 141095 754263 172073 598410 754263 |
| ## [591,] 0.5473952 | 754263 141095 754263 172073 598410 754263 |
| ## [592,] -0.2089237 | 141095 754263 172073 598410 754263 754263 |
| ## [593,] -0.9652426 | 754263 172073 598410 754263 754263 |
| ## [594,] -0.9652426 | 172073 598410 754263 754263 |
| ## [595,] -0.2089237 | 598410 754263 754263 |
| ## [596,] 2.0600329 | 754263 754263 |
| ## [597,] -0.9652426 | 754263 |
| ## [598,] -0.2089237 | |
| ## [599,] -0.9652426 | 41095 |
| ## [600,] 0.5473952 0.2582572 0.3673575 -0.23 | |
| | L41095 |
| ## [coa] 0 0cc242c | L41095 |
| ## [601,] -0.9652426 -1.4137925 0.3673575 -0.87 | 754263 |
| ## [602,] 2.0600329 1.0942820 1.7440961 1.76 | 98410 |
| ## [603,] 0.5473952 0.2582572 0.3673575 -0.87 | 754263 |
| ## [604,] -0.2089237 | 754263 |
| ## [605,] 0.5473952 -0.5777676 1.0557268 -0.21 | L41095 |
| ## [606,] -0.9652426 1.0942820 -1.0093811 1.76 | 598410 |
| ## [607,] 1.3037140 | 754263 |
| ## [608,] 0.5473952 -2.2498173 -0.3210118 -0.87 | 754263 |
| ## [609,] 1.3037140 -1.4137925 1.0557268 -0.21 | L41095 |
| ## [610,] 2.0600329 0.2582572 -1.0093811 0.4 ² | 172073 |
| ## [611,] -0.9652426 -2.2498173 -1.0093811 1.16 | 85242 |
| ## [612,] -0.9652426 -0.5777676 0.3673575 -0.87 | 754263 |
| | 598410 |
| ## [614,] -0.9652426 -1.4137925 -0.3210118 1.16 | 85242 |
| | 754263 |
| | 598410 |
| | L41095 |
| | 754263 |
| | 598410 |
| [/] | |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 | 754263 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 | 754263 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 | 754263 754263 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [623,] -0.9652426 -0.5777676 0.3673575 -0.21 | 754263 754263 141095 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [623,] -0.9652426 -0.5777676 0.3673575 -0.21 ## [624,] -0.9652426 1.0942820 -1.0093811 -0.87 | 754263 754263 141095 754263 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [623,] -0.9652426 -0.5777676 0.3673575 -0.21 ## [624,] -0.9652426 1.0942820 -1.0093811 -0.87 ## [625,] -0.9652426 -1.4137925 1.7440961 -0.21 | 754263 754263 141095 754263 141095 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [623,] -0.9652426 -0.5777676 0.3673575 -0.21 ## [624,] -0.9652426 1.0942820 -1.0093811 -0.87 ## [625,] -0.9652426 -1.4137925 1.7440961 -0.21 ## [626,] 1.3037140 -1.4137925 1.7440961 1.76 | 754263 754263 141095 754263 141095 598410 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [623,] -0.9652426 -0.5777676 0.3673575 -0.21 ## [624,] -0.9652426 1.0942820 -1.0093811 -0.87 ## [625,] -0.9652426 -1.4137925 1.7440961 -0.21 ## [626,] 1.3037140 -1.4137925 1.7440961 1.76 ## [627,] -0.2089237 0.2582572 -0.3210118 -0.21 | 754263 754263 L41095 754263 L41095 598410 |
| ## [620,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [621,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [622,] -0.9652426 -1.4137925 -1.0093811 -0.87 ## [623,] -0.9652426 -0.5777676 0.3673575 -0.21 ## [624,] -0.9652426 1.0942820 -1.0093811 -0.87 ## [625,] -0.9652426 -1.4137925 1.7440961 -0.21 ## [626,] 1.3037140 -1.4137925 1.7440961 1.76 ## [627,] -0.2089237 0.2582572 -0.3210118 -0.21 ## [628,] -0.2089237 0.2582572 -0.3210118 0.44 | 754263 754263 141095 754263 141095 198410 141095 |
| ## [620,] -0.9652426 | 754263 754263 141095 754263 141095 598410 141095 172073 |
| ## [620,] -0.9652426 | 754263 754263 141095 754263 141095 598410 141095 172073 172073 |
| ## [620,] -0.9652426 | 754263 754263 141095 754263 141095 198410 141095 172073 172073 172073 |
| ## [620,] -0.9652426 | 754263 754263 141095 754263 141095 598410 141095 172073 172073 |

| ## | [634,] -0.2089237 | -0.5777676 -0.3210118 | 0.4472073 |
|----|-------------------|-----------------------|------------|
| ## | [635,] 1.3037140 | 0.2582572 1.7440961 | 0.4472073 |
| ## | [636,] -0.2089237 | -0.5777676 1.7440961 | -0.8754263 |
| ## | [637,] 1.3037140 | 0.2582572 1.7440961 | 0.4472073 |
| ## | [638,] 1.3037140 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [639,] -0.2089237 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [640,] -0.9652426 | 0.2582572 -1.0093811 | 1.7698410 |
| ## | [641,] -0.2089237 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [642,] -0.9652426 | -0.5777676 -1.0093811 | -0.2141095 |
| ## | [643,] -0.9652426 | 1.0942820 -0.3210118 | 0.4472073 |
| ## | [644,] 0.5473952 | 1.0942820 1.7440961 | 0.4472073 |
| ## | [645,] 1.3037140 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [646,] 0.5473952 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [647,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [648,] 0.5473952 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [649,] -0.2089237 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [650,] -0.9652426 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [651,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [652,] -0.2089237 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [653,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [654,] 1.3037140 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [655,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [656,] -0.9652426 | -0.5777676 -1.0093811 | 0.4472073 |
| ## | [657,] 0.5473952 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [658,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [659,] -0.9652426 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [660,] -0.9652426 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [661,] -0.2089237 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [662,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [663,] 1.3037140 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [664,] 0.5473952 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [665,] 0.5473952 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [666,] -0.9652426 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [667,] -0.9652426 | 1.0942820 -1.0093811 | 0.4472073 |
| ## | [668,] 2.0600329 | 1.0942820 -0.3210118 | 0.4472073 |
| ## | [669,] 1.3037140 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [670,] -0.2089237 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [671,] -0.2089237 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [672,] -0.2089237 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [673,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [674,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [675,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [676,] -0.2089237 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [677,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [678,] -0.2089237 | -0.5777676 0.3673575 | -0.2141095 |
| ## | [679,] -0.2089237 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [680,] 1.3037140 | 1.0942820 -0.3210118 | 1.1085242 |
| ## | [681,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [682,] 0.5473952 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [683,] 1.3037140 | 0.2582572 -1.0093811 | -0.8754263 |
| | | | |

| ## | [684,] 1.3037140 | 1.0942820 0.3673575 | 0.4472073 |
|----|-------------------|-----------------------|------------|
| ## | [685,] 1.3037140 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [686,] -0.2089237 | -0.5777676 1.0557268 | 1.7698410 |
| ## | [687,] 0.5473952 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [688,] -0.9652426 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [689,] 0.5473952 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [690,] -0.2089237 | -1.4137925 0.3673575 | -0.2141095 |
| ## | [691,] -0.9652426 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [692,] -0.9652426 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [693,] 1.3037140 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [694,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [695,] 2.0600329 | 0.2582572 0.3673575 | 1.7698410 |
| ## | [696,] -0.9652426 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [697,] 0.5473952 | 1.0942820 1.7440961 | -0.2141095 |
| ## | [698,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [699,] -0.2089237 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [700,] -0.2089237 | -0.5777676 1.7440961 | -0.2141095 |
| ## | [701,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [702,] -0.2089237 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [703,] 2.0600329 | -0.5777676 0.3673575 | 1.1085242 |
| ## | [704,] -0.2089237 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [705,] 0.5473952 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [706,] 0.5473952 | 1.0942820 1.0557268 | 1.7698410 |
| ## | [707,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [708,] -0.2089237 | 1.0942820 -0.3210118 | 0.4472073 |
| ## | [709,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [710,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [711,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [712,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [713,] 2.0600329 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | [714,] 0.5473952 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [715,] 0.5473952 | 1.0942820 1.0557268 | -0.8754263 |
| ## | [716,] -0.9652426 | -1.4137925 -1.0093811 | -0.2141095 |
| ## | [717,] 0.5473952 | 1.0942820 0.3673575 | 1.1085242 |
| ## | [718,] -0.9652426 | 1.0942820 0.3673575 | -0.2141095 |
| ## | [719,] -0.2089237 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [720,] 0.5473952 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [721,] 2.0600329 | 1.0942820 -0.3210118 | 1.1085242 |
| ## | [722,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [723,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [724,] -0.2089237 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [725,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [726,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [727,] -0.9652426 | -1.4137925 1.7440961 | -0.8754263 |
| ## | [728,] -0.9652426 | -2.2498173 -1.0093811 | 1.7698410 |
| ## | [729,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [730,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [731,] 0.5473952 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [732,] 0.5473952 | -2.2498173 1.0557268 | -0.8754263 |
| ## | [733,] -0.2089237 | 1.0942820 1.7440961 | -0.8754263 |
| | | | |

| ## | [734,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
|----|-------------------|-----------------------|------------|
| ## | [735,] 2.0600329 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [736,] 2.0600329 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [737,] 1.3037140 | 0.2582572 1.0557268 | 0.4472073 |
| ## | [738,] -0.2089237 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [739,] 0.5473952 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [740,] 2.0600329 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [741,] 1.3037140 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [742,] 1.3037140 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [743,] 2.0600329 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [744,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [745,] 2.0600329 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [746,] 1.3037140 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [747,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [748,] 2.0600329 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [749,] 0.5473952 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [750,] -0.9652426 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [751,] 2.0600329 | -1.4137925 1.7440961 | -0.8754263 |
| ## | [752,] -0.2089237 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | 753, -0.2089237 | -2.2498173 1.7440961 | -0.8754263 |
| ## | 754, 0.5473952 | 1.0942820 1.0557268 | 1.7698410 |
| ## | [755,] 1.3037140 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [756,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [757,] 0.5473952 | 1.0942820 0.3673575 | -0.2141095 |
| ## | [758,] 2.0600329 | -2.2498173 1.7440961 | -0.8754263 |
| ## | [759,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [760,] 2.0600329 | 1.0942820 1.0557268 | 1.7698410 |
| ## | [761,] 1.3037140 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [762,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [763,] 0.5473952 | 0.2582572 -1.0093811 | 0.4472073 |
| ## | 764, 0.5473952 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [765,] -0.9652426 | -1.4137925 0.3673575 | -0.2141095 |
| ## | 766, 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [767,] -0.2089237 | -0.5777676 1.7440961 | 1.1085242 |
| ## | [768,] 0.5473952 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [769,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [770,] 1.3037140 | 0.2582572 1.0557268 | 1.1085242 |
| ## | [771,] 1.3037140 | 1.0942820 1.0557268 | 0.4472073 |
| ## | [772,] 0.5473952 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [773,] 0.5473952 | 0.2582572 1.0557268 | 0.4472073 |
| ## | [774,] -0.2089237 | 0.2582572 1.0557268 | -0.2141095 |
| ## | [775,] 0.5473952 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [776,] 0.5473952 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [777,] 0.5473952 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [778,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [779,] -0.9652426 | 0.2582572 -0.3210118 | -0.2141095 |
| ## | [780,] 1.3037140 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [781,] -0.2089237 | -1.4137925 0.3673575 | -0.2141095 |
| ## | [782,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [783,] -0.9652426 | -0.5777676 -1.0093811 | -0.2141095 |
| | | | |

| ## | [784,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
|----|-------------------|-----------------------|------------|
| ## | [785,] -0.9652426 | 1.0942820 1.7440961 | 0.4472073 |
| ## | [786,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [787,] 0.5473952 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [788,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [789,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [790,] 0.5473952 | -1.4137925 1.7440961 | -0.8754263 |
| ## | [791,] -0.2089237 | -0.5777676 1.0557268 | 0.4472073 |
| ## | [792,] 2.0600329 | -1.4137925 0.3673575 | 0.4472073 |
| ## | [793,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [794,] -0.2089237 | 0.2582572 0.3673575 | 1.1085242 |
| ## | [795,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [796,] -0.2089237 | 1.0942820 1.7440961 | 0.4472073 |
| ## | [797,] 0.5473952 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [798,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [799,] 0.5473952 | -1.4137925 1.7440961 | 1.1085242 |
| ## | [800,] -0.2089237 | 0.2582572 -0.3210118 | 0.4472073 |
| ## | [801,] 1.3037140 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [802,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [803,] -0.9652426 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [804,] -0.2089237 | 0.2582572 -1.0093811 | 1.1085242 |
| ## | [805,] -0.2089237 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [806,] 0.5473952 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [807,] -0.2089237 | 1.0942820 1.0557268 | -0.8754263 |
| ## | [808,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [809,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [810,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [811,] 0.5473952 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [812,] 0.5473952 | 0.2582572 -0.3210118 | 0.4472073 |
| ## | [813,] -0.9652426 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [814,] -0.2089237 | 1.0942820 0.3673575 | -0.8754263 |
| ## | [815,] 1.3037140 | 1.0942820 1.7440961 | 0.4472073 |
| ## | [816,] 2.0600329 | 1.0942820 -0.3210118 | 0.4472073 |
| ## | [817,] 1.3037140 | 1.0942820 0.3673575 | 1.7698410 |
| ## | [818,] -0.9652426 | -0.5777676 0.3673575 | 1.1085242 |
| ## | [819,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [820,] -0.2089237 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [821,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [822,] 1.3037140 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [823,] -0.9652426 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [824,] -0.9652426 | -1.4137925 -1.0093811 | 1.1085242 |
| ## | [825,] -0.9652426 | -1.4137925 -1.0093811 | 0.4472073 |
| ## | [826,] -0.9652426 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [827,] 0.5473952 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [828,] -0.9652426 | 0.2582572 -0.3210118 | 0.4472073 |
| ## | [829,] 1.3037140 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [830,] 2.0600329 | -0.5777676 1.7440961 | -0.2141095 |
| ## | [831,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [832,] 1.3037140 | 0.2582572 0.3673575 | -0.2141095 |
| ## | [833,] 1.3037140 | 0.2582572 -1.0093811 | -0.2141095 |
| | | | |

| ## | [834,] -0.9652426 | 0.2582572 -1.0093811 | -0.2141095 |
|----|-------------------|-----------------------|------------|
| ## | [835,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [836,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [837,] -0.9652426 | 0.2582572 -1.0093811 | 1.7698410 |
| ## | [838,] 1.3037140 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [839,] -0.9652426 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [840,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [841,] -0.9652426 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [842,] -0.9652426 | -2.2498173 1.7440961 | 1.7698410 |
| ## | [843,] -0.9652426 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [844,] 2.0600329 | 1.0942820 1.0557268 | -0.8754263 |
| ## | [845,] 2.0600329 | 1.0942820 1.0557268 | 1.1085242 |
| ## | [846,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [847,] -0.2089237 | -0.5777676 1.7440961 | -0.2141095 |
| ## | [848,] 0.5473952 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [849,] -0.9652426 | -1.4137925 -0.3210118 | -0.2141095 |
| ## | [850,] 0.5473952 | 0.2582572 0.3673575 | 1.1085242 |
| ## | [851,] 1.3037140 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [852,] 0.5473952 | 1.0942820 0.3673575 | -0.2141095 |
| ## | [853,] -0.2089237 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [854,] 0.5473952 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [855,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [856,] 0.5473952 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [857,] -0.9652426 | -0.5777676 -1.0093811 | -0.2141095 |
| ## | [858,] -0.9652426 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [859,] -0.9652426 | 0.2582572 -0.3210118 | 1.7698410 |
| ## | [860,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [861,] 0.5473952 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [862,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [863,] -0.9652426 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [864,] -0.2089237 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [865,] -0.9652426 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [866,] -0.2089237 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [867,] 1.3037140 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [868,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [869,] -0.9652426 | -0.5777676 0.3673575 | -0.2141095 |
| ## | [870,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [871,] -0.2089237 | -0.5777676 -0.3210118 | -0.8754263 |
| ## | [872,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [873,] 0.5473952 | -1.4137925 -1.0093811 | 1.7698410 |
| ## | [874,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [875,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [876,] -0.9652426 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [877,] -0.9652426 | -1.4137925 0.3673575 | 1.7698410 |
| ## | [878,] 2.0600329 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [879,] 1.3037140 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [880,] -0.2089237 | -2.2498173 -0.3210118 | -0.2141095 |
| ## | [881,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [882,] -0.9652426 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [883,] -0.2089237 | -0.5777676 -1.0093811 | 0.4472073 |
| | | | |

| ## | [884,] -0.9652426 | -0.5777676 -0.3210118 | -0.8754263 |
|----|-------------------|-----------------------|------------|
| ## | [885,] -0.9652426 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [886,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [887,] 0.5473952 | -2.2498173 -1.0093811 | 1.1085242 |
| ## | [888,] 0.5473952 | -1.4137925 0.3673575 | -0.2141095 |
| ## | [889,] -0.2089237 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [890,] -0.2089237 | 0.2582572 1.0557268 | 1.7698410 |
| ## | [891,] -0.9652426 | -0.5777676 -1.0093811 | -0.2141095 |
| ## | [892,] -0.2089237 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [893,] -0.9652426 | -1.4137925 0.3673575 | -0.2141095 |
| ## | [894,] 0.5473952 | -1.4137925 -0.3210118 | -0.2141095 |
| ## | [895,] -0.9652426 | 1.0942820 1.7440961 | -0.8754263 |
| ## | [896,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [897,] -0.9652426 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [898,] 0.5473952 | -1.4137925 0.3673575 | 1.1085242 |
| ## | [899,] 0.5473952 | 0.2582572 0.3673575 | -0.8754263 |
| ## | [900,] 0.5473952 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [901,] 1.3037140 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [902,] -0.2089237 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [903,] 0.5473952 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [904,] -0.9652426 | -0.5777676 -0.3210118 | 1.7698410 |
| ## | [905,] 0.5473952 | 0.2582572 1.0557268 | -0.8754263 |
| ## | [906,] -0.2089237 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [907,] -0.2089237 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [908,] 0.5473952 | -2.2498173 -0.3210118 | -0.8754263 |
| ## | [909,] 1.3037140 | -0.5777676 0.3673575 | 1.1085242 |
| ## | [910,] 2.0600329 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [911,] -0.2089237 | -1.4137925 -1.0093811 | 1.1085242 |
| ## | [912,] -0.9652426 | 0.2582572 -1.0093811 | -0.2141095 |
| ## | [913,] 0.5473952 | 0.2582572 -0.3210118 | 0.4472073 |
| ## | [914,] 0.5473952 | 0.2582572 1.0557268 | 1.1085242 |
| ## | [915,] 1.3037140 | 0.2582572 1.7440961 | -0.2141095 |
| ## | [916,] 0.5473952 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [917,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [918,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [919,] 0.5473952 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [920,] -0.2089237 | -1.4137925 1.7440961 | 1.7698410 |
| ## | [921,] -0.2089237 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [922,] -0.2089237 | -0.5777676 -0.3210118 | 1.1085242 |
| ## | [923,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [924,] -0.9652426 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [925,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [926,] -0.9652426 | -0.5777676 1.7440961 | -0.2141095 |
| ## | [927,] 0.5473952 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [928,] 0.5473952 | -0.5777676 1.0557268 | -0.8754263 |
| ## | [929,] -0.2089237 | 0.2582572 -0.3210118 | 0.4472073 |
| ## | [930,] -0.2089237 | -0.5777676 1.0557268 | 1.1085242 |
| ## | [931,] 0.5473952 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [932,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [933,] -0.9652426 | 1.0942820 0.3673575 | -0.8754263 |

| ## | [934,] -0.2089237 | -1.4137925 -0.3210118 | 1.1085242 |
|----|-------------------|-----------------------|------------|
| ## | [935,] -0.9652426 | -1.4137925 -1.0093811 | -0.8754263 |
| ## | [936,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [937,] -0.2089237 | -0.5777676 0.3673575 | 0.4472073 |
| ## | [938,] 0.5473952 | -1.4137925 -0.3210118 | 1.7698410 |
| ## | [939,] 1.3037140 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [940,] -0.9652426 | 1.0942820 0.3673575 | 0.4472073 |
| ## | [941,] 1.3037140 | 1.0942820 -1.0093811 | 1.7698410 |
| ## | [942,] 0.5473952 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [943,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [944,] -0.2089237 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [945,] -0.9652426 | 1.0942820 -0.3210118 | -0.2141095 |
| ## | [946,] -0.2089237 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [947,] -0.9652426 | -0.5777676 -1.0093811 | 1.7698410 |
| ## | [948,] -0.9652426 | -1.4137925 0.3673575 | 1.1085242 |
| ## | [949,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [950,] -0.9652426 | 1.0942820 -1.0093811 | -0.2141095 |
| ## | [951,] -0.2089237 | 0.2582572 -1.0093811 | 1.7698410 |
| ## | [952,] -0.9652426 | 1.0942820 -1.0093811 | -0.8754263 |
| ## | [953,] -0.9652426 | 1.0942820 -0.3210118 | 1.7698410 |
| ## | [954,] -0.9652426 | -2.2498173 1.7440961 | 0.4472073 |
| ## | [955,] 0.5473952 | 0.2582572 1.7440961 | 1.7698410 |
| ## | [956,] -0.9652426 | 1.0942820 1.0557268 | -0.8754263 |
| ## | [957,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [958,] -0.9652426 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [959,] 0.5473952 | 1.0942820 1.7440961 | 1.1085242 |
| ## | [960,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [961,] 0.5473952 | -0.5777676 0.3673575 | -0.8754263 |
| ## | [962,] 2.0600329 | 1.0942820 -0.3210118 | -0.8754263 |
| ## | [963,] -0.2089237 | -2.2498173 -1.0093811 | -0.2141095 |
| ## | [964,] 2.0600329 | -2.2498173 -1.0093811 | -0.8754263 |
| ## | [965,] 0.5473952 | 0.2582572 -0.3210118 | 1.1085242 |
| ## | [966,] -0.9652426 | -1.4137925 1.0557268 | -0.2141095 |
| ## | [967,] -0.9652426 | -2.2498173 1.7440961 | 1.7698410 |
| ## | [968,] -0.2089237 | 1.0942820 -0.3210118 | 1.1085242 |
| ## | [969,] -0.9652426 | 0.2582572 -0.3210118 | -0.8754263 |
| ## | [970,] -0.9652426 | 0.2582572 1.7440961 | -0.8754263 |
| ## | [971,] -0.9652426 | -2.2498173 -1.0093811 | 1.7698410 |
| ## | [972,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [973,] -0.9652426 | -0.5777676 -0.3210118 | -0.2141095 |
| ## | [974,] -0.9652426 | 1.0942820 -1.0093811 | 0.4472073 |
| ## | [975,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [976,] 0.5473952 | 1.0942820 1.7440961 | 1.7698410 |
| ## | [977,] -0.2089237 | 0.2582572 1.7440961 | 1.1085242 |
| ## | [978,] -0.2089237 | -0.5777676 -1.0093811 | -0.8754263 |
| ## | [979,] -0.9652426 | 0.2582572 -1.0093811 | -0.8754263 |
| ## | [980,] -0.2089237 | -1.4137925 -0.3210118 | -0.8754263 |
| ## | [981,] 0.5473952 | -2.2498173 -1.0093811 | 0.4472073 |
| ## | [982,] -0.2089237 | 0.2582572 0.3673575 | 0.4472073 |
| ## | [983,] -0.9652426 | -0.5777676 -1.0093811 | -0.2141095 |
| | | | |

```
[984,] -0.9652426
                                    0.2582572 1.7440961
                                                                    -0.2141095
    [985,] -0.2089237
##
                                   -1.4137925
                                               0.3673575
                                                                    -0.8754263
##
    [986,] -0.9652426
                                    0.2582572 -0.3210118
                                                                     1.1085242
##
                                    1.0942820 -1.0093811
    [987,]
            2.0600329
                                                                     1.7698410
##
    [988,] -0.2089237
                                    0.2582572 -1.0093811
                                                                     1.7698410
##
    [989,]
            2.0600329
                                    1.0942820
                                               1.7440961
                                                                     1.1085242
                                               1.7440961
##
            0.5473952
                                    1.0942820
    [990,]
                                                                     1.7698410
##
    [991,] -0.9652426
                                   -0.5777676 -1.0093811
                                                                     0.4472073
##
    [992,] -0.9652426
                                   -0.5777676 -1.0093811
                                                                    -0.8754263
##
    [993,] -0.9652426
                                   -2.2498173 -1.0093811
                                                                    -0.8754263
##
    [994,] -0.9652426
                                   -1.4137925 0.3673575
                                                                    -0.8754263
##
    [995,]
            1.3037140
                                    0.2582572 -1.0093811
                                                                    -0.8754263
                                   -1.4137925 -0.3210118
##
    [996,] -0.2089237
                                                                    -0.8754263
##
    [997,] -0.9652426
                                   -0.5777676 -1.0093811
                                                                     1.1085242
                                                                     0.4472073
##
    [998,]
            0.5473952
                                    1.0942820
                                               1.0557268
    [999,]
            0.5473952
                                    1.0942820 -1.0093811
                                                                     0.4472073
   [1000,]
            1.3037140
                                    1.0942820
                                               1.7440961
                                                                     1.7698410
                                               1.7440961
   [1001,] -0.9652426
                                    0.2582572
                                                                    -0.2141095
   [1002,] -0.9652426
                                   -1.4137925
                                               0.3673575
                                                                    -0.8754263
   [1003,] -0.9652426
                                   -2.2498173 -1.0093811
                                                                     1.7698410
                                    0.2582572
                                               0.3673575
                                                                    -0.2141095
   [1004,]
           0.5473952
##
   [1005,] -0.9652426
                                   -0.5777676
                                               0.3673575
                                                                     1.1085242
   [1006,] -0.9652426
                                   -1.4137925 -0.3210118
                                                                     0.4472073
   [1007,]
            2.0600329
                                    1.0942820
                                               1.7440961
                                                                     1.7698410
##
   [1008,] -0.9652426
                                   -2.2498173 -1.0093811
                                                                    -0.2141095
   [1009,] -0.9652426
                                    1.0942820
                                               1.0557268
                                                                    -0.8754263
                                    0.2582572 -0.3210118
##
   [1010,] -0.9652426
                                                                    -0.8754263
##
               Writing Passive.sport Active.sport
                                                       Gardening Celebrities
##
            0.07616101
                           -1.7010481
                                          1.1349430
                                                      2.62648423
                                                                   -1.0700304
      [1,]
##
      [2,] -0.70083518
                           -1.7010481
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
      [3,]
##
            2.40714959
                            1.1505014
                                         -0.8609231 -0.77120911
                                                                   -1.0700304
##
                                         -1.5262117 -0.77120911
      [4,]
            0.85315721
                           -1.7010481
                                                                   -0.2828995
##
      [5,] -0.70083518
                           -0.2752733
                                         -1.5262117
                                                      1.77706090
                                                                    0.5042314
      [6,] -0.70083518
##
                            1.1505014
                                          0.4696543
                                                      0.07821423
                                                                   -1.0700304
##
      [7,] -0.70083518
                            1.1505014
                                         -0.1956344
                                                      0.92763756
                                                                   -1.0700304
##
      [8,] -0.70083518
                            0.4376140
                                          1.1349430 -0.77120911
                                                                    0.5042314
##
      [9,] -0.70083518
                            0.4376140
                                         -1.5262117 -0.77120911
                                                                    2.0784931
##
                            0.4376140
                                          0.4696543 -0.77120911
                                                                   -0.2828995
     [10,] -0.70083518
##
     [11,] -0.70083518
                            1.1505014
                                         -1.5262117
                                                      0.92763756
                                                                   -0.2828995
##
                                         -0.1956344 -0.77120911
     [12,] -0.70083518
                            1.1505014
                                                                   -0.2828995
##
     [13,] -0.70083518
                            1.1505014
                                         -0.1956344
                                                      1.77706090
                                                                    0.5042314
##
     [14,] -0.70083518
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                    2.0784931
##
     [15,]
            2.40714959
                           -0.2752733
                                         -1.5262117
                                                      2.62648423
                                                                    2.0784931
##
     [16,]
            0.07616101
                            1.1505014
                                         -0.1956344
                                                      0.92763756
                                                                   -1.0700304
##
     [17,] -0.70083518
                            1.1505014
                                         -1.5262117 -0.77120911
                                                                    0.5042314
##
     [18,]
            0.07616101
                           -1.7010481
                                         -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
     [19,] -0.70083518
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                   -1.0700304
##
     [20,] -0.70083518
                            0.4376140
                                         -0.8609231 -0.77120911
                                                                    0.5042314
##
     [21,]
            0.85315721
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
                            1.1505014
                                         -0.1956344 0.92763756
                                                                  -1.0700304
     [22,] 1.63015340
```

```
##
     [23,] -0.70083518
                                         -0.1956344 -0.77120911
                            -0.2752733
                                                                   -1.0700304
##
     [24,]
            0.85315721
                           -0.9881607
                                          0.4696543
                                                      0.92763756
                                                                    0.5042314
##
     [25,]
            0.85315721
                            0.4376140
                                          1.1349430
                                                      0.92763756
                                                                    1.2913622
##
     [26,] -0.70083518
                            -0.2752733
                                          0.4696543 -0.77120911
                                                                    2.0784931
##
     [27,]
            0.07616101
                            0.4376140
                                          1.1349430
                                                      2.62648423
                                                                    1.2913622
##
     [28,] -0.70083518
                           -0.2752733
                                          0.4696543
                                                      0.07821423
                                                                   -0.2828995
##
                                          1.1349430 -0.77120911
                                                                    0.5042314
     [29,] -0.70083518
                            1.1505014
            0.07616101
##
     [30,]
                            1.1505014
                                          0.4696543
                                                      0.92763756
                                                                    1.2913622
##
     [31,] -0.70083518
                            -1.7010481
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
     [32,1]
                            -0.2752733
                                         -1.5262117
                                                      0.92763756
                                                                   -1.0700304
            0.07616101
##
     [33,] -0.70083518
                           -0.9881607
                                         -0.8609231 -0.77120911
                                                                    1.2913622
##
     [34,] -0.70083518
                            1.1505014
                                          0.4696543
                                                      1.77706090
                                                                    0.5042314
##
                                         -0.1956344 -0.77120911
     [35,]
            0.07616101
                            1.1505014
                                                                   -1.0700304
##
     [36,] -0.70083518
                           -0.2752733
                                         -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
     [37,] -0.70083518
                           -0.9881607
                                         -1.5262117
                                                      0.07821423
                                                                    1.2913622
##
     [38,] -0.70083518
                            -0.2752733
                                          1.1349430
                                                      2.62648423
                                                                   -0.2828995
##
     [39,]
            2.40714959
                            -0.2752733
                                          0.4696543
                                                      1.77706090
                                                                   -0.2828995
##
     [40,] -0.70083518
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
     [41,] -0.70083518
                            -0.2752733
                                         -1.5262117 -0.77120911
                                                                    2.0784931
##
                           -1.7010481
                                          1.1349430 -0.77120911
     [42,] -0.70083518
                                                                   -1.0700304
##
                            -0.2752733
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
     [43,] -0.70083518
##
     [44,]
            2.40714959
                            0.4376140
                                         -0.1956344 -0.77120911
                                                                    0.5042314
                                                      0.07821423
##
     [45,]
            0.85315721
                            0.4376140
                                         -0.8609231
                                                                    2.0784931
##
     [46,] -0.70083518
                            0.4376140
                                          1.1349430 -0.77120911
                                                                    1.2913622
##
     [47,] -0.70083518
                            -0.2752733
                                          1.1349430 -0.77120911
                                                                    1.2913622
##
     [48,] -0.70083518
                            -0.9881607
                                         -0.8609231 -0.77120911
                                                                   -0.2828995
##
     [49,] -0.70083518
                           -0.2752733
                                          0.4696543
                                                      0.07821423
                                                                   -0.2828995
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
##
     [50,] -0.70083518
                            -0.9881607
##
                                          0.4696543 -0.77120911
     [51,] -0.70083518
                           -0.2752733
                                                                    1.2913622
##
     [52,] -0.70083518
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
     [53,]
            2.40714959
                            1.1505014
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
##
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
     [54,] -0.70083518
                            1.1505014
##
     [55,]
            0.07616101
                            1.1505014
                                          0.4696543 -0.77120911
                                                                   -1.0700304
##
     [56,] -0.70083518
                            -1.7010481
                                         -0.1956344 -0.77120911
                                                                    0.5042314
##
     [57,]
            0.85315721
                            1.1505014
                                         -1.5262117
                                                      0.07821423
                                                                   -0.2828995
                                         -0.1956344 -0.77120911
##
     [58,] -0.70083518
                            1.1505014
                                                                    2.0784931
                                                      0.92763756
##
     [59,] -0.70083518
                            1.1505014
                                         -0.1956344
                                                                   -0.2828995
##
            0.85315721
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
     [60,]
                           -1.7010481
                                                     0.07821423
##
     [61,]
            2.40714959
                            -0.2752733
                                          0.4696543
                                                                   -1.0700304
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
##
     [62,] -0.70083518
                            0.4376140
##
     [63,] -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
     [64,] -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
     [65,] -0.70083518
                            -0.9881607
                                         -1.5262117 -0.77120911
                                                                    0.5042314
##
     [66,] -0.70083518
                            -0.2752733
                                         -0.1956344 -0.77120911
                                                                   -0.2828995
##
     [67,] -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                    0.5042314
##
     [68,]
            0.07616101
                           -1.7010481
                                         -0.1956344
                                                      1.77706090
                                                                    0.5042314
##
     [69,] -0.70083518
                            1.1505014
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
##
     [70,] -0.70083518
                            -1.7010481
                                         -1.5262117 -0.77120911
                                                                    2.0784931
##
     [71,] -0.70083518
                           -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
     [72,] -0.70083518
                           -1.7010481
                                          1.1349430 -0.77120911
                                                                    1.2913622
```

```
[73,] -0.70083518
                                                      0.07821423
##
                             0.4376140
                                          -0.1956344
                                                                   -0.2828995
##
     [74,] -0.70083518
                           -0.2752733
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
     [75,]
            0.85315721
                            -0.9881607
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
                                          1.1349430 -0.77120911
                                                                    0.5042314
     [76,]
            0.07616101
                            1.1505014
##
     [77,] -0.70083518
                            -0.2752733
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
     [78,] -0.70083518
                           -0.2752733
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
            0.85315721
                                          1.1349430
                                                      2.62648423
     [79,]
                            -1.7010481
                                                                   -1.0700304
##
     [80,] -0.70083518
                             0.4376140
                                          -0.1956344
                                                      0.07821423
                                                                   -1.0700304
##
     [81,] -0.70083518
                             1.1505014
                                          1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
     [82,] -0.70083518
                                          1.1349430 -0.77120911
                             0.4376140
                                                                   -0.2828995
##
     [83,]
            0.07616101
                             1.1505014
                                          -1.5262117
                                                      1.77706090
                                                                   -1.0700304
##
     [84,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
##
     [85,] -0.70083518
                             1.1505014
                                                                   -1.0700304
##
     [86,] -0.70083518
                             0.4376140
                                          0.4696543
                                                      0.07821423
                                                                   -0.2828995
     [87,]
                                          1.1349430
                                                      0.07821423
##
            1.63015340
                             1.1505014
                                                                   -1.0700304
##
     [88,] -0.70083518
                            -0.9881607
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
     [89,]
            2.40714959
                            -1.7010481
                                          -1.5262117
                                                      0.07821423
                                                                    2.0784931
##
                                          -0.8609231 -0.77120911
     [90,] -0.70083518
                            -0.9881607
                                                                    0.5042314
##
     [91,] -0.70083518
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
                             1.1505014
##
                                          -0.1956344 -0.77120911
                                                                    0.5042314
     [92,] -0.70083518
                             1.1505014
##
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
     [93,]
            1.63015340
                            -0.9881607
##
     [94,] -0.70083518
                             0.4376140
                                          0.4696543 -0.77120911
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
##
     [95,] -0.70083518
                            -0.9881607
                                                                   -1.0700304
##
     [96,] -0.70083518
                             0.4376140
                                          -0.8609231 -0.77120911
                                                                    0.5042314
##
     [97,] -0.70083518
                            -1.7010481
                                          0.4696543 -0.77120911
                                                                   -1.0700304
##
     [98,] -0.70083518
                            -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
                             1.1505014
                                          1.1349430 -0.77120911
     [99,] -0.70083518
                                                                   -1.0700304
    [100,] -0.70083518
                                          -0.8609231 -0.77120911
##
                             0.4376140
                                                                   -1.0700304
##
    [101,] -0.70083518
                             0.4376140
                                          -1.5262117
                                                      0.92763756
                                                                    0.5042314
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [102,] -0.70083518
                             1.1505014
##
    [103,]
            0.07616101
                            -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                   -1.0700304
                                          -0.1956344 -0.77120911
##
    [104,] -0.70083518
                             1.1505014
                                                                    1.2913622
##
    [105,]
            0.85315721
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                   -1.0700304
##
    [106,] -0.70083518
                             0.4376140
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
##
    [107,] -0.70083518
                             1.1505014
                                          -0.8609231
                                                     -0.77120911
                                                                   -0.2828995
##
    [108,]
            1.63015340
                            -0.9881607
                                          1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
    [109,]
            1.63015340
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [110,] -0.70083518
                           -0.9881607
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [111,]
            0.85315721
                            -0.9881607
                                          0.4696543 -0.77120911
                                                                   -1.0700304
##
    [112,]
            1.63015340
                           -1.7010481
                                          -0.1956344
                                                      0.07821423
                                                                   -0.2828995
##
                           -0.2752733
                                          -0.8609231
                                                      0.92763756
                                                                   -1.0700304
    [113,] -0.70083518
##
    [114,] -0.70083518
                             1.1505014
                                          1.1349430
                                                      2.62648423
                                                                    1.2913622
##
    [115,]
            1.63015340
                           -1.7010481
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
    [116,]
            0.85315721
                            -0.2752733
                                          0.4696543
                                                      0.92763756
                                                                   -1.0700304
##
    [117,]
            2.40714959
                           -1.7010481
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [118,] -0.70083518
                           -1.7010481
                                          -1.5262117
                                                      0.07821423
                                                                    1.2913622
##
    [119,]
                            0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                   -1.0700304
            0.07616101
##
    [120,]
            0.85315721
                           -0.9881607
                                          -1.5262117
                                                      0.07821423
                                                                   -1.0700304
##
    [121,]
            0.07616101
                           -1.7010481
                                          0.4696543 -0.77120911
                                                                   -1.0700304
                           -0.2752733
                                          -0.8609231 -0.77120911
                                                                    0.5042314
##
    [122,] -0.70083518
```

```
##
    [123,]
             0.85315721
                             0.4376140
                                          -0.8609231
                                                      0.07821423
                                                                    -0.2828995
##
    [124,]
             1.63015340
                            -0.9881607
                                           0.4696543
                                                      1.77706090
                                                                    -1.0700304
##
    [125,]
             0.85315721
                             0.4376140
                                           1.1349430
                                                     -0.77120911
                                                                    -1.0700304
##
             2.40714959
                             0.4376140
                                                      1.77706090
                                                                   -1.0700304
    [126,]
                                          -0.1956344
##
    [127,]
             0.07616101
                            -1.7010481
                                          -1.5262117
                                                      0.07821423
                                                                    0.5042314
##
    [128,]
             0.85315721
                             0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                    -1.0700304
##
    [129,]
             2.40714959
                            -1.7010481
                                          -0.1956344
                                                      2.62648423
                                                                    -1.0700304
##
    [130,]
           -0.70083518
                            -0.9881607
                                          -1.5262117
                                                     -0.77120911
                                                                   -1.0700304
##
    [131,]
            1.63015340
                             1.1505014
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
    [132,]
##
           -0.70083518
                             1.1505014
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
                                          -1.5262117 -0.77120911
##
    [133,] -0.70083518
                            -0.9881607
                                                                    0.5042314
##
    [134,]
            0.85315721
                            -0.2752733
                                           0.4696543
                                                      0.92763756
                                                                    -1.0700304
##
    [135,] -0.70083518
                            -1.7010481
                                          -0.1956344
                                                      0.92763756
                                                                   -0.2828995
##
    [136,] -0.70083518
                             0.4376140
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
##
    [137,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      1.77706090
                                                                    -1.0700304
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
##
    [138,]
            1.63015340
##
    [139,]
            0.85315721
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                    -0.2828995
##
    [140,]
            0.85315721
                            -0.9881607
                                           0.4696543
                                                      0.07821423
                                                                    1.2913622
    [141,]
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
##
            0.85315721
                            -0.9881607
                                          -0.1956344 -0.77120911
##
    [142,] -0.70083518
                            -1.7010481
                                                                    -1.0700304
                                           0.4696543 -0.77120911
##
    [143,] -0.70083518
                            -0.2752733
                                                                    0.5042314
    [144,] -0.70083518
##
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
##
    [145,] -0.70083518
                             0.4376140
                                           0.4696543 -0.77120911
                                                                    -1.0700304
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
##
    [146,]
            1.63015340
                            -0.9881607
##
    [147,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    -0.2828995
##
    [148,]
            0.85315721
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                    -1.0700304
##
                                           0.4696543 -0.77120911
    [149,]
            0.85315721
                            -0.2752733
                                                                   -0.2828995
    [150,] -0.70083518
##
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                    -1.0700304
##
                                           0.4696543 -0.77120911
                                                                    -0.2828995
    [151,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
##
    [152,] -0.70083518
                             0.4376140
                                                                    1.2913622
##
    [153,]
            2.40714959
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
    [154,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
##
    [155,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                    -1.0700304
##
    [156,]
            1.63015340
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                    -0.2828995
##
    [157,]
           -0.70083518
                            -0.2752733
                                          -0.8609231
                                                     -0.77120911
                                                                    -1.0700304
                                          -1.5262117
##
    [158,] -0.70083518
                            -0.2752733
                                                     -0.77120911
                                                                   -0.2828995
##
    [159,]
            1.63015340
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    1.2913622
                                                      0.92763756
##
    [160,]
            0.07616101
                             1.1505014
                                           0.4696543
                                                                    -0.2828995
##
            1.63015340
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -1.0700304
    [161,]
##
    [162,]
            1.63015340
                             0.4376140
                                          -0.8609231
                                                      0.92763756
                                                                    1.2913622
##
                            -1.7010481
                                           1.1349430 -0.77120911
                                                                   -1.0700304
    [163,] -0.70083518
##
    [164,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                    -1.0700304
##
    [165,]
            1.63015340
                            -1.7010481
                                          -0.1956344
                                                      0.07821423
                                                                    2.0784931
##
    [166,]
            0.07616101
                            -0.9881607
                                          -0.8609231 -0.77120911
                                                                    -0.2828995
                            -0.9881607
##
    [167,]
                                           1.1349430 -0.77120911
                                                                   -1.0700304
           -0.70083518
##
    [168,]
                                          -0.8609231 -0.77120911
                                                                    -1.0700304
           -0.70083518
                             1.1505014
##
    [169,]
                             0.4376140
                                           0.4696543 -0.77120911
                                                                    0.5042314
            1.63015340
##
    [170,]
            1.63015340
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                    -1.0700304
##
    [171,]
            0.85315721
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                    -1.0700304
                             0.4376140
                                          0.4696543 -0.77120911
                                                                    1.2913622
##
    [172,]
            1.63015340
```

```
##
    [173,]
            2.40714959
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
                                          -0.1956344 -0.77120911
##
    [174,]
            0.07616101
                             0.4376140
                                                                   -1.0700304
##
    [175,]
            2.40714959
                             1.1505014
                                          -0.1956344
                                                      2.62648423
                                                                    0.5042314
##
                                          0.4696543
                                                      0.07821423
                                                                    0.5042314
    [176,]
           -0.70083518
                             1.1505014
##
    [177,]
           -0.70083518
                            -1.7010481
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
    [178,]
            1.63015340
                             0.4376140
                                          0.4696543
                                                      1.77706090
                                                                    0.5042314
##
    [179,]
            1.63015340
                            -1.7010481
                                          -1.5262117
                                                      0.92763756
                                                                   -0.2828995
##
    [180,]
            0.07616101
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                   -1.0700304
##
    [181,] -0.70083518
                            -1.7010481
                                          -1.5262117
                                                     -0.77120911
                                                                   -1.0700304
    [182,]
                                                      0.07821423
##
            0.07616101
                            -0.2752733
                                          -0.1956344
                                                                   -0.2828995
    [183,] -0.70083518
                                                      0.07821423
                                                                   -0.2828995
##
                            -0.2752733
                                           0.4696543
##
    [184,]
            0.85315721
                            -0.2752733
                                           1.1349430
                                                      0.92763756
                                                                   -1.0700304
##
    [185,]
            2.40714959
                            -0.9881607
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [186,] -0.70083518
                                          -0.1956344
                                                      2.62648423
                                                                   -1.0700304
                            1.1505014
##
    [187,] -0.70083518
                            -0.2752733
                                          0.4696543
                                                      1.77706090
                                                                    0.5042314
            0.85315721
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [188,]
##
    [189,]
            0.85315721
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                   -0.2828995
##
    [190,] -0.70083518
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
    [191,]
                                                      1.77706090
                                                                   -1.0700304
##
           -0.70083518
                             0.4376140
                                           1.1349430
##
    [192,] -0.70083518
                            -0.9881607
                                          -0.8609231
                                                      1.77706090
                                                                    0.5042314
##
    [193,]
            2.40714959
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                    2.0784931
##
    [194,]
                             0.4376140
                                          0.4696543
                                                      1.77706090
                                                                   -1.0700304
            1.63015340
##
    [195,]
            0.85315721
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
                                          0.4696543
                                                      0.92763756
                                                                    1.2913622
##
    [196,]
            0.85315721
                             0.4376140
##
    [197,] -0.70083518
                             1.1505014
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
    [198,] -0.70083518
                             1.1505014
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
                                          0.4696543 -0.77120911
##
    [199,] -0.70083518
                            -0.9881607
                                                                   -1.0700304
##
    [200,] -0.70083518
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
    [201,] -0.70083518
                             1.1505014
                                          0.4696543 -0.77120911
##
    [202,]
            2.40714959
                            0.4376140
                                                                    1.2913622
##
    [203,] -0.70083518
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                    0.5042314
                                                                   -1.0700304
##
    [204,] -0.70083518
                             0.4376140
                                          -0.1956344
                                                      0.92763756
##
    [205,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [206,]
            2.40714959
                            -1.7010481
                                           0.4696543
                                                      1.77706090
                                                                   -1.0700304
##
    [207,]
            0.85315721
                            -0.2752733
                                          -0.1956344
                                                     -0.77120911
                                                                   -1.0700304
##
                                                      0.07821423
                                                                    0.5042314
    [208,]
            0.07616101
                            1.1505014
                                          1.1349430
##
    [209,]
            0.07616101
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                    1.2913622
                                                     -0.77120911
##
    [210,] -0.70083518
                             1.1505014
                                           1.1349430
                                                                   -1.0700304
##
            0.85315721
                            -0.9881607
                                           1.1349430
                                                      2.62648423
                                                                    2.0784931
    [211,]
##
    [212,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                    2.0784931
                                                      1.77706090
##
                                          -1.5262117
                                                                   -1.0700304
    [213,]
            2.40714959
                            1.1505014
##
    [214,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                     1.2913622
##
    [215,]
            0.07616101
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
##
    [216,] -0.70083518
                            1.1505014
                                          1.1349430
                                                     -0.77120911
                                                                    0.5042314
    [217,] -0.70083518
                            -1.7010481
##
                                          -0.1956344
                                                     -0.77120911
                                                                   -1.0700304
##
    [218,]
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                   -0.2828995
            0.85315721
##
    [219,] -0.70083518
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                    0.5042314
##
    [220,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
    [221,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -1.0700304
                            -0.2752733
                                          1.1349430 0.92763756
                                                                   -1.0700304
##
    [222,] 0.85315721
```

```
##
    [223,]
            0.07616101
                             0.4376140
                                          -0.8609231
                                                      0.92763756
                                                                     0.5042314
##
    [224,]
            1.63015340
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    -0.2828995
##
    [225,]
           -0.70083518
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                    -1.0700304
##
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
    [226,] -0.70083518
                             0.4376140
##
    [227,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                      2.62648423
                                                                     2.0784931
##
    [228,]
            0.07616101
                             0.4376140
                                          -0.8609231 -0.77120911
                                                                    -1.0700304
##
    [229,] -0.70083518
                             0.4376140
                                          -0.8609231
                                                      1.77706090
                                                                    -1.0700304
##
    [230,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                      0.07821423
                                                                    -1.0700304
##
    [231,] -0.70083518
                             1.1505014
                                           0.4696543 -0.77120911
                                                                     0.5042314
    [232,]
##
            0.85315721
                             0.4376140
                                          -0.8609231
                                                      1.77706090
                                                                     2.0784931
    [233,] -0.70083518
                                          -0.8609231
                                                      0.92763756
                                                                    -0.2828995
##
                             1.1505014
##
    [234,]
            0.85315721
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [235,] -0.70083518
                             0.4376140
                                          -0.8609231
                                                      0.92763756
                                                                     0.5042314
##
    [236,]
            0.85315721
                                          -1.5262117
                                                      0.92763756
                                                                    -1.0700304
                             1.1505014
##
    [237,]
            0.07616101
                             0.4376140
                                           0.4696543
                                                      0.92763756
                                                                    -0.2828995
    [238,] -0.70083518
##
                                          -0.8609231 -0.77120911
                                                                    -0.2828995
                             1.1505014
##
    [239,] -0.70083518
                            -0.9881607
                                          -0.8609231
                                                     -0.77120911
                                                                     0.5042314
##
    [240,]
            0.85315721
                            -0.9881607
                                           0.4696543
                                                      0.92763756
                                                                    -1.0700304
    [241,] -0.70083518
                                                      0.07821423
                                                                     0.5042314
##
                             1.1505014
                                           1.1349430
                                          -0.1956344 -0.77120911
##
    [242,]
            0.07616101
                             1.1505014
                                                                     2.0784931
                                                                    -0.2828995
##
    [243,]
            0.07616101
                            -0.9881607
                                          -0.8609231
                                                      0.07821423
##
    [244,]
                            -0.9881607
                                          -1.5262117
                                                      1.77706090
                                                                     0.5042314
            1.63015340
##
    [245,] -0.70083518
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                     2.0784931
                                           1.1349430
                                                      0.07821423
                                                                    -0.2828995
##
    [246,]
            2.40714959
                             1.1505014
##
    [247,] -0.70083518
                            -1.7010481
                                           1.1349430
                                                     -0.77120911
                                                                    -1.0700304
##
    [248,] -0.70083518
                            -0.9881607
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [249,] -0.70083518
                            -0.9881607
                                          -0.8609231 -0.77120911
                                                                    -1.0700304
    [250,]
##
            0.85315721
                             1.1505014
                                          -0.1956344
                                                      0.07821423
                                                                    -1.0700304
##
                                          -0.1956344 -0.77120911
    [251,]
            0.07616101
                             1.1505014
                                                                     1.2913622
                                                      0.92763756
##
    [252,] -0.70083518
                             1.1505014
                                          0.4696543
                                                                    -1.0700304
##
    [253,]
            2.40714959
                             1.1505014
                                          -0.1956344
                                                      2.62648423
                                                                     0.5042314
##
    [254,] -0.70083518
                             1.1505014
                                          -0.8609231
                                                      2.62648423
                                                                    -0.2828995
##
    [255,] -0.70083518
                                          -1.5262117
                                                      0.92763756
                                                                     2.0784931
                             0.4376140
    [256,]
##
            2.40714959
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                    -1.0700304
##
    [257,]
           -0.70083518
                            -1.7010481
                                           1.1349430
                                                     -0.77120911
                                                                     2.0784931
##
                                           1.1349430 -0.77120911
                                                                     0.5042314
    [258,] -0.70083518
                             1.1505014
##
    [259,] -0.70083518
                             0.4376140
                                          -0.8609231 -0.77120911
                                                                    -1.0700304
##
    [260,]
            0.07616101
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                    -1.0700304
##
            0.85315721
                            -0.2752733
                                          -1.5262117
                                                      0.92763756
                                                                     0.5042314
    [261,]
##
    [262,]
            2.40714959
                            -0.9881607
                                           1.1349430
                                                      1.77706090
                                                                    1.2913622
                                                      1.77706090
##
                             0.4376140
                                          -1.5262117
                                                                    -1.0700304
    [263,]
            2.40714959
##
    [264,]
                             1.1505014
                                           0.4696543
                                                      0.07821423
                                                                    -0.2828995
            0.85315721
##
    [265,] -0.70083518
                            -1.7010481
                                           1.1349430
                                                      0.92763756
                                                                     0.5042314
##
    [266,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                     -0.77120911
                                                                     0.5042314
                                           0.4696543
##
    [267,] -0.70083518
                                                      0.92763756
                                                                     0.5042314
                            -0.9881607
##
    [268,]
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                    -1.0700304
            0.07616101
##
    [269,] -0.70083518
                                          -0.8609231
                                                      1.77706090
                                                                    -0.2828995
                             1.1505014
##
    [270,]
            0.07616101
                            -1.7010481
                                          -1.5262117
                                                      0.07821423
                                                                    -1.0700304
##
    [271,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                     2.0784931
                             0.4376140
                                          1.1349430 -0.77120911
                                                                    1.2913622
##
    [272,] -0.70083518
```

```
##
    [273,]
            0.07616101
                            -1.7010481
                                          -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
    [274,]
            0.07616101
                             0.4376140
                                          0.4696543 -0.77120911
                                                                   -0.2828995
##
    [275,]
            1.63015340
                                           0.4696543
                                                      2.62648423
                                                                   -1.0700304
                            -0.9881607
##
                            0.4376140
                                                      0.07821423
                                                                    1.2913622
    [276,]
            2.40714959
                                          -0.8609231
##
    [277,] -0.70083518
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
##
    [278,] -0.70083518
                             0.4376140
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
    [279,] -0.70083518
                            -1.7010481
                                          1.1349430
                                                      2.62648423
                                                                    0.5042314
##
    [280,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [281,]
            2.40714959
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
    [282,] -0.70083518
##
                             1.1505014
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [283,] -0.70083518
                            -0.9881607
##
    [284,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
    [285,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
    [286,]
                            0.4376140
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
            0.07616101
##
    [287,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
##
                            -0.2752733
                                           0.4696543
                                                      0.07821423
                                                                   -0.2828995
    [288,] -0.70083518
##
    [289,]
            0.07616101
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [290,] -0.70083518
                             1.1505014
                                          0.4696543 -0.77120911
                                                                   -0.2828995
    [291.]
            2.40714959
                            -0.2752733
                                           0.4696543 -0.77120911
                                                                   -1.0700304
##
                                           1.1349430 -0.77120911
##
    [292,] -0.70083518
                            -0.2752733
                                                                   -1.0700304
                                          -0.8609231 -0.77120911
##
    [293,]
            1.63015340
                            -1.7010481
                                                                    2.0784931
##
    [294,]
            0.85315721
                            -1.7010481
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [295,] -0.70083518
                            -0.2752733
                                           0.4696543 -0.77120911
                                                                   -1.0700304
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [296,] -0.70083518
                             0.4376140
##
    [297,] -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [298,]
            0.85315721
                            0.4376140
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
##
    [299,]
            2.40714959
                            -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
    [300,] -0.70083518
##
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
##
                                          -0.1956344
                                                      0.92763756
    [301,]
            0.85315721
                            -1.7010481
                                                                   -1.0700304
                                                      0.07821423
##
    [302,]
            0.07616101
                            -0.9881607
                                          -1.5262117
                                                                   -1.0700304
##
    [303,] -0.70083518
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
    [304,] -0.70083518
                            1.1505014
                                          0.4696543
                                                      1.77706090
                                                                    1.2913622
##
    [305,] -0.70083518
                                          -0.1956344
                                                      0.92763756
                                                                   -1.0700304
                            -0.9881607
##
    [306,]
            0.07616101
                            -0.2752733
                                          -0.1956344
                                                     -0.77120911
                                                                    0.5042314
##
    [307,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                   -0.2828995
                                          0.4696543
##
    [308,]
            2.40714959
                                                      0.07821423
                                                                   -1.0700304
                            1.1505014
##
    [309,] -0.70083518
                            1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [310,] -0.70083518
                            -0.9881607
                                           0.4696543
                                                      2.62648423
                                                                   -1.0700304
##
    [311,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                   -0.2828995
##
    [312,]
            0.07616101
                             1.1505014
                                          0.4696543
                                                      0.07821423
                                                                    0.5042314
##
                                                     -0.77120911
                                                                   -1.0700304
    [313,] -0.70083518
                             1.1505014
                                          1.1349430
##
    [314,] -0.70083518
                             0.4376140
                                          0.4696543
                                                     -0.77120911
                                                                    1.2913622
##
    [315,]
            1.63015340
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [316,]
           -0.70083518
                             1.1505014
                                          -0.1956344
                                                     -0.77120911
                                                                    1.2913622
    [317,] -0.70083518
                                          0.4696543
##
                             0.4376140
                                                      1.77706090
                                                                    1.2913622
##
    [318,] -0.70083518
                                           1.1349430 -0.77120911
                                                                   -0.2828995
                             1.1505014
##
    [319,]
                                          -0.1956344
                                                      2.62648423
                                                                    0.5042314
            0.07616101
                             1.1505014
##
    [320,]
            0.85315721
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                    1.2913622
##
    [321,]
            0.85315721
                             0.4376140
                                          -0.1956344
                                                      0.92763756
                                                                    1.2913622
                            -0.2752733
                                          0.4696543 0.07821423
                                                                    0.5042314
##
    [322,]
            0.07616101
```

```
##
    [323,] -0.70083518
                             0.4376140
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [324,] -0.70083518
                             1.1505014
                                          0.4696543
                                                      1.77706090
                                                                    0.5042314
##
    [325,]
           -0.70083518
                            -0.2752733
                                          -1.5262117
                                                     -0.77120911
                                                                     1.2913622
##
                                          1.1349430
                                                      2.62648423
                                                                   -0.2828995
    [326,]
            0.07616101
                             1.1505014
##
    [327,] -0.70083518
                             0.4376140
                                          -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
    [328,]
            0.85315721
                             0.4376140
                                          -0.8609231
                                                      0.07821423
                                                                     2.0784931
##
    [329,] -0.70083518
                            -0.2752733
                                          1.1349430
                                                     -0.77120911
                                                                   -1.0700304
##
    [330,]
           -0.70083518
                             1.1505014
                                          -0.1956344
                                                      0.07821423
                                                                    2.0784931
##
    [331,] -0.70083518
                            -0.2752733
                                           0.4696543
                                                     -0.77120911
                                                                    1.2913622
    [332,]
##
            1.63015340
                            -1.7010481
                                           1.1349430
                                                      1.77706090
                                                                    0.5042314
                             1.1505014
                                                      0.92763756
                                                                   -1.0700304
##
    [333,]
            1.63015340
                                          -0.1956344
##
    [334,]
            1.63015340
                            1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
    [335,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                   -0.2828995
##
    [336,]
                            -0.2752733
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
            0.07616101
##
    [337,] -0.70083518
                            -1.7010481
                                          -1.5262117
                                                      0.07821423
                                                                    0.5042314
                            -1.7010481
                                          1.1349430
                                                      1.77706090
                                                                    1.2913622
##
    [338,] -0.70083518
##
    [339,]
            0.07616101
                             0.4376140
                                          -0.8609231
                                                     -0.77120911
                                                                    1.2913622
##
    [340,] -0.70083518
                             0.4376140
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
    [341,]
            2.40714959
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
                            -0.9881607
##
    [342,]
            1.63015340
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    1.2913622
                                          -0.1956344 -0.77120911
##
    [343,] -0.70083518
                             1.1505014
                                                                   -0.2828995
##
    [344,] -0.70083518
                            -0.2752733
                                           0.4696543
                                                      2.62648423
                                                                   -0.2828995
##
    [345,] -0.70083518
                             1.1505014
                                          -0.8609231
                                                      1.77706090
                                                                    2.0784931
                                          -0.8609231
                                                      0.92763756
                                                                    0.5042314
##
    [346,] -0.70083518
                             1.1505014
##
    [347,] -0.70083518
                             1.1505014
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
##
    [348,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
                                                      2.62648423
    [349,] -0.70083518
                            -1.7010481
                                           1.1349430
                                                                   -1.0700304
    [350,] -0.70083518
##
                             0.4376140
                                           1.1349430 -0.77120911
                                                                    0.5042314
##
                             0.4376140
                                          -0.1956344 -0.77120911
    [351,] -0.70083518
                                                                   -1.0700304
                                                      1.77706090
##
    [352,] -0.70083518
                             1.1505014
                                          1.1349430
                                                                    1.2913622
##
    [353,] -0.70083518
                             1.1505014
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
##
    [354,]
            0.85315721
                            -1.7010481
                                          -0.1956344
                                                      0.07821423
                                                                   -0.2828995
##
    [355,]
            1.63015340
                            -1.7010481
                                           0.4696543
                                                      0.92763756
                                                                    1.2913622
##
    [356,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                     0.5042314
##
    [357,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                     -0.77120911
                                                                    0.5042314
##
                                          1.1349430
                                                      0.07821423
                                                                   -1.0700304
    [358,] -0.70083518
                             1.1505014
##
    [359,] -0.70083518
                            -0.2752733
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
                                           1.1349430 -0.77120911
##
    [360,] -0.70083518
                            -1.7010481
                                                                    0.5042314
##
            0.07616101
                            1.1505014
                                           1.1349430 -0.77120911
                                                                    1.2913622
    [361,]
##
    [362,]
            1.63015340
                            -0.2752733
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
    [363,]
            0.07616101
##
    [364,]
            0.07616101
                            -1.7010481
                                           0.4696543 -0.77120911
                                                                   -0.2828995
##
    [365,] -0.70083518
                             1.1505014
                                          1.1349430 -0.77120911
                                                                    0.5042314
##
    [366,]
            0.07616101
                             0.4376140
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [367,] -0.70083518
                             0.4376140
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
    [368,] -0.70083518
                                          1.1349430 -0.77120911
                                                                   -1.0700304
                             1.1505014
##
    [369,] -0.70083518
                                                      0.92763756
                                                                    2.0784931
                             1.1505014
                                          -0.8609231
##
    [370,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [371,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                   -1.0700304
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
##
    [372,] 0.85315721
                            -0.9881607
```

```
-1.5262117 -0.77120911
##
    [373,] -0.70083518
                           -1.7010481
                                                                   -1.0700304
##
    [374,] -0.70083518
                            1.1505014
                                          0.4696543 -0.77120911
                                                                    0.5042314
##
    [375,] -0.70083518
                            1.1505014
                                          0.4696543 -0.77120911
                                                                    0.5042314
##
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
    [376,] -0.70083518
                            1.1505014
##
    [377,] -0.70083518
                            0.4376140
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [378,]
            0.85315721
                            1.1505014
                                         -0.1956344
                                                      0.07821423
                                                                   -1.0700304
##
    [379,] -0.70083518
                            1.1505014
                                         -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
    [380,] -0.70083518
                           -0.2752733
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
    [381,] -0.70083518
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                    1.2913622
    [382,] -0.70083518
                                         -1.5262117 -0.77120911
##
                            0.4376140
                                                                   -1.0700304
                           -0.2752733
                                          1.1349430 -0.77120911
##
    [383,]
            0.07616101
                                                                    2.0784931
##
    [384,] -0.70083518
                           -1.7010481
                                          0.4696543 -0.77120911
                                                                   -1.0700304
##
    [385,] -0.70083518
                            0.4376140
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [386,] -0.70083518
                                         -0.1956344 -0.77120911
                                                                    0.5042314
                            1.1505014
##
    [387,]
            2.40714959
                            1.1505014
                                         -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [388,] -0.70083518
                            0.4376140
                                         -0.1956344 -0.77120911
                                                                    2.0784931
##
    [389,]
            2.40714959
                           -0.9881607
                                          0.4696543
                                                      0.92763756
                                                                   -1.0700304
##
    [390,]
            1.63015340
                            1.1505014
                                          1.1349430
                                                      0.92763756
                                                                   -0.2828995
    [391,]
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                   -0.2828995
##
            0.07616101
                                          0.4696543 -0.77120911
##
    [392,] -0.70083518
                           -0.2752733
                                                                   -0.2828995
                                                      0.07821423
##
    [393,] -0.70083518
                           -0.9881607
                                         -1.5262117
                                                                    0.5042314
##
    [394,] -0.70083518
                           -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
    [395,]
            0.07616101
                            1.1505014
                                         -0.1956344 -0.77120911
                                                                    2.0784931
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [396,] -0.70083518
                            0.4376140
##
    [397,] -0.70083518
                           -0.9881607
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [398,]
            0.07616101
                            0.4376140
                                         -0.8609231 -0.77120911
                                                                    2.0784931
##
                                          0.4696543 -0.77120911
                                                                    1.2913622
    [399,]
            0.85315721
                            1.1505014
##
    [400,]
            0.07616101
                            0.4376140
                                         -0.8609231
                                                      0.92763756
                                                                   -0.2828995
##
                           -1.7010481
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
    [401,] -0.70083518
                           -0.9881607
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [402,] -0.70083518
##
    [403,] -0.70083518
                           -0.2752733
                                         -0.1956344
                                                      0.07821423
                                                                    0.5042314
                                                      0.07821423
##
    [404,]
            0.07616101
                           -0.9881607
                                         -0.1956344
                                                                   -0.2828995
##
    [405,] -0.70083518
                            1.1505014
                                         -0.1956344
                                                      0.07821423
                                                                   -1.0700304
##
    [406,]
            0.85315721
                           -1.7010481
                                         -0.1956344
                                                      0.07821423
                                                                   -0.2828995
##
    [407,] -0.70083518
                            1.1505014
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
                           -1.7010481
                                                                    0.5042314
##
    [408,]
                                         -0.1956344 -0.77120911
            0.85315721
##
    [409,] -0.70083518
                           -0.2752733
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
                                          1.1349430 -0.77120911
##
    [410,]
            0.07616101
                           -1.7010481
                                                                    2.0784931
##
    [411,] -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [412,] -0.70083518
                           -1.7010481
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
                           -1.7010481
                                         -0.8609231 -0.77120911
                                                                   -1.0700304
    [413,] -0.70083518
##
    [414,] -0.70083518
                            1.1505014
                                          0.4696543 -0.77120911
                                                                    0.5042314
##
    [415,]
            2.40714959
                           -1.7010481
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [416,] -0.70083518
                            1.1505014
                                         -1.5262117 -0.77120911
                                                                    2.0784931
                            1.1505014
##
    [417,]
                                         -0.8609231
                                                      0.07821423
                                                                   -0.2828995
            0.07616101
##
    [418,] -0.70083518
                           -0.2752733
                                          0.4696543 -0.77120911
                                                                   -1.0700304
##
    [419,] -0.70083518
                           -1.7010481
                                         -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
    [420,]
            0.07616101
                           -0.2752733
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [421,] -0.70083518
                           -0.2752733
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
                                         -0.8609231 0.92763756
                                                                    1.2913622
    [422,] 2.40714959
                            1.1505014
```

```
##
    [423,]
            0.07616101
                            1.1505014
                                          1.1349430
                                                      1.77706090
                                                                    2.0784931
##
    [424,]
            0.07616101
                           -0.2752733
                                          -1.5262117
                                                      0.92763756
                                                                    0.5042314
##
    [425,]
           -0.70083518
                           -0.9881607
                                          -1.5262117
                                                      0.07821423
                                                                   -1.0700304
##
    [426,] -0.70083518
                           -1.7010481
                                          1.1349430
                                                      1.77706090
                                                                    2.0784931
##
    [427,]
           -0.70083518
                            0.4376140
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [428,]
            2.40714959
                           -1.7010481
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [429,]
            0.07616101
                            1.1505014
                                          -0.1956344
                                                      0.07821423
                                                                    2.0784931
##
    [430,]
            1.63015340
                            -0.2752733
                                          1.1349430 -0.77120911
                                                                    1.2913622
##
    [431,] -0.70083518
                            -1.7010481
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
    [432,] -0.70083518
                                                                   -0.2828995
##
                            0.4376140
                                          -1.5262117
                                                      0.92763756
    [433,] -0.70083518
                            0.4376140
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
##
    [434,] -0.70083518
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                    0.5042314
##
    [435,] -0.70083518
                            0.4376140
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
    [436,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                    0.5042314
##
    [437,] -0.70083518
                           -0.9881607
                                          0.4696543 -0.77120911
                                                                   -0.2828995
##
            0.07616101
                            0.4376140
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
    [438,]
##
    [439,]
            1.63015340
                            -0.9881607
                                          -1.5262117
                                                      0.92763756
                                                                    1.2913622
##
    [440,] -0.70083518
                            1.1505014
                                          1.1349430
                                                     -0.77120911
                                                                    0.5042314
    [441,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
##
                                          1.1349430 -0.77120911
##
    [442,] -0.70083518
                           -0.9881607
                                                                   -0.2828995
                                                      0.07821423
##
    [443,]
            0.07616101
                           -0.2752733
                                          0.4696543
                                                                    1.2913622
##
    [444,] -0.70083518
                            0.4376140
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [445,]
            0.07616101
                            -0.2752733
                                          0.4696543 -0.77120911
                                                                   -1.0700304
                            0.4376140
                                          1.1349430
                                                      0.92763756
                                                                    2.0784931
##
    [446,] -0.70083518
##
    [447,] -0.70083518
                            1.1505014
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [448,]
            2.40714959
                            -1.7010481
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
##
    [449,] -0.70083518
                                          -1.5262117 -0.77120911
                           -0.2752733
                                                                    0.5042314
    [450,] -0.70083518
##
                           -0.9881607
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
                                          0.4696543
                                                      1.77706090
                                                                    2.0784931
    [451,] -0.70083518
                            1.1505014
                                                     -0.77120911
                                                                   -1.0700304
##
    [452,] -0.70083518
                            1.1505014
                                          1.1349430
##
    [453,] -0.70083518
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [454,] -0.70083518
                            -0.9881607
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
    [455,] -0.70083518
                            0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                    2.0784931
##
    [456,]
            0.07616101
                            -0.2752733
                                          1.1349430
                                                      1.77706090
                                                                    1.2913622
##
    [457,] -0.70083518
                            1.1505014
                                          1.1349430
                                                     -0.77120911
                                                                   -1.0700304
##
    [458,]
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
            0.07616101
                            1.1505014
##
    [459,] -0.70083518
                           -1.7010481
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
##
    [460,] -0.70083518
                            0.4376140
                                                                   -1.0700304
##
    [461,] -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [462,]
            0.85315721
                           -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                    0.5042314
                                                                   -1.0700304
##
                            0.4376140
                                                      0.92763756
    [463,] -0.70083518
                                          -0.8609231
##
    [464,] -0.70083518
                           -0.2752733
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
##
    [465,] -0.70083518
                            0.4376140
                                          -1.5262117 -0.77120911
                                                                    0.5042314
##
    [466,] -0.70083518
                            -1.7010481
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
##
    [467,] -0.70083518
                           -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                    2.0784931
##
    [468,] -0.70083518
                           -0.9881607
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
##
    [469,] -0.70083518
                           -0.9881607
                                          0.4696543
                                                      0.07821423
                                                                    0.5042314
##
    [470,] -0.70083518
                           -0.2752733
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
    [471,] -0.70083518
                            0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                    0.5042314
                           -0.9881607
                                          1.1349430 -0.77120911
                                                                  -1.0700304
    [472,] -0.70083518
```

```
-0.8609231 -0.77120911
##
    [473,]
            0.85315721
                             1.1505014
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
##
    [474,]
            0.85315721
                           -1.7010481
                                                                   -1.0700304
##
    [475,]
            1.63015340
                           -0.9881607
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
                           -0.2752733
                                          -0.1956344 -0.77120911
                                                                    1.2913622
    [476,]
            0.85315721
##
    [477,]
            1.63015340
                           -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                   -0.2828995
    [478,]
##
            0.07616101
                           -0.9881607
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [479,]
            2.40714959
                           -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [480,]
           -0.70083518
                           -0.2752733
                                          -0.8609231
                                                      0.92763756
                                                                   -0.2828995
##
    [481,]
           -0.70083518
                             1.1505014
                                          -0.1956344
                                                      1.77706090
                                                                   -0.2828995
    [482,]
            2.40714959
                                          -0.8609231 -0.77120911
##
                            -1.7010481
                                                                   -1.0700304
    [483,]
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
##
            0.07616101
                           -0.2752733
##
    [484,]
            0.07616101
                            0.4376140
                                          -0.8609231 -0.77120911
                                                                    0.5042314
##
    [485,] -0.70083518
                             0.4376140
                                          -0.1956344
                                                      0.92763756
                                                                   -0.2828995
##
    [486,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    1.2913622
##
    [487,] -0.70083518
                           -0.2752733
                                          0.4696543 -0.77120911
                                                                    2.0784931
    [488,] -0.70083518
##
                            1.1505014
                                          1.1349430 -0.77120911
                                                                    2.0784931
##
    [489,]
            0.07616101
                            -0.2752733
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [490,]
            0.85315721
                            1.1505014
                                          1.1349430 -0.77120911
                                                                    0.5042314
    [491,] -0.70083518
                                          1.1349430 -0.77120911
                                                                    1.2913622
##
                             1.1505014
                                          1.1349430 -0.77120911
##
    [492,] -0.70083518
                           -1.7010481
                                                                    0.5042314
                                                      0.07821423
##
    [493,]
            2.40714959
                            -1.7010481
                                          -0.8609231
                                                                    1.2913622
##
    [494,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                      0.07821423
                                                                   -0.2828995
##
    [495,] -0.70083518
                           -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
                                          -1.5262117
                                                      2.62648423
                                                                    1.2913622
##
    [496,] -0.70083518
                             1.1505014
##
    [497,] -0.70083518
                            -1.7010481
                                          -1.5262117
                                                      0.92763756
                                                                   -0.2828995
##
    [498,]
            0.85315721
                             0.4376140
                                          0.4696543 -0.77120911
                                                                   -1.0700304
    [499,] -0.70083518
##
                             1.1505014
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
    [500,] -0.70083518
##
                            0.4376140
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
                                                      0.07821423
                                                                    0.5042314
    [501,]
            0.07616101
                             1.1505014
                                          -1.5262117
                                          1.1349430 -0.77120911
##
    [502,] -0.70083518
                            -0.2752733
                                                                   -0.2828995
##
    [503,] -0.70083518
                           -0.9881607
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
##
    [504,] -0.70083518
                            -1.7010481
                                                                    0.5042314
##
    [505,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                      2.62648423
                                                                    2.0784931
##
    [506,] -0.70083518
                             0.4376140
                                          1.1349430 -0.77120911
                                                                    0.5042314
##
    [507,] -0.70083518
                             1.1505014
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [508,] -0.70083518
                                          1.1349430
                                                      0.92763756
                                                                   -0.2828995
                            -0.9881607
##
    [509,]
            0.85315721
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
                                          1.1349430 -0.77120911
##
    [510,] -0.70083518
                             0.4376140
                                                                   -1.0700304
##
    [511,] -0.70083518
                             1.1505014
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [512,] -0.70083518
                            -0.9881607
                                          0.4696543 -0.77120911
                                                                   -1.0700304
                                                                    2.0784931
##
                                                      0.92763756
    [513,]
            2.40714959
                            -1.7010481
                                          -1.5262117
##
    [514,] -0.70083518
                             1.1505014
                                          1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [515,]
            0.07616101
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                    0.5042314
                                                      0.92763756
##
    [516,] -0.70083518
                             1.1505014
                                          -1.5262117
                                                                    0.5042314
##
    [517,]
                            1.1505014
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
            0.85315721
##
    [518,]
            1.63015340
                                          1.1349430 -0.77120911
                                                                    2.0784931
                           -1.7010481
##
    [519,] -0.70083518
                           -0.2752733
                                          1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
    [520,] -0.70083518
                           -0.2752733
                                          1.1349430
                                                      2.62648423
                                                                   -1.0700304
##
    [521,] -0.70083518
                            0.4376140
                                          0.4696543
                                                      0.92763756
                                                                    0.5042314
                           -0.2752733
                                          -1.5262117 -0.77120911
                                                                    1.2913622
    [522,] 0.85315721
```

```
##
    [523,] -0.70083518
                            -0.2752733
                                           0.4696543 -0.77120911
                                                                    -0.2828995
                                           1.1349430 -0.77120911
##
    [524,]
            0.85315721
                             1.1505014
                                                                    -1.0700304
##
    [525,]
           -0.70083518
                             1.1505014
                                          -1.5262117
                                                     -0.77120911
                                                                     2.0784931
##
                            -0.9881607
                                           1.1349430
                                                      0.92763756
                                                                    -0.2828995
    [526,]
            0.85315721
##
    [527,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    -0.2828995
##
    [528,]
            0.85315721
                             0.4376140
                                           1.1349430
                                                      0.07821423
                                                                    -0.2828995
##
    [529,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    -1.0700304
##
    [530,]
           -0.70083518
                             1.1505014
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
##
    [531,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
    [532,]
                                                      0.07821423
##
            0.07616101
                             1.1505014
                                          -0.1956344
                                                                    -1.0700304
                                                      0.07821423
                                                                     0.5042314
##
    [533,]
            0.85315721
                             1.1505014
                                          -0.1956344
##
    [534,]
            0.07616101
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    -1.0700304
##
    [535,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                     -0.77120911
                                                                    -0.2828995
##
    [536,]
                             0.4376140
                                           0.4696543
                                                      0.92763756
                                                                    0.5042314
            1.63015340
##
    [537,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                     2.0784931
    [538,] -0.70083518
                                           0.4696543 -0.77120911
                                                                    -1.0700304
##
                             1.1505014
##
    [539,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                      0.07821423
                                                                     0.5042314
##
    [540,]
            1.63015340
                            -0.2752733
                                           0.4696543
                                                      0.07821423
                                                                     0.5042314
    [541,]
            1.63015340
                                                      0.92763756
                                                                     0.5042314
##
                             1.1505014
                                          -0.1956344
##
    [542,] -0.70083518
                            -0.9881607
                                          -1.5262117
                                                      0.07821423
                                                                     0.5042314
##
    [543,]
            0.07616101
                             0.4376140
                                           1.1349430
                                                      0.07821423
                                                                    1.2913622
    [544,] -0.70083518
                            -0.9881607
##
                                                     -0.77120911
                                                                    -1.0700304
                                          -1.5262117
##
    [545,] -0.70083518
                            -1.7010481
                                          -0.1956344
                                                      0.92763756
                                                                    -1.0700304
                                          -0.1956344 -0.77120911
                                                                    -0.2828995
##
    [546,]
            0.07616101
                            -0.2752733
##
    [547,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    -1.0700304
##
    [548,]
            1.63015340
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    -1.0700304
                                                      0.07821423
##
    [549,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                                     0.5042314
##
    [550,] -0.70083518
                            -0.9881607
                                          -1.5262117
                                                      0.92763756
                                                                    -0.2828995
##
                             0.4376140
                                                      0.07821423
    [551,]
            0.85315721
                                          -0.8609231
                                                                    -0.2828995
                                                      0.92763756
##
    [552,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                                     1.2913622
##
    [553,]
            2.40714959
                             1.1505014
                                           0.4696543
                                                      0.07821423
                                                                    2.0784931
                                          -0.1956344 -0.77120911
##
    [554,]
            0.07616101
                             0.4376140
                                                                    -1.0700304
##
    [555,]
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
            0.07616101
                             0.4376140
##
    [556,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                     2.0784931
##
    [557,]
            0.07616101
                             0.4376140
                                           0.4696543
                                                     -0.77120911
                                                                     0.5042314
                                          -1.5262117
##
                                                     -0.77120911
                                                                    -1.0700304
    [558,]
            1.63015340
                            -0.2752733
##
    [559,]
            1.63015340
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                    -0.2828995
                                          -0.8609231 -0.77120911
##
    [560,] -0.70083518
                            -0.2752733
                                                                     1.2913622
##
    [561,]
            2.40714959
                            -1.7010481
                                           1.1349430
                                                      2.62648423
                                                                    -0.2828995
##
    [562,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    -0.2828995
##
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
    [563,] -0.70083518
                             1.1505014
##
    [564,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                     1.2913622
##
    [565,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                    -1.0700304
##
    [566,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      2.62648423
                                                                     2.0784931
##
    [567,]
                                          -1.5262117
                                                      0.92763756
                                                                    -0.2828995
            0.85315721
                             1.1505014
##
    [568,] -0.70083518
                                           0.4696543 -0.77120911
                                                                    -0.2828995
                             0.4376140
##
    [569,] -0.70083518
                                                      0.07821423
                                                                     2.0784931
                             1.1505014
                                          -0.8609231
##
    [570,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    -0.2828995
##
    [571,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                     0.5042314
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
    [572,] 0.07616101
                            -0.2752733
```

```
##
    [573,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      1.77706090
                                                                   -1.0700304
##
    [574,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [575,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
                                           1.1349430
                                                      0.92763756
                                                                   -0.2828995
    [576,]
            0.85315721
                            -0.2752733
##
    [577,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [578,] -0.70083518
                           -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
##
    [579,]
            2.40714959
                             1.1505014
                                          -1.5262117
                                                      0.07821423
                                                                    1.2913622
##
    [580,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    1.2913622
##
    [581,] -0.70083518
                            -1.7010481
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
    [582,] -0.70083518
##
                             1.1505014
                                          0.4696543
                                                      0.07821423
                                                                    0.5042314
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [583,]
            0.07616101
##
    [584,]
            2.40714959
                            0.4376140
                                          -0.1956344
                                                      0.07821423
                                                                   -1.0700304
##
    [585,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
    [586,] -0.70083518
                           -0.9881607
                                           1.1349430 -0.77120911
                                                                    0.5042314
##
    [587,]
            2.40714959
                           -1.7010481
                                           1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
    [588,] -0.70083518
                            -0.9881607
                                           1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
    [589,] -0.70083518
                           -0.9881607
                                           1.1349430
                                                      1.77706090
                                                                    0.5042314
##
    [590,]
            0.85315721
                           -0.2752733
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
    [591,] -0.70083518
                                                      0.07821423
                                                                   -1.0700304
##
                            -0.9881607
                                           0.4696543
                                           1.1349430 -0.77120911
##
    [592,]
            1.63015340
                           -0.2752733
                                                                   -0.2828995
                                          -1.5262117 -0.77120911
##
    [593,] -0.70083518
                           -1.7010481
                                                                    1.2913622
    [594,] -0.70083518
##
                            1.1505014
                                          -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
    [595,] -0.70083518
                           -1.7010481
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                   -1.0700304
##
    [596,]
            0.85315721
##
    [597,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
    [598,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
                                                      0.07821423
    [599,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                                    0.5042314
    [600,]
##
            0.07616101
                             1.1505014
                                          0.4696543
                                                     -0.77120911
                                                                    0.5042314
##
    [601,] -0.70083518
                                          -0.1956344
                                                      0.07821423
                                                                    2.0784931
                             1.1505014
                                                      0.07821423
##
    [602,] -0.70083518
                            -0.9881607
                                          -0.8609231
                                                                   -1.0700304
    [603,] -0.70083518
##
                             1.1505014
                                          1.1349430
                                                     -0.77120911
                                                                   -0.2828995
##
    [604,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                      0.07821423
                                                                    1.2913622
##
            0.85315721
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    0.5042314
    [605,]
##
    [606,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
    [607,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
                           -0.9881607
##
    [608,] -0.70083518
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [609,]
            1.63015340
                           -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
    [610,] -0.70083518
                           -0.2752733
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [611,] -0.70083518
                           -0.9881607
                                          -0.1956344 -0.77120911
                                                                    1.2913622
##
    [612,] -0.70083518
                            0.4376140
                                          -1.5262117 -0.77120911
                                                                    1.2913622
##
                           -0.9881607
                                          -0.8609231 -0.77120911
                                                                    0.5042314
    [613,] -0.70083518
##
    [614,]
            0.07616101
                             1.1505014
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
##
    [615,] -0.70083518
                            -0.9881607
                                          1.1349430
                                                      2.62648423
                                                                   -0.2828995
##
    [616,]
            0.85315721
                             1.1505014
                                          -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
    [617,] -0.70083518
                                          0.4696543 -0.77120911
                                                                   -1.0700304
                             1.1505014
##
    [618,] -0.70083518
                                           1.1349430 -0.77120911
                                                                   -1.0700304
                           -1.7010481
##
    [619,] -0.70083518
                                          -1.5262117 -0.77120911
                                                                    1.2913622
                             1.1505014
##
    [620,] -0.70083518
                           -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [621,]
            1.63015340
                           -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [622,] -0.70083518
                           -1.7010481
```

```
##
    [623,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    -1.0700304
##
    [624,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                      0.92763756
                                                                    -0.2828995
##
    [625,]
            1.63015340
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
    [626,] -0.70083518
                             1.1505014
##
    [627,] -0.70083518
                             0.4376140
                                          -0.1956344
                                                      1.77706090
                                                                    1.2913622
##
    [628,] -0.70083518
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                     1.2913622
##
    [629,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                    -1.0700304
##
    [630,] -0.70083518
                             1.1505014
                                          -1.5262117
                                                     -0.77120911
                                                                    0.5042314
##
    [631,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    -0.2828995
    [632,]
##
            2.40714959
                            -1.7010481
                                           0.4696543
                                                      0.92763756
                                                                    -0.2828995
                                           1.1349430
                                                     -0.77120911
                                                                    -0.2828995
##
    [633,] -0.70083518
                             1.1505014
##
    [634,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                    -1.0700304
##
    [635,]
                            0.4376140
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
            0.07616101
##
    [636,] -0.70083518
                            -1.7010481
                                          -0.1956344 -0.77120911
                                                                    -0.2828995
##
    [637,] -0.70083518
                             0.4376140
                                           0.4696543
                                                      1.77706090
                                                                    -0.2828995
    [638,] -0.70083518
##
                            -0.2752733
                                           1.1349430
                                                      0.92763756
                                                                    -0.2828995
##
    [639,] -0.70083518
                            -0.2752733
                                           0.4696543
                                                      0.92763756
                                                                    0.5042314
##
    [640,] -0.70083518
                            -0.9881607
                                           0.4696543
                                                     -0.77120911
                                                                    -1.0700304
    [641,] -0.70083518
                                                      0.07821423
                                                                    2.0784931
##
                             0.4376140
                                           1.1349430
                                                     -0.77120911
##
    [642,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                                    -1.0700304
                                                      1.77706090
##
    [643,] -0.70083518
                            0.4376140
                                           0.4696543
                                                                    -0.2828995
##
                            -0.2752733
                                           1.1349430
                                                      0.07821423
                                                                    -0.2828995
    [644,] -0.70083518
##
    [645,] -0.70083518
                            -1.7010481
                                           0.4696543
                                                      2.62648423
                                                                    1.2913622
                                           1.1349430
                                                      2.62648423
                                                                    1.2913622
##
    [646,]
            0.07616101
                             1.1505014
##
    [647,] -0.70083518
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                    -0.2828995
##
    [648,] -0.70083518
                             0.4376140
                                          -1.5262117
                                                      0.92763756
                                                                    0.5042314
##
    [649,] -0.70083518
                             0.4376140
                                           0.4696543 -0.77120911
                                                                   -1.0700304
    [650,]
##
            0.85315721
                            -0.2752733
                                          -0.8609231 -0.77120911
                                                                    1.2913622
##
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                    -0.2828995
    [651,] -0.70083518
                                          -0.1956344 -0.77120911
                                                                    -1.0700304
##
    [652,] -0.70083518
                             1.1505014
##
    [653,] -0.70083518
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [654,] -0.70083518
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
                             1.1505014
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
    [655,] -0.70083518
##
    [656,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                     -0.77120911
                                                                    -1.0700304
##
    [657,]
            1.63015340
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    -0.2828995
                             0.4376140
##
                                          -1.5262117
                                                      0.07821423
                                                                   -1.0700304
    [658,]
            0.07616101
##
    [659,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    -1.0700304
##
    [660,]
            0.85315721
                             1.1505014
                                          -1.5262117
                                                      0.07821423
                                                                    -1.0700304
##
            1.63015340
                            -0.2752733
                                          -0.8609231 -0.77120911
                                                                    1.2913622
    [661,]
##
    [662,]
            1.63015340
                            0.4376140
                                          -0.8609231
                                                      0.07821423
                                                                    0.5042314
##
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    -0.2828995
    [663,] -0.70083518
##
    [664,]
            0.85315721
                             0.4376140
                                           0.4696543
                                                      1.77706090
                                                                    -1.0700304
##
    [665,]
            0.07616101
                             0.4376140
                                           0.4696543
                                                      1.77706090
                                                                    0.5042314
##
    [666,]
           -0.70083518
                             0.4376140
                                          -0.1956344
                                                      0.07821423
                                                                    -1.0700304
##
                                          -0.1956344
                                                     -0.77120911
                                                                    -1.0700304
    [667,]
            1.63015340
                             1.1505014
##
    [668,] -0.70083518
                                          -0.1956344
                                                      1.77706090
                                                                    -1.0700304
                             1.1505014
##
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                    -1.0700304
    [669,]
            1.63015340
##
    [670,]
            0.07616101
                             0.4376140
                                           0.4696543
                                                      0.07821423
                                                                    -0.2828995
##
    [671,] -0.70083518
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                    -0.2828995
                                                      0.07821423
                            -0.9881607
##
    [672,] -0.70083518
                                           0.4696543
                                                                    1.2913622
```

```
##
    [673,] -0.70083518
                             0.4376140
                                           0.4696543 -0.77120911
                                                                    0.5042314
##
    [674,]
            0.07616101
                             0.4376140
                                          -0.8609231
                                                      0.92763756
                                                                    1.2913622
##
    [675,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
                                          -1.5262117
##
                                                      0.92763756
                                                                    1.2913622
    [676,]
            0.85315721
                            -0.2752733
##
    [677,] -0.70083518
                             1.1505014
                                          1.1349430
                                                      0.07821423
                                                                    1.2913622
##
    [678,] -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
    [679,] -0.70083518
                            1.1505014
                                          0.4696543
                                                      0.07821423
                                                                   -1.0700304
##
    [680,]
            0.85315721
                            -1.7010481
                                           1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
    [681,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
    [682,] -0.70083518
                                                      1.77706090
##
                            -1.7010481
                                           1.1349430
                                                                   -1.0700304
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [683,] -0.70083518
##
    [684,]
           -0.70083518
                            -0.2752733
                                          -0.1956344
                                                      2.62648423
                                                                    0.5042314
##
    [685,]
                                          0.4696543
                                                      2.62648423
                                                                    1.2913622
            0.07616101
                            1.1505014
##
    [686,]
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
            1.63015340
##
    [687,]
            0.85315721
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                    0.5042314
##
            0.07616101
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -0.2828995
    [688,]
##
    [689,]
            0.85315721
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
    [690,] -0.70083518
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                    0.5042314
    [691,]
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
            0.07616101
                                           0.4696543 -0.77120911
##
    [692,] -0.70083518
                            -1.7010481
                                                                   -0.2828995
                                          0.4696543 -0.77120911
                                                                   -0.2828995
##
    [693,]
            2.40714959
                            1.1505014
##
    [694,] -0.70083518
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
    [695,] -0.70083518
                             0.4376140
                                          1.1349430 -0.77120911
                                                                   -0.2828995
                            -0.2752733
                                           0.4696543 -0.77120911
                                                                    0.5042314
##
    [696,] -0.70083518
##
    [697,]
            0.85315721
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [698,]
            1.63015340
                            0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                    0.5042314
##
    [699,]
            0.07616101
                            -0.9881607
                                           1.1349430
                                                      0.92763756
                                                                    2.0784931
##
    [700,] -0.70083518
                             0.4376140
                                           1.1349430
                                                      2.62648423
                                                                    1.2913622
##
                            -0.9881607
                                                      1.77706090
                                                                   -0.2828995
    [701,] -0.70083518
                                          -1.5262117
                                                      0.07821423
##
    [702,]
            0.07616101
                            -1.7010481
                                           1.1349430
                                                                   -1.0700304
##
    [703,]
            0.07616101
                            -0.2752733
                                          -1.5262117
                                                     -0.77120911
                                                                   -1.0700304
##
    [704,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [705,] -0.70083518
                            -0.9881607
                                           1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
    [706,]
            0.85315721
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [707,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                   -0.2828995
                            -1.7010481
                                                                   -0.2828995
##
    [708,]
                                           1.1349430
                                                     -0.77120911
            0.07616101
##
    [709,] -0.70083518
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
                                          -0.1956344 -0.77120911
    [710,] -0.70083518
                            -1.7010481
                                                                    1.2913622
##
    [711,] -0.70083518
                             0.4376140
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [712,] -0.70083518
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                    0.5042314
##
                             0.4376140
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
    [713,] -0.70083518
##
    [714,]
            1.63015340
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [715,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                      2.62648423
                                                                    1.2913622
##
    [716,] -0.70083518
                             0.4376140
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
    [717,]
                             0.4376140
##
                                          -0.1956344
                                                      0.07821423
                                                                   -1.0700304
            0.85315721
##
    [718,]
                             0.4376140
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
            0.07616101
##
    [719,]
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
            0.07616101
                             1.1505014
##
    [720,] -0.70083518
                            -1.7010481
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
##
    [721,]
            2.40714959
                            -0.2752733
                                           1.1349430
                                                      2.62648423
                                                                    0.5042314
                                          -1.5262117 0.92763756
                                                                  -1.0700304
##
    [722,] -0.70083518
                            1.1505014
```

```
0.4696543 -0.77120911
##
    [723,]
            2.40714959
                            -0.9881607
                                                                   -1.0700304
##
    [724,] -0.70083518
                             0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                   -1.0700304
##
    [725,]
           -0.70083518
                            -0.2752733
                                          -0.8609231 -0.77120911
                                                                    0.5042314
##
                            0.4376140
                                          -0.1956344 -0.77120911
                                                                    1.2913622
    [726,]
            2.40714959
##
    [727,] -0.70083518
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [728,]
            0.85315721
                            -1.7010481
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [729,]
            0.07616101
                             1.1505014
                                           1.1349430 -0.77120911
                                                                     2.0784931
##
    [730,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
    [731,] -0.70083518
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
    [732,]
                                           0.4696543 -0.77120911
##
           -0.70083518
                            -0.2752733
                                                                    1.2913622
                            -0.9881607
                                           1.1349430
                                                     -0.77120911
##
    [733,] -0.70083518
                                                                   -1.0700304
##
    [734,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                      1.77706090
                                                                   -0.2828995
##
    [735,] -0.70083518
                             0.4376140
                                           0.4696543
                                                      0.07821423
                                                                   -1.0700304
##
    [736,]
                            -1.7010481
                                          -1.5262117
                                                      0.92763756
                                                                    0.5042314
            0.07616101
##
    [737,]
            0.07616101
                             0.4376140
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
                            -0.2752733
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
    [738,]
            1.63015340
##
    [739,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
##
    [740,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
    [741,]
                            -0.2752733
                                                      0.92763756
                                                                    1.2913622
##
            0.07616101
                                           1.1349430
                                          -1.5262117 -0.77120911
##
    [742,] -0.70083518
                            -0.9881607
                                                                   -1.0700304
                                           1.1349430 -0.77120911
##
    [743,]
            1.63015340
                            -0.2752733
                                                                   -1.0700304
    [744,] -0.70083518
##
                            0.4376140
                                           0.4696543 -0.77120911
                                                                   -1.0700304
##
    [745,]
            0.85315721
                             1.1505014
                                          -1.5262117
                                                      0.07821423
                                                                   -1.0700304
                            -0.2752733
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [746,] -0.70083518
##
    [747,] -0.70083518
                            -0.2752733
                                           0.4696543 -0.77120911
                                                                    0.5042314
##
    [748,]
            2.40714959
                            -0.9881607
                                           0.4696543
                                                      2.62648423
                                                                   -0.2828995
##
    [749,]
            2.40714959
                            -1.7010481
                                           0.4696543
                                                      2.62648423
                                                                   -0.2828995
##
    [750,]
            0.85315721
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
                            -0.9881607
                                           1.1349430
                                                      1.77706090
    [751,]
            0.85315721
                                                                   -0.2828995
                                          -0.8609231 -0.77120911
##
    [752,]
            0.07616101
                            -1.7010481
                                                                     2.0784931
##
    [753,] -0.70083518
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                    2.0784931
##
    [754,] -0.70083518
                            -0.9881607
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
    [755,]
                            0.4376140
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
            0.07616101
##
    [756,]
            1.63015340
                            -1.7010481
                                           1.1349430
                                                     -0.77120911
                                                                     1.2913622
##
    [757,]
            0.07616101
                            -0.2752733
                                          -0.8609231
                                                      0.07821423
                                                                    0.5042314
                            0.4376140
##
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
    [758,] -0.70083518
##
    [759,] -0.70083518
                            1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -1.0700304
                                           0.4696543
                                                      2.62648423
                                                                    0.5042314
##
    [760,]
            2.40714959
                            -0.2752733
##
    [761,] -0.70083518
                            -1.7010481
                                           0.4696543 -0.77120911
                                                                    0.5042314
##
    [762,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
##
                                           1.1349430 -0.77120911
                                                                   -1.0700304
    [763,] -0.70083518
                             1.1505014
##
    [764,]
            0.85315721
                             1.1505014
                                           1.1349430
                                                      0.92763756
                                                                   -1.0700304
##
    [765,]
            0.07616101
                            -0.2752733
                                          -0.8609231
                                                      1.77706090
                                                                   -1.0700304
##
    [766,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
##
            2.40714959
                                           0.4696543
                                                      2.62648423
                                                                    1.2913622
    [767,]
                             1.1505014
##
    [768,]
                                          -0.1956344
                                                      1.77706090
                                                                    1.2913622
            2.40714959
                             1.1505014
##
    [769,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
##
    [770,]
            1.63015340
                             0.4376140
                                           0.4696543
                                                      1.77706090
                                                                    1.2913622
##
    [771,]
            0.07616101
                            -1.7010481
                                          -0.8609231
                                                      0.92763756
                                                                    1.2913622
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [772,] -0.70083518
```

```
##
    [773,]
            0.07616101
                            -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                     1.2913622
##
    [774,]
            0.07616101
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                     0.5042314
##
    [775,]
           -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
##
                            -0.2752733
                                           0.4696543
                                                      1.77706090
                                                                    1.2913622
    [776,]
            1.63015340
##
    [777,]
            2.40714959
                            -1.7010481
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [778,] -0.70083518
                             0.4376140
                                           1.1349430 -0.77120911
                                                                     1.2913622
                                                                     2.0784931
##
    [779,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
    [780,]
            0.07616101
                            0.4376140
                                           1.1349430
                                                      2.62648423
##
    [781,]
            0.07616101
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                     0.5042314
    [782,]
                                                      2.62648423
##
            0.07616101
                            -1.7010481
                                           1.1349430
                                                                   -0.2828995
            2.40714959
                                          -0.1956344
                                                      1.77706090
                                                                   -0.2828995
##
    [783,]
                            -0.2752733
##
    [784,]
           -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                     1.2913622
##
    [785,] -0.70083518
                             1.1505014
                                          -0.8609231 -0.77120911
                                                                    0.5042314
##
    [786,] -0.70083518
                                          1.1349430 -0.77120911
                                                                    0.5042314
                             1.1505014
##
    [787,] -0.70083518
                             0.4376140
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
    [788,] -0.70083518
##
                             0.4376140
                                          1.1349430 -0.77120911
                                                                    0.5042314
##
    [789,] -0.70083518
                            -0.2752733
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [790,] -0.70083518
                             1.1505014
                                          -1.5262117
                                                      0.92763756
                                                                    2.0784931
    [791,]
            2.40714959
                                          -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
                            -0.9881607
                                          -0.1956344 -0.77120911
##
    [792,]
            1.63015340
                            -1.7010481
                                                                   -1.0700304
                                           1.1349430 -0.77120911
##
    [793,] -0.70083518
                            -1.7010481
                                                                    0.5042314
##
    [794,]
                             0.4376140
                                          -0.8609231
                                                      0.92763756
                                                                    1.2913622
            0.07616101
##
    [795,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
                                           0.4696543 -0.77120911
                                                                     2.0784931
    [796,]
            0.07616101
                            -0.9881607
##
    [797,]
            1.63015340
                             0.4376140
                                           0.4696543
                                                      2.62648423
                                                                    1.2913622
##
    [798,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                     2.0784931
##
                                          -0.1956344 -0.77120911
                                                                    0.5042314
    [799,] -0.70083518
                             1.1505014
##
    [800,]
            0.85315721
                            -0.2752733
                                          -0.8609231
                                                      1.77706090
                                                                    0.5042314
##
    [801,] -0.70083518
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
                            -0.9881607
                                                     -0.77120911
##
    [802,] -0.70083518
                             1.1505014
                                           1.1349430
                                                                   -1.0700304
            0.85315721
##
    [803,]
                             0.4376140
                                           1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
    [804,] -0.70083518
                             0.4376140
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
##
    [805,]
            2.40714959
                             1.1505014
                                          0.4696543
                                                      1.77706090
                                                                    0.5042314
##
    [806,]
            1.63015340
                            -0.2752733
                                           0.4696543
                                                     -0.77120911
                                                                     2.0784931
##
    [807,] -0.70083518
                            -0.9881607
                                           1.1349430
                                                      2.62648423
                                                                   -1.0700304
                            0.4376140
##
    [808,] -0.70083518
                                                      0.07821423
                                                                    0.5042314
                                          -0.8609231
##
    [809,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -1.0700304
                                          -1.5262117 -0.77120911
##
    [810,] -0.70083518
                            -1.7010481
                                                                   -1.0700304
##
    [811,]
            2.40714959
                             0.4376140
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
##
    [812,]
            1.63015340
                            -0.2752733
                                           0.4696543
                                                      0.92763756
                                                                   -1.0700304
##
                                          1.1349430
                                                      2.62648423
                                                                   -1.0700304
    [813,]
            0.85315721
                             1.1505014
##
    [814,] -0.70083518
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                   -1.0700304
##
    [815,]
            0.85315721
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
##
    [816,] -0.70083518
                            -1.7010481
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
    [817,] -0.70083518
                             0.4376140
                                          -0.1956344
                                                      2.62648423
                                                                    2.0784931
##
    [818,]
            1.63015340
                                          1.1349430
                                                      1.77706090
                                                                   -1.0700304
                             1.1505014
##
    [819,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      2.62648423
                                                                   -0.2828995
##
    [820,] -0.70083518
                             0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
    [821,] -0.70083518
                            -0.9881607
                                          -0.1956344 -0.77120911
                                                                     1.2913622
                                          -1.5262117 -0.77120911
                                                                    0.5042314
##
    [822,] 0.85315721
                            -1.7010481
```

```
##
    [823,]
            0.85315721
                            -0.2752733
                                          -1.5262117
                                                      0.07821423
                                                                    1.2913622
            2.40714959
                                          -0.1956344 -0.77120911
##
    [824,]
                            -0.2752733
                                                                    0.5042314
##
    [825,]
           -0.70083518
                            -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [826,] -0.70083518
                                          -1.5262117
                                                      0.92763756
                                                                   -1.0700304
                            -0.2752733
##
    [827,]
            0.07616101
                            1.1505014
                                          -0.8609231
                                                      0.07821423
                                                                    0.5042314
##
    [828,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    1.2913622
##
    [829,]
            0.07616101
                            -0.2752733
                                           0.4696543 -0.77120911
                                                                    0.5042314
##
    [830,] -0.70083518
                            -0.9881607
                                           0.4696543
                                                     -0.77120911
                                                                   -0.2828995
##
    [831,]
            0.07616101
                            -0.9881607
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
    [832,]
##
            0.07616101
                             0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                    1.2913622
                                                      2.62648423
                                                                   -1.0700304
##
    [833,]
            0.85315721
                            -0.9881607
                                          -1.5262117
##
    [834,] -0.70083518
                             0.4376140
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [835,] -0.70083518
                            -0.2752733
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
    [836,] -0.70083518
                                           1.1349430 -0.77120911
                                                                   -1.0700304
                             1.1505014
##
    [837,]
            0.07616101
                             1.1505014
                                           1.1349430
                                                     -0.77120911
                                                                    1.2913622
    [838,] -0.70083518
##
                            -0.2752733
                                           1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
    [839,] -0.70083518
                             1.1505014
                                          0.4696543 -0.77120911
                                                                   -0.2828995
##
    [840,] -0.70083518
                            -1.7010481
                                           0.4696543 -0.77120911
                                                                    0.5042314
    [841,]
                             0.4376140
                                                      0.07821423
                                                                    2.0784931
##
            0.85315721
                                          -0.1956344
                                                     -0.77120911
##
    [842,]
            2.40714959
                             1.1505014
                                           1.1349430
                                                                   -1.0700304
                                                      0.07821423
##
    [843,] -0.70083518
                             1.1505014
                                          -0.1956344
                                                                   -1.0700304
##
                             1.1505014
                                          1.1349430
                                                      0.92763756
                                                                    1.2913622
    [844,]
            0.07616101
##
    [845,]
            2.40714959
                             1.1505014
                                           1.1349430
                                                      2.62648423
                                                                    0.5042314
                                          -0.1956344 -0.77120911
                                                                    1.2913622
##
    [846,]
            0.85315721
                            -0.9881607
##
    [847,] -0.70083518
                            -0.9881607
                                          -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
    [848,]
            0.85315721
                            -1.7010481
                                          -0.1956344
                                                      0.07821423
                                                                   -0.2828995
##
                                                      0.07821423
    [849,] -0.70083518
                             1.1505014
                                          -1.5262117
                                                                   -1.0700304
##
    [850,]
            1.63015340
                            0.4376140
                                          1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
                             0.4376140
                                          -1.5262117 -0.77120911
                                                                    1.2913622
    [851,] -0.70083518
                                                     -0.77120911
##
    [852,] -0.70083518
                             1.1505014
                                           1.1349430
                                                                    0.5042314
##
    [853,] -0.70083518
                             1.1505014
                                           1.1349430
                                                      0.07821423
                                                                    2.0784931
                                                      1.77706090
                                                                    0.5042314
##
    [854,]
            1.63015340
                             1.1505014
                                          -0.1956344
##
    [855,] -0.70083518
                             1.1505014
                                          0.4696543 -0.77120911
                                                                    0.5042314
##
    [856,] -0.70083518
                             0.4376140
                                          0.4696543
                                                      0.92763756
                                                                   -1.0700304
##
    [857,] -0.70083518
                             1.1505014
                                          0.4696543
                                                      0.07821423
                                                                    2.0784931
##
    [858,]
                                          -1.5262117 -0.77120911
                                                                    1.2913622
            0.07616101
                            -0.9881607
##
    [859,]
            0.07616101
                             1.1505014
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
                                          -0.8609231 -0.77120911
    [860,] -0.70083518
                             1.1505014
                                                                   -0.2828995
##
    [861,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
    [862,]
##
            0.07616101
                            0.4376140
                                          -1.5262117 -0.77120911
                                                                    1.2913622
                                          1.1349430 -0.77120911
##
                            -1.7010481
                                                                    1.2913622
    [863,] -0.70083518
##
    [864,]
            0.07616101
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                    1.2913622
##
    [865,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [866,]
            1.63015340
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
##
    [867,] -0.70083518
                            -0.2752733
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
##
    [868,] -0.70083518
                             0.4376140
                                          -1.5262117
                                                      0.07821423
                                                                   -0.2828995
##
    [869,]
                            0.4376140
                                           1.1349430
                                                      0.07821423
                                                                    0.5042314
            1.63015340
##
    [870,] -0.70083518
                            -0.9881607
                                           0.4696543 -0.77120911
                                                                   -0.2828995
##
    [871,] -0.70083518
                            -0.9881607
                                          -0.8609231
                                                      0.92763756
                                                                   -0.2828995
                                                      0.07821423
                                                                   -1.0700304
##
    [872,] -0.70083518
                            -0.2752733
                                          -1.5262117
```

```
0.4696543 -0.77120911
##
    [873,] -0.70083518
                             0.4376140
                                                                   -0.2828995
                                           1.1349430 -0.77120911
##
    [874,] -0.70083518
                             1.1505014
                                                                   -1.0700304
##
    [875,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
                                           1.1349430
                                                      0.92763756
                                                                    0.5042314
    [876,] -0.70083518
                            -1.7010481
##
    [877,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                    0.5042314
##
    [878,]
            0.85315721
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -1.0700304
##
    [879,]
            0.85315721
                             0.4376140
                                           1.1349430 -0.77120911
                                                                    1.2913622
##
    [880,] -0.70083518
                             1.1505014
                                           1.1349430 -0.77120911
                                                                   -0.2828995
##
    [881,] -0.70083518
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
                             1.1505014
    [882,] -0.70083518
##
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
                                                      2.62648423
##
    [883,]
            0.85315721
                             1.1505014
                                          0.4696543
                                                                    0.5042314
##
    [884,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                      0.07821423
                                                                    0.5042314
##
    [885,] -0.70083518
                            1.1505014
                                          -0.1956344 -0.77120911
                                                                    2.0784931
##
    [886,] -0.70083518
                           -0.2752733
                                          -1.5262117
                                                      2.62648423
                                                                    1.2913622
##
    [887,] -0.70083518
                           -1.7010481
                                           0.4696543 -0.77120911
                                                                   -1.0700304
            0.85315721
##
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    1.2913622
    [888,]
##
    [889,] -0.70083518
                            1.1505014
                                          0.4696543
                                                      0.07821423
                                                                    1.2913622
##
    [890,]
            2.40714959
                           -1.7010481
                                          -0.1956344
                                                      2.62648423
                                                                    2.0784931
    [891,] -0.70083518
                                                     -0.77120911
##
                             1.1505014
                                           1.1349430
                                                                    2.0784931
##
    [892,] -0.70083518
                           -0.9881607
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
                                                     -0.77120911
##
    [893,] -0.70083518
                            0.4376140
                                          -0.1956344
                                                                   -1.0700304
##
    [894,]
                            -0.2752733
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
            0.07616101
##
    [895,]
            0.07616101
                            0.4376140
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
                                          1.1349430
                                                      0.07821423
                                                                   -0.2828995
##
    [896,] -0.70083518
                             1.1505014
##
    [897,]
            1.63015340
                            -0.2752733
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [898,]
            0.85315721
                            -0.9881607
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
##
    [899,] -0.70083518
                           -0.2752733
                                          -0.1956344
                                                      1.77706090
                                                                   -1.0700304
##
    [900,]
            0.85315721
                           -0.2752733
                                          -0.1956344
                                                      0.92763756
                                                                   -1.0700304
##
                             0.4376140
                                          1.1349430
                                                      0.07821423
    [901,] -0.70083518
                                                                    1.2913622
                                          -1.5262117 -0.77120911
##
    [902,] -0.70083518
                            -0.2752733
                                                                   -1.0700304
                                                     -0.77120911
##
    [903,] -0.70083518
                             1.1505014
                                          1.1349430
                                                                   -1.0700304
##
    [904,]
            0.85315721
                            1.1505014
                                          -0.8609231
                                                      0.92763756
                                                                    1.2913622
##
    [905,] -0.70083518
                            -0.9881607
                                           0.4696543
                                                      0.07821423
                                                                    2.0784931
##
    [906,] -0.70083518
                             1.1505014
                                          1.1349430 -0.77120911
                                                                    0.5042314
##
    [907,]
           -0.70083518
                             0.4376140
                                          -1.5262117
                                                      2.62648423
                                                                   -1.0700304
##
                           -0.2752733
                                          -0.1956344
                                                     -0.77120911
                                                                    1.2913622
    [908,]
            0.07616101
##
    [909,]
            0.85315721
                           -0.2752733
                                           0.4696543
                                                      0.07821423
                                                                    0.5042314
                                                                    1.2913622
##
    [910,]
            1.63015340
                             0.4376140
                                          0.4696543
                                                      1.77706090
##
    [911,] -0.70083518
                             1.1505014
                                          -0.8609231
                                                      2.62648423
                                                                    1.2913622
##
    [912,]
            2.40714959
                           -0.9881607
                                           1.1349430
                                                     -0.77120911
                                                                   -0.2828995
##
                            0.4376140
                                                      0.07821423
                                                                    0.5042314
    [913,]
            0.07616101
                                          0.4696543
##
    [914,]
            0.85315721
                           -1.7010481
                                           0.4696543
                                                      0.92763756
                                                                   -1.0700304
##
    [915,]
            2.40714959
                            -0.2752733
                                           0.4696543
                                                      2.62648423
                                                                   -0.2828995
##
    [916,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    2.0784931
    [917,] -0.70083518
##
                           -0.2752733
                                          -0.8609231 -0.77120911
                                                                   -0.2828995
##
    [918,] -0.70083518
                            -0.2752733
                                          0.4696543 -0.77120911
                                                                    0.5042314
##
    [919,] -0.70083518
                           -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [920,]
            1.63015340
                            1.1505014
                                          1.1349430
                                                      0.92763756
                                                                   -0.2828995
##
    [921,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                    0.5042314
                            0.4376140
                                          1.1349430 -0.77120911
                                                                  -0.2828995
    [922,] 0.85315721
```

```
##
    [923,] -0.70083518
                            1.1505014
                                          -1.5262117 -0.77120911
                                                                    0.5042314
##
    [924,]
            0.07616101
                           -1.7010481
                                          -0.8609231
                                                      0.92763756
                                                                    1.2913622
##
    [925,] -0.70083518
                            -0.9881607
                                          1.1349430
                                                     -0.77120911
                                                                    0.5042314
##
    [926,]
                            1.1505014
                                          0.4696543
                                                      0.92763756
                                                                    2.0784931
            0.07616101
##
    [927,] -0.70083518
                            0.4376140
                                          0.4696543 -0.77120911
                                                                   -1.0700304
##
    [928,] -0.70083518
                           -0.2752733
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [929,] -0.70083518
                            -0.2752733
                                          -1.5262117
                                                      0.07821423
                                                                    1.2913622
##
    [930,]
            1.63015340
                            -0.9881607
                                          0.4696543
                                                      0.92763756
                                                                    1.2913622
##
    [931,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    0.5042314
    [932,] -0.70083518
##
                            0.4376140
                                          1.1349430 -0.77120911
                                                                    0.5042314
    [933,] -0.70083518
                            1.1505014
                                          -0.1956344
                                                      1.77706090
                                                                    1.2913622
##
##
    [934,]
            0.07616101
                            0.4376140
                                          -0.8609231
                                                      0.92763756
                                                                    0.5042314
##
    [935,] -0.70083518
                            -1.7010481
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [936,] -0.70083518
                                          -0.1956344 -0.77120911
                                                                   -0.2828995
                            1.1505014
##
    [937,]
            0.07616101
                           -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
##
    [938,] -0.70083518
                            1.1505014
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [939,] -0.70083518
                            -0.2752733
                                          -1.5262117 -0.77120911
                                                                    1.2913622
##
    [940,] -0.70083518
                            0.4376140
                                          0.4696543 -0.77120911
                                                                   -0.2828995
    [941,] -0.70083518
                            1.1505014
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
                                                      0.07821423
##
    [942,]
            0.85315721
                            0.4376140
                                          -0.8609231
                                                                    1.2913622
##
    [943,]
            0.85315721
                            0.4376140
                                          1.1349430
                                                      0.07821423
                                                                    2.0784931
##
    [944,] -0.70083518
                            0.4376140
                                          -0.8609231 -0.77120911
                                                                    0.5042314
                                                      0.07821423
##
    [945,]
            0.07616101
                            0.4376140
                                          1.1349430
                                                                    0.5042314
                                          -0.1956344
                                                      0.92763756
                                                                   -1.0700304
##
    [946,] -0.70083518
                            1.1505014
##
    [947,] -0.70083518
                            0.4376140
                                          -0.1956344 -0.77120911
                                                                    0.5042314
##
    [948,]
            0.07616101
                            -0.2752733
                                          -0.1956344
                                                      0.07821423
                                                                    0.5042314
##
    [949,] -0.70083518
                                                      0.07821423
                           -1.7010481
                                          0.4696543
                                                                    0.5042314
##
    [950,]
            0.85315721
                            -0.2752733
                                          -0.1956344 -0.77120911
                                                                   -1.0700304
##
                           -0.2752733
                                          -0.1956344 -0.77120911
    [951,] -0.70083518
                                                                   -1.0700304
                                          1.1349430 -0.77120911
##
    [952,] -0.70083518
                            1.1505014
                                                                   -1.0700304
##
    [953,]
            1.63015340
                           -0.2752733
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [954,]
            0.07616101
                           -1.7010481
                                          0.4696543
                                                      0.92763756
                                                                    1.2913622
##
    [955,]
            0.85315721
                           -0.9881607
                                          0.4696543 -0.77120911
                                                                    1.2913622
    [956,]
##
            0.85315721
                           -1.7010481
                                          1.1349430 -0.77120911
                                                                   -1.0700304
##
    [957,] -0.70083518
                            -1.7010481
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
                           -0.9881607
##
    [958,] -0.70083518
                                          -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [959,] -0.70083518
                            1.1505014
                                          -0.8609231
                                                      0.92763756
                                                                    2.0784931
                                          -0.1956344 -0.77120911
##
    [960,] -0.70083518
                           -0.2752733
                                                                   -1.0700304
##
    [961,] -0.70083518
                           -0.2752733
                                          0.4696543 -0.77120911
                                                                   -0.2828995
##
    [962,] -0.70083518
                            1.1505014
                                          1.1349430
                                                      2.62648423
                                                                    1.2913622
                                                                   -0.2828995
##
                                          -1.5262117
                                                      0.07821423
    [963,]
            1.63015340
                           -0.9881607
##
    [964,] -0.70083518
                           -0.2752733
                                          -0.1956344 -0.77120911
                                                                    1.2913622
##
    [965,]
            0.07616101
                           -0.9881607
                                          1.1349430
                                                      0.92763756
                                                                   -1.0700304
##
    [966,]
            2.40714959
                            -0.2752733
                                          1.1349430
                                                      0.07821423
                                                                    2.0784931
##
    [967,]
            2.40714959
                           -1.7010481
                                          1.1349430
                                                      0.07821423
                                                                    2.0784931
##
    [968,] -0.70083518
                                          0.4696543
                                                      0.07821423
                                                                   -1.0700304
                            1.1505014
##
    [969,] -0.70083518
                                          0.4696543
                                                      0.07821423
                                                                    0.5042314
                            1.1505014
##
    [970,] -0.70083518
                            -0.2752733
                                          -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [971,] -0.70083518
                           -0.9881607
                                          -1.5262117 -0.77120911
                                                                   -0.2828995
                                          0.4696543 -0.77120911
                            0.4376140
                                                                  -1.0700304
    [972,] -0.70083518
```

```
0.07821423
##
    [973,]
            1.63015340
                            1.1505014
                                         -0.1956344
                                                                   -1.0700304
##
    [974,]
            1.63015340
                           -1.7010481
                                         -1.5262117
                                                      0.92763756
                                                                   -0.2828995
##
    [975,]
           -0.70083518
                            1.1505014
                                          1.1349430 -0.77120911
                                                                   -0.2828995
##
    [976,]
            2.40714959
                                          0.4696543
                                                      0.07821423
                                                                   -1.0700304
                            1.1505014
                                          0.4696543 -0.77120911
##
    [977,]
            0.07616101
                           -0.2752733
                                                                    0.5042314
##
    [978,] -0.70083518
                            0.4376140
                                         -0.1956344 -0.77120911
                                                                   -0.2828995
                                         -1.5262117 -0.77120911
                                                                    0.5042314
##
    [979,] -0.70083518
                            1.1505014
##
    [980,]
            0.07616101
                           -1.7010481
                                         -0.1956344 -0.77120911
                                                                    0.5042314
##
    [981,]
            0.85315721
                           -1.7010481
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
    [982,]
                           -0.2752733
                                         -1.5262117 -0.77120911
                                                                   -0.2828995
##
            1.63015340
##
    [983,] -0.70083518
                            0.4376140
                                         -1.5262117 -0.77120911
                                                                    0.5042314
##
    [984,] -0.70083518
                            1.1505014
                                          0.4696543 -0.77120911
                                                                    0.5042314
                                         -1.5262117 -0.77120911
##
    [985,] -0.70083518
                           -0.2752733
                                                                   -1.0700304
##
    [986,] -0.70083518
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                    0.5042314
                                                      0.07821423
##
    [987,] -0.70083518
                           -1.7010481
                                          0.4696543
                                                                   -1.0700304
##
    [988,] -0.70083518
                            0.4376140
                                         -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [989,]
            0.85315721
                           -0.2752733
                                          1.1349430
                                                      2.62648423
                                                                   -1.0700304
##
                           -0.9881607
                                                      0.07821423
    [990,]
            2.40714959
                                          1.1349430
                                                                   -1.0700304
    [991,] -0.70083518
                            0.4376140
                                         -0.8609231 -0.77120911
                                                                   -1.0700304
##
                                         -1.5262117 -0.77120911
##
    [992,] -0.70083518
                           -0.9881607
                                                                   -0.2828995
                                         -1.5262117 -0.77120911
                                                                   -1.0700304
##
    [993,]
            2.40714959
                            0.4376140
##
    [994,]
            0.07616101
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                    1.2913622
                                         -0.8609231 -0.77120911
##
    [995,]
            0.07616101
                           -0.2752733
                                                                   -0.2828995
                           -0.2752733
                                         -0.1956344 -0.77120911
                                                                   -1.0700304
##
    [996,] -0.70083518
##
    [997,] -0.70083518
                           -0.9881607
                                         -0.8609231 -0.77120911
                                                                   -1.0700304
##
    [998,]
            0.07616101
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
##
    [999,]
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
            1.63015340
                           -1.7010481
##
   [1000,]
            2.40714959
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                   -1.0700304
##
   [1001,] -0.70083518
                            1.1505014
                                          1.1349430
                                                      0.07821423
                                                                    0.5042314
                           -0.9881607
                                          0.4696543 -0.77120911
##
   [1002,] -0.70083518
                                                                    0.5042314
##
   [1003,]
            1.63015340
                           -0.9881607
                                         -1.5262117
                                                    -0.77120911
                                                                   -1.0700304
                                                      0.07821423
                                                                   -1.0700304
##
   [1004,] -0.70083518
                            0.4376140
                                         -0.1956344
   [1005,] -0.70083518
                            1.1505014
                                         -0.8609231
                                                      0.07821423
                                                                   -1.0700304
##
   [1006,]
            1.63015340
                            0.4376140
                                          0.4696543
                                                      0.07821423
                                                                    1.2913622
   [1007,]
           -0.70083518
                           -1.7010481
                                          1.1349430
                                                      2.62648423
                                                                   -1.0700304
   [1008,] -0.70083518
                           -0.9881607
                                         -0.8609231 -0.77120911
                                                                   -1.0700304
##
   [1009,]
            1.63015340
                           -0.9881607
                                          0.4696543 -0.77120911
                                                                    0.5042314
   [1010,]
                                          0.4696543
                                                      2.62648423
                                                                    0.5042314
##
            0.07616101
                            1.1505014
##
             Shopping Science.and.technology
                                                    Theatre Fun.with.friends
##
      [1,]
            0.5612378
                                     0.6002088 -0.76692202
                                                                    0.5998996
##
      [2,] -0.2163344
                                    -0.1779823 -0.76692202
                                                                   -0.7555783
##
      [3,]
            0.5612378
                                    -0.9561735
                                                1.49136148
                                                                    0.5998996
      [4,]
##
            0.5612378
                                    -0.1779823 -1.51968319
                                                                   -3.4665342
##
      [5,] -0.2163344
                                    -0.1779823 -0.76692202
                                                                   -0.7555783
##
      [6,] -0.9939067
                                    -0.1779823 -1.51968319
                                                                   -2.1110562
##
      [7,] -0.2163344
                                     0.6002088 -0.01416085
                                                                    0.5998996
##
      [8,] -0.2163344
                                    -0.9561735 -0.76692202
                                                                   -0.7555783
##
      [9,] -0.9939067
                                    -1.7343646
                                                 1.49136148
                                                                   -0.7555783
##
     [10,]
            0.5612378
                                    -0.1779823
                                                 1.49136148
                                                                    0.5998996
##
                                     0.6002088 -0.76692202
                                                                   -0.7555783
     [11,] 1.3388100
```

| ## | [12,] -0.2163344 | -0.1779823 -1.51968319 | -2.1110562 |
|----|------------------|------------------------|------------|
| ## | [13,] -0.9939067 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [14,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [15,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [16,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [17,] 0.5612378 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [18,] -0.2163344 | 0.6002088 -0.01416085 | -2.1110562 |
| ## | [19,] -0.9939067 | 1.3783999 -1.51968319 | -2.1110562 |
| ## | [20,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [21,] -1.7714789 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [22,] -1.7714789 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [23,] -1.7714789 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [24,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [25,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [26,] 1.3388100 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [27,] 0.5612378 | -0.1779823 -1.51968319 | -0.7555783 |
| ## | [28,] 1.3388100 | -0.9561735 -1.51968319 | -0.7555783 |
| ## | [29,] 1.3388100 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [30,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [31,] 0.5612378 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [32,] -0.9939067 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [33,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [34,] -0.2163344 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [35,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [36,] 0.5612378 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [37,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [38,] 0.5612378 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [39,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [40,] 0.5612378 | 1.3783999 -0.76692202 | -2.1110562 |
| ## | [41,] 1.3388100 | -0.1779823 -1.51968319 | -3.4665342 |
| ## | [42,] -1.7714789 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [43,] 0.5612378 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [44,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [45,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [46,] -0.2163344 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [47,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [48,] 0.5612378 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [49,] -0.2163344 | -0.1779823 0.73860031 | -2.1110562 |
| ## | [50,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [51,] 0.5612378 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [52,] -0.2163344 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [53,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [54,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [55,] -0.9939067 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [56,] -0.2163344 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [57,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [58,] 1.3388100 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [59,] 0.5612378 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [60,] -1.7714789 | -1.7343646 -1.51968319 | -2.1110562 |
| ## | [61,] -0.9939067 | 0.6002088 0.73860031 | -0.7555783 |
| | | | |

| ## | [62,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [63,] -0.9939067 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [64,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [65,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [66,] -0.9939067 | -0.9561735 -1.51968319 | -2.1110562 |
| ## | [67,] -0.2163344 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [68,] -0.2163344 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [69,] -0.2163344 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [70,] 1.3388100 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [71,] 0.5612378 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [72,] 0.5612378 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [73,] -0.2163344 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [74,] 1.3388100 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [75,] -0.2163344 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [76,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [77,] 0.5612378 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [78,] 1.3388100 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [79,] -0.9939067 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [80,] 1.3388100 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [81,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [82,] -0.2163344 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [83,] -0.2163344 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [84,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [85,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [86,] 0.5612378 | 1.3783999 1.49136148 | -0.7555783 |
| ## | [87,] -0.9939067 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [88,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [89,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [90,] -0.2163344 | -1.7343646 0.73860031 | -0.7555783 |
| ## | [91,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [92,] -0.2163344 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [93,] -0.2163344 | -0.9561735 0.73860031 | -0.7555783 |
| ## | [94,] -1.7714789 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [95,] -0.9939067 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [96,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [97,] -1.7714789 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [98,] -1.7714789 | 0.6002088 -1.51968319 | -2.1110562 |
| ## | [99,] -0.2163344 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [100,] 1.3388100 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [101,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [102,] -1.7714789 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [103,] -1.7714789 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [104,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [105,] -0.9939067 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [106,] -0.2163344 | 0.6002088 -0.01416085 | -2.1110562 |
| ## | [107,] -0.9939067 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [108,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [109,] 0.5612378 | -0.9561735 -0.01416085 | -3.4665342 |
| ## | [110,] -0.9939067 | 0.6002088 -1.51968319 | -0.7555783 |
| ## | [111,] -0.9939067 | 0.6002088 -1.51968319 | -0.7555783 |
| | | | |

| ## | [112,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [113,] -0.2163344 | 1.3783999 1.49136148 | -0.7555783 |
| ## | [114,] 0.5612378 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [115,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [116,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [117,] -0.2163344 | -1.7343646 -0.76692202 | -0.7555783 |
| ## | [118,] -0.2163344 | -0.1779823 -0.76692202 | -3.4665342 |
| ## | [119,] -0.9939067 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [120,] -1.7714789 | -0.9561735 -0.76692202 | -2.1110562 |
| ## | [121,] -1.7714789 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [122,] -0.9939067 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [123,] -0.2163344 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [124,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [125,] -1.7714789 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [126,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [127,] 0.5612378 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [128,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [129,] -0.9939067 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [130,] 1.3388100 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [131,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [132,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [133,] -0.9939067 | 0.6002088 -0.76692202 | -2.1110562 |
| ## | [134,] -0.2163344 | -1.7343646 1.49136148 | -0.7555783 |
| ## | [135,] -0.9939067 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [136,] -0.9939067 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [137,] -0.2163344 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [138,] -0.2163344 | -0.9561735 -0.76692202 | -2.1110562 |
| ## | [139,] -0.2163344 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [140,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [141,] -0.2163344 | -0.9561735 0.73860031 | -0.7555783 |
| ## | [142,] -1.7714789 | 1.3783999 -0.01416085 | -2.1110562 |
| ## | [143,] 1.3388100 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [144,] 0.5612378 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [145,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [146,] -0.9939067 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [147,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [148,] -1.7714789 | 1.3783999 -0.76692202 | -3.4665342 |
| ## | [149,] -0.9939067 | 0.6002088 -0.76692202 | -2.1110562 |
| ## | [150,] -0.9939067 | 0.6002088 -0.76692202 | -2.1110562 |
| ## | [151,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [152,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [153,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [154,] 1.3388100 | 0.6002088 -0.76692202 | -2.1110562 |
| ## | [155,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [156,] -0.2163344 | 0.6002088 -0.01416085 | -2.1110562 |
| ## | [157,] 0.5612378 | -1.7343646 -1.51968319 | -0.7555783 |
| ## | [158,] -0.9939067 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [159,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [160,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [161,] -1.7714789 | 0.6002088 -0.76692202 | 0.5998996 |
| | [=01,] 1.,,14,00 | 0.0002000 0.70072202 | 0.5550550 |

| ## | [162,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [163,] -1.7714789 | -0.9561735 -1.51968319 | -2.1110562 |
| ## | [164,] -1.7714789 | -1.7343646 -1.51968319 | -2.1110562 |
| ## | [165,] 1.3388100 | -1.7343646 0.73860031 | -0.7555783 |
| ## | [166,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [167,] -0.9939067 | -0.1779823 0.73860031 | -0.7555783 |
| ## | [168,] -0.9939067 | 0.6002088 -1.51968319 | -2.1110562 |
| ## | [169,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [170,] -0.2163344 | -1.7343646 1.49136148 | -0.7555783 |
| ## | [171,] -1.7714789 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [172,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [173,] -1.7714789 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [174,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [175,] 1.3388100 | 1.3783999 1.49136148 | -0.7555783 |
| ## | [176,] -1.7714789 | -1.7343646 -0.01416085 | -2.1110562 |
| ## | [177,] -0.2163344 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [178,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [179,] -0.2163344 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [180,] 0.5612378 | 0.6002088 -0.76692202 | -2.1110562 |
| ## | [181,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [182,] -0.9939067 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [183,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [184,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [185,] -0.2163344 | -0.9561735 1.49136148 | -2.1110562 |
| ## | [186,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [187,] 0.5612378 | -1.7343646 0.73860031 | -0.7555783 |
| ## | [188,] -1.7714789 | -0.9561735 -1.51968319 | -3.4665342 |
| ## | [189,] -0.9939067 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [190,] -0.9939067 | -0.1779823 -1.51968319 | -2.1110562 |
| ## | [191,] -0.2163344 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [192,] -0.9939067 | -1.7343646 1.49136148 | -0.7555783 |
| ## | [193,] 0.5612378 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [194,] -0.9939067 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [195,] -0.9939067 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [196,] 0.5612378 | 1.3783999 -0.01416085 | -0.7555783 |
| ## | [197,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [198,] 0.5612378 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [199,] -0.9939067 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [200,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [201,] -0.9939067 | 0.6002088 -0.76692202 | -3.4665342 |
| ## | [202,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [203,] 0.5612378 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [204,] 0.5612378 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [205,] -1.7714789 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [206,] -1.7714789 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [207,] -1.7714789 | 0.6002088 1.49136148 | -0.7555783 |
| ## | [208,] -0.2163344 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [209,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [210,] -1.7714789 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [211,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| | | | |

| ## | [212,] 1.3388100 | -1.7343646 0.73860031 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [213,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [214,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [215,] 0.5612378 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [216,] -0.2163344 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [217,] 0.5612378 | -1.7343646 -0.76692202 | -0.7555783 |
| ## | [218,] -0.9939067 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [219,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [220,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [221,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [222,] -0.9939067 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [223,] 0.5612378 | -0.1779823 -0.76692202 | -2.1110562 |
| ## | [224,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [225,] -0.9939067 | 0.6002088 -0.76692202 | -2.1110562 |
| ## | [226,] -0.9939067 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [227,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [228,] -0.2163344 | -0.1779823 1.49136148 | -2.1110562 |
| ## | [229,] -0.9939067 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [230,] -0.9939067 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [231,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [232,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [233,] 0.5612378 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [234,] -0.2163344 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [235,] 1.3388100 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [236,] 1.3388100 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [237,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [238,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [239,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [240,] 0.5612378 | -0.1779823 0.73860031 | -0.7555783 |
| ## | [241,] -0.9939067 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [242,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [243,] 1.3388100 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [244,] -0.9939067 | 1.3783999 -0.01416085 | -3.4665342 |
| ## | [245,] 1.3388100 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [246,] -0.9939067 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [247,] 1.3388100 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [248,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [249,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [250,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [251,] 1.3388100 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [252,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [253,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [254,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [255,] 1.3388100 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [256,] -1.7714789 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [257,] 1.3388100 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [258,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [259,] -1.7714789 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [260,] -1.7714789 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [261,] -0.2163344 | -0.1779823 -0.01416085 | -2.1110562 |
| | - · · · · | | |

| ## | [262,] 1.3388100 | -0.9561735 -0.76692202 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [263,] -0.2163344 | -0.1779823 0.73860031 | -0.7555783 |
| ## | [264,] 1.3388100 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [265,] -0.2163344 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [266,] 0.5612378 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [267,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [268,] -0.2163344 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [269,] 1.3388100 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [270,] -0.9939067 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [271,] 1.3388100 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [272,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [273,] -0.9939067 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [274,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [275,] -1.7714789 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [276,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [277,] 0.5612378 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [278,] -0.9939067 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [279,] -0.9939067 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [280,] 1.3388100 | -1.7343646 -0.76692202 | -0.7555783 |
| ## | [281,] 1.3388100 | -0.9561735 1.49136148 | -0.7555783 |
| ## | [282,] -0.9939067 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [283,] 0.5612378 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [284,] -0.9939067 | 1.3783999 -0.01416085 | -0.7555783 |
| ## | [285,] -1.7714789 | -0.9561735 -1.51968319 | -2.1110562 |
| ## | [286,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [287,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [288,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [289,] -0.2163344 | 0.6002088 -1.51968319 | -3.4665342 |
| ## | [290,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [291,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [292,] -0.9939067 | -0.1779823 0.73860031 | -0.7555783 |
| ## | [293,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [294,] -0.9939067 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [295,] -0.2163344 | -0.9561735 -0.01416085 | -2.1110562 |
| ## | [296,] 1.3388100 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [297,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [298,] -1.7714789 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [299,] -0.2163344 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [300,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [301,] -0.2163344 | -0.1779823 0.73860031 | -3.4665342 |
| ## | [302,] -0.9939067 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [303,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [304,] 1.3388100 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [305,] 0.5612378 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [306,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [307,] 1.3388100 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [308,] -1.7714789 | 1.3783999 -1.51968319 | -3.4665342 |
| ## | [309,] 0.5612378 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [310,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [311,] 0.5612378 | -0.1779823 -0.76692202 | -0.7555783 |
| | | | |

| ## | [312,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [313,] -1.7714789 | -0.9561735 -1.51968319 | -0.7555783 |
| ## | [314,] 1.3388100 | -0.9561735 -1.51968319 | -3.4665342 |
| ## | [315,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [316,] 1.3388100 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [317,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [318,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [319,] 1.3388100 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [320,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [321,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [322,] 0.5612378 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [323,] 0.5612378 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [324,] 0.5612378 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [325,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [326,] -0.2163344 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [327,] -0.9939067 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [328,] 0.5612378 | 0.6002088 -0.01416085 | -3.4665342 |
| ## | [329,] -0.2163344 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [330,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [331,] -0.2163344 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [332,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [333,] -0.2163344 | -0.1779823 0.73860031 | -2.1110562 |
| ## | [334,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [335,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [336,] -0.2163344 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [337,] -0.9939067 | 1.3783999 -1.51968319 | -0.7555783 |
| ## | [338,] -1.7714789 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [339,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [340,] 0.5612378 | -0.9561735 -0.76692202 | -2.1110562 |
| ## | [341,] -1.7714789 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [342,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [343,] -0.2163344 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [344,] -0.2163344 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [345,] 0.5612378 | -1.7343646 -1.51968319 | -0.7555783 |
| ## | [346,] -0.2163344 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [347,] -0.2163344 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [348,] -0.9939067 | 0.6002088 -1.51968319 | -0.7555783 |
| ## | [349,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [350,] 1.3388100 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [351,] -1.7714789 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [352,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [353,] -1.7714789 | -0.9561735 -1.51968319 | 0.5998996 |
| | [354,] 0.5612378 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [355,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [356,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [357,] -1.7714789 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [358,] -0.2163344 | -0.9561735 -0.01416085 | -2.1110562 |
| ## | [359,] -0.9939067 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [360,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [361,] 1.3388100 | 0.6002088 -1.51968319 | -0.7555783 |
| | = | | |

| ## | [362,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [363,] -0.9939067 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [364,] -1.7714789 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [365,] 0.5612378 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [366,] -0.2163344 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [367,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [368,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [369,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [370,] -0.2163344 | -0.1779823 -0.76692202 | -2.1110562 |
| ## | [371,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [372,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [373,] -0.2163344 | 1.3783999 -1.51968319 | -3.4665342 |
| ## | [374,] -1.7714789 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [375,] 1.3388100 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [376,] -0.2163344 | -0.9561735 0.73860031 | -2.1110562 |
| ## | [377,] -0.2163344 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [378,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [379,] -0.2163344 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [380,] -0.2163344 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [381,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [382,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [383,] 1.3388100 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [384,] -0.9939067 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [385,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [386,] -0.9939067 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [387,] 0.5612378 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [388,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [389,] 0.5612378 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [390,] 1.3388100 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [391,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [392,] 0.5612378 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [393,] 0.5612378 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [394,] -0.9939067 | -0.1779823 -1.51968319 | -2.1110562 |
| ## | [395,] -0.2163344 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [396,] -0.2163344 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [397,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [398,] 1.3388100 | -0.1779823 0.73860031 | -2.1110562 |
| ## | [399,] 1.3388100 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [400,] -0.2163344 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [401,] -0.9939067 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [402,] -0.9939067 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [403,] -0.9939067 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [404,] -1.7714789 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [405,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [406,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [407,] -0.9939067 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [408,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [409,] -0.2163344 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [410,] 1.3388100 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [411,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| | _ , _ | | |

| ## | [412,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [413,] 1.3388100 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [414,] -0.9939067 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [415,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [416,] 1.3388100 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [417,] -0.2163344 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [418,] -1.7714789 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [419,] 1.3388100 | -0.1779823 1.49136148 | -2.1110562 |
| ## | [420,] -1.7714789 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [421,] -0.2163344 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [422,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [423,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [424,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [425,] -0.2163344 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [426,] 1.3388100 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [427,] -1.7714789 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [428,] -0.9939067 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [429,] 1.3388100 | -0.9561735 0.73860031 | -0.7555783 |
| ## | [430,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [431,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [432,] -0.9939067 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [433,] -1.7714789 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [434,] -0.9939067 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [435,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [436,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [437,] 0.5612378 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [438,] -0.9939067 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [439,] -0.2163344 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [440,] -0.2163344 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [441,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [442,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [443,] -0.2163344 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [444,] -0.2163344 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [445,] -0.9939067 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [446,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [447,] -0.9939067 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [448,] -1.7714789 | -0.1779823 1.49136148 | -2.1110562 |
| ## | [449,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [450,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [451,] -0.2163344 | 1.3783999 -1.51968319 | 0.5998996 |
| | [452,] -0.2163344 | 0.6002088 0.73860031 | -0.7555783 |
| | [453,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| | [454,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| | [455,] 1.3388100 | -0.9561735 -0.76692202 | 0.5998996 |
| | [456,] 1.3388100 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [457,] -1.7714789 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [458,] -1.7714789 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [459,] 1.3388100 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [460,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [461,] -1.7714789 | -0.1779823 -1.51968319 | 0.5998996 |
| | | | |

| ## | [462,] 0.5612378 | 0.6002088 0.73860031 | -0.7555783 |
|----------|--|------------------------|------------|
| ## | [463,] -0.9939067 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [464,] 1.3388100 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [465,] 1.3388100 | -0.1779823 -0.76692202 | -3.4665342 |
| ## | [466,] -0.2163344 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [467,] 0.5612378 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [468,] -0.2163344 | -1.7343646 -0.76692202 | -0.7555783 |
| ## | [469,] 0.5612378 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [470,] -0.9939067 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [471,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [472,] -0.2163344 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [473,] -1.7714789 | -0.9561735 -1.51968319 | -3.4665342 |
| ## | [474,] -1.7714789 | -1.7343646 -0.76692202 | -2.1110562 |
| ## | [475,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [476,] -0.9939067 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [477,] -0.2163344 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [478,] -1.7714789 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [479,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [480,] -0.2163344 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [481,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [482,] -1.7714789 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [483,] -1.7714789 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [484,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [485,] 0.5612378 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [486,] -0.9939067 | 0.6002088 -1.51968319 | -2.1110562 |
| ## | [487,] 0.5612378 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [488,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [489,] -0.9939067 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [490,] 1.3388100 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [491,] 1.3388100 | -1.7343646 -1.51968319 | -0.7555783 |
| ## | [492,] -0.2163344 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [493,] -0.9939067 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [494,] -0.9939067 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [495,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| | | -0.1779823 -0.01416085 | 0.5998996 |
| ## | | -0.9561735 -1.51968319 | -0.7555783 |
| ## ## | [497,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| | [498,] -0.2163344 [499,] -0.9939067 | -0.1779825 1.49136148 | 0.5998996 |
| ## | | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [500,] -1.7714789 | | |
| ## | [501,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [502,] -0.2163344 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [503,] 0.5612378 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [504,] -0.2163344 | 1.3783999 -0.76692202 | -2.1110562 |
| ## | [505,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [506,] -0.9939067 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [507,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [508,] -0.9939067 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [509,] -0.9939067 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [510,] 1.3388100 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [511,] -0.2163344 | 1.3783999 1.49136148 | 0.5998996 |
| | | | |

| ## [514,] -0.939067 | ## [513,] | | | | |
|--|--|----|-------------------|------------------------|------------|
| ## [514,] -0.9939067 | ## [514,] -0.9939067 | | | | |
| ## [515,] -0.2163344 | ## [515,] -0.2163344 | | | | |
| ## [516,] 1.3388100 | ## [516,] 1.3388100 | | | | |
| ## [517,] 1.3388100 | ## [517,] 1.3388100 | ## | | -0.9561735 -0.01416085 | |
| ## [518,] 1.3388100 | ## [518,] 1.3388100 | ## | [516,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## [519,] 0.5612378 | ## [\$19,] | ## | [517,] 1.3388100 | -1.7343646 -1.51968319 | 0.5998996 |
| ## [520,] -0.9939067 | ## [520,] -0.9939067 -0.9561735 -1.51968319 0.5998996 ## [521,] 1.3388100 -0.1779823 -0.01416085 0.5998996 ## [523,] 1.3388100 -0.1779823 0.73860031 0.5998996 ## [524,] -0.2163344 0.6002088 -1.51968319 0.5998996 ## [526,] 0.5612378 -0.1779823 0.73860031 0.5998996 ## [526,] 0.5612378 -0.1779823 0.73860031 0.5998996 ## [526,] 0.5612378 -0.1779823 0.73860031 0.5998996 ## [527,] -1.7714789 1.3783999 -0.01416085 0.5998996 ## [529,] -1.7714789 1.3783999 -0.01416085 0.5998996 ## [530,] -0.9939067 -0.9561735 -1.51968319 0.5998996 ## [530,] -0.9939067 -0.9561735 -1.51968319 0.5998996 ## [533,] -0.9939067 0.6002088 -0.01416085 -2.1110562 ## [533,] -1.3388100 -0.1779823 1.49136148 0.5998996 ## [534,] -0.2163344 0.6002088 0.73860031 0.5998996 ## [534,] -0.2163344 0.6002088 0.73860031 0.5998996 ## [535,] 0.5612378 0.6002088 0.73860031 0.5998996 ## [536,] 1.3388100 -0.1779823 1.49136148 0.5998996 ## [537,] 1.3388100 1.378399 -0.76692202 0.5998996 ## [537,] 1.3388100 1.378399 0.76692202 0.5998996 ## [538,] 0.5612378 0.6002088 0.73860031 0.5998996 ## [537,] 1.3388100 1.378399 0.76692202 0.5998996 ## [537,] 1.3388100 1.378399 0.76692202 0.5998996 ## [534,] 0.5612378 0.6002088 0.73860031 0.5998996 ## [537,] 1.3388100 1.378399 0.76692202 0.5998996 ## [534,] 0.5612378 0.73860031 0.73860031 0.5998996 ## [534,] 0.5612378 0.73860031 0.73860031 0.5998996 ## [540,] 1.3388100 0.1779823 0.73860031 0.5998996 ## [540,] 1.3388100 0.00000000000000000000000000000000 | ## | [518,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## [521,] 1.3388100 | ## [521,] 1.3388100 | ## | [519,] 0.5612378 | -0.9561735 -0.76692202 | 0.5998996 |
| ## [522,] 1.3388100 | ## [522,] 1.3388100 | ## | [520,] -0.9939067 | -0.9561735 -1.51968319 | 0.5998996 |
| ## [523,] 0.5612378 | ## [524,] -0.2163344 | ## | [521,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## [524,] -0.2163344 | ## [524,] -0.2163344 | ## | [522,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## [525,] -0.2163344 | ## [525,] -0.2163344 | ## | [523,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## [526,] 0.5612378 | ## [526,] 0.5612378 | ## | [524,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## [527,] -1.7714789 | ## [527,] -1.7714789 | ## | [525,] -0.2163344 | -1.7343646 0.73860031 | 0.5998996 |
| ## [528,] -0.2163344 | ## [528,] -0.2163344 | ## | [526,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## [529,] -1.7714789 | ## [529,] -1.7714789 | ## | [527,] -1.7714789 | 1.3783999 -0.01416085 | 0.5998996 |
| ## [530,] -0.9939067 | ## [530,] -0.9939067 | ## | [528,] -0.2163344 | -0.1779823 0.73860031 | -2.1110562 |
| ## [531,] -0.9939067 | ## [531,] -0.9939067 | ## | [529,] -1.7714789 | 1.3783999 -1.51968319 | 0.5998996 |
| ## [532,] -0.9939067 | ## [532,] -0.9939067 | ## | [530,] -0.9939067 | -0.9561735 -1.51968319 | -0.7555783 |
| ## [533,] 1.3388100 | ## [533,] 1.3388100 | ## | [531,] -0.9939067 | 0.6002088 -0.01416085 | -2.1110562 |
| ## [534,] -0.2163344 | ## [534,] -0.2163344 | ## | [532,] -0.9939067 | 0.6002088 -1.51968319 | 0.5998996 |
| ## [535,] 0.5612378 | ## [535,] 0.5612378 | ## | [533,] 1.3388100 | -0.1779823 1.49136148 | 0.5998996 |
| ## [536,] 1.3388100 | ## [536,] 1.3388100 | ## | [534,] -0.2163344 | 0.6002088 0.73860031 | 0.5998996 |
| ## [537,] 1.3388100 | ## [537,] 1.3388100 | ## | | 0.6002088 0.73860031 | -2.1110562 |
| ## [538,] -0.2163344 | ## [538,] -0.2163344 | ## | [536,] 1.3388100 | 1.3783999 -0.76692202 | 0.5998996 |
| ## [539,] 0.5612378 | ## [539,] 0.5612378 | ## | [537,] 1.3388100 | -1.7343646 -0.76692202 | 0.5998996 |
| ## [540,] 1.3388100 | ## [540,] 1.3388100 | ## | [538,] -0.2163344 | 1.3783999 1.49136148 | 0.5998996 |
| ## [541,] 0.5612378 | ## [541,] 0.5612378 | ## | [539,] 0.5612378 | -0.9561735 -0.76692202 | 0.5998996 |
| ## [542,] 1.3388100 | ## [542,] 1.3388100 | ## | [540,] 1.3388100 | 1.3783999 0.73860031 | -2.1110562 |
| ## [543,] 0.5612378 | ## [543,] 0.5612378 | ## | [541,] 0.5612378 | 1.3783999 1.49136148 | 0.5998996 |
| ## [544,] -0.2163344 | ## [544,] -0.2163344 | ## | | -0.1779823 -0.76692202 | 0.5998996 |
| ## [545,] 0.5612378 | ## [545,] 0.5612378 | | | | |
| ## [546,] 1.3388100 | ## [546,] 1.3388100 | | | | |
| ## [547,] -0.2163344 | ## [547,] -0.2163344 | | | | |
| ## [548,] -1.7714789 | ## [548,] -1.7714789 | ## | | | 0.5998996 |
| ## [549,] -0.2163344 | ## [549,] -0.2163344 | | | | |
| ## [550,] 0.5612378 | ## [550,] 0.5612378 | ## | | | |
| ## [551,] 0.5612378 | ## [551,] 0.5612378 | | | | |
| ## [552,] -0.2163344 -0.9561735 -1.51968319 0.5998996 ## [553,] 1.3388100 -0.1779823 1.49136148 0.5998996 ## [554,] 1.3388100 -0.9561735 -0.01416085 0.5998996 | ## [552,] -0.2163344 | | _ | | |
| ## [553,] 1.3388100 -0.1779823 1.49136148 0.5998996 ## [554,] 1.3388100 -0.9561735 -0.01416085 0.5998996 | ## [553,] 1.3388100 | | _ | | |
| ## [554,] 1.3388100 -0.9561735 -0.01416085 0.5998996 | ## [554,] 1.3388100 | | | | |
| | ## [555,] -0.2163344 | | | | |
| ## [555,] -0.2163344 | ## [556,] 1.3388100 | | | | |
| | ## [557,] 1.3388100 | | | | |
| | ## [558,] 1.3388100 -0.1779823 0.73860031 0.5998996 ## [559,] 0.5612378 -0.9561735 1.49136148 0.5998996 ## [560,] -0.2163344 -1.7343646 -0.01416085 0.5998996 | | | | |
| | ## [559,] 0.5612378 -0.9561735 1.49136148 0.5998996 ## [560,] -0.2163344 -1.7343646 -0.01416085 0.5998996 | | _ | | |
| | ## [560,] -0.2163344 -1.7343646 -0.01416085 0.5998996 | | _ | | |
| | | | | | |
| | ## [FC4] 0 00200C7 | | | | |
| UU FECA 7 0 00000C7 0 0 0CC470F 0 0444C00F 0 F00000C | ## [501,] -0.9561/35 -0.01416085 0.5998996 | ## | [561,] -0.9939067 | -0.9561735 -0.01416085 | 0.5998996 |

```
-0.1779823 0.73860031
##
    [562,] -0.9939067
                                                                   -0.7555783
##
    [563,] -0.2163344
                                    -0.9561735 -0.01416085
                                                                    0.5998996
##
    [564,]
            1.3388100
                                     0.6002088 -0.76692202
                                                                   -0.7555783
##
    [565,] -0.2163344
                                     1.3783999 -1.51968319
                                                                    0.5998996
##
    [566,]
            1.3388100
                                    -0.9561735 -0.01416085
                                                                    0.5998996
##
    [567,] -1.7714789
                                    -0.9561735
                                                1.49136148
                                                                   -0.7555783
##
    [568,] -0.2163344
                                    -0.9561735 -0.76692202
                                                                   -0.7555783
##
    [569,]
            1.3388100
                                    -1.7343646 -1.51968319
                                                                    0.5998996
##
    [570,]
            0.5612378
                                    -0.9561735 -0.01416085
                                                                    0.5998996
    [571,]
##
            1.3388100
                                     0.6002088 -0.01416085
                                                                   -0.7555783
                                    -1.7343646 -0.76692202
##
    [572,] -0.2163344
                                                                    0.5998996
##
    [573,]
            1.3388100
                                     1.3783999
                                                0.73860031
                                                                    0.5998996
##
    [574,]
                                    -0.1779823 -1.51968319
                                                                    0.5998996
            1.3388100
##
    [575,]
                                     0.6002088 -0.76692202
                                                                    0.5998996
            0.5612378
##
    [576,] -0.9939067
                                     1.3783999
                                                1.49136148
                                                                    0.5998996
##
                                     1.3783999
                                                1.49136148
                                                                    0.5998996
    [577,] -0.2163344
##
    [578,]
            1.3388100
                                    -0.9561735 -0.01416085
                                                                    0.5998996
##
    [579,]
            0.5612378
                                     1.3783999
                                                0.73860031
                                                                   -0.7555783
##
    [580,] -0.9939067
                                     0.6002088 -0.76692202
                                                                    0.5998996
##
    [581,] -0.9939067
                                    -0.1779823 -1.51968319
                                                                   -2.1110562
##
    [582,]
            1.3388100
                                    -0.1779823 0.73860031
                                                                    0.5998996
##
    [583,] -0.9939067
                                    -0.1779823 -0.76692202
                                                                    0.5998996
##
    [584,] -1.7714789
                                     1.3783999 -0.01416085
                                                                   -0.7555783
##
                                    -0.1779823 -0.76692202
    [585,] -0.9939067
                                                                   -2.1110562
##
    [586,] -0.2163344
                                    -0.1779823 -1.51968319
                                                                    0.5998996
##
    [587,]
            1.3388100
                                     1.3783999 -0.76692202
                                                                    0.5998996
##
    [588,] -0.2163344
                                    -0.9561735 -0.76692202
                                                                    0.5998996
##
    [589,]
            1.3388100
                                    -1.7343646
                                                1.49136148
                                                                    0.5998996
##
                                                1.49136148
    [590,]
            0.5612378
                                     0.6002088
                                                                    0.5998996
##
    [591,] -0.9939067
                                     1.3783999 -0.01416085
                                                                    0.5998996
##
    [592,]
            0.5612378
                                     0.6002088
                                                1.49136148
                                                                   -2.1110562
##
    [593,]
            1.3388100
                                     1.3783999
                                                1.49136148
                                                                    0.5998996
##
    [594,] -0.9939067
                                    -0.1779823 -0.01416085
                                                                    0.5998996
##
    [595,] -0.2163344
                                    -0.1779823
                                                0.73860031
                                                                    0.5998996
##
    [596,] -1.7714789
                                    -1.7343646 -1.51968319
                                                                   -2.1110562
##
                                     0.6002088 -1.51968319
    [597,] -1.7714789
                                                                   -0.7555783
##
    [598,] -0.9939067
                                    -0.9561735 -0.76692202
                                                                    0.5998996
##
    [599,] -0.9939067
                                     1.3783999 -0.01416085
                                                                   -0.7555783
##
    [600,] -0.2163344
                                    -0.9561735 -0.76692202
                                                                    0.5998996
##
    [601,] -0.2163344
                                    -0.9561735
                                                0.73860031
                                                                    0.5998996
##
                                    -1.7343646
                                               0.73860031
                                                                    0.5998996
    [602,] -0.2163344
##
    [603,] -0.9939067
                                     0.6002088 -1.51968319
                                                                    0.5998996
##
    [604,]
            0.5612378
                                     0.6002088 -0.76692202
                                                                    0.5998996
##
    [605,]
            1.3388100
                                     0.6002088 -0.01416085
                                                                    0.5998996
##
                                     1.3783999 1.49136148
                                                                   -0.7555783
    [606,] -0.2163344
##
    [607,] -0.9939067
                                     0.6002088 -0.76692202
                                                                   -0.7555783
##
                                     1.3783999 -0.01416085
                                                                    0.5998996
    [608,]
            1.3388100
##
    [609,]
            0.5612378
                                    -0.9561735 -0.76692202
                                                                   -0.7555783
##
    [610,]
            0.5612378
                                     1.3783999 -0.01416085
                                                                   -0.7555783
                                     0.6002088 -1.51968319
                                                                    0.5998996
    [611,] -0.9939067
```

```
0.6002088 -0.01416085
##
    [612,]
            1.3388100
                                                                    0.5998996
##
    [613,] -0.2163344
                                    -0.9561735 -0.76692202
                                                                   -0.7555783
##
    [614,]
            0.5612378
                                    -0.9561735 -0.01416085
                                                                    0.5998996
##
    [615,]
                                     1.3783999 0.73860031
                                                                    0.5998996
            1.3388100
##
    [616,] -0.9939067
                                     0.6002088 -0.01416085
                                                                   -0.7555783
##
    [617,] -0.9939067
                                     1.3783999 -1.51968319
                                                                    0.5998996
##
    [618,]
            0.5612378
                                     0.6002088
                                                1.49136148
                                                                    0.5998996
##
    [619,] -0.2163344
                                    -0.1779823
                                                1.49136148
                                                                    0.5998996
##
    [620,] -1.7714789
                                     1.3783999 -1.51968319
                                                                    0.5998996
    [621,] -1.7714789
##
                                     0.6002088 -0.01416085
                                                                    0.5998996
##
                                    -1.7343646 -1.51968319
    [622,] -1.7714789
                                                                   -2.1110562
##
    [623,] -0.2163344
                                    -0.9561735 0.73860031
                                                                    0.5998996
##
    [624,] -0.9939067
                                    -0.1779823 -1.51968319
                                                                    0.5998996
##
    [625,]
                                    -1.7343646 -0.01416085
                                                                    0.5998996
            1.3388100
##
    [626,]
            0.5612378
                                    -0.1779823 -0.76692202
                                                                    0.5998996
##
                                    -0.9561735 -0.76692202
                                                                   -0.7555783
    [627,]
            0.5612378
##
    [628,]
            0.5612378
                                    -0.9561735 -0.76692202
                                                                    0.5998996
##
    [629,] -0.9939067
                                     0.6002088 -1.51968319
                                                                   -0.7555783
##
    [630,]
                                                1.49136148
                                                                    0.5998996
            1.3388100
                                    -1.7343646
##
            1.3388100
                                    -0.9561735 -0.01416085
                                                                    0.5998996
    [631,]
##
    [632,]
            0.5612378
                                    -0.1779823
                                                1.49136148
                                                                    0.5998996
##
    [633,] -0.9939067
                                    -0.9561735 -0.76692202
                                                                   -2.1110562
##
    [634,] -0.2163344
                                     0.6002088 -0.01416085
                                                                    0.5998996
##
                                    -0.1779823
                                                1.49136148
                                                                    0.5998996
    [635,]
            1.3388100
##
    [636,] -0.9939067
                                     0.6002088 -0.01416085
                                                                   -2.1110562
##
    [637,]
            0.5612378
                                    -0.9561735 -1.51968319
                                                                    0.5998996
##
    [638,]
            0.5612378
                                     1.3783999 0.73860031
                                                                    0.5998996
##
    [639,] -0.2163344
                                    -0.1779823 -0.01416085
                                                                   -0.7555783
##
                                     0.6002088 -1.51968319
    [640,] -1.7714789
                                                                   -3.4665342
                                    -0.1779823 -0.76692202
##
    [641,]
            1.3388100
                                                                    0.5998996
##
    [642,] -0.9939067
                                    -0.9561735 -1.51968319
                                                                    0.5998996
##
    [643,]
            1.3388100
                                     1.3783999
                                                1.49136148
                                                                    0.5998996
##
    [644,] -0.9939067
                                    -0.1779823
                                                1.49136148
                                                                    0.5998996
##
    [645,]
            0.5612378
                                    -0.9561735 -0.01416085
                                                                   -0.7555783
##
    [646,]
            0.5612378
                                     1.3783999 -0.01416085
                                                                    0.5998996
##
    [647,] -0.9939067
                                    -0.1779823 -1.51968319
                                                                    0.5998996
                                                                    0.5998996
##
    [648,]
            1.3388100
                                    -1.7343646 -1.51968319
##
    [649,] -0.2163344
                                    -0.9561735
                                                1.49136148
                                                                    0.5998996
##
    [650,]
            0.5612378
                                    -0.1779823
                                                0.73860031
                                                                    0.5998996
##
    [651,] -0.2163344
                                    -1.7343646 -1.51968319
                                                                   -0.7555783
##
                                    -0.9561735 -0.01416085
                                                                   -0.7555783
    [652,] -0.2163344
##
    [653,] -1.7714789
                                     1.3783999 -1.51968319
                                                                   -0.7555783
##
    [654,] -0.2163344
                                     1.3783999 -0.01416085
                                                                    0.5998996
##
    [655,] -0.2163344
                                     0.6002088 -0.76692202
                                                                   -2.1110562
##
                                    -0.9561735 -0.01416085
                                                                   -0.7555783
    [656,] -0.2163344
##
    [657,]
                                     0.6002088
                                                0.73860031
                                                                    0.5998996
            1.3388100
##
    [658,]
                                     0.6002088
                                                0.73860031
                                                                    0.5998996
            1.3388100
##
    [659,] -0.9939067
                                     0.6002088 -1.51968319
                                                                    0.5998996
##
    [660,] -0.9939067
                                    -1.7343646 -0.76692202
                                                                    0.5998996
                                    -0.9561735 -0.01416085
                                                                    0.5998996
    [661,] -0.2163344
```

| ## | [662,] 0.5612378 | -0.9561735 -0.01416085 | -0.7555783 |
|----|-------------------|------------------------|------------|
| ## | [663,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [664,] -0.9939067 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [665,] 0.5612378 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [666,] -0.2163344 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [667,] -1.7714789 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [668,] -1.7714789 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [669,] -0.9939067 | 1.3783999 0.73860031 | -2.1110562 |
| ## | [670,] 0.5612378 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [671,] -0.2163344 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [672,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [673,] 0.5612378 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [674,] -0.2163344 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [675,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [676,] 1.3388100 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [677,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [678,] -0.2163344 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [679,] -1.7714789 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [680,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [681,] -0.2163344 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [682,] -0.2163344 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [683,] -0.2163344 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [684,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [685,] 1.3388100 | -1.7343646 -0.76692202 | -0.7555783 |
| ## | [686,] 0.5612378 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [687,] -0.2163344 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [688,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [689,] 1.3388100 | -1.7343646 -0.01416085 | -2.1110562 |
| ## | [690,] 0.5612378 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [691,] -0.9939067 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [692,] 0.5612378 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [693,] -0.2163344 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [694,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [695,] -0.9939067 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [696,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [697,] -0.9939067 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [698,] -0.2163344 | -1.7343646 -0.76692202 | -2.1110562 |
| ## | [699,] 1.3388100 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [700,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [701,] -0.9939067 | -1.7343646 -1.51968319 | -0.7555783 |
| ## | [702,] -0.9939067 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [703,] -1.7714789 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [704,] -0.9939067 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [705,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [706,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [707,] -0.2163344 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [708,] -0.2163344 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [709,] -0.9939067 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [710,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [711,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| | <u>-</u> | | |

| ## | [712,] -0.2163344 | -0.9561735 -0.01416085 | -2.1110562 |
|----|-------------------|------------------------|------------|
| ## | [713,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [714,] -0.2163344 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [715,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [716,] -0.2163344 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [717,] 0.5612378 | 0.6002088 1.49136148 | -0.7555783 |
| ## | [718,] -0.2163344 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [719,] -0.2163344 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [720,] -0.9939067 | -0.1779823 -1.51968319 | -0.7555783 |
| ## | [721,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [722,] -1.7714789 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [723,] -0.2163344 | -0.9561735 1.49136148 | -0.7555783 |
| ## | [724,] -0.2163344 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [725,] -0.9939067 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [726,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [727,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [728,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [729,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [730,] -0.9939067 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [731,] -1.7714789 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [732,] -0.2163344 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [733,] -0.2163344 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [734,] 1.3388100 | 1.3783999 0.73860031 | -0.7555783 |
| ## | [735,] -0.9939067 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [736,] -0.9939067 | -1.7343646 0.73860031 | -3.4665342 |
| ## | [737,] -0.2163344 | -0.1779823 0.73860031 | -0.7555783 |
| ## | [738,] 0.5612378 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [739,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [740,] -0.2163344 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [741,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [742,] -0.9939067 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [743,] -0.2163344 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [744,] -1.7714789 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [745,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [746,] -0.9939067 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [747,] 0.5612378 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [748,] 0.5612378 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [749,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [750,] -0.2163344 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [751,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [752,] 1.3388100 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [753,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [754,] -0.9939067 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [755,] -0.9939067 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [756,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [757,] 0.5612378 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [758,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [759,] 0.5612378 | 1.3783999 -0.76692202 | -2.1110562 |
| ## | [760,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [761,] 0.5612378 | -0.9561735 0.73860031 | 0.5998996 |
| | | | |

| ## | [762,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [763,] 0.5612378 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [764,] -0.9939067 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [765,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [766,] -0.9939067 | 1.3783999 -1.51968319 | -0.7555783 |
| ## | [767,] 0.5612378 | -0.1779823 0.73860031 | -2.1110562 |
| ## | [768,] 0.5612378 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [769,] -0.2163344 | -0.1779823 -1.51968319 | -0.7555783 |
| ## | [770,] 0.5612378 | 0.6002088 0.73860031 | -0.7555783 |
| ## | [771,] 1.3388100 | 0.6002088 -0.01416085 | -3.4665342 |
| ## | [772,] -1.7714789 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [773,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [774,] -0.2163344 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [775,] -1.7714789 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [776,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [777,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [778,] 1.3388100 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [779,] 1.3388100 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [780,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | 781, 0.5612378 | -0.1779823 -0.76692202 | -2.1110562 |
| ## | [782,] -0.2163344 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [783,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [784,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [785,] -0.2163344 | 0.6002088 0.73860031 | -3.4665342 |
| ## | [786,] 0.5612378 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [787,] -0.9939067 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [788,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [789,] -0.2163344 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [790,] 1.3388100 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [791,] -0.9939067 | 1.3783999 -0.76692202 | -0.7555783 |
| ## | [792,] 1.3388100 | -0.1779823 -1.51968319 | -2.1110562 |
| ## | [793,] 0.5612378 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [794,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [795,] -0.2163344 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [796,] 1.3388100 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [797,] -0.2163344 | 1.3783999 0.73860031 | -3.4665342 |
| ## | [798,] 0.5612378 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [799,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [800,] -0.2163344 | 0.6002088 1.49136148 | -0.7555783 |
| ## | [801,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [802,] -1.7714789 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [803,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [804,] -0.2163344 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [805,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [806,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [807,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [808,] 0.5612378 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [809,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [810,] 1.3388100 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [811,] -0.9939067 | 0.6002088 1.49136148 | 0.5998996 |
| | | | |

| ## | [812,] -0.9939067 | 1.3783999 0.73860031 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [813,] 1.3388100 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [814,] 0.5612378 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [815,] 1.3388100 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [816,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [817,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [818,] -1.7714789 | -1.7343646 -0.01416085 | -2.1110562 |
| ## | [819,] -0.9939067 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [820,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [821,] 0.5612378 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [822,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [823,] -0.2163344 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [824,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [825,] -1.7714789 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [826,] -0.2163344 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [827,] 0.5612378 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [828,] 1.3388100 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [829,] -1.7714789 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [830,] -0.9939067 | 0.6002088 1.49136148 | -0.7555783 |
| ## | [831,] -0.2163344 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [832,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [833,] 1.3388100 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [834,] -0.2163344 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [835,] -0.2163344 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [836,] -1.7714789 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [837,] 0.5612378 | 1.3783999 -0.01416085 | -0.7555783 |
| ## | [838,] -1.7714789 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [839,] -0.2163344 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [840,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [841,] 0.5612378 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [842,] -1.7714789 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [843,] 0.5612378 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [844,] 1.3388100 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [845,] -0.2163344 | 0.6002088 1.49136148 | -0.7555783 |
| ## | [846,] 0.5612378 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [847,] 1.3388100 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [848,] 0.5612378 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [849,] 0.5612378 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [850,] -0.2163344 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [851,] 1.3388100 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [852,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [853,] 0.5612378 | -0.1779823 -1.51968319 | 0.5998996 |
| ## | [854,] 0.5612378 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [855,] 0.5612378 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [856,] -0.2163344 | 1.3783999 0.73860031 | 0.5998996 |
| ## | [857,] 1.3388100 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [858,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [859,] -0.9939067 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [860,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [861,] -0.9939067 | 1.3783999 0.73860031 | 0.5998996 |
| | | | |

| ## | [862,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
|----|-------------------|------------------------|------------|
| ## | [863,] 1.3388100 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [864,] 0.5612378 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [865,] -0.9939067 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [866,] 0.5612378 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [867,] -1.7714789 | 0.6002088 -0.01416085 | -3.4665342 |
| ## | [868,] -0.2163344 | 1.3783999 -1.51968319 | -2.1110562 |
| ## | [869,] -0.2163344 | -0.9561735 -1.51968319 | -0.7555783 |
| ## | [870,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [871,] 0.5612378 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [872,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [873,] -0.2163344 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [874,] -0.2163344 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [875,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [876,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [877,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [878,] -1.7714789 | -0.1779823 1.49136148 | 0.5998996 |
| ## | [879,] -0.9939067 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [880,] -0.2163344 | 0.6002088 -1.51968319 | 0.5998996 |
| ## | [881,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [882,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [883,] 0.5612378 | -1.7343646 -0.76692202 | 0.5998996 |
| ## | [884,] -0.9939067 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [885,] 1.3388100 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [886,] 0.5612378 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [887,] -1.7714789 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [888,] -0.9939067 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [889,] 0.5612378 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [890,] -0.9939067 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [891,] 0.5612378 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [892,] -0.2163344 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [893,] -0.9939067 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [894,] -0.9939067 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [895,] 1.3388100 | 0.6002088 -0.01416085 | 0.5998996 |
| ## | [896,] -0.9939067 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [897,] -0.9939067 | 0.6002088 0.73860031 | 0.5998996 |
| ## | [898,] -0.9939067 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [899,] -0.2163344 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [900,] -0.9939067 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [901,] -0.2163344 | -0.1779823 -0.01416085 | -2.1110562 |
| ## | [902,] -0.9939067 | -1.7343646 1.49136148 | -0.7555783 |
| ## | [903,] -0.2163344 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [904,] -1.7714789 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [905,] -0.2163344 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [906,] 1.3388100 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [907,] -0.9939067 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [908,] 0.5612378 | -0.9561735 -0.76692202 | -0.7555783 |
| ## | [909,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [910,] 0.5612378 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [911,] 1.3388100 | -0.1779823 1.49136148 | 0.5998996 |
| | | | |

| ## | [912,] -0.2163344 | -0.1779823 0.73860031 | -0.7555783 |
|----|-------------------|------------------------|------------|
| ## | [913,] -0.2163344 | 0.6002088 -0.01416085 | -3.4665342 |
| ## | [914,] -0.9939067 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [915,] 0.5612378 | -0.1779823 1.49136148 | -0.7555783 |
| ## | [916,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [917,] -1.7714789 | -0.1779823 -0.76692202 | -2.1110562 |
| ## | [918,] -0.2163344 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [919,] -0.2163344 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [920,] 1.3388100 | -1.7343646 1.49136148 | 0.5998996 |
| ## | [921,] -0.2163344 | -1.7343646 -0.01416085 | 0.5998996 |
| ## | [922,] -0.2163344 | -0.9561735 -1.51968319 | 0.5998996 |
| ## | [923,] 1.3388100 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [924,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [925,] 0.5612378 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [926,] 1.3388100 | -0.9561735 1.49136148 | 0.5998996 |
| ## | [927,] -0.9939067 | 1.3783999 -0.01416085 | -0.7555783 |
| ## | [928,] 0.5612378 | -0.9561735 0.73860031 | -0.7555783 |
| ## | [929,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [930,] 0.5612378 | 0.6002088 0.73860031 | -2.1110562 |
| ## | [931,] 1.3388100 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [932,] -0.9939067 | -0.1779823 -0.76692202 | -0.7555783 |
| ## | [933,] 0.5612378 | -0.1779823 -0.76692202 | 0.5998996 |
| ## | [934,] 1.3388100 | 1.3783999 1.49136148 | 0.5998996 |
| ## | [935,] -1.7714789 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [936,] 1.3388100 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [937,] 0.5612378 | -0.1779823 -0.01416085 | -0.7555783 |
| ## | [938,] -0.2163344 | -0.1779823 0.73860031 | 0.5998996 |
| ## | [939,] 1.3388100 | 0.6002088 0.73860031 | -2.1110562 |
| ## | [940,] -0.9939067 | -0.1779823 -1.51968319 | -0.7555783 |
| ## | [941,] -0.2163344 | -0.9561735 -0.76692202 | 0.5998996 |
| ## | [942,] 1.3388100 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [943,] 0.5612378 | -1.7343646 -0.01416085 | -0.7555783 |
| ## | [944,] 1.3388100 | -0.9561735 0.73860031 | 0.5998996 |
| ## | [945,] 1.3388100 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [946,] -1.7714789 | 1.3783999 -0.76692202 | 0.5998996 |
| ## | [947,] -0.9939067 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [948,] 0.5612378 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [949,] 0.5612378 | 0.6002088 1.49136148 | 0.5998996 |
| ## | [950,] -1.7714789 | -1.7343646 -1.51968319 | 0.5998996 |
| ## | [951,] -0.2163344 | 1.3783999 -1.51968319 | -2.1110562 |
| ## | [952,] -1.7714789 | 1.3783999 -1.51968319 | 0.5998996 |
| ## | [953,] -0.2163344 | 0.6002088 -0.76692202 | 0.5998996 |
| ## | [954,] 0.5612378 | 0.6002088 -0.01416085 | -0.7555783 |
| ## | [955,] 0.5612378 | -1.7343646 0.73860031 | 0.5998996 |
| ## | [956,] 0.5612378 | 1.3783999 -0.01416085 | 0.5998996 |
| ## | [957,] -1.7714789 | -0.1779823 -0.01416085 | 0.5998996 |
| ## | [958,] -0.9939067 | 0.6002088 -0.76692202 | -0.7555783 |
| ## | [959,] 1.3388100 | -0.9561735 -0.01416085 | 0.5998996 |
| ## | [960,] -0.9939067 | -0.9561735 -0.01416085 | -0.7555783 |
| ## | [961,] -0.9939067 | -0.9561735 0.73860031 | 0.5998996 |
| | | | |

| ## | | 0.5612378 | 1.3783999 | -1.51968319 | 0.5998996 |
|----|---------|------------------|------------|-------------|------------|
| ## | [963,] | -0.2163344 | -1.7343646 | 0.73860031 | -0.7555783 |
| ## | [964,] | -0.9939067 | 1.3783999 | -1.51968319 | 0.5998996 |
| ## | | -0.9939067 | 0.6002088 | -0.01416085 | -0.7555783 |
| ## | | 1.3388100 | | -0.01416085 | 0.5998996 |
| ## | | 1.3388100 | | 1.49136148 | 0.5998996 |
| | | | | | |
| ## | | -0.9939067 | | 0.73860031 | 0.5998996 |
| ## | | -0.9939067 | | -0.76692202 | 0.5998996 |
| ## | | -0.9939067 | | -0.76692202 | 0.5998996 |
| ## | [971,] | | | 0.73860031 | 0.5998996 |
| ## | | -0.2163344 | | -0.76692202 | -0.7555783 |
| ## | | 1.3388100 | 1.3783999 | 1.49136148 | 0.5998996 |
| ## | | 1.3388100 | | -0.01416085 | -0.7555783 |
| ## | [975,] | -0.9939067 | 0.6002088 | -0.01416085 | 0.5998996 |
| ## | [976,] | 0.5612378 | -0.1779823 | 0.73860031 | 0.5998996 |
| ## | [977,] | 0.5612378 | -0.1779823 | 0.73860031 | 0.5998996 |
| ## | [978,] | 0.5612378 | -1.7343646 | -0.76692202 | 0.5998996 |
| ## | [979,] | -0.9939067 | -0.9561735 | 1.49136148 | 0.5998996 |
| ## | | -0.2163344 | -0.1779823 | -0.01416085 | 0.5998996 |
| ## | | -1.7714789 | | 1.49136148 | 0.5998996 |
| ## | | -0.2163344 | | 1.49136148 | -2.1110562 |
| ## | | 1.3388100 | 1.3783999 | 0.73860031 | 0.5998996 |
| ## | | 0.5612378 | | -0.01416085 | 0.5998996 |
| ## | | -0.9939067 | | 1.49136148 | -0.7555783 |
| | | | | | |
| ## | | -0.9939067 | | 1.49136148 | -0.7555783 |
| ## | | -0.9939067 | -0.1779823 | 0.73860031 | -0.7555783 |
| ## | | -1.7714789 | | -0.01416085 | -0.7555783 |
| ## | | 1.3388100 | 1.3783999 | 1.49136148 | 0.5998996 |
| ## | | -0.2163344 | -0.1779823 | 1.49136148 | 0.5998996 |
| ## | | -1.7714789 | | -1.51968319 | 0.5998996 |
| ## | [992,] | -1.7714789 | -0.1779823 | -1.51968319 | -2.1110562 |
| ## | [993,] | -1.7714789 | 1.3783999 | -0.76692202 | 0.5998996 |
| ## | [994,] | -0.2163344 | -0.9561735 | 0.73860031 | 0.5998996 |
| ## | [995,] | -0.2163344 | -0.1779823 | -0.01416085 | -0.7555783 |
| ## | [996,] | -0.2163344 | -0.1779823 | -0.76692202 | 0.5998996 |
| ## | [997,] | -1.7714789 | -0.9561735 | -0.76692202 | 0.5998996 |
| ## | | -1.7714789 | -0.9561735 | -0.76692202 | 0.5998996 |
| ## | | -0.9939067 | | 0.73860031 | 0.5998996 |
| | | -1.7714789 | | 0.73860031 | 0.5998996 |
| | | 1.3388100 | | 0.73860031 | 0.5998996 |
| | | 1.3388100 | | 0.73860031 | 0.5998996 |
| | | -1.7714789 | | -1.51968319 | 0.5998996 |
| | | | | -0.01416085 | -0.7555783 |
| | | -0.2163344 | | -0.76692202 | 0.5998996 |
| | | -0.9939067 | | | |
| | | 1.3388100 | | 1.49136148 | 0.5998996 |
| | | -0.9939067 | | -1.51968319 | 0.5998996 |
| | | -0.9939067 | | -0.76692202 | -2.1110562 |
| | | 1.3388100 | | 1.49136148 | 0.5998996 |
| | [1010,] | -0.2163344 | | -1.51968319 | 0.5998996 |
| ## | | Adrenaline.sport | s Pets | | |
| | | | | | |

```
##
      [1,]
                   0.73871905
                                0.4317731
##
      [2,]
                  -0.66770177
                                1.0787922
##
      [3,]
                   1.44192947
                                1.0787922
##
                  -1.37091218 -1.5092841
      [4,]
##
      [5,]
                  -0.66770177 -1.5092841
##
      [6,]
                   0.03550864 -0.8622650
##
      [7,]
                  -1.37091218
                                1.0787922
##
      [8,]
                  -0.66770177
                                1.0787922
##
      [9,]
                  -1.37091218 -1.5092841
##
     [10,]
                  -0.66770177 -0.8622650
##
     [11,]
                  -1.37091218
                               1.0787922
                  -1.37091218 -1.5092841
##
     [12,]
                  -1.37091218 -0.8622650
##
     [13,]
##
     [14,]
                   0.73871905
                                1.0787922
##
                  -1.37091218
                                1.0787922
     [15,]
##
     [16,]
                   1.44192947 -1.5092841
##
     [17,]
                   0.73871905
                                1.0787922
##
                  -1.37091218
                                1.0787922
     [18,]
##
     [19,]
                  -1.37091218
                                0.4317731
##
                   0.03550864 -1.5092841
     [20,]
##
                   0.03550864 -0.2152459
     [21,]
##
     [22,]
                   1.44192947
                                1.0787922
##
     [23,]
                  -0.66770177
                                1.0787922
##
     [24,]
                   0.03550864
                                1.0787922
##
     [25,]
                   0.03550864 -0.2152459
##
     [26,]
                  -1.37091218 -0.2152459
##
     [27,]
                   0.73871905
                                1.0787922
##
     [28,]
                  -0.66770177
                                1.0787922
##
                   0.73871905 -0.2152459
     [29,]
##
                   0.03550864 -0.8622650
     [30,]
##
     [31,]
                   0.73871905 -0.2152459
##
     [32,]
                  -0.66770177 -1.5092841
##
     [33,]
                  -1.37091218
                                1.0787922
##
     [34,]
                   1.44192947
                                1.0787922
##
     [35,]
                   1.44192947 -1.5092841
##
     [36,]
                  -0.66770177
                                1.0787922
##
     [37,]
                  -1.37091218
                                1.0787922
##
                   1.44192947 -0.2152459
     [38,]
##
     [39,]
                  -1.37091218
                                1.0787922
##
                                1.0787922
     [40,]
                   0.03550864
##
     [41,]
                  -1.37091218 -0.8622650
##
     [42,]
                   1.44192947 -0.2152459
##
     [43,]
                   0.03550864
                                1.0787922
##
     [44,]
                   -0.66770177
                                1.0787922
##
     [45,]
                   1.44192947
                                1.0787922
##
     [46,]
                  -1.37091218
                                0.4317731
##
     [47,]
                   1.44192947
                                0.4317731
##
     [48,]
                  -0.66770177
                                1.0787922
##
     [49,]
                  -0.66770177 -0.8622650
     [50,]
##
                  -1.37091218 1.0787922
```

```
##
     [51,]
                   0.73871905 1.0787922
##
     [52,]
                  -1.37091218 0.4317731
##
     [53,]
                   1.44192947 -0.2152459
##
     [54,]
                   0.03550864 -1.5092841
##
     [55,]
                  -1.37091218 -1.5092841
##
     [56,]
                   0.73871905 1.0787922
##
     [57,]
                  -0.66770177 -0.2152459
##
     [58,]
                  -0.66770177
                               1.0787922
##
     [59,]
                   0.03550864 -0.2152459
##
     [60,]
                  -1.37091218 -1.5092841
##
     [61,]
                   0.03550864 -1.5092841
##
     [62,]
                  -0.66770177 1.0787922
##
                   1.44192947 -1.5092841
     [63,]
##
     [64,]
                   1.44192947 -0.2152459
##
                   0.73871905
                               1.0787922
     [65,]
##
     [66,]
                   0.03550864 -0.2152459
##
     [67,]
                  -0.66770177 -1.5092841
##
     [68,]
                  -0.66770177
                               0.4317731
##
     [69,]
                  -1.37091218
                                0.4317731
##
                  -1.37091218
                               0.4317731
     [70,]
##
                   1.44192947 -0.8622650
     [71,]
##
     [72,]
                   0.03550864
                               1.0787922
##
                   0.73871905 -0.8622650
     [73,]
##
     [74,]
                  -1.37091218
                               1.0787922
##
     [75,]
                   0.73871905 -0.2152459
##
     [76,]
                   0.03550864
                              0.4317731
##
                   0.73871905 -0.2152459
     [77,]
##
     [78,]
                   0.03550864 -1.5092841
##
     [79,]
                   1.44192947 -0.2152459
##
                   0.73871905
                                1.0787922
     [80,]
##
     [81,]
                   0.73871905
                                1.0787922
##
     [82,]
                   0.73871905 -0.8622650
##
     [83,]
                   0.03550864
                                1.0787922
##
     [84,]
                   1.44192947
                                1.0787922
##
     [85,]
                   0.03550864
                                1.0787922
##
                   0.03550864 -1.5092841
     [86,]
                   0.73871905 -0.8622650
##
     [87,]
##
                   1.44192947 -0.2152459
     [88,]
                  -1.37091218 1.0787922
##
     [89,]
##
                  -1.37091218 -0.8622650
     [90,]
##
     [91,]
                  -0.66770177 -0.2152459
##
     [92,]
                   0.73871905 -1.5092841
##
     [93,]
                  -0.66770177 -0.2152459
##
     [94,]
                   0.73871905 -0.2152459
##
                  -0.66770177 -0.2152459
     [95,]
##
     [96,]
                   1.44192947 0.4317731
##
     [97,]
                  -1.37091218 -1.5092841
##
     [98,]
                   0.03550864 1.0787922
##
     [99,]
                   1.44192947 -1.5092841
##
    [100,]
                  -1.37091218 0.4317731
```

```
##
    [101,]
                   0.03550864 -0.8622650
##
    [102,]
                  -1.37091218 -0.2152459
##
    [103,]
                   0.03550864 -1.5092841
##
    [104,]
                  -0.66770177 -1.5092841
##
    [105,]
                   0.03550864 -0.8622650
##
    [106,]
                  -1.37091218 0.4317731
##
    [107,]
                   0.03550864 -1.5092841
##
    [108,]
                   1.44192947 0.4317731
##
    [109,]
                  -1.37091218 -0.2152459
##
    [110,]
                  -0.66770177 -1.5092841
##
                   0.73871905 -0.2152459
    [111,]
##
    [112,]
                   0.03550864 -1.5092841
##
                  -1.37091218 -0.2152459
    [113,]
##
    [114,]
                   0.73871905
                               1.0787922
##
    [115,]
                   0.73871905
                                1.0787922
##
                   0.03550864 -0.2152459
    [116,]
##
    [117,]
                  -1.37091218
                                0.4317731
##
    [118,]
                  -1.37091218
                                1.0787922
##
    [119,]
                                0.4317731
                   0.03550864
##
    [120,]
                  -0.66770177 -0.2152459
##
    [121,]
                   0.73871905
                               1.0787922
##
    [122,]
                   1.44192947 -0.2152459
##
    [123,]
                  -1.37091218
                                0.4317731
##
                                0.4317731
    [124,]
                  -0.66770177
##
                   1.44192947
                                0.4317731
    [125,]
##
    [126,]
                  -0.66770177
                                1.0787922
                  -1.37091218 -1.5092841
##
    [127,]
##
    [128,]
                   0.73871905 -0.8622650
##
                                1.0787922
    [129,]
                   1.44192947
                                1.0787922
##
    [130,]
                  -1.37091218
##
    [131,]
                   0.03550864 -1.5092841
                   1.44192947 -0.2152459
##
    [132,]
##
    [133,]
                   0.03550864
                                1.0787922
##
    [134,]
                  -1.37091218
                                0.4317731
##
    [135,]
                   0.73871905
                                0.4317731
##
                  -1.37091218
                                1.0787922
    [136,]
##
    [137,]
                   0.03550864 -0.2152459
##
    [138,]
                  -1.37091218 -1.5092841
##
    [139,]
                  -1.37091218 -0.2152459
##
    [140,]
                   0.03550864
                                1.0787922
##
                   1.44192947
                                1.0787922
    [141,]
##
    [142,]
                  -1.37091218
                                1.0787922
##
    [143,]
                  -1.37091218 -1.5092841
##
    [144,]
                  -1.37091218
                               1.0787922
##
    [145,]
                   0.03550864 -0.2152459
##
    [146,]
                   0.03550864 -0.8622650
##
    [147,]
                  -0.66770177 0.4317731
##
    [148,]
                  -0.66770177 -0.2152459
##
    [149,]
                  -0.66770177 -1.5092841
##
                   0.03550864 -1.5092841
   [150,]
```

```
##
    [151,]
                   0.03550864 -1.5092841
##
    [152,]
                  -0.66770177 -0.2152459
##
    [153,]
                   0.73871905 0.4317731
##
    [154,]
                  -0.66770177 -1.5092841
##
    [155,]
                  -1.37091218 -0.2152459
                               0.4317731
##
    [156,]
                   0.73871905
##
    [157,]
                  -1.37091218
                               0.4317731
##
    [158,]
                   0.73871905 -0.8622650
##
    [159,]
                  -0.66770177
                                1.0787922
    [160,]
##
                   1.44192947
                                1.0787922
##
                   0.73871905 -1.5092841
    [161,]
##
    [162,]
                   0.03550864
                               1.0787922
                  -0.66770177 -0.8622650
##
    [163,]
##
    [164,]
                  -1.37091218 -1.5092841
##
    [165,]
                  -1.37091218 0.4317731
##
                   0.73871905 -0.8622650
    [166,]
##
    [167,]
                   0.03550864 -1.5092841
##
    [168,]
                  -0.66770177 0.4317731
##
    [169,]
                   1.44192947 -1.5092841
##
                   0.03550864
                                0.4317731
    [170,]
##
    [171,]
                   0.03550864
                               0.4317731
##
                   0.73871905 -1.5092841
    [172,]
##
    [173,]
                  -0.66770177 -0.2152459
##
                  -0.66770177
                                1.0787922
    [174,]
##
                  -1.37091218 -0.2152459
    [175,]
##
    [176,]
                   0.03550864
                                1.0787922
##
    [177,]
                   0.03550864
                                0.4317731
##
    [178,]
                  -1.37091218
                                1.0787922
##
                  -1.37091218 -0.2152459
    [179,]
##
    [180,]
                   0.73871905
                               0.4317731
##
                   1.44192947 -1.5092841
    [181,]
##
    [182,]
                  -0.66770177 -0.8622650
##
    [183,]
                   0.03550864
                                1.0787922
##
    [184,]
                   1.44192947
                                1.0787922
##
    [185,]
                  -1.37091218 -0.8622650
##
                   0.73871905
                               1.0787922
    [186,]
##
    [187,]
                  -0.66770177 0.4317731
##
    [188,]
                   0.03550864 -0.8622650
##
    [189,]
                   0.03550864 -1.5092841
##
    [190,]
                   0.03550864 -1.5092841
##
                   0.73871905 -0.8622650
    [191,]
##
    [192,]
                  -1.37091218 -0.8622650
##
    [193,]
                  -0.66770177
                               1.0787922
##
    [194,]
                  -1.37091218 1.0787922
                   0.73871905 -1.5092841
##
    [195,]
##
    [196,]
                   0.03550864 -1.5092841
##
    [197,]
                   0.73871905 -1.5092841
##
    [198,]
                  -1.37091218 0.4317731
##
    [199,]
                   0.03550864 0.4317731
##
                   1.44192947 -0.2152459
   [200,]
```

```
##
    [201,]
                  -0.66770177
                                1.0787922
##
    [202,]
                  -1.37091218
                                1.0787922
##
    [203,]
                   0.03550864
                                0.4317731
##
    [204,]
                   0.73871905 -0.2152459
##
    [205,]
                  -1.37091218 -0.2152459
##
    [206,]
                  -1.37091218 -0.8622650
##
    [207,]
                   0.03550864 -0.2152459
##
    [208,]
                  -0.66770177
                                1.0787922
##
    [209,]
                   1.44192947
                                1.0787922
##
    [210,]
                   0.73871905 -0.2152459
##
                   0.73871905
                                1.0787922
    [211,]
##
    [212,]
                   0.03550864
                                0.4317731
##
                  -0.66770177 -1.5092841
    [213,]
##
    [214,]
                   0.73871905 0.4317731
##
    [215,]
                  -0.66770177 -0.2152459
##
                   0.73871905 -1.5092841
    [216,]
##
    [217,]
                   0.03550864 -1.5092841
##
    [218,]
                   0.73871905
                                1.0787922
##
    [219,]
                   0.73871905
                                1.0787922
##
    [220,]
                   1.44192947 -0.2152459
##
    [221,]
                   0.03550864
                                1.0787922
##
                   0.73871905
                                0.4317731
    [222,]
##
    [223,]
                  -1.37091218 -1.5092841
##
                   1.44192947
                                1.0787922
    [224,]
##
                  -1.37091218 -1.5092841
    [225,]
##
    [226,]
                   0.73871905 -0.2152459
##
                               1.0787922
    [227,]
                   0.03550864
##
    [228,]
                  -1.37091218 -0.2152459
##
                                1.0787922
    [229,]
                  -0.66770177
##
    [230,]
                   1.44192947 -1.5092841
##
    [231,]
                   0.03550864
                                0.4317731
##
    [232,]
                  -0.66770177
                                1.0787922
##
    [233,]
                  -1.37091218 -1.5092841
##
    [234,]
                   0.03550864
                                1.0787922
##
    [235,]
                   0.03550864
                                1.0787922
##
                  -1.37091218 -0.2152459
    [236,]
    [237,]
##
                  -1.37091218
                                1.0787922
##
    [238,]
                   1.44192947
                                1.0787922
##
    [239,]
                  -1.37091218 -0.2152459
##
    [240,]
                   0.03550864
                                0.4317731
##
                   1.44192947 -0.2152459
    [241,]
##
    [242,]
                   0.03550864
                                1.0787922
##
    [243,]
                  -1.37091218 -0.8622650
##
    [244,]
                  -1.37091218 -1.5092841
##
    [245,]
                  -1.37091218
                                1.0787922
##
    [246,]
                   1.44192947
                                1.0787922
##
    [247,]
                   0.03550864
                                1.0787922
##
    [248,]
                   0.73871905 -1.5092841
##
    [249,]
                   0.73871905 -0.2152459
##
                   1.44192947 1.0787922
   [250,]
```

```
##
    [251,]
                   0.73871905 -1.5092841
##
    [252,]
                  -1.37091218
                               1.0787922
##
    [253,]
                  -0.66770177
                                1.0787922
##
    [254,]
                  -1.37091218 -1.5092841
##
    [255,]
                  -1.37091218 1.0787922
##
    [256,]
                   0.73871905 -0.2152459
##
    [257,]
                   0.03550864 -1.5092841
##
    [258,]
                   0.73871905 -1.5092841
##
    [259,]
                  -1.37091218 -0.8622650
##
    [260,]
                  -1.37091218 -1.5092841
##
                   0.03550864 -0.2152459
    [261,]
##
    [262,]
                   0.03550864
                               1.0787922
##
                  -1.37091218 -0.2152459
    [263,]
##
    [264,]
                  -0.66770177 -0.2152459
##
    [265,]
                   0.73871905
                                1.0787922
##
                  -1.37091218
                                1.0787922
    [266,]
##
                   0.73871905
                                0.4317731
    [267,]
##
    [268,]
                   0.73871905
                                1.0787922
##
    [269,]
                                1.0787922
                   0.03550864
##
                   0.03550864 -0.2152459
    [270,]
##
    [271,]
                  -1.37091218
                                1.0787922
##
                   1.44192947
                                1.0787922
    [272,]
##
    [273,]
                  -1.37091218
                                1.0787922
##
                   1.44192947 -1.5092841
    [274,]
##
                   0.03550864
                                0.4317731
    [275,]
##
    [276,]
                  -1.37091218 -0.8622650
##
                   1.44192947 -1.5092841
    [277,]
##
    [278,]
                  -0.66770177 -1.5092841
##
                   1.44192947
                                1.0787922
    [279,]
##
    [280,]
                  -1.37091218
                                1.0787922
##
                   0.03550864
                                0.4317731
    [281,]
##
    [282,]
                  -1.37091218
                                1.0787922
##
    [283,]
                  -1.37091218
                                1.0787922
##
    [284,]
                   1.44192947 -1.5092841
##
    [285,]
                   1.44192947
                                0.4317731
                  -1.37091218
##
    [286,]
                                1.0787922
    [287,]
##
                  -0.66770177
                                1.0787922
##
                                0.4317731
    [288,]
                  -0.66770177
##
    [289,]
                   1.44192947 -0.2152459
##
    [290,]
                   1.44192947
                                0.4317731
##
                   0.73871905 -0.8622650
    [291,]
##
    [292,]
                   0.73871905 -0.2152459
##
    [293,]
                   0.03550864
                                1.0787922
##
    [294,]
                  -0.66770177
                                1.0787922
##
                  -0.66770177
    [295,]
                                1.0787922
##
    [296,]
                                1.0787922
                   0.73871905
##
    [297,]
                   1.44192947
                                0.4317731
##
    [298,]
                  -0.66770177 -0.2152459
##
    [299,]
                   0.03550864
                                1.0787922
                  -1.37091218 0.4317731
##
   [300,]
```

```
##
    [301,]
                   0.03550864 -0.8622650
##
    [302,]
                  -1.37091218 -0.2152459
##
    [303,]
                  -0.66770177 -1.5092841
##
                  -1.37091218 1.0787922
    [304,]
##
    [305,]
                  -1.37091218 -1.5092841
##
                   0.73871905
                                1.0787922
    [306,]
                   1.44192947
##
    [307,]
                                1.0787922
##
    [308,]
                  -1.37091218 -1.5092841
##
    [309,]
                   0.73871905 -0.2152459
    [310,]
                   0.73871905 -1.5092841
##
##
                   0.73871905
                               1.0787922
    [311,]
##
    [312,]
                   1.44192947 -0.8622650
##
                  -0.66770177 -0.2152459
    [313,]
##
    [314,]
                  -0.66770177 -0.2152459
##
    [315,]
                   1.44192947
                                1.0787922
##
                  -1.37091218 -1.5092841
    [316,]
##
    [317,]
                   0.73871905
                                1.0787922
##
    [318,]
                   0.03550864
                                1.0787922
##
    [319,]
                                1.0787922
                   0.03550864
##
                   0.03550864 -0.2152459
    [320,]
##
    [321,]
                   0.03550864 -0.2152459
##
                   0.73871905
                                1.0787922
    [322,]
##
    [323,]
                   0.03550864
                                1.0787922
##
                                1.0787922
    [324,]
                  -0.66770177
##
                   0.73871905 -0.2152459
    [325,]
##
    [326,]
                   1.44192947
                                1.0787922
##
    [327,]
                  -0.66770177
                                0.4317731
##
    [328,]
                  -0.66770177
                                1.0787922
##
                   0.03550864 -1.5092841
    [329,]
##
    [330,]
                  -0.66770177
                                0.4317731
##
                  -1.37091218
                                1.0787922
    [331,]
##
    [332,]
                   1.44192947
                                1.0787922
##
    [333,]
                  -1.37091218
                                1.0787922
##
    [334,]
                   0.03550864
                                1.0787922
##
    [335,]
                   0.03550864 -0.8622650
                   0.73871905 -0.2152459
##
    [336,]
    [337,]
##
                  -1.37091218
                                0.4317731
##
    [338,]
                   1.44192947
                                1.0787922
##
    [339,]
                   0.73871905 -1.5092841
##
    [340,]
                  -0.66770177
                                1.0787922
##
                  -0.66770177 -1.5092841
    [341,]
##
    [342,]
                   1.44192947 -0.8622650
##
    [343,]
                   0.73871905
                                1.0787922
##
    [344,]
                  -1.37091218
                                1.0787922
##
                  -1.37091218 -1.5092841
    [345,]
##
    [346,]
                                0.4317731
                   0.03550864
##
    [347,]
                                1.0787922
                   0.03550864
##
    [348,]
                   1.44192947 -1.5092841
##
    [349,]
                   0.73871905
                                0.4317731
##
                   1.44192947 1.0787922
   [350,]
```

```
##
    [351,]
                   0.03550864 -0.2152459
##
    [352,]
                   0.73871905 1.0787922
##
    [353,]
                   1.44192947 -0.8622650
##
    [354,]
                   0.03550864 -0.2152459
##
    [355,]
                  -1.37091218 0.4317731
##
                  -0.66770177 -1.5092841
    [356,]
                  -0.66770177 -0.2152459
##
    [357,]
##
    [358,]
                   0.03550864
                               1.0787922
##
    [359,]
                  -1.37091218
                                1.0787922
    [360,]
                               1.0787922
##
                  -1.37091218
##
                  -1.37091218 -0.8622650
    [361,]
##
    [362,]
                   0.03550864 1.0787922
                   1.44192947 -0.2152459
##
    [363,]
##
    [364,]
                   1.44192947 -0.2152459
##
    [365,]
                   0.73871905 -1.5092841
##
                   1.44192947 -1.5092841
    [366,]
##
                   0.03550864 -1.5092841
    [367,]
##
    [368,]
                   1.44192947 -0.2152459
##
    [369,]
                               1.0787922
                   0.73871905
##
                   1.44192947
                                1.0787922
    [370,]
##
    [371,]
                   0.03550864
                               1.0787922
##
                  -0.66770177 -0.2152459
    [372,]
##
    [373,]
                  -0.66770177 -1.5092841
##
                   1.44192947 -1.5092841
    [374,]
##
                   1.44192947
                               1.0787922
    [375,]
##
    [376,]
                  -1.37091218 -1.5092841
##
    [377,]
                  -1.37091218
                               1.0787922
##
    [378,]
                   1.44192947
                                0.4317731
##
                   1.44192947
                                1.0787922
    [379,]
                   0.03550864 -0.2152459
##
    [380,]
##
                   1.44192947
                                0.4317731
    [381,]
##
    [382,]
                  -0.66770177
                                1.0787922
##
    [383,]
                   0.73871905
                               1.0787922
##
    [384,]
                   0.03550864 -1.5092841
##
    [385,]
                  -1.37091218 -1.5092841
##
                   1.44192947 -1.5092841
    [386,]
    [387,]
##
                   0.73871905 -0.8622650
##
    [388,]
                   0.73871905
                               1.0787922
##
    [389,]
                   0.03550864 1.0787922
##
    [390,]
                  -0.66770177 -0.2152459
##
                  -1.37091218 -0.8622650
    [391,]
##
    [392,]
                  -0.66770177 -0.8622650
##
    [393,]
                   0.03550864 -1.5092841
##
    [394,]
                   0.03550864 -0.2152459
##
    [395,]
                  -1.37091218 -0.2152459
##
    [396,]
                   0.03550864 -1.5092841
##
    [397,]
                   0.03550864 -1.5092841
##
    [398,]
                  -1.37091218 1.0787922
##
    [399,]
                   0.73871905 -1.5092841
##
                  -0.66770177 1.0787922
   [400,]
```

```
##
    [401,]
                  -1.37091218 -1.5092841
##
    [402,]
                  -1.37091218 -1.5092841
##
    [403,]
                   0.03550864
                               1.0787922
##
    [404,]
                   1.44192947
                                0.4317731
##
    [405,]
                   1.44192947
                                1.0787922
##
    [406,]
                  -1.37091218 -0.2152459
                  -1.37091218 -1.5092841
##
    [407,]
    [408,]
##
                   0.73871905
                               1.0787922
##
    [409,]
                  -1.37091218 -1.5092841
    [410,]
                   0.73871905 -0.2152459
##
##
                   1.44192947
                               1.0787922
    [411,]
##
    [412,]
                  -1.37091218 -0.2152459
##
    [413,]
                  -1.37091218
                               1.0787922
##
    [414,]
                   1.44192947 0.4317731
##
    [415,]
                  -1.37091218 -0.2152459
##
                   1.44192947 -1.5092841
    [416,]
##
    [417,]
                   0.03550864 -0.2152459
##
    [418,]
                   0.73871905
                               1.0787922
##
    [419,]
                  -0.66770177
                                1.0787922
##
    [420,]
                  -1.37091218 -0.8622650
##
    [421,]
                   0.03550864 -0.8622650
##
    [422,]
                  -0.66770177
                                1.0787922
##
    [423,]
                   1.44192947
                                1.0787922
##
                                1.0787922
    [424,]
                  -0.66770177
##
                  -0.66770177
                                1.0787922
    [425,]
##
    [426,]
                   0.03550864
                                1.0787922
                  -1.37091218 -1.5092841
##
    [427,]
##
    [428,]
                  -1.37091218 -1.5092841
##
                  -0.66770177
                                1.0787922
    [429,]
                                0.4317731
##
    [430,]
                   0.73871905
##
    [431,]
                   0.73871905
                                0.4317731
                   0.73871905 -0.2152459
##
    [432,]
##
    [433,]
                  -1.37091218 -0.2152459
##
    [434,]
                  -0.66770177 -1.5092841
##
    [435,]
                   0.73871905
                               0.4317731
##
                  -0.66770177
                               1.0787922
    [436,]
##
    [437,]
                  -1.37091218 -0.8622650
##
                   0.03550864 -1.5092841
    [438,]
##
    [439,]
                  -1.37091218 0.4317731
##
    [440,]
                  -0.66770177 -1.5092841
##
    [441,]
                   0.03550864 -0.2152459
##
    [442,]
                  -0.66770177
                                1.0787922
##
    [443,]
                  -0.66770177
                                1.0787922
##
    [444,]
                   0.73871905 -1.5092841
##
    [445,]
                   1.44192947 -1.5092841
##
    [446,]
                              1.0787922
                   0.03550864
##
    [447,]
                   0.03550864 -0.8622650
##
    [448,]
                  -1.37091218
                               0.4317731
##
    [449,]
                   0.03550864
                                0.4317731
##
                  -0.66770177 1.0787922
   [450,]
```

```
##
    [451,]
                  -1.37091218 1.0787922
##
    [452,]
                  -0.66770177 -0.2152459
##
    [453,]
                   0.73871905
                               1.0787922
##
    [454,]
                  -0.66770177 -0.2152459
##
    [455,]
                   0.73871905
                               1.0787922
##
                  -1.37091218 -0.2152459
    [456,]
##
    [457,]
                   0.73871905
                               1.0787922
##
    [458,]
                   0.73871905 -0.8622650
##
    [459,]
                  -1.37091218 -1.5092841
##
    [460,]
                   1.44192947 -0.8622650
##
                   1.44192947 1.0787922
    [461,]
##
    [462,]
                   0.73871905 -0.2152459
                  -0.66770177 -0.8622650
##
    [463,]
##
    [464,]
                  -1.37091218 0.4317731
                  -0.66770177 -1.5092841
##
    [465,]
##
                  -0.66770177 -1.5092841
    [466,]
##
    [467,]
                   1.44192947 -1.5092841
##
    [468,]
                  -1.37091218 -1.5092841
                  -0.66770177 0.4317731
##
    [469,]
                   0.03550864 -1.5092841
##
    [470,]
##
    [471,]
                   0.03550864 -0.8622650
##
                   1.44192947 -1.5092841
    [472,]
##
    [473,]
                  -0.66770177 -0.8622650
##
                  -1.37091218
    [474,]
                               1.0787922
##
    [475,]
                   1.44192947
                                1.0787922
##
    [476,]
                  -0.66770177
                                1.0787922
##
    [477,]
                  -0.66770177
                                1.0787922
##
    [478,]
                   0.73871905
                                0.4317731
##
                  -1.37091218
                                0.4317731
    [479,]
                                1.0787922
##
    [480,]
                  -0.66770177
##
    [481,]
                   0.03550864
                               1.0787922
##
    [482,]
                  -1.37091218 -1.5092841
##
    [483,]
                  -0.66770177
                               1.0787922
##
    [484,]
                   0.73871905 -0.2152459
##
    [485,]
                   1.44192947 -1.5092841
##
                  -1.37091218 -1.5092841
    [486,]
##
    [487,]
                  -1.37091218 -1.5092841
##
                   0.73871905 -1.5092841
    [488,]
##
    [489,]
                   0.03550864 -0.2152459
##
    [490,]
                   1.44192947 -0.8622650
##
    [491,]
                  -1.37091218 -1.5092841
##
    [492,]
                  -0.66770177 -0.8622650
##
    [493,]
                   0.03550864
                               1.0787922
                               1.0787922
##
    [494,]
                   0.73871905
##
    [495,]
                   0.73871905 -1.5092841
##
    [496,]
                   0.73871905 0.4317731
##
    [497,]
                  -0.66770177 -0.8622650
##
    [498,]
                   0.03550864 -1.5092841
##
    [499,]
                  -1.37091218 1.0787922
                  -1.37091218 -1.5092841
   [500,]
```

```
-0.66770177 1.0787922
##
    [501,]
##
    [502,]
                   0.73871905 -1.5092841
##
    [503,]
                   0.03550864 -1.5092841
##
                   0.03550864 -0.2152459
    [504,]
##
    [505,]
                   1.44192947 1.0787922
##
    [506,]
                   0.03550864 -1.5092841
                   1.44192947
##
    [507,]
                               0.4317731
##
    [508,]
                   1.44192947 -0.2152459
##
    [509,]
                  -1.37091218 -0.2152459
##
    [510,]
                   1.44192947
                               0.4317731
##
                   1.44192947
                                1.0787922
    [511,]
##
    [512,]
                   1.44192947
                                0.4317731
##
                  -1.37091218 -1.5092841
    [513,]
##
    [514,]
                   1.44192947
                              0.4317731
                  -1.37091218 -0.8622650
##
    [515,]
##
                   0.03550864 -1.5092841
    [516,]
##
    [517,]
                   1.44192947
                               1.0787922
##
    [518,]
                   0.73871905 -0.8622650
##
    [519,]
                  -1.37091218
                              1.0787922
                   0.73871905 -0.8622650
##
    [520,]
##
    [521,]
                   0.03550864 -0.2152459
##
                  -0.66770177
                               0.4317731
    [522,]
##
    [523,]
                   0.73871905
                                1.0787922
##
                                0.4317731
    [524,]
                   0.03550864
##
                   1.44192947
                                1.0787922
    [525,]
##
    [526,]
                   0.73871905
                                0.4317731
##
                   0.73871905
    [527,]
                                1.0787922
##
    [528,]
                   0.73871905
                                1.0787922
##
                   0.73871905 -1.5092841
    [529,]
                  -1.37091218 -0.2152459
##
    [530,]
##
                   0.73871905 -0.8622650
    [531,]
##
    [532,]
                   0.03550864 -1.5092841
##
    [533,]
                   0.03550864 -1.5092841
##
    [534,]
                   1.44192947 -1.5092841
##
    [535,]
                  -0.66770177
                                1.0787922
##
                   1.44192947
                                1.0787922
    [536,]
##
    [537,]
                   1.44192947
                                1.0787922
##
                   1.44192947 -1.5092841
    [538,]
##
    [539,]
                  -0.66770177 1.0787922
##
    [540,]
                   0.73871905 -1.5092841
##
                   1.44192947 1.0787922
    [541,]
##
    [542,]
                   0.03550864 -0.2152459
##
    [543,]
                   0.03550864 -0.8622650
##
    [544,]
                  -0.66770177 -0.8622650
##
    [545,]
                   0.73871905
                              1.0787922
##
    [546,]
                   1.44192947 -1.5092841
##
    [547,]
                   1.44192947 -0.8622650
##
    [548,]
                   1.44192947 0.4317731
##
    [549,]
                  -1.37091218 -0.2152459
##
                  -1.37091218 -0.8622650
   [550,]
```

```
##
    [551,]
                   0.03550864 1.0787922
##
    [552,]
                  -1.37091218 -1.5092841
##
    [553,]
                   0.03550864
                                1.0787922
##
    [554,]
                   1.44192947
                                1.0787922
##
    [555,]
                   0.03550864 -0.2152459
##
                  -0.66770177 -0.2152459
    [556,]
##
    [557,]
                  -0.66770177 -0.8622650
                                1.0787922
##
    [558,]
                   1.44192947
##
    [559,]
                  -1.37091218 0.4317731
    [560,]
##
                  -1.37091218 -0.8622650
##
                   1.44192947 1.0787922
    [561,]
##
    [562,]
                  -0.66770177 -0.2152459
##
                   1.44192947 -0.2152459
    [563,]
##
    [564,]
                   0.73871905 0.4317731
##
    [565,]
                   1.44192947 -0.2152459
##
                   1.44192947 -0.8622650
    [566,]
##
    [567,]
                  -1.37091218 0.4317731
##
    [568,]
                   1.44192947 -0.8622650
##
    [569,]
                  -0.66770177 -1.5092841
##
                   0.03550864
                                1.0787922
    [570,]
##
    [571,]
                   0.73871905 -0.2152459
##
                   1.44192947
                                0.4317731
    [572,]
##
    [573,]
                   1.44192947
                                1.0787922
##
                   1.44192947
                                0.4317731
    [574,]
##
                   0.73871905
                                0.4317731
    [575,]
##
    [576,]
                   1.44192947
                                0.4317731
##
    [577,]
                   1.44192947
                                0.4317731
##
    [578,]
                   1.44192947
                                1.0787922
##
                   0.03550864
                                1.0787922
    [579,]
                  -1.37091218 -0.8622650
##
    [580,]
##
    [581,]
                   1.44192947 -0.8622650
##
    [582,]
                   0.03550864
                                1.0787922
##
    [583,]
                   0.03550864 -1.5092841
##
    [584,]
                   0.03550864
                                0.4317731
##
    [585,]
                  -1.37091218
                                1.0787922
                  -1.37091218 -0.2152459
##
    [586,]
    [587,]
##
                   0.03550864
                                0.4317731
##
    [588,]
                   1.44192947
                                1.0787922
##
    [589,]
                   0.03550864 -0.2152459
##
    [590,]
                   1.44192947
                                0.4317731
##
                                0.4317731
    [591,]
                   0.03550864
##
    [592,]
                   0.73871905 -0.2152459
##
    [593,]
                   0.03550864
                                1.0787922
##
    [594,]
                   0.03550864
                                1.0787922
##
                   0.73871905 -1.5092841
    [595,]
##
    [596,]
                   1.44192947
                                1.0787922
##
    [597,]
                   0.73871905
                                0.4317731
##
    [598,]
                   1.44192947 -0.8622650
##
    [599,]
                  -0.66770177
                               1.0787922
##
                   0.73871905 -0.8622650
    [600,]
```

```
##
    [601,]
                  -0.66770177
                                1.0787922
##
    [602,]
                  -1.37091218
                                1.0787922
##
    [603,]
                   0.73871905 -0.2152459
##
                   0.03550864 -0.2152459
    [604,]
##
    [605,]
                   0.03550864
                                1.0787922
##
                   0.03550864
                                1.0787922
    [606,]
##
    [607,]
                  -1.37091218
                                0.4317731
##
    [608,]
                  -1.37091218
                                1.0787922
##
    [609,]
                  -0.66770177
                                0.4317731
    [610,]
                   0.73871905 -0.2152459
##
##
                  -1.37091218 -1.5092841
    [611,]
##
    [612,]
                   0.03550864
                                1.0787922
##
                  -1.37091218 -0.8622650
    [613,]
##
    [614,]
                   0.03550864
                                1.0787922
##
    [615,]
                   0.03550864
                                1.0787922
##
                  -0.66770177 -0.8622650
    [616,]
##
    [617,]
                   0.03550864
                               0.4317731
##
    [618,]
                   1.44192947 -1.5092841
##
    [619,]
                   1.44192947 -1.5092841
                   0.03550864 -1.5092841
##
    [620,]
##
    [621,]
                   0.73871905 -0.8622650
##
                  -0.66770177 -0.2152459
    [622,]
##
    [623,]
                   0.73871905
                               1.0787922
##
                   0.03550864 -0.2152459
    [624,]
##
                   1.44192947 -0.8622650
    [625,]
##
    [626,]
                  -0.66770177
                                1.0787922
##
    [627,]
                   0.73871905
                                0.4317731
##
    [628,]
                  -0.66770177 -1.5092841
##
                   1.44192947
                                0.4317731
    [629,]
##
    [630,]
                   0.73871905
                                1.0787922
##
                   0.03550864 -1.5092841
    [631,]
##
    [632,]
                  -0.66770177
                                1.0787922
##
    [633,]
                   1.44192947
                                0.4317731
    [634,]
##
                   0.03550864 -0.2152459
##
    [635,]
                   0.03550864 -0.8622650
                  -1.37091218 -0.8622650
##
    [636,]
##
    [637,]
                   0.73871905
                                0.4317731
##
    [638,]
                   0.73871905
                                1.0787922
##
    [639,]
                  -1.37091218
                                1.0787922
    [640,]
##
                  -0.66770177 -1.5092841
##
                   1.44192947
                                0.4317731
    [641,]
##
    [642,]
                  -0.66770177 -0.2152459
##
    [643,]
                  -1.37091218
                                1.0787922
##
    [644,]
                   0.73871905
                                1.0787922
##
    [645,]
                  -0.66770177
                                1.0787922
##
    [646,]
                                1.0787922
                   0.03550864
##
    [647,]
                  -1.37091218 -1.5092841
##
    [648,]
                   0.73871905
                                1.0787922
##
    [649,]
                   0.03550864 -0.8622650
##
                   0.73871905 1.0787922
    [650,]
```

```
##
    [651,]
                   0.73871905 1.0787922
##
    [652,]
                  -0.66770177 -0.8622650
##
    [653,]
                  -1.37091218 -1.5092841
##
                  -0.66770177
                                1.0787922
    [654,]
##
    [655,]
                  -0.66770177
                                0.4317731
##
                  -0.66770177 -1.5092841
    [656,]
##
    [657,]
                   1.44192947
                                1.0787922
    [658,]
##
                   0.03550864 -0.2152459
##
    [659,]
                   1.44192947
                               0.4317731
    [660,]
##
                  -1.37091218 -0.8622650
##
                   0.03550864 -1.5092841
    [661,]
##
    [662,]
                  -0.66770177
                               0.4317731
##
                  -0.66770177
                                1.0787922
    [663,]
##
    [664,]
                   0.73871905 -1.5092841
##
    [665,]
                  -0.66770177 -0.8622650
##
                   1.44192947
                                1.0787922
    [666,]
##
                   1.44192947
                                1.0787922
    [667,]
##
    [668,]
                   0.73871905
                                0.4317731
##
    [669,]
                  -1.37091218 -0.8622650
##
                   0.03550864 -0.2152459
    [670,]
##
    [671,]
                   0.03550864
                                0.4317731
##
                  -0.66770177
                                1.0787922
    [672,]
##
    [673,]
                  -1.37091218
                                1.0787922
##
                  -1.37091218
                                1.0787922
    [674,]
##
                   0.73871905 -0.2152459
    [675,]
##
    [676,]
                  -0.66770177 -0.8622650
##
    [677,]
                  -0.66770177 -0.2152459
##
    [678,]
                   0.73871905
                                1.0787922
##
    [679,]
                   1.44192947
                                1.0787922
##
    [680,]
                  -0.66770177
                                1.0787922
##
                   1.44192947
                                1.0787922
    [681,]
##
    [682,]
                   0.03550864 -0.2152459
##
    [683,]
                   0.03550864
                                1.0787922
##
    [684,]
                  -1.37091218
                                1.0787922
##
    [685,]
                  -1.37091218 -0.2152459
##
                   0.03550864
                               1.0787922
    [686,]
##
    [687,]
                   0.03550864 -0.2152459
##
    [688,]
                   1.44192947 -0.8622650
##
    [689,]
                  -1.37091218 -1.5092841
##
    [690,]
                  -0.66770177 1.0787922
##
                  -0.66770177 -0.8622650
    [691,]
##
    [692,]
                   0.73871905 -0.2152459
##
    [693,]
                  -0.66770177 -0.2152459
##
    [694,]
                   0.73871905 -0.2152459
##
                   0.03550864 -1.5092841
    [695,]
##
    [696,]
                   0.03550864 1.0787922
##
    [697,]
                  -1.37091218 -0.2152459
##
    [698,]
                  -1.37091218 -1.5092841
##
    [699,]
                   0.73871905 -0.8622650
##
                  -0.66770177 -1.5092841
    [700,]
```

```
##
    [701,]
                  -1.37091218
                                1.0787922
##
    [702,]
                   1.44192947
                                1.0787922
##
    [703,]
                  -0.66770177 -0.8622650
##
    [704,]
                   1.44192947
                                1.0787922
##
    [705,]
                   1.44192947
                                0.4317731
##
    [706,]
                   1.44192947
                                1.0787922
##
                   0.73871905 -1.5092841
    [707,]
##
    [708,]
                   0.73871905 -0.8622650
##
    [709,]
                   0.03550864
                               1.0787922
##
    [710,]
                   1.44192947 -0.2152459
##
                   1.44192947 -0.8622650
    [711,]
##
    [712,]
                  -0.66770177 1.0787922
                  -1.37091218 -0.2152459
##
    [713,]
##
    [714,]
                  -0.66770177 -0.2152459
##
    [715,]
                   0.73871905
                                1.0787922
##
                  -1.37091218
                               1.0787922
    [716,]
##
    [717,]
                  -0.66770177 -0.8622650
##
                               1.0787922
    [718,]
                  -1.37091218
##
    [719,]
                   0.03550864 0.4317731
##
                  -0.66770177 -0.2152459
    [720,]
                   1.44192947 -1.5092841
##
    [721,]
##
    [722,]
                   0.73871905 -1.5092841
##
    [723,]
                  -0.66770177 -1.5092841
##
                  -1.37091218 -1.5092841
    [724,]
##
                  -1.37091218 -0.8622650
    [725,]
##
    [726,]
                   1.44192947 -0.2152459
##
    [727,]
                  -0.66770177 1.0787922
##
    [728,]
                  -0.66770177 -1.5092841
##
    [729,]
                   1.44192947
                                1.0787922
                                1.0787922
##
    [730,]
                   1.44192947
##
                   1.44192947
                                1.0787922
    [731,]
##
    [732,]
                  -0.66770177 -1.5092841
##
    [733,]
                   0.73871905 -1.5092841
##
    [734,]
                  -0.66770177
                               1.0787922
##
    [735,]
                  -1.37091218 -1.5092841
##
                  -1.37091218 -0.2152459
    [736,]
##
    [737,]
                   0.03550864
                                0.4317731
##
    [738,]
                   0.03550864
                                1.0787922
##
    [739,]
                   1.44192947
                                0.4317731
##
    [740,]
                   1.44192947
                                0.4317731
##
                   1.44192947
                                0.4317731
    [741,]
##
    [742,]
                   0.03550864 -1.5092841
##
    [743,]
                   0.73871905 -1.5092841
##
    [744,]
                   0.73871905 -0.8622650
##
    [745,]
                   1.44192947 -0.2152459
##
    [746,]
                               0.4317731
                   0.03550864
##
    [747,]
                  -0.66770177
                                0.4317731
##
    [748,]
                   0.73871905 -1.5092841
##
    [749,]
                   0.03550864
                                1.0787922
##
                  -0.66770177 0.4317731
    [750,]
```

```
1.44192947 -1.5092841
##
    [751,]
##
    [752,]
                  -1.37091218 -1.5092841
##
    [753,]
                  -0.66770177 -1.5092841
##
    [754,]
                  -0.66770177
                               1.0787922
##
    [755,]
                   0.73871905 -0.8622650
##
                   0.73871905
                                1.0787922
    [756,]
##
    [757,]
                   0.03550864
                                1.0787922
##
    [758,]
                   1.44192947
                                0.4317731
##
    [759,]
                   0.73871905
                                0.4317731
    [760,]
                                1.0787922
##
                   1.44192947
##
                   0.03550864 -1.5092841
    [761,]
##
    [762,]
                   1.44192947 -0.8622650
##
                   1.44192947
                                1.0787922
    [763,]
##
    [764,]
                  -1.37091218
                                1.0787922
##
    [765,]
                  -1.37091218 -0.8622650
##
                   1.44192947 -0.2152459
    [766,]
##
    [767,]
                  -0.66770177
                               0.4317731
##
    [768,]
                   0.03550864 -0.2152459
##
    [769,]
                               0.4317731
                   0.03550864
##
    [770,]
                   0.73871905
                                0.4317731
                  -1.37091218 -0.8622650
##
    [771,]
##
                   0.03550864 -1.5092841
    [772,]
##
    [773,]
                   0.03550864
                                0.4317731
##
                   1.44192947
                                0.4317731
    [774,]
##
                   0.03550864 -1.5092841
    [775,]
##
    [776,]
                   1.44192947
                                1.0787922
##
    [777,]
                   1.44192947 -0.2152459
##
    [778,]
                   1.44192947 -1.5092841
##
                   0.03550864
    [779,]
                                1.0787922
##
    [780,]
                  -0.66770177
                                1.0787922
##
                   0.03550864
                                1.0787922
    [781,]
##
    [782,]
                   0.73871905
                                1.0787922
##
    [783,]
                   0.03550864
                                1.0787922
##
    [784,]
                   0.03550864
                                1.0787922
##
    [785,]
                  -1.37091218 -1.5092841
##
                   0.73871905
                               0.4317731
    [786,]
    [787,]
##
                   0.73871905 -1.5092841
##
    [788,]
                   1.44192947 -0.8622650
##
    [789,]
                   0.03550864 -1.5092841
##
    [790,]
                   0.03550864 1.0787922
##
                   0.03550864 -1.5092841
    [791,]
##
    [792,]
                  -1.37091218 -1.5092841
##
    [793,]
                   1.44192947 -0.2152459
##
    [794,]
                   0.03550864 -0.8622650
##
    [795,]
                   0.73871905
                                1.0787922
##
    [796,]
                   1.44192947
                                1.0787922
##
    [797,]
                   1.44192947
                                0.4317731
##
    [798,]
                   1.44192947 -1.5092841
##
    [799,]
                  -1.37091218 -1.5092841
##
                   0.03550864 1.0787922
    [800,]
```

```
0.03550864 -1.5092841
##
    [801,]
                   1.44192947 -0.8622650
##
    [802,]
##
    [803,]
                   0.03550864
                               0.4317731
##
                   1.44192947 -0.2152459
    [804,]
##
    [805,]
                   1.44192947
                                1.0787922
##
                   0.03550864
                                0.4317731
    [806,]
##
    [807,]
                   1.44192947
                                1.0787922
##
    [808,]
                   0.03550864
                                1.0787922
##
    [809,]
                   1.44192947 -1.5092841
    [810,]
                   1.44192947 -1.5092841
##
##
                   0.73871905
                                1.0787922
    [811,]
##
    [812,]
                   0.03550864
                                1.0787922
##
                  -0.66770177
                                0.4317731
    [813,]
##
    [814,]
                  -0.66770177
                                1.0787922
##
    [815,]
                   0.73871905
                                1.0787922
##
                   1.44192947
                                1.0787922
    [816,]
##
    [817,]
                   1.44192947
                                1.0787922
##
    [818,]
                   0.73871905 -0.8622650
##
    [819,]
                   1.44192947
                                0.4317731
##
    [820,]
                  -0.66770177
                                1.0787922
##
    [821,]
                  -1.37091218 -1.5092841
##
                  -1.37091218
                                1.0787922
    [822,]
##
    [823,]
                  -0.66770177
                                0.4317731
##
                   1.44192947 -1.5092841
    [824,]
##
                  -1.37091218
                                1.0787922
    [825,]
##
    [826,]
                  -1.37091218
                                1.0787922
                   0.03550864 -1.5092841
##
    [827,]
##
    [828,]
                  -1.37091218 -0.8622650
##
                  -0.66770177 -0.8622650
    [829,]
                  -1.37091218 -0.8622650
##
    [830,]
##
                   1.44192947
                               1.0787922
    [831,]
##
    [832,]
                   0.73871905 -0.2152459
##
    [833,]
                  -1.37091218 -0.8622650
##
    [834,]
                  -1.37091218 -1.5092841
##
    [835,]
                  -0.66770177 -0.2152459
##
                  -1.37091218 -1.5092841
    [836,]
    [837,]
##
                   0.73871905
                               0.4317731
##
    [838,]
                   0.03550864 -0.2152459
##
    [839,]
                   0.03550864
                               1.0787922
##
    [840,]
                  -0.66770177
                                1.0787922
##
                   0.03550864 -0.2152459
    [841,]
##
    [842,]
                   0.73871905 -1.5092841
##
    [843,]
                  -0.66770177
                                0.4317731
##
    [844,]
                   1.44192947
                                1.0787922
##
    [845,]
                   0.73871905
                                0.4317731
##
    [846,]
                  -0.66770177
                                0.4317731
##
    [847,]
                                1.0787922
                  -0.66770177
##
    [848,]
                   0.03550864
                                1.0787922
##
    [849,]
                   0.73871905 -0.8622650
##
                  -0.66770177 0.4317731
    [850,]
```

```
##
    [851,]
                  -1.37091218 1.0787922
                   1.44192947 -0.2152459
##
    [852,]
##
    [853,]
                   0.73871905
                                1.0787922
##
    [854,]
                   0.03550864
                                1.0787922
##
    [855,]
                   0.03550864 -0.2152459
##
                   0.73871905 -0.2152459
    [856,]
##
    [857,]
                  -0.66770177
                                1.0787922
##
    [858,]
                  -0.66770177
                                1.0787922
##
    [859,]
                   1.44192947 -1.5092841
    [860,]
##
                   0.03550864
                                1.0787922
##
                                0.4317731
    [861,]
                   0.73871905
##
    [862,]
                   1.44192947
                                1.0787922
##
                   0.73871905
                                1.0787922
    [863,]
##
    [864,]
                  -1.37091218
                                1.0787922
##
    [865,]
                  -0.66770177 -0.2152459
##
                  -0.66770177 -0.2152459
    [866,]
##
    [867,]
                  -0.66770177 -0.2152459
##
    [868,]
                  -1.37091218
                                1.0787922
##
    [869,]
                                0.4317731
                   0.03550864
##
                   0.73871905
                                1.0787922
    [870,]
##
    [871,]
                  -0.66770177 -0.8622650
##
                   1.44192947
                                1.0787922
    [872,]
##
    [873,]
                  -0.66770177 -0.8622650
##
                   0.03550864 -0.8622650
    [874,]
##
                   1.44192947
                                0.4317731
    [875,]
##
    [876,]
                   1.44192947
                                1.0787922
##
    [877,]
                   1.44192947
                                0.4317731
##
    [878,]
                  -0.66770177 -0.8622650
##
                   1.44192947
                                0.4317731
    [879,]
##
    [880,]
                   0.73871905
                                1.0787922
##
                   0.73871905
                                0.4317731
    [881,]
##
    [882,]
                   0.73871905
                                1.0787922
##
    [883,]
                  -0.66770177 -1.5092841
##
    [884,]
                   0.03550864 -1.5092841
##
    [885,]
                  -1.37091218
                                1.0787922
##
                               1.0787922
    [886,]
                  -0.66770177
    [887,]
##
                   1.44192947 -1.5092841
##
    [888]
                  -0.66770177 -0.2152459
##
    [889,]
                   1.44192947 1.0787922
##
    [890,]
                   1.44192947 -1.5092841
##
                   1.44192947 -0.2152459
    [891,]
##
    [892,]
                   0.73871905
                               0.4317731
##
    [893,]
                   0.73871905 -0.8622650
##
    [894,]
                  -0.66770177 -0.8622650
##
                   1.44192947
                               0.4317731
    [895,]
##
    [896,]
                   0.73871905 0.4317731
##
    [897,]
                   0.73871905 -0.2152459
##
    [898,]
                   0.03550864 -0.2152459
##
    [899,]
                  -1.37091218 -0.2152459
##
                   1.44192947 1.0787922
   [900,]
```

```
[901,]
                  -0.66770177 -0.2152459
##
##
    [902,]
                  -0.66770177 1.0787922
##
    [903,]
                   0.73871905 -0.2152459
##
    [904,]
                   0.03550864 -0.2152459
##
    [905,]
                   1.44192947 -1.5092841
##
    [906,]
                   1.44192947 -0.8622650
##
                  -1.37091218 -1.5092841
    [907,]
##
    [908,]
                  -1.37091218 -0.8622650
##
    [909,]
                   0.03550864 -0.8622650
##
    [910,]
                   0.73871905 -0.2152459
##
                  -1.37091218 -1.5092841
    [911,]
##
    [912,]
                   1.44192947
                                1.0787922
##
    [913,]
                   0.03550864
                                0.4317731
##
    [914,]
                   0.73871905 -0.8622650
                   0.73871905 -0.2152459
##
    [915,]
##
                  -1.37091218
                               1.0787922
    [916,]
##
    [917,]
                  -1.37091218
                                0.4317731
##
    [918,]
                  -0.66770177 -0.2152459
##
    [919,]
                               0.4317731
                   0.03550864
##
                   0.03550864 -1.5092841
    [920,]
                  -1.37091218 -1.5092841
##
    [921,]
##
    [922,]
                   0.03550864
                               0.4317731
##
    [923,]
                   1.44192947
                                1.0787922
##
                  -1.37091218 -0.2152459
    [924,]
##
                  -0.66770177
                                1.0787922
    [925,]
##
    [926,]
                  -1.37091218
                                1.0787922
                  -0.66770177 -1.5092841
##
    [927,]
##
    [928,]
                  -1.37091218
                               1.0787922
    [929,]
##
                  -1.37091218
                                1.0787922
                   0.03550864 -0.2152459
##
    [930,]
##
    [931,]
                  -0.66770177 -1.5092841
                  -0.66770177 -0.2152459
##
    [932,]
##
    [933,]
                   0.03550864 -0.8622650
##
    [934,]
                   0.03550864
                                1.0787922
##
    [935,]
                  -1.37091218
                                0.4317731
##
                  -1.37091218
                                1.0787922
    [936,]
##
    [937,]
                  -0.66770177 -0.8622650
##
    [938,]
                   0.73871905
                                1.0787922
##
    [939,]
                  -1.37091218
                                1.0787922
##
    [940,]
                   0.73871905
                                0.4317731
##
                   0.03550864
                                0.4317731
    [941,]
##
    [942,]
                  -0.66770177 -0.8622650
##
    [943,]
                   1.44192947
                                1.0787922
##
    [944,]
                   0.73871905
                                1.0787922
##
    [945,]
                   0.03550864
                                1.0787922
##
    [946,]
                   1.44192947
                                1.0787922
##
    [947,]
                  -1.37091218 -1.5092841
##
    [948,]
                  -1.37091218 -0.2152459
##
    [949,]
                   1.44192947
                                1.0787922
##
                   0.73871905 1.0787922
   [950,]
```

```
##
    [951,]
                   0.73871905 1.0787922
##
    [952,]
                   1.44192947 -1.5092841
##
    [953,]
                  -1.37091218 -0.8622650
##
    [954,]
                   0.73871905
                                0.4317731
##
    [955,]
                   0.03550864
                                0.4317731
##
    [956,]
                   0.03550864
                                1.0787922
##
    [957,]
                  -1.37091218
                                0.4317731
##
    [958,]
                  -1.37091218 -1.5092841
##
    [959,]
                  -0.66770177
                                1.0787922
##
    [960,]
                                0.4317731
                  -0.66770177
##
                  -1.37091218 -1.5092841
    [961,]
##
    [962,]
                   0.03550864
                                1.0787922
                  -1.37091218 -1.5092841
##
    [963,]
##
    [964,]
                   0.73871905 -0.2152459
##
    [965,]
                   1.44192947
                                0.4317731
##
                   0.03550864 -1.5092841
    [966,]
##
    [967,]
                   1.44192947
                                1.0787922
##
    [968,]
                  -0.66770177
                                0.4317731
##
    [969,]
                                0.4317731
                   0.03550864
                   0.03550864 -1.5092841
##
    [970,]
                  -1.37091218 -0.2152459
##
    [971,]
##
                   0.73871905 -0.2152459
    [972,]
##
    [973,]
                  -0.66770177
                                1.0787922
##
                  -0.66770177
                                0.4317731
    [974,]
##
    [975,]
                  -1.37091218 -0.2152459
##
    [976,]
                   0.03550864
                                1.0787922
##
    [977,]
                   0.03550864 -0.8622650
##
    [978,]
                   0.03550864 -0.2152459
##
    [979,]
                               0.4317731
                  -0.66770177
##
    [980,]
                  -0.66770177
                                0.4317731
##
                   0.03550864 -0.2152459
    [981,]
                  -0.66770177 -1.5092841
##
    [982,]
##
    [983,]
                   0.73871905
                                0.4317731
##
    [984,]
                   0.03550864
                                0.4317731
##
    [985,]
                   0.03550864
                               0.4317731
##
                  -0.66770177 -0.8622650
    [986,]
                  -0.66770177 -1.5092841
##
    [987,]
##
    [988,]
                  -1.37091218 -0.8622650
##
    [989,]
                   1.44192947 -1.5092841
##
    [990,]
                   0.03550864 -1.5092841
##
                   0.73871905 -1.5092841
    [991,]
##
    [992,]
                  -1.37091218 1.0787922
##
    [993,]
                  -1.37091218 -1.5092841
##
    [994,]
                   0.03550864 -0.8622650
##
    [995,]
                   0.03550864
                               1.0787922
##
    [996,]
                  -0.66770177
                               1.0787922
##
    [997,]
                  -1.37091218 -0.8622650
##
    [998,]
                   1.44192947
                               1.0787922
##
    [999,]
                   0.03550864 -1.5092841
## [1000,]
                   1.44192947 -1.5092841
```

```
## [1001,]
                   0.73871905
                                1.0787922
## [1002,]
                  -0.66770177
                                0.4317731
## [1003,]
                   0.03550864 -0.8622650
## [1004,]
                  -0.66770177
                                1.0787922
## [1005,]
                   0.73871905
                                0.4317731
## [1006,]
                   0.73871905
                                0.4317731
                  -1.37091218
                                1.0787922
## [1007,]
   [1008,]
                  -1.37091218
                                1.0787922
                  -1.37091218
   [1009,]
                                0.4317731
   [1010,]
                  -0.66770177
                                1.0787922
   attr(,"scaled:center")
##
                                           Politics
                                                                 Mathematics
                Psychology
##
                  3.137624
                                           2.596040
                                                                    2.333663
##
                   Physics
                                           Internet
                                                                           PC
##
                  2.064356
                                           4.179208
                                                                    3.138614
##
       Economy.Management
                                            Biology
                                                                   Chemistry
##
                  2.642574
                                           2.677228
                                                                    2.160396
##
                                                          Foreign.languages
                   Reading
                                          Geography
##
                  3.157426
                                           3.083168
                                                                    3.781188
##
                  Medicine
                                                                        Cars
                                                Law
##
                  2.517822
                                           2.255446
                                                                    2.684158
                                                      Countryside..outdoors
##
          Art.exhibitions
                                           Religion
##
                  2.594059
                                           2,276238
                                                                    3.691089
##
                               Musical.instruments
                                                                     Writing
                   Dancing
##
                  2.466337
                                           2.323762
                                                                    1.901980
##
            Passive.sport
                                       Active.sport
                                                                   Gardening
##
                  3.386139
                                           3.294059
                                                                    1.907921
##
               Celebrities
                                           Shopping Science.and.technology
##
                  2.359406
                                           3.278218
                                                                    3.228713
##
                                  Fun.with.friends
                                                          Adrenaline.sports
                   Theatre
##
                                           4.557426
                                                                    2.949505
                  3.018812
##
                      Pets
##
                  3.332673
   attr(,"scaled:scale")
                Psychology
                                                                 Mathematics
##
                                           Politics
##
                                          1.2938768
                                                                   1.3528062
                 1.2568426
##
                                                                           PC
                   Physics
                                           Internet
##
                 1.2260861
                                          0.9202939
                                                                   1.3201924
##
       Economy.Management
                                            Biology
                                                                   Chemistry
##
                 1.3452443
                                          1.3890326
                                                                   1.3758557
##
                                                          Foreign.languages
                   Reading
                                          Geography
##
                 1.4959374
                                          1.2783994
                                                                   1.1397158
##
                  Medicine
                                                Law
                                                                        Cars
##
                 1.3809475
                                          1.2426573
                                                                   1.4399945
##
          Art.exhibitions
                                                      Countryside..outdoors
                                           Religion
##
                 1.3228061
                                          1.3221936
                                                                   1.1961367
##
                   Dancing
                               Musical.instruments
                                                                     Writing
##
                 1.4527086
                                          1.5121345
                                                                   1.2870076
##
             Passive.sport
                                       Active.sport
                                                                   Gardening
##
                 1.4027461
                                          1.5031069
                                                                   1.1772693
```

```
##
              Celebrities
                                        Shopping Science.and.technology
##
                                       1.2860542
                1.2704368
                                                              1.2850314
                                Fun.with.friends
##
                  Theatre
                                                      Adrenaline.sports
##
                1.3284426
                                       0.7377472
                                                              1.4220495
##
                     Pets
##
                1.5455495
#as.matrix(scale.hobbies)%*%fact.load.hobbies%*%solve(t(fact.load.hobbies)%*%
fact.load.hobbies)
library(psych)
## Warning: package 'psych' was built under R version 3.6.2
## Attaching package: 'psych'
## The following objects are masked from 'package:ggplot2':
##
##
      %+%, alpha
## The following object is masked from 'package:outliers':
##
##
       outlier
fit.pc.hobbies<- principal(hobbies transformed[-1], nfactors=4, rotate="varim")</pre>
fit.pc.hobbies
## Principal Components Analysis
## Call: principal(r = hobbies_transformed[-1], nfactors = 4, rotate = "varim")
ax")
## Standardized loadings (pattern matrix) based upon correlation matrix
                                        RC3
                                              RC4
##
                            RC1
                                  RC2
                                                    h2
                                                         u2 com
## Psychology
                           0.52 -0.02 0.07 0.00 0.27 0.73 1.0
## Politics
                           0.45 0.34 -0.28 -0.15 0.42 0.58 2.9
## Mathematics
                           0.11 0.41 0.17 -0.43 0.39 0.61 2.5
## Physics
                           0.10 0.43 0.37 -0.53 0.62 0.38 2.8
## Internet
                          -0.06 0.49 -0.15 0.04 0.27 0.73 1.2
## PC
                          -0.08 0.62 -0.04 -0.30 0.48 0.52 1.5
## Economy.Management
                           0.20 0.42 -0.39 0.09 0.37 0.63 2.6
## Biology
                           0.15 -0.02 0.83 0.03 0.71 0.29 1.1
## Chemistry
                           0.05 0.01 0.80 -0.13 0.66 0.34 1.1
## Reading
                           0.62 -0.35 0.12 0.03 0.52 0.48 1.7
                           0.38 0.29 -0.03 -0.01 0.23 0.77 1.9
## Geography
                           0.52 0.06 -0.09 0.18 0.32 0.68 1.3
## Foreign.languages
## Medicine
                           0.23 0.03 0.74 0.00 0.60 0.40 1.2
## Law
                           0.40 0.34 -0.19
                                             0.13 0.33 0.67 2.6
## Cars
                          -0.17 0.66 -0.04 0.01 0.47 0.53 1.1
## Art.exhibitions
                                             0.12 0.48 0.52 1.2
                           0.66 -0.09 0.15
## Religion
                           0.49 0.00 0.18 -0.16 0.30 0.70 1.5
## Countryside..outdoors 0.28 0.12 0.28 0.16 0.20 0.80 3.0
```

```
0.36 0.07 0.25 0.44 0.39 0.61 2.6
## Dancing
## Musical.instruments
                           0.45 0.02 0.18 -0.09 0.24 0.76 1.4
## Writing
                           0.56 -0.13
                                       0.07 -0.06 0.34 0.66 1.2
                                       0.02
## Passive.sport
                          -0.13 0.35
                                            0.19 0.18 0.82 1.9
## Active.sport
                          0.00 0.47
                                      0.15
                                            0.23 0.29 0.71 1.7
## Gardening
                          0.19 0.03
                                      0.40
                                            0.24 0.26 0.74 2.1
                          -0.01 0.04 -0.04
## Celebrities
                                            0.60 0.37 0.63 1.0
## Shopping
                          0.08 0.02 0.04
                                            0.72 0.52 0.48 1.0
## Science.and.technology 0.09 0.54 0.23 -0.31 0.44 0.56 2.1
                          0.62 -0.17
## Theatre
                                       0.15
                                            0.18 0.47 0.53 1.5
## Fun.with.friends
                          0.06 0.24
                                       0.03
                                            0.40 0.22 0.78 1.7
## Adrenaline.sports
                          0.03 0.55 0.12
                                            0.19 0.35 0.65 1.3
## Pets
                          -0.03 0.04 0.28
                                            0.35 0.21 0.79 2.0
##
##
                          RC1 RC2 RC3 RC4
## SS loadings
                         3.47 3.10 2.96 2.40
## Proportion Var
                         0.11 0.10 0.10 0.08
## Cumulative Var
                         0.11 0.21 0.31 0.38
## Proportion Explained 0.29 0.26 0.25 0.20
## Cumulative Proportion 0.29 0.55 0.80 1.00
## Mean item complexity = 1.7
## Test of the hypothesis that 4 components are sufficient.
## The root mean square of the residuals (RMSR) is 0.07
## with the empirical chi square 4069.24 with prob < 0
##
## Fit based upon off diagonal values = 0.83
round(fit.pc.hobbies$values, 3)
   [1] 4.127 3.196 2.505 2.099 1.563 1.347 1.141 1.125 1.028 0.992 0.921 0.8
91
## [13] 0.854 0.773 0.732 0.717 0.656 0.639 0.623 0.564 0.550 0.519 0.503 0.4
71
## [25] 0.444 0.429 0.380 0.368 0.309 0.300 0.235
fit.pc.hobbies$loadings
##
## Loadings:
##
                          RC1
                                 RC2
                                        RC3
                                               RC4
## Psychology
                           0.516
## Politics
                          0.453
                                 0.340 -0.282 -0.148
## Mathematics
                          0.109
                                 0.407 0.172 -0.428
## Physics
                                  0.432 0.371 -0.533
## Internet
                                  0.491 -0.152
## PC
                                  0.620
                                               -0.297
## Economy.Management
                           0.201
                                  0.415 - 0.391
                                         0.829
## Biology
                           0.150
                                         0.800 -0.126
## Chemistry
```

```
## Reading
                            0.619 -0.352 0.117
## Geography
                            0.384 0.289
## Foreign.languages
                            0.523
                                                  0.183
## Medicine
                            0.231
                                          0.741
## Law
                            0.405
                                   0.340 -0.190
                                                  0.127
## Cars
                           -0.172
                                   0.664
## Art.exhibitions
                            0.658
                                          0.155
                                                  0.118
## Religion
                            0.490
                                          0.176 - 0.164
## Countryside..outdoors
                            0.276
                                   0.120
                                          0.280
                                                  0.163
## Dancing
                            0.356
                                           0.255
                                                  0.439
## Musical.instruments
                            0.445
                                          0.179
## Writing
                            0.557 -0.133
                                  0.354
                                                  0.193
## Passive.sport
                           -0.132
## Active.sport
                                   0.468 0.153
                                                  0.227
## Gardening
                                           0.404
                            0.186
                                                  0.238
## Celebrities
                                                  0.604
## Shopping
                                                  0.718
## Science.and.technology
                                          0.231 -0.307
                                   0.537
## Theatre
                            0.624 -0.170
                                          0.150
                                                  0.182
## Fun.with.friends
                                   0.244
                                                  0.397
## Adrenaline.sports
                                   0.548
                                          0.119
                                                  0.185
## Pets
                                           0.280 0.352
##
##
                     RC1
                           RC2
                                 RC3
                                       RC4
                  3.466 3.103 2.962 2.395
## SS loadings
## Proportion Var 0.112 0.100 0.096 0.077
## Cumulative Var 0.112 0.212 0.307 0.385
# Loadings with more digits
for (i in c(1,3,2,4)) { print(fit.pc.hobbies$loadings[[1,i]])}
## [1] 0.5155466
## [1] 0.06925773
## [1] -0.01927374
## [1] -0.003369323
# Communalities
fit.pc.hobbies$communality
##
               Psychology
                                          Politics
                                                              Mathematics
##
                0.2709678
                                        0.4227214
                                                                 0.3897846
##
                   Physics
                                          Internet
                                                                        PC
                                                                 0.4806961
##
                0.6174207
                                         0.2693811
##
       Economy.Management
                                           Biology
                                                                 Chemistry
##
                0.3742250
                                        0.7110589
                                                                 0.6590204
##
                   Reading
                                        Geography
                                                        Foreign.languages
##
                0.5213924
                                        0.2316020
                                                                 0.3194685
##
                 Medicine
                                               Law
                                                                      Cars
##
                0.6039169
                                         0.3314568
                                                                 0.4728379
##
          Art.exhibitions
                                         Religion
                                                    Countryside..outdoors
##
                0.4777840
                                        0.2982826
                                                                 0.1953626
```

```
##
                  Dancing
                              Musical.instruments
                                                                  Writing
##
                0.3884363
                                        0.2387178
                                                                0.3357812
                                     Active.sport
##
            Passive.sport
                                                                Gardening
##
                0.1802493
                                        0.2940541
                                                                0.2551064
##
              Celebrities
                                         Shopping Science.and.technology
##
                0.3679212
                                        0.5241852
                                                                0.4437837
##
                  Theatre
                                 Fun.with.friends
                                                        Adrenaline.sports
##
                0.4744532
                                        0.2215583
                                                                0.3497875
##
                     Pets
##
                0.2052340
# Rotated factor scores, Notice the columns ordering: RC1, RC3, RC2 and RC4
fit.pc.hobbies$scores
##
                    RC1
                                   RC2
                                                RC3
                                                               RC4
##
      [1,] -0.013510277
                                        0.917318248
                                                     0.3105168598
                          0.4653126347
##
      [2,]
            0.133862917 -0.1379748048 -1.738352054 -1.1610100427
##
            1.956079019 -0.3301226183 -0.431162349
                                                     0.3823538415
      [3,]
##
            1.459731308 -1.7092300568 -1.063138469 -1.8472695001
      [4,]
##
      [5,] -0.304038372 -1.2511368710
                                       0.513893953 -0.7516882539
                                        0.961317222 -1.3779489423
##
      [6,] -0.310119912 0.5700252284
##
      [7,] -0.832481547 -0.6185245510
                                       1.863435585
                                                     0.6647612899
##
      [8,] -1.246746643 -0.3306023215 -0.665115403
                                                     0.2609972209
      [9,] -1.037982087 -2.9315306246 -0.248073698 -0.0649522268
##
##
     [10,] 1.083461655 -0.3913669616 -0.949061694
                                                     0.6661685406
##
     [11,] -0.137667093  0.0803661872 -0.778955546
                                                     0.3006072080
     [12,] -0.152159766 -0.3342430614 -1.473779928 -0.7695700908
##
                                                     0.0730379195
     [13,] -0.004065369 -0.8442354420
                                       1.588221071
##
##
     [14,] -0.491047636 -0.8813027109 -0.593901992
                                                     1.9540969471
##
            0.242585729 -1.8096864741 -0.376793230
                                                     1.4363149855
     [15,]
##
     [16,]
            0.595061201
                        1.5344083441
                                        0.359551002 -0.6936162427
##
     [17,] -2.027620450 -0.6932184739
                                        0.959235869
                                                     1.1573162668
##
     [18,] -1.117371071 -1.4586021965
                                        2.028186441 -0.4500616006
                                        0.389719721 -2.2490305794
##
     [19,] -0.737913843
                          0.4149694940
                          0.9145522217 -0.938801743 -0.5959489508
##
     [20,] -0.167344464
##
                          1.1520542400
                                        1.032346374 -1.1167401401
     [21,] -0.117681446
##
     [22,]
            0.387131512
                          1.1363542400 -0.538191127 -0.5517468872
##
     [23,] -0.542754237 -0.2811938604
                                        0.044681169 -0.3714159754
##
     [24,]
            0.530078433 -0.1596719869
                                        1.809094600
                                                     0.6405676267
##
     [25,]
            1.960569926
                          1.1387891760
                                        0.061340726
                                                      1.4643831482
##
     [26,] -0.348710702 -0.5491029127 -1.492212078
                                                     1.7459694354
##
     [27,] -0.915943551
                          0.2670222327
                                        2.233221446
                                                     0.9526354413
##
     [28,] -1.456972909 -0.7702247738
                                        1.525479888
                                                     0.2908272231
##
     [29,] -1.718545502
                          0.9307869783 -0.482099225
                                                      1.5013467879
            0.835683390
##
     [30,]
                          0.0517686135
                                        0.368146451
                                                      1.2492445234
##
     [31,] -0.056472553
                          0.4889762704 -0.388286248
                                                     0.4254218018
            0.561644284 -1.3921198259 -0.437629917 -0.5133050548
##
     [32,]
##
     [33,] -0.019360140 -0.3398237218 -1.374666850
                                                     0.6835689824
##
     [34,]
            1.352629562
                          0.9712163093
                                       0.567483236
                                                      1.2808919052
##
     [35,]
            0.973155869 1.3087977151 -0.572920172 -0.5196268745
```

```
[36,]
            0.078984755 -0.2784430030 -0.786929076 1.5617727016
##
##
     [37,]
            0.305939085 -0.0748224151
                                       1.451869472 -0.0088067032
##
     [38,]
            0.171508023
                         0.9208274071
                                       1.261938596 -0.1586765720
##
            1.770997927 -0.1452488779
     [39,]
                                       0.291612074
                                                     0.7775731921
##
     [40,] -1.845052816
                         0.1445482196
                                       1.860459728
                                                     0.1917804267
##
     [41,] -1.719084954 -0.7586795268 -0.888473457 -0.0247295158
##
                         0.7339524662
                                       0.761546083 -2.4132613515
     [42,]
            0.322204052
##
     [43,] -0.200457000
                         0.6438450173
                                       0.277824858 -0.1594630387
##
     [44,]
            0.962010680 -0.0497351736 -1.555894728
                                                     1.1317135722
##
     [45,]
                         0.6735736714 -0.451873497
                                                     0.6107740806
            1.417539675
##
     [46,]
            0.016165179
                         0.9062337373 -0.158104240 -1.0520495116
##
     [47,]
            0.517266327
                         0.6574975012 -0.113902625
                                                     1.3771539157
     [48,] -0.390855624 -0.8065627046 -0.682165317
                                                     0.5000031174
##
##
     [49,]
            0.347115870 -0.3512491162 -0.121267189 -0.0422368892
     [50,] -1.039321162 -0.8933112877 -1.019117060
                                                     0.4200357378
##
##
     [51,] -0.577777201 -0.6240603475
                                       1.947796869
                                                     0.1606211220
##
     [52,]
            0.002539722
                         1.4604652159
                                       2.004121501 -1.0849204563
##
                                       0.899800910
     [53,]
            1.344758009
                         0.3285074773
                                                     0.4840387249
##
     [54,]
            1.618807554
                         0.2036952915
                                       0.404404973
                                                     0.5396529611
##
            1.172899765 -0.9619039727
                                        0.681755701 -0.6902013203
     [55,]
##
                         0.4323476824
                                       0.501068013 -0.0557240105
     [56,]
            0.300931659
##
     [57,]
            1.408545232
                         0.1669832772 -1.107841690 -0.7733320151
            0.718143532 -0.8495272546 -0.051947797
##
     [58,]
                                                     1.7376712454
##
     [59,] -1.488770048
                         0.2408301109
                                       1.903084653
                                                     0.2527071721
     [60,]
            0.745067893 -1.9772326454 -2.166309680 -2.0323122208
##
##
     [61,]
            2.319296097
                         0.5278623362 -0.395137348 -1.9903938108
##
     [62,] -0.571214912
                         0.8104719422 -0.776675758 -0.5227069129
##
     [63,] -0.146087250
                         ##
     [64,] -0.542441131
                         1.3126998241 -1.028020146
                                                     0.3071445207
##
     [65,] -1.058989196 -0.7878184471
                                       1.699681876
                                                     0.5844762179
     [66,] -1.224949989 -0.3168017885 -0.866861698 -0.8282313286
##
                         0.8764617192 -0.212368326 -1.2486769023
##
     [67,] -1.454206369
##
     [68,]
           0.479115416 -0.6440293934 -0.143642067
                                                     0.5173940505
     [69,]
##
            0.032850124
                         0.4217842755 -0.031628834 -0.9711987833
##
     [70,] -1.352593272 -1.9475084988
                                       1.456903745
                                                     1.1815621191
##
     [71,] -1.003036438
                         0.6033740831 -1.035838246
                                                     0.8226333463
                         0.9831352620 -1.527044442
##
     [72,] -0.782629271
                                                     0.7846540451
##
     [73,] -1.328177826 -0.5474833289 -0.435811795
                                                     0.6266140328
##
     [74,]
            0.277423332
                         1.2506790920 -0.528300502
                                                     0.7921901873
                         0.6534347050 -1.676636784 -0.2030782324
##
     [75,]
            0.690247740
##
     [76,]
            1.568446021
                         1.4934391520 -0.041334524
                                                     0.6820146216
##
     [77,] -0.963576399
                         1.1045865420 -1.091947565
                                                     0.1780052540
##
     [78,]
            0.214882565 -1.2184290274
                                       1.433697783
                                                     1.0988134593
##
     [79,]
            1.385727483
                         0.0976762576
                                       1.855899312
                                                     0.2323769812
##
     [80,]
            0.216166374
                         1.4884701786 -0.986071976
                                                     1.1177719476
##
     [81,] -0.313341393
                         1.1544959759 -0.641851736
                                                     1.5241052485
##
     [82,] -0.564755137
                         1.6249769474 -0.808661928
                                                     0.5509253881
##
     [83,] 0.652025056 -1.5763494697 -0.127838976
                                                     0.1808598037
##
     [84,] -0.365449198
                         0.3173334058
                                       1.167060309
                                                     1.0659832568
##
     [85,] 0.922530624 -0.0697978769 0.418700378 0.0872346856
```

```
##
     [86,]
           0.185903058 1.1446543322 0.525508372 -1.0073417944
##
     [87,]
           2.720359582 1.8578304660 0.593030681 -1.0747556339
##
     [88,]
           0.823518478
                        0.4946143863 -1.057520893 1.3664074836
##
           1.368764269 -1.2001991787 -0.744329673
     [89,]
                                                 1.1050032420
##
     [90,]
           0.411796239 -2.0739947289 -1.017407458 -0.0210240783
     [91,] -1.205036011 -1.1827295839 0.345822576
##
                                                  0.0409893042
##
     [92,] -1.491411079 -0.2369227469 0.837321703 1.1768604171
##
     [93,] 1.441705454 -1.5311155690 -0.171927279 -0.7855007976
     [94,] -1.137772619 1.7827648591 -0.076694797 -1.4721207031
##
##
     [95,] -0.883024319 -0.0965171465 -0.584592081 -0.9635159773
##
     [97,] -2.467997720 -2.3063615842 0.937175445 -1.0323596218
##
##
     [98,] -0.905125480 0.0303587801 -0.601140621 -1.4812687909
##
     [99,] -0.885126236  0.2306250381 -0.118974054 -0.1733022922
    [100,] -0.388144190 -0.3537393048 1.074393329 -0.7222170124
##
##
    [101,] -0.491002813 -0.0454775759 1.808271846 -0.3115690460
##
    [102,] -0.732665390 -0.6974646247 -1.291117344 -0.8696530648
##
    [103,] 2.035260890 0.5292270051 0.720379210 -1.3603197429
##
    [104,]
           1.402617026
                       1.2547545944 -0.966305959 0.1682670150
##
    [105,] 1.070427901
                        0.2897204723 -1.080489642 -1.0282445778
##
    [106,] -1.061232219 -0.7422575893 0.263852519 -0.4128183630
##
    [107,] -0.218748880  0.7559727969 -1.335904178 -0.5552673307
    [108,] 0.465729108 -0.4461629676 1.826809336 -0.0741434528
##
##
    [109,] -0.542585629 -1.4620706351 -1.015591679 -1.6017016418
    [110,] -0.742072123  0.4580454976 -0.756716864 -1.7103588782
##
##
    [111,] -0.685063255 -0.1058323084
                                    0.559307935 -0.9746678149
##
    [112,] 1.270395689 -1.6758856754 0.143847706 -0.0644003065
##
    [113,] 0.523375661 -1.6937377990
                                    1.896215666 -0.1208168460
##
    [114,] -2.266732188 -0.1825131103
                                    1.250787133 1.4230237343
    [115,] 0.555199509 -0.9037580935 -0.439740124 0.6783764339
##
##
    [116,] 0.993458112 0.6565051566 0.739394484 0.6335669695
    [117,] 0.326342953 -2.7462935566 -0.519107831 -1.1200377308
##
##
    [118,] -1.679701893    0.0383539341    -0.489253516    -1.0539849713
    [119,] -0.038590241 -0.2592561362 -0.218409331 -1.2538697901
##
##
    [120,] -0.431348936 -1.5442044601 0.538359965 -2.0413366156
    [121,] 1.190413164 0.7998552143 0.904473214 -1.6395326808
##
    ##
##
    [123,] 0.260182479 -1.5205581617 -0.621259089 0.4546570888
           0.730878984 -0.8537389213 0.912161851 -0.6830067677
##
    [124,]
           1.603232142 1.1798512287 -0.048068886 -1.0578361487
##
    [125,]
##
          1.755480981 -0.9611086435 0.501943538 0.4267774480
    [126,]
    [127,] -0.525795761 -1.2099465493 -1.216147102 -0.0952834237
##
##
    [128,] 0.941125524 0.6412928530 -0.777443623 -1.1717572335
##
    [129,]
           2.452695764 0.3703747465
                                    1.472249928 -1.1479041630
    [130,] -0.673724613 -1.5066003179
                                    1.396110741 0.0001112662
##
##
    [131,] 1.778307032 0.6291055219 -1.728075773
                                                  0.7029583491
##
    [132,] -1.155765686 0.5378325406 -0.868523091
                                                  0.5240648399
   [133,] -0.035232819 -0.5571431732 -0.202696319 -0.9370988994
##
    [134,] 1.094886902 -2.3788845393 0.489095262 0.3808736635
##
## [135,] -0.057259525 -0.2778718302 0.580166250 -0.2221097197
```

```
##
   [136,]
##
   [137,]
          0.192003099 1.0539711701 1.872647018 -0.4900919493
##
   [138,]
          0.528068015 -0.2824469185 -0.173331571 -1.6195691303
##
   [139,]
          0.473513215 -1.8645994670
                                  1.270367688 -0.4251940023
##
   [140,]
          0.349885085 -0.8245692012
                                  0.343673350 1.3709706640
##
   [141,]
          1.448111005 -1.1808219809 -0.594218014 -0.3995013304
                      0.0026997239 0.397865058 -2.4434398999
##
   [142,] -0.288671523
   [143,] -0.246105267
##
                      0.3432637786 -1.080991196 0.5284088823
##
   [144,] -1.511882102 -0.5709072910 -0.905050264 0.8547517581
   [145,] -0.495024347
                      0.2663057248
                                  2.261738454 -0.5175853386
##
##
          0.104615326 -1.5825268022 -0.499136124 -1.1108745387
   [146,]
##
   [147,]
          0.902919506
                     1.1402385821 -1.100332590 0.5236953613
                     ##
   [148,]
          0.239724208
##
   [149,]
          0.507267640 0.5956094686 0.300806272 -2.0655678560
                      ##
   [150,] -0.875238957
##
   [151,] 0.091254051 0.9816095234 -0.719756102 -0.6955280393
##
   [152,] -0.020385215 -0.3839475177 -0.380244939 -0.3242604976
##
          [153,]
          0.017637095 -0.3086784104 -0.962933886 -0.1809515676
##
   [154,]
          0.084949794 1.0749441236 -1.227754409 -1.9489677292
##
   [155,]
          1.124190998 -0.5531964049 0.934683915 -0.2986102820
##
   [156,]
##
          0.084291302 -1.0518190882 -1.732454183 -0.1377422951
   [157,]
   [158,] -0.218004750 -0.3139158975 -0.374230093 -0.9872457009
##
##
          0.216773350 -0.1077628726
                                  0.984391235
                                              1.1136756906
   [159,]
##
   [160,] 1.266213403 0.9290952879
                                 0.362040080
                                              0.2304244623
##
   [161,]
          0.688871679 2.0009826742 -0.796570118 -1.5669267495
##
   [162,] -0.948181264 -1.2953412178
                                  1.735296249 1.2144403293
##
   [163,] -0.338509175 -0.3639344539 -1.649911466 -1.0647207683
   [164,] -0.689386659 -1.7373127693 -0.673333842 -2.0153505106
##
   [165,] -0.106734805 -1.8011530712 -0.935619530 0.7072420380
##
##
   [166,] 2.301107611 0.5456664303 -1.620094646
                                             0.4540930331
   [167,] -0.111507116 -1.2064105109 0.102802032 -1.0290371313
##
##
   [168,] -1.669515372 -0.3400730524 -0.253774542 -1.2132111599
   [169,]
##
          0.373616914 1.0995561089 -2.086947549 0.1321591656
##
   [170,]
          1.003428014 -2.4434137998 -0.941362723 -0.4137772173
          1.549248381 0.1152974677 -0.265206001 -0.9991881493
##
   [171,]
          ##
   [172,]
                      0.7265009096 -0.701709283 -1.6518143421
##
   [173,]
          0.511265411
##
   [174,] -1.518518688
                      ##
   [175,]
          1.739601318 0.1271070793 -0.188079998
                                              1.1093540497
##
   [176,] -0.563596715 -1.1037761358
                                  0.582654209 0.2228654718
##
   [177,] -1.101827649 1.2342823346 -0.153226920 -0.9955859140
                                  0.082859271 0.4723229243
##
   [178,] -0.346406109 -1.1387273646
##
   [179,]
          0.250186998 -1.8738538621
                                  0.599724103 -1.5491720408
##
          0.701670212 -0.2050842524
                                  0.489761034 -0.5124294265
   [180,]
##
   [181,]
          ##
          0.216532289 -0.1769913856 -0.155700744 -1.0164705465
   [182,]
   [183,] -0.232082304 -0.2122827681
##
                                  1.628712952 0.5824764102
##
   [184,] 1.011596165 -0.0175592356
                                  0.715039385 0.2669271550
  [185,] 0.604909208 -2.8827496315 -1.007827770 -1.0616815185
```

```
0.521911448 -0.6526106280 0.982910799 -0.0427199194
##
    [186,]
##
    [187,]
            0.173186116 -1.5279686721 -0.710228508 0.9771589323
##
    [188,] -1.224574281 -1.9640154117 -1.074310700 -1.4952692533
##
            0.208135369 0.1534287762
                                       1.162104516 -1.7707432240
    [189,]
##
    [190,] -0.081332782 -0.7414601091 -1.299859784 -1.0661915752
##
    [191,] -0.970253820
                         0.4438014968
                                       1.460537611 -0.9589919711
    [192,] -0.059073440 -1.8590266363 -0.374986744 -0.0149178511
##
##
    [193,] -0.079856740 -0.5129637695 -0.959905195
                                                     1.5622203986
##
    [194,] -0.226675490 -1.4639726313 0.736576634 -0.4991745498
    [195,]
                         0.0043729971 -1.529573116 -0.9123057019
##
            0.331626176
##
    [196,] -0.033081897
                         0.9517957276 -0.413076967
                                                     0.4540627947
##
    [197,] -0.049853835
                         0.4775824625 -0.249341214
                                                     0.7940008530
    [198,] -1.151062257 -0.6487624968 -0.883731172
##
                                                     1.3266280237
##
    [199,] -1.532826853 -0.4390694744 -0.554477080 -0.4344748675
                         0.2407524050 -0.200103390
##
    [200,] -0.909563172
                                                     0.3412390291
##
    [201,] -0.796302901
                         0.1583849048 -1.100718115 -1.4948168124
##
    [202,]
           1.563286510 -0.0130074491 -1.463226850
                                                     1.2229513528
##
    [203,] -1.393835043
                         0.4414221979
                                       0.891626172
                                                     0.9505823475
##
    [204,] -0.890800968
                         0.3949514873
                                       1.722680028
                                                     0.7519862855
    [205,] -0.646182693 -1.0101474342 -0.554691779 -2.2164678915
##
            1.461384587 -1.9903961499
##
    [206,]
                                       1.714386872 -0.8538820469
##
    [207,]
            1.837364924
                         0.5217068267 -0.130426463 -2.0364900283
##
    [208,]
            0.291212411
                         0.3637342065 -0.201734438
                                                     0.6955594007
##
    [209,] -0.248640557 -0.5663101971
                                       0.313477165
                                                     1.5761527894
            0.772127347
##
                         1.3289705351 -0.521011206 -1.3333303077
    [210,]
##
    [211,]
            2.062880502
                         1.8360738091
                                        1.407969981
                                                     0.8468393486
##
    [212,] -0.646249146
                         0.3081885965 -1.145409698
                                                     2.1669143609
##
    [213,]
            2.098810148
                         0.9898836819
                                       0.184109869 -1.2524157292
##
                         1.5849700859
                                       1.550082271
                                                     0.3821819323
    [214,]
            0.660735520
                                        1.180328168 -0.3686926279
                         0.2726747583
##
    [215,]
            0.610836675
##
    [216,] -2.222641556 -0.5682877360 -0.416573884
                                                     1.1598497355
##
    [217,] -0.934546630 -1.2660499721
                                       1.108752086 -0.9772017342
##
    [218,]
            1.236197830 -0.5018419257 -0.528277818
                                                     0.2264412553
##
    [219,] 0.010281016
                         1.3952763534
                                       1.674032169
                                                     0.0171712762
##
    [220,] -0.979425586
                         1.8274246368 -1.266837869
                                                     0.8201025816
##
    [221,] -0.759908005
                         0.0012722011
                                       1.888404474
                                                     0.4341473076
##
    [222,]
            0.834737338
                         1.5606581201
                                       0.168312020 -0.8764347648
    [223,] -0.858965725 -1.4707304193 -0.618653106 -0.4806258873
##
##
           0.818052471
                         0.3582326769
                                       1.044662816
                                                     0.6024648284
    [224,]
##
    [225,] -1.095974862 -0.4977637366 -1.407499118 -2.0625591777
##
                         1.4773927575 -0.212911946 -1.2614813822
    [226,]
            0.607742312
##
    [227,] -1.209597333
                         0.3184572674 -0.248906690
                                                     2.2357639808
##
    [228,]
           1.242808368 -0.2026828860
                                       0.618139970 -1.6667266671
##
    [229,]
            0.748917631 -0.4916497019
                                       1.869777376 -0.4140424930
##
    [230,] -0.849278089
                         0.9579812437
                                        0.289364382 -1.0400252974
##
    [231,]
            0.759760879
                         0.2333014914 - 0.642957835
                                                     1.3051256815
##
                         0.3447447710 -0.208303006
                                                     2.2142782303
    [232,]
            0.694746987
##
    [233,]
            0.073442221
                         0.6447974339 -1.640507680
                                                     0.0155870640
##
    [234,] -0.645918118 -0.7993404915
                                       1.297387887
                                                     1.1673394392
   [235,] -1.915917151  0.6500579168 -0.113154733  0.5476074060
```

```
##
   [236,]
           1.014458771 -1.1186696504 -0.983528452
                                                  0.2466589622
##
   [237,]
           1.357325243
                        0.2558932618  0.037428299
                                                  0.3553797785
##
   [238,] -0.076210150
                        0.6353010734 -0.911832117
                                                  0.9963457238
##
   [239,] -0.848834602 -0.6362570038 -0.990992269
                                                  0.5507951436
##
   [240,]
           0.699778464 -0.7980618748 0.080397416
                                                  0.1885923338
##
   [241,] -0.574297742
                       1.8611462449 -0.889073678
                                                 -0.0350210374
           ##
   [242,]
                                                  0.5520484436
   [243,]
##
           0.966100543 -1.4255523997 -0.990827249
                                                  0.4577660483
##
   [244,]
           0.450218084 -1.6217122153
                                    0.928245285 -1.7983310169
   [245,] -0.821404180 -1.8414655333 -0.181831638
##
                                                  1.3984594181
##
   [246,] 1.120661393 -0.9264803469 -0.570376639
                                                  0.7267299408
##
   ##
   [248,]
          0.594000789 -0.5872618158
                                     1.510378353
                                                  1.3590052379
##
   [249,]
           1.109701783 -0.5647930127 -0.704295935
                                                  0.0343080145
                                    2.206789672
##
   [250,] -0.229691815 -0.1685686736
                                                  0.3579290454
##
   [251,] -0.548653946 -0.6247978973 -1.242441514
                                                  1.4077341475
##
   [252,] -0.680354734 -0.3868462182
                                    1.733137740
                                                  0.3930188129
##
   [253,] 0.563344024 -0.3421459516 -0.281307315
                                                  1.3586213615
##
   [254,] -1.563620353  0.7508643742  0.924221752  -0.3665639083
   [255,] -1.169488630 -0.2425960330 -0.509115813
                                                  1.4071903181
##
   [256,] 1.672597012 -0.9130410893
                                    1.395388903 -0.8530476026
##
##
   [257,] -1.424793214 -0.2059458012 -1.323731432
                                                  1.4400518652
   ##
##
   [259,] -0.088290457 -0.3739930011 -0.520839814 -2.0060919824
##
          1.197246870 -0.6969075104 0.134568061 -0.6037554532
   [260,]
##
   [261,]
           0.356789774 -0.6225718540
                                     0.291811018 -0.5788236875
##
           1.237896977 0.8257840837 -0.735480809
                                                  1.3429304271
   [262,]
           2.099191899 -1.1562277046 -0.125184553 -0.8344004546
##
   [263,]
##
   [264,]
           0.192687082 -0.3268381933 -0.453057062
                                                  0.8470402230
   [265,] -0.600039851 0.6211250575
                                    1.892326155
                                                  0.2912840100
##
##
   [266,] -1.880719062 -1.1320605694 -0.396604901
                                                  0.2723949881
           0.184305199 0.5237928298
                                     0.091639199
##
   [267,]
                                                  0.5453493557
##
   [268,]
           1.302276480 -0.4167238300
                                     0.444502811 -0.5803708190
##
   [269,] -1.704961921
                        0.2179813845
                                     2.281998224
                                                  0.7052062595
##
   [270,]
           0.719058290 -1.1361748201
                                     1.199257812 -1.5716430294
##
           0.193408560 -1.0356922436 -1.071015994
                                                  1.0515682971
   [271,]
##
   [272,] -0.973632429  0.8816174832 -0.277406961
                                                  1.4652118876
           0.719064433 -1.8301234040
                                    1.971366435 -0.9271173007
##
   [273,]
##
   [274,]
           0.981953876  0.8796438142  -0.607905074
                                                  0.5070859010
##
    [275,]
           1.146055908
                       0.0803624430 -0.660247535
                                                  0.0250941998
##
           1.929900305 0.0769829244 -0.995702486
                                                  0.2629131338
   [276,]
##
   [277,] -0.487568849 -0.5996261594 -1.117220330
                                                  0.5558940250
##
   [278,] -0.469082885
                        0.8947460005 -1.766784917 -0.7972414731
                                     1.877000761
##
   [279,] -0.037629074
                       1.0702223919
                                                  0.0907841657
##
   [280,] -1.139432366 -1.5161056808 -1.083708102
                                                  0.4340028497
##
   [281,] 0.614610324 -0.7187418543
                                     0.266205545
                                                  0.9734915026
##
   [282,] -0.515196870 -0.0330634920
                                     1.897329268 -0.8502126554
##
   [283,] -1.300893452 -1.0320246488 -1.011948547
                                                  0.3809954075
##
   [284,] -0.726269386
                       1.7616112249 0.364799575 -0.7856253241
  [285,] -1.712530105 1.1243220759 -0.680187001 -0.2214761652
```

```
##
    [286,]
            0.168096215 -1.3927989281 1.242676648
                                                    0.2987561537
##
    [287,] -0.041600663
                         0.0171287966 -0.214485776
                                                    1.5859923185
##
    [288,]
           0.103402150 -0.4116315597 -0.034239706
                                                    0.6759067696
##
    [289,] -0.856640263
                         0.9705910086
                                       0.139002329 -0.4466137217
##
    [290,] -0.041579040
                         1.2598380971 -0.833714828
                                                    0.1912209391
##
           1.467284318 -1.4209076839
                                       1.549755270
                                                    0.0704854490
    [291,]
            0.224494543 -0.1147023747 -1.101395618 -0.2774844702
##
    [292,]
    [293,]
##
           0.953692119 -0.8726802001 -1.304366155
                                                    1.2967233195
##
    [294,]
            0.141065357 -0.4421076647
                                       0.069126810
                                                   -1.6621475668
    [295,]
           0.889826180 -0.6797719847 -1.124056076
##
                                                    0.3511870161
    [296,] -0.191469021 -0.4573325453
                                       0.038203532
                                                    0.9617080701
##
##
    1.586489633 -1.5533312103
##
    [298,] -0.241382597 -1.0093210102
##
    [299,]
           0.550586894 -1.3642202569 -0.308702734
                                                    0.6752934608
    [300,] -0.452395677 -0.4169329307 -0.714061275
##
                                                    0.5985804590
           1.498861537 -1.1876223599
                                       0.283907519 -1.6813818043
##
    [301,]
##
    [302,]
           0.036497410 -0.9460802050
                                      0.397303226 -2.0416188030
##
    [303,]
           0.887145540 -0.0874448765 -1.056305487
                                                    0.8747506246
    [304,] -0.258079692 0.7248952381
                                      0.087737276
                                                    0.8825771006
##
           0.269431402 -1.1699417421 -1.094576828 -0.0076345300
##
    [305,]
           1.441427766 0.1549281689 -0.739335007
##
    [306,]
                                                    0.1568233480
##
    [307,] -0.189394669
                         2.0321186733 -0.084904742
                                                    1.1245723953
##
    [308,]
           0.198739873 -0.3329314216
                                       1.619914424 -2.8458192725
                         1.2515859956
                                       0.618648020
                                                    1.0050532750
##
    [309,] -0.220413519
##
    [310,] -0.357367373 -0.5809215019
                                       1.123335887
                                                    0.4866834661
##
    [311,] -2.292206086
                         0.2269267116
                                       2.062109665
                                                    0.0904870221
##
                         0.7662704719 -0.150306180
    [312,] 1.036646893
                                                    0.8129858106
##
    [313,] -2.484689925 -0.5920910741 -0.314099400 -1.0686435013
##
    [314,] -0.010259289 -0.3730871185 -0.435334341
                                                    0.5249375280
                                       0.805631363 -0.4523316496
##
    [315,]
           1.452646785
                         2.1536917609
##
    [316,] -0.754267248 -0.0398649689 -1.362402461
                                                    0.7154631638
##
    [317,] -1.607136568
                         0.1102442467
                                       1.739005831
                                                    1.7807052811
##
    [318,] -1.786792366
                         0.7062514278
                                       0.501978083 -0.2650000788
    [319,]
##
           0.280781665 -0.2724310882
                                      2.052359960
                                                    1.4789142248
##
    [320,]
           1.724487919 -0.4120296564 -1.225269146
                                                    0.5958622962
##
                         1.0714581322 -0.041004390
                                                    0.3426511428
    [321,] -0.014807550
##
    [322,]
           0.341356452 -0.5815071761
                                      1.242707702
                                                    1.1241886702
           0.374925312 -0.0470285032 -1.101840898
                                                    0.8066341139
##
    [323,]
##
    [324,] -1.076161378
                         0.2091158104
                                      2.305405776 -0.4132197459
##
    [325,] -0.424059185 -0.5277331169
                                       0.354352562
                                                    0.4313965931
##
                         1.6098678875
                                       2.150980619
                                                    0.6356186815
    [326,] -0.024787361
##
    [327.] -0.609743877 -0.4679424459 -1.060532948
                                                    0.2226261402
##
    [328,]
           0.023721571
                         0.1308358666 -1.034108540
                                                    0.3041205843
##
    [329,]
           0.097095666
                         1.4835374701 -2.054636960 -0.4630317111
##
                         0.3527497898
                                      0.052410662
                                                    1.5354711266
    [330,] -1.528711341
##
    [331,] -0.626915157 -0.9113548660 -0.555882869
                                                    0.2957346549
##
                         0.7181239668
                                       2.019440728 -0.0142863242
    [332,]
           0.268107451
##
    [333,]
           0.433461307 -0.6198575046
                                       2.350758399 -0.9977424661
##
    [334,]
           0.710497128 0.2656653320
                                      0.608784936
                                                    0.2087514491
           0.410990417 -0.2413398549 -1.256387315 0.3057853391
    [335,]
```

```
##
    [336,] -0.005932612 1.0012023808 0.641273580 -0.1386345976
##
    [337,] -1.570799475 -0.1737427194 1.579909416 -2.0860968217
##
    [338,] -0.730021578
                       1.7449103778 -0.183633738 -0.5157447668
##
    [339,] 0.693596091 -0.2620459511 -0.507300767
                                                   1.0035420608
##
    [340,]
           0.317203055 -0.1747276291 -1.081916339
                                                   0.5121842697
##
           1.008209656 -1.6601903678 -0.862810029 -1.9302724435
    [341,]
##
    [342,] -0.995298390
                        1.0660110094 -0.239704051
                                                   1.4722325462
##
    [343,] -0.569614090
                        0.0286721776 -0.034156481
                                                   0.0936456698
##
    [344,] -0.175523202 -1.1649022716
                                     1.262835228
                                                   0.9676853518
    [345,] -1.216717836 -0.7148309110 -1.352311657
                                                   0.8321650545
##
    [346,] -0.160768731 -0.2572097927 -0.984989336
                                                   0.6761628666
##
##
    [347,] -1.293421349
                        0.0158709706 -0.736640281
                                                   0.2806835684
##
    [348,] -1.611436035
                        0.7661386143 -1.028299979 -0.4724291742
##
    [349,] -0.252492103 -0.0814653888
                                     2.209302791
                                                   0.2779261240
##
    [350,] -1.069312885
                        0.5059833270 -0.475451745
                                                   1.5919622610
##
    [351,] -2.493387985
                        0.3873055318 -0.484389470 -1.2714548436
##
    [352,]
          0.081317283
                        1.0453793828
                                      2.443642751
                                                   0.9416022495
##
    [353,] -2.190991829
                        0.1586177893 2.262511490 -0.8865772154
##
    [354,]
           1.819975271 -0.7447176592 -1.001478941
                                                   0.0248909985
                        ##
    [355,] 2.144731173
                        1.3572148835 -1.523888500 -0.2604960704
##
    [356,] -0.240610909
##
    [357,] -0.671164100
                        1.3752376492 -0.489321163 -1.7650357903
##
    [358,] -1.470085353 -0.2287649127 1.072102236 -0.3026980137
##
    [359,] -1.156700426 -0.6781252853 -0.249752152 -0.3033155003
##
    [360,] -0.576783114 -1.5069914360 -0.442713404 1.1831250118
##
    [361,] -0.968584529 0.7143461121 -0.721265379
                                                   0.5853490464
##
    [362,] 1.411506184 -0.0724136796 0.427628854
                                                   0.2025836016
##
    [363,]
           0.146683684 -0.2268276864 -0.436698583
                                                   0.0027667592
##
           0.420073912 -0.9256463883 -0.567916276 -0.4362571791
    [364,]
    [365,] -1.101993970 0.5163603598 -1.397410549
                                                   0.2521273246
##
##
    [366,] 1.457541907
                        0.1709277550 -0.035141694 -0.3339438568
                        0.8411469609 -0.939186350 -1.0986562533
##
    [367,] -1.719827128
##
    [368,] -0.953703068
                        0.9935309271 -0.762369089
                                                   0.0439217649
##
    [369,] -0.358848426
                        0.6066760683 0.361153530
                                                   1.8256366164
##
    [370,] -0.687576306
                        1.3894812314
                                      0.620589852 -0.2426008302
    [371,] -0.017788216 -0.3977581327
##
                                      1.671074211
                                                   1.1351733359
##
    [372,] 1.005605375 -0.4252386890
                                      2.336893715 -0.7392981109
                        0.2196828621 -1.390432284 -1.9943856099
##
    [373,] -0.549685283
##
    [374,] -1.153727279
                        0.5522210478 -1.080695643 0.0261812346
##
    [375,] -1.799482568 -0.5062745968
                                      2.424829405
                                                   1.4187461110
##
    [376,] -1.554832653 -0.8448381867
                                      1.396091600 -0.5581208897
##
    [377,] -2.141469684 -1.4547614004
                                      1.409641518
                                                   1.0201090222
##
    [378,] 1.923642571 1.4198895286
                                      1.213519532 -1.0686245504
##
    [379,] -0.390425335 -0.7714165920 -0.023910686
                                                   0.8211311018
##
    [380,] 1.061018104 1.3856671693 -0.197127768 -0.6145689464
##
    [381,] -0.965318705 -0.1574082243
                                      1.689468014
                                                  1.2091739720
##
    [382,] 0.495605331 -1.0874762961 -1.304077152
                                                   0.2111765187
##
    [383,] -1.237454448 0.6357201908 0.793927031 2.3284885685
##
    [384,] -0.872948334  0.5370659727 -0.904361065 -1.6648704612
  [385,] 0.434210391 -1.5250275112 0.265299519 -0.3326103586
```

```
##
    [387,]
           0.406546167
                       ##
    [388,]
           0.459167800 0.7009995145 0.721801048 1.4750016347
##
    [389,]
           1.646347989 -0.2229473849 -0.063506272 -0.7778368770
##
    [390,]
           0.434825478 -0.6997554585 0.695005193 0.8903249210
##
    [391,]
           [392,] -0.178790949 -1.6782325817 -0.281265016 0.4263618893
##
##
    [393,] -0.809351427 -0.8997533040 -0.296700035
                                                0.3128044780
    [394,] -1.532243474 -0.2546792313 -0.823716168 -1.0008359780
    [395,] -0.782271392  0.4084812121  0.445979834  -0.0972484362
##
##
    [396,] -1.315830881 1.4060337062 -0.531076787 -0.8488336483
##
    [397,] -0.409957706 -1.2220998735 -0.309912792 -1.4217829005
    [398,] 0.065586385 -0.3579533043 -0.923804660 0.1949964612
##
##
    [399,]
           1.703175031 1.8497462786 -0.585390364 0.5823320349
           1.912622945 -0.2735831171 0.764498031 -0.7483507937
##
    [400,]
##
    [401,] 0.144529126 -0.2433673022 1.199630627 -2.8874736843
##
    [402,] -0.559345826 -2.1227366391 -0.970936246 -0.8002930165
##
    [403,] -1.665921641  0.9492005248 -0.599887699 -0.0242568263
##
    [404,] -1.031351369 -0.9559735683 -0.278143568 -0.6213649904
    [405,] -0.051332354 -0.2555978524 0.865107594 0.1350921914
##
    [406,] 1.838112912 -0.2934489550 -0.801657173 -0.3198479585
##
##
    [407,]
          0.117007479 -0.7031760187 -0.836413257 -0.8186350893
           1.679556088 0.0044207687 -0.392205773 0.7620115561
##
    [408,]
##
          0.687582991 -1.8902800698 -0.462572376 -0.7036579605
    [409,]
    [410,] -0.148530404  0.6375248117 -0.234606152  1.2137773216
##
##
    [411,] -2.246809839
                       1.8444862844 0.032449978 -0.3395969444
##
    [412,] 1.265400493 0.2237104756 -1.380418830 0.9362227158
##
    [413,] -0.176712279 -2.2385589807 -0.886910118 0.0674108684
    [414,] -1.145576720 0.5601545559 0.147382889 -0.0472687368
##
    [415,] 1.456400267 -0.7798418770 -1.488234058 -1.1133937083
##
##
    [416,] -0.402074828 -1.0297071303
                                    1.070795103 1.7924205037
    [417,] -0.109289899 -0.1343023327 0.154643977 -0.0782233735
##
##
    [418,] -0.075255983  0.8539864315  0.183690154 -1.5245642129
##
    [419,] 0.221728931 -1.5958268705 -0.676967100 0.4791230320
##
    [420,]
           0.492220595 -1.4878703656  0.786153243 -1.5491096976
           0.777415054 -0.6800595913 -1.575752306 -0.3255516464
##
    [421.]
##
    [422,]
           1.465088893 0.8117690103 0.503586132 0.4398154740
    [423,] -0.264401683 1.3305037783 -0.003386672
                                                 2.6971451410
##
##
    [424,] 0.440323733 -0.2125177136
                                    1.565344352 0.3775222841
    [425,] -1.524518748 -0.2622428239 -0.750436310
##
                                                 0.2627197255
##
    [426,] 0.783900774 0.1948531926 0.285573466
                                                2.2390740423
##
    [427,] -1.249358435 -2.6065539671 -0.693898880 -0.8245806799
##
    [428,] 1.190054668 -2.3218220415 -0.928411155 -1.1655978103
##
    [429,]
           0.780895679 -0.5537997056 -0.541735538
                                                1.5837798163
           0.410947616 -0.4625967797 -0.674803040
##
    [430,]
                                                 0.8997689995
##
    [431,]
           0.691447599 -0.6315061049 0.749418008 0.3836139457
##
    [432,] -0.823402384 1.4356400930 0.698194824 -1.3074505199
##
   [433,] 0.743277884 -0.0521832632 -0.489397978 -1.5930027932
##
    [434,] -0.257563358  0.1386829964 -1.835241397 -1.4115731523
## [435,] -0.501914820 0.8921733398 2.153392741 0.6463960915
```

```
[436,] -1.619542536 -1.3214497199 1.713579656 0.8827842532
##
    [437,] -1.299072337 -0.2212157887 1.991456908 -0.3885385356
##
    [438,] -0.578604715 -0.5699065307 -1.268969433 -0.6392710664
    [439,] 0.046357335 -1.0996657260 -0.513959404 -0.5222556017
##
##
    [440,] -0.866070169  0.6749506928 -1.562617318  0.4481050384
##
    [441,] -0.100284657 -0.0009862945 -0.746577459
                                                   1.1897533641
    [442,] -0.653439342 -1.1061726209
                                     2.130626686 0.2425180635
##
##
    [443,] 0.116487377 -0.0955441411 0.496046845 -0.0171086466
##
    [444,]
          1.303958242 -0.6393689136 -1.397705916 -0.7732773535
##
    [445,]
          0.550986642 0.0498628864 0.847383415 -0.9566625427
##
    [446,] -0.189863901
                        0.2549911376 -1.037015935 2.5611559856
##
    [447,] -1.171591041
                        0.1543992964 -1.513561195 -0.5261126579
    [448,] 2.977741903 -1.0458175915 0.496957799 -2.2921820118
##
##
    [449,] 0.212592985 -0.5500612853 -1.450704263 0.7400988719
    [450,] -0.515199353 -1.2393981139
                                      1.968232514 -0.0315513744
##
##
    [451,] -1.785567331 -0.0214555754
                                      1.646441937 0.9127330041
##
    [452,] -0.929547116 -0.2668970626
                                      1.312610795 -0.1133194421
##
    [453,] 0.914024757 1.0897556804
                                                  1.9926031847
                                     0.252867164
##
    [454,] -0.492044666 -1.4567858818
                                      1.697901882 0.0622942371
##
    [455,] 0.729175330 0.3620699724 -1.195130591 1.6218074391
##
    [456,] 0.060248542 -0.68888888050
                                     0.502207771 1.2610897902
##
    [457,] -0.333697075 2.5035886097 0.497095582 -1.5804762402
    [458,] -0.689864338 1.5830139427 -0.303600011 -1.7854918211
##
##
    [459,] 2.154152180 -0.0932480275 0.545356300 0.3399770157
    [460,] 0.555239769 -1.3734833352 0.859820914 0.0299960858
##
##
    [461,] -0.305555156
                       1.2843596683 -1.632358087 -0.3824655113
##
    [462,] 0.883901154 0.6741980058 -0.299087508 0.1707604009
##
    [463,] -0.380692927 -0.5186424420 0.689677569 -1.4084888108
    [464,] -0.138090228 -1.5989628388 0.464056235
##
                                                   0.2831027510
    [465,] -0.400702478 -0.3127926919 -1.083905688 -0.1679684498
##
##
    [466,] 0.532558481 -0.2517279507 -0.961165937 -0.6939765080
    [467,] -1.481217881 1.0731744627 -1.291692295 1.0766709440
##
##
    [468,] -1.112921709 -1.2754470935 -1.776297080 -0.5823253311
    [469,] -0.321214693  0.5182791195 -1.035988101 -0.3859481526
##
##
    [470,] -0.522750109  0.9845625868 -0.607548987 -0.5527194693
    [471.] -0.125994278 -0.2201909424 -0.656186989 -0.0663083446
##
##
    [472,] -1.453119732 1.3433420927 0.821270623 -1.1180149947
##
    [473,] -1.756167650 -1.0209933568 0.527472026 -2.3861653405
##
    [474,] 0.112317362 -1.6771937176
                                     1.399487237 -1.8051704780
##
    [475,]
          0.039618636 1.4427132110
                                      2.220626141 -1.3942203449
##
    [476,] 0.693459244 -0.8407878853 -0.143370698 -0.0966195363
##
    [477,] -0.199411942 -1.7058876937
                                      1.501546559 0.0430247973
##
    [478,] -0.529746532 -1.1399294427
                                      0.736123128 -1.4527417447
##
    [479,]
           1.666444896 -0.6908690702 -0.958083149 0.2725033043
                                      1.410009125 -0.0028827345
##
    [480,] -0.301177968 -0.6710032425
##
    [481,] 0.371352228 0.4149822239
                                     1.691925825 0.9978143640
##
    [482,] 1.630650886 -0.9783618580 0.145266375 -2.2397923861
##
   [483,] -0.858576115 -0.0378536123 -0.442990937 -1.3281544747
##
    [484,] -0.853167554 0.0417194673
                                      1.804411576 -0.3713441247
## [485,] -0.334746816  0.0469841827 -1.356637699  0.3424694908
```

```
##
    [486,] -1.094076179 -0.7790140276 -0.697319309 -0.5882640290
##
    [487,]
           1.509429484 -0.4195396663 -0.938849484
                                                   0.4583233109
##
    [488,] -0.498172750
                        1.8653860393
                                      1.373359817
                                                   1.0846210344
##
    [489,]
           1.245653034
                        1.1584267831 -0.492678348 -1.3716239034
##
    [490,]
           1.0478209492
##
    [491,] -0.813096524 -0.5507032250 -1.168513032
                                                   1.3837512847
                                      0.970669235
##
    [492,] -0.371196345 -0.9427554829
                                                   0.1187957769
##
    [493,]
           1.907397882 -1.1673107566
                                      0.997703020
                                                   0.1039987419
##
    [494,] -1.928974512
                        0.9781320184 -0.405417734
                                                   0.0162684055
    [495,]
                                      0.037590726
##
           0.236402137
                        0.0537031687
                                                   0.0739278272
    [496,] -0.109866952 -0.3936722964
                                      0.588998546
                                                   1.5378468590
##
##
    [497,] -0.245332389 -0.6788530430
                                      0.210028685 -0.8500015942
##
          1.091489913 -1.1482926165 -0.932931578 -0.2878724277
    [498,]
##
    [499,]
           0.718110694 -1.0299001239 -0.252710303 0.3872713641
                        0.1254264422 -0.594418957 -1.6908601868
##
    [500,] -0.954478624
##
           0.751804590 -0.2011189401
                                      1.841675785 -0.2872216275
    [501,]
##
    [502,]
           0.318181422
                        0.0147206052 -0.627866630 0.0023511272
##
                        1.1238303966 -1.543586941 -0.7466042042
    [503,] -1.170309849
##
    [504,]
                        0.1900644115
                                      1.354338786 -2.2497671955
           0.185465671
    [505,] -0.374191095
                                      1.313178797 1.7125506665
##
                        1.5489164857
                                      0.260476081 -0.8142524730
##
    [506,] -1.431249303
                        0.5869704233
##
    [507,] -1.804220142
                        1.1307510450 -0.205675527 -0.4832172797
##
    [508,] -0.165385231 -0.3596492240
                                      1.876975104 -0.1622640800
##
           0.668211592 -0.1302308088 -1.897232455 -0.2618778882
    [509,]
##
    [510,] -0.176218527
                        0.7573445388 -0.424431516
                                                   1.4801987775
##
    [511,]
           0.143359255
                        1.7188327486
                                      0.474868296
                                                   0.1119551046
##
                        1.4746326003
                                      0.872433836 -0.8923305008
    [512,] -0.325982095
           1.855853482 -0.3699133916 -1.360486023
##
    [513,]
                                                   0.4376786211
##
    [514,] -1.097687691
                        1.5560879757 -0.219942230 -0.2587091462
    [515,] -0.541832037 -1.3164217456 -1.021588260 -0.3859886330
##
##
    [516,] 0.088189320
                        0.1085949165 -0.886877317
                                                   0.3391057005
##
    [517,] -0.342246885
                        1.3589796022
                                      0.302322578
                                                   1.7160381134
##
    [518,]
           1.725070514
                        1.1328924740
                                      1.007043964
                                                   0.8678548366
##
    [519,] -0.389822991 -1.3970024591
                                      1.859232326
                                                   0.8342045656
##
    [520,] -0.738666312
                        0.2514795558 -0.238744429
                                                   0.0187938889
##
                        0.4438417797
                                      0.029938543
                                                   1.0738787521
    [521,] 0.216872282
##
    [522,] -0.167262776 -0.9741715546
                                      1.080790053
                                                   0.9521940001
                        0.0497344064 -0.790806787
##
    [523,] 0.163961367
                                                   1.0349620964
##
    [524,] -1.005580860
                        1.1321033684 -0.243928157 -0.9040897248
##
    [525,] -0.534385258 -0.5466616697
                                      1.731639590
                                                   0.9624933896
##
                        0.4415062642
                                      0.704571404
                                                   0.3869210269
    [526,] 0.673610537
##
    [527,] -0.375653535
                        1.8801330389
                                      2.165729973 -1.1200564481
##
    [528,] 1.002778370
                        1.0976025208
                                      0.061647693 -0.7876757480
##
    [529,] -1.219814852
                        1.8299545509 -0.240783599 -1.9402687967
    [530,] -0.731173979 -0.4096026311 -1.468825617 -0.4721803904
##
##
    [531,]
           0.920356020 -0.1390236113
                                      0.358619953 -1.3833133912
##
                        1.6427443686 -0.971014791 -1.3966334948
    [532,]
           0.774281043
##
    [533,]
           0.901545619 -0.3062279239 -1.252452543 1.4458415517
##
    [534,]
           [535,] -0.572417653 -1.5480302543 -0.429408365 -0.0879293146
```

```
##
    [536,]
            0.670536107
                         1.3921814824 0.151455090
                                                     0.9450070266
##
    [537,] -0.576709936
                         0.7887560614 -1.340883348
                                                     2.0294316468
##
    [538,]
            1.022426179
                         1.7369885067 -0.472252144 -0.8011940039
##
    [539,] -1.160072697 -0.5575700804
                                        1.410997974
                                                     0.3915639243
##
    [540,]
            1.233899909
                         1.1024598704
                                        0.544131136 -1.0959411306
##
    [541,]
            0.475298724
                         1.1374095331
                                        2.235427146 -0.4224024643
##
    [542,] -1.545807900 -0.9904426824
                                        1.166320717
                                                     0.5197418865
    [543,]
##
            0.910970474
                         1.3004765214 -0.891633192
                                                     0.6512889644
##
    [544,] -0.593378120
                         0.3995042044 -0.716823349 -1.0268399317
    [545,] -1.197173978 -1.0483707947
                                        2.194470785
                                                     0.2784029092
##
                         0.2681162829 -0.401632455
                                                      0.6007412161
##
    [546,] -1.264659912
##
    [547,]
            1.116940690
                         2.0603972581
                                        0.396325904 -0.5577010352
##
            1.790971572 -0.5399079189 -0.737085779
                                                    -0.4498770405
    [548,]
##
    [549,] -1.218285349 -1.6771704098
                                        0.127884599
                                                     0.0466921688
    [550,] -0.688351187 -1.4923386148 -0.736358418 -0.0992654576
##
##
           1.117634040 -0.6053019599 -0.228681854
                                                     0.3644006841
    [551,]
##
    [552,] -0.378526599 -1.1579428048
                                       0.099389035
                                                     0.0293292929
##
    [553,]
            2.518681691
                         0.1810114034 -0.174230601
                                                      1.7140087610
    [554,]
                         0.3353675927 -0.376506834
                                                     0.9650705823
##
            0.241138088
                         1.4304201656
                                                    -0.4131294315
##
    [555,]
            0.453049835
                                       0.344032544
                                                      1.6795677800
##
    [556,] -0.674707640 -1.0813795245 -1.022117005
##
    [557,] -1.425406531 -0.9736347753 -1.065128358
                                                      1.1935147415
##
    [558,]
            0.594555126 -0.2832361274 -0.818710324
                                                      0.8150138810
##
            0.770573158 -1.3285008236 -0.119127675
                                                      0.1613331477
    [559,]
##
    [560,] -1.542156870 -0.9163401296 -1.030434071
                                                      0.6676849198
##
    [561,]
            1.482641608
                         1.1135083213
                                        1.565794693
                                                      0.6856793259
##
    [562,]
            0.912177636
                         0.2557225781 -0.117034047 -0.6386221389
##
    [563,] -1.108697452
                         1.5582127963 -0.155343809
                                                      0.8840211981
##
    [564,] -1.049737540
                         1.2118694156
                                        0.239602619
                                                      1.4522111716
                         0.9887983583 -1.386477300 -0.4011869165
##
    [565,] -1.228084905
##
    [566,] -0.134545340
                         0.8207309128
                                        0.566095785
                                                      2.4942868332
##
    [567,] 0.731207991 -1.4660028257 -0.560327475 -0.3907162911
##
    [568,] -1.786813526 -0.2897187529
                                        0.640251946 -0.2455085694
##
    [569,] -1.077086455 -0.0084053941 -0.696997898
                                                      1.7573325421
##
    [570,]
            0.642097073
                         0.7617953528
                                        0.340485321
                                                      0.4571533854
##
                         0.9115503288 -0.625320642
                                                      1.0873305468
    [571,] -1.031712715
##
    [572,]
            0.027908659
                         1.3740196961
                                        0.465020524 -0.0267851115
                                        2.125921746
                                                      1.2667906994
##
    [573,] -0.770914685
                         0.5268659643
##
    [574,] -1.500443202
                         0.7131734285
                                        0.006618884
                                                     0.7253468195
##
    [575,] -1.406448482
                         0.5890166114
                                        1.626745145
                                                     1.3560130329
##
                         0.0329400289
                                        1.919015304
                                                     0.1310715172
    [576,]
           1.074519123
##
    [577,] -0.672509022
                         2.0056436000
                                        0.183588534
                                                      0.1946044255
##
    [578,] -0.245655767
                         0.2007803283 -0.012734003
                                                      0.4019444344
##
    [579,] -0.224743798 -0.7656293893
                                        1.652936592
                                                     0.8419183061
##
    [580,] -1.211626982
                         1.1526991628 -0.212635763 -1.0220828888
##
    [581,] -1.034028736 -0.0990006239 -1.110350949 -1.2148555952
##
    [582,] -0.883525140
                         0.3282643581 -0.339791923
                                                      1.2420142322
##
            0.485480208 -0.3389679913 -0.797316238 -0.8771758883
    [583,]
##
    [584,]
            1.078162984
                         0.9153152651 -1.482783023 -1.3058220677
    [585,] -1.651502530 -1.2837831741 -0.278661333 -0.9945892276
```

```
[586,] -1.629722884 -0.8458921907 -0.949590367
                                                     0.0270923155
##
    [587,]
            1.266832374
                         0.2847418491 -0.873867704 -0.1737441260
##
    [588,] -1.357221966 -0.2000918684
                                       0.501371911
                                                     0.7218158321
##
            0.102803891 -0.3280627219 -0.169580862
                                                     1.9611320593
    [589,]
##
    [590,]
            1.431120968
                         0.5892229190 -0.380675730
                                                     0.9693929168
##
    [591,]
            0.626981745
                         0.9873966201
                                       0.964300508 -1.1225160470
##
    [592,]
            1.792656029
                         0.3463371373 -0.660035358
                                                     0.5052875016
    [593,]
            0.727714303
##
                         0.7271995882 -0.438754800
                                                     1.4800606477
##
    [594,] -0.717069639 -1.4908631909
                                       2.381634015
                                                     0.0512202714
    [595,]
            0.742942830 -0.8912105502 -0.474077836 -0.8180723394
##
    [596,] -0.208875134 -1.7945942612
                                       0.665285345 -0.8841814314
##
##
    [597,] -1.353571792
                         0.2833166396 -0.120802387 -1.0331457440
                         0.9903110197
##
    [598,] -1.299348082
                                       0.065230807
                                                     0.0822201274
##
    [599,] -1.331123711
                         0.4039216296
                                       0.185445082
                                                     0.0506881709
                         1.1317599442 -0.581679460
##
    [600,] -0.414732288
                                                     0.0994948901
##
    [601,] -0.313089244 -0.6702812623
                                       0.041405016
                                                     1.4538015184
##
    [602,]
           0.696285793 -1.8095672483
                                       0.629787861
                                                     0.4048232590
##
    [603,] -0.664960798
                         0.5849853451 -0.333679218 -0.0922546040
    [604,] -0.530583380
                         0.6246936691 -0.864162076
                                                     1.2951701690
##
                         0.2427576747 -0.143276193
                                                     1.5248592332
##
    [605,] 0.393033722
                                       0.919365940 -0.3231844134
##
    [606,] -0.773483140
                         0.4931802457
##
    [607,] -1.550219870 -0.5721616995 -0.008784268 -1.2361901112
                                       1.410679344 -0.5049604728
##
    [608,] -0.425929638 -1.2560451875
##
                         0.5208371991
                                       0.546749614 -0.8423897492
    [609,]
            0.537334661
##
    [610,] 0.498023174
                         0.8974957136 -0.755496892 -1.0740851448
##
    [611,] -1.262739352 -0.1678791193
                                       1.028433678 -0.9615857844
##
                         0.5279296458 -0.363323955
                                                     1.2264462356
    [612,] -0.506180423
##
    [613,] -0.466164267
                         0.0740621626 -0.745482803 -1.4161796042
##
    [614,] -0.062652463 -0.5850359124 -0.716059118
                                                     0.7107113083
           0.352763658 -0.4661987357
                                       0.322589126
##
    [615,]
                                                     1.4242977078
##
            0.630817178 -1.2934951186
                                       0.299851670 -1.5349327764
    [616,]
##
    [617,] -1.776494997
                         1.4231792525
                                       1.866290876 -1.3771903714
##
    [618,]
            1.862778139
                         0.3168825534 -2.044272590
                                                     0.2024695139
    [619,]
                         1.0408955491 -1.229743284
##
            0.783085708
                                                     0.3007597540
##
    [620,] -0.975228093
                         1.0935991652 -0.212727297 -2.3929896532
##
            0.395720199 -0.5237252721 -1.316548086 -0.8197941803
    [621,]
##
    [622,] -1.770814879 -2.8695094636 -0.779740957 -1.2461052930
                         0.4074003624 -1.431914603
                                                     1.0084302678
##
    [623,] 0.364824670
##
    [624,] -1.818826667 -0.4104093949 -0.180294406 -0.0207928292
##
    [625,]
           0.101111725 -0.9211709468
                                       0.046925033
                                                     1.7491603015
##
                         0.7214556049 -0.578213806
                                                     0.8669059482
    [626,] -0.144427102
##
    [627,] -0.630544162
                         0.4278626091
                                       0.350839260
                                                     0.8557093702
##
    [628,] -0.512994850 -0.1855098459
                                        0.358881316
                                                     0.1943638402
##
    [629,] -1.424391456
                         1.0821048810
                                       0.409834172 -1.3214296216
##
            0.491007264 -0.4739891640 -1.154115956
                                                     1.9120547616
    [630,]
##
    [631,] -0.371155336
                         1.0840335289 -0.611155100
                                                     0.8263665790
##
    [632,] 2.132957294 -0.0577048796
                                       0.609805408 -0.0743387945
##
    [633,] -1.213695030
                         0.3574885950
                                       0.769194405 -0.7561102837
##
    [634,] -1.499211623
                         0.3587654980 -0.410043538 -0.1139499815
    [635,] 0.689637532 -0.8872405733 0.447918736 1.0314217497
```

```
0.262805205 -1.1564586261 0.995993417 -1.1521061040
##
   [636,]
##
   [637,] -0.289674258
                      1.1233106910 0.301865815 1.2773637891
##
   [638,]
          0.014863848
                       1.3083382488
                                    1.340446839 -0.4698518961
   [639,] -0.413960667 -0.6589949790
##
                                    0.973034322 0.5817574690
   [640,] -0.995840420 -0.4460006835 -0.406714463 -2.0778438461
##
##
           0.195568870
                       0.9716455001
                                    0.367638376
                                                 1.3484679803
   [641,]
   [642,] -2.021053663 -0.5732228759
                                   -0.315411927 -0.8175973615
##
##
    [643,] -0.535763589 -0.0376944225
                                    2.985679913 -0.1649569448
##
          1.418839368 0.0501147909 -0.144247484
                                                 0.5756967746
##
   [645,]
                                    0.937569376
           1.044009948 -0.2551107556
                                                 0.5375487123
##
           0.319561639 1.8313513311
                                    0.843646913
                                                 0.5357798806
   [646,]
##
   [647,] -1.807590277 -0.4317804771 -1.205050000 -0.4750512852
   [648,] -0.984707161 -0.6146120423
##
                                    0.500836132
                                                1.5100316974
##
   [649,] -0.225577113 -0.7702434451
                                    1.437121595
                                                 0.4091569637
   [650,] 0.529472865 -0.1513145616
                                    0.165085750
                                                 1.3932981311
##
##
   [651,] -1.566557203 0.6551432443
                                    0.357127620 -0.2336101931
##
   [652,] 0.313013189 0.8661347027 -2.166785713 -0.1677579812
##
   [653,] -1.030773141 -0.1103372529 -1.231374046 -2.5081728050
   [654,] 0.441404547 -0.4836819133 -0.521476107 0.3560941837
##
                       0.9084150058 -0.032271911 -0.2298143071
##
   [655,] -0.649211957
   [656,] -0.272258786 -1.4539435715
                                   0.012133243 -0.7092718913
##
##
   [657,] 2.258850160
                      1.9289263917
                                    1.850805345
                                                 0.1417493027
   [658,] -0.440504703 -0.7296155870 -0.424685444
##
                                                 0.6080484539
##
    [659,] -0.622883984 2.1704094452 -0.640358441 -0.3780801536
##
   [660,] 0.380726980 -0.3655681059 -0.821834838 -0.6399953334
##
   [661,]
          0.875900381 -1.2255016009 -0.698594729
                                                 0.3378113524
##
   [662,] -0.089905076 -0.8814760216 -0.319780756
                                                 0.3828870437
##
   [663,] -0.495938464 -0.4332404493 -0.112989169 -0.0189170557
           0.459686749 -0.5798233407 0.529615947 -0.8145547368
##
   [664,]
           0.010432227 -0.0441890784 0.954099364
                                                 1.0470133001
##
   [665,]
##
           0.4781429245
   [666,]
           0.850989983 -0.8284467193 -0.761494125 -0.2247468462
##
   [667,]
##
    [668,]
           [669,]
##
           1.263879172 -0.8308205224
                                    1.540725572 -2.7286585841
##
   [670,] -0.161051242
                       0.1689966457
                                    0.256917163
                                                 0.1555881014
           0.057525850 -0.2627273308 -0.313218376 -0.0139377019
##
   [671,]
           0.535173522
                       ##
   [672,]
##
   [673,] -0.287124208 -0.6842557119 -0.201798463
                                                 0.9430813318
   [674,] -0.165749637 -1.3612831928 -0.289472435
##
                                                 0.5150834339
                      1.4380312042 -0.803629884 -0.7336511996
##
    [675,] -0.552168776
##
   [676,] 0.178216809 -0.9016640983 0.026705815
                                                 0.9563217002
##
    [677,] -0.702996329 -0.1464642059 -0.876718202
                                                 1.4158739998
##
   [678,] -0.180461945
                       0.4611459973 -0.513908413
                                                 0.8450610564
##
   [679,]
           0.145705799 0.6023071755
                                    0.761752443 -0.1863643555
##
   [680,]
          1.307750991 -0.6881749367
                                     0.021558735
                                                 0.2048681627
##
   [681,] -0.066084549
                       1.0644073189
                                    1.610123019
                                                 0.8379656150
##
   [682,] 1.010615473
                       0.8218903065
                                    1.587661298 -0.1850435147
##
   [683,] -0.379461432  0.2184145116 -0.291520616 -0.8288161309
##
    [684,] 0.184341332 -0.2416120417
                                    1.567634379
                                                 0.7726530539
```

```
##
    [686,]
            0.944281227 -0.1096475454 0.418644081 0.7058917446
##
    [687,]
            0.370166258 -0.2385169078 0.436551516 -0.6750959975
##
    [688,]
            0.288320351
                         1.7013426801 -0.730586053
                                                     0.4058106734
##
    [689,]
            0.012925808 -1.3693228272
                                       0.527786763 -0.4271902616
##
    [690,]
            0.220522698
                        0.4194959315 -0.476115723
                                                     0.5005153777
##
    [691,]
            0.875634839
                         0.7909618655 -0.191748374 -0.4243372582
    [692,] -0.893065673 -0.3565887516 -0.736217821
                                                     0.9234798167
##
    [693,]
            2.045684529
##
                         0.5505866772 -0.321987700 -0.9417914511
##
    [694,] -0.799027362
                         0.4806843635 -1.032400389
                                                     1.2444449224
    [695,]
                         1.8847654718 -0.810924825 -1.4063244893
##
            1.209150926
##
            0.362732368 -0.5420146665 -0.441695252
                                                     1.0679205845
    [696,]
##
    [697,]
            0.512571248 -0.9728359726 -0.565128198 -0.0141131386
            0.388825670 -0.9292309546 -1.676239485 -0.7147517309
##
    [698,]
##
    [699,]
            0.032492857 -0.0973442099
                                       0.605252191
                                                     1.9222892906
    [700,] -0.532298202 -0.3640189780
                                       0.141908854
##
                                                     1.6010294206
##
    [701,] -1.383257496 -1.3809791279 -0.564203720 -0.1822005438
##
    [702,] -0.104525261
                         0.0125921652
                                       1.468102107 -0.8848737427
##
                         1.1612452395 -0.235511025 -2.6877525741
    [703,]
          1.305242385
##
    [704,] -0.766546020
                         1.2344426746
                                       0.450183857
                                                     0.6807848028
                         0.1721557874
                                       0.114921748
                                                     1.5816314282
##
    [705,] -0.337805885
                         1.8191258256 0.989948520
                                                     0.6478309461
##
    [706,]
           1.534872999
##
    [707,] -0.291118846
                         0.8094528741 -1.267298638
                                                     0.5662832921
##
    [708,] 0.235857880 -0.7187235212
                                       1.542943377 -0.5910155429
##
    [709,] -0.889894088
                         0.7282312395 -0.892192949 -0.7421988008
##
    [710,] -0.530033306 -0.3291238926 -0.756909158
                                                    1.3946482100
##
    [711,] -0.307028916 -0.5002139211
                                       0.330534462 -1.1792479497
##
    [712,] -1.284159678 -1.9595274717 -0.397585621
                                                     0.1903388258
##
    [713,]
            0.340389644 -0.6406076382
                                       0.093235947
                                                     0.2796130450
##
            1.817584187 -1.5771940443 -0.404478630
                                                     0.3641841253
    [714,]
            0.635866004 0.5427037333
                                       0.930028487
                                                     1.4407602576
##
    [715,]
##
    [716,] -1.263761414
                         0.5449374861
                                       0.682833482 -0.8919400347
                                       0.620027055 -1.4205861635
##
    [717,]
            1.753183637
                         1.1201207355
##
    [718,]
            0.054458428 -1.5846551006
                                       0.608700035
                                                     0.5481734204
    [719,]
##
            0.106446871
                         0.1485055413
                                       1.711864434 0.8366333296
##
    [720,] -1.167843743 -0.4395103683 -0.771638155 -1.3812398074
##
            1.586830037 -0.0370510581
                                       1.337262805 -0.1218004522
    [721,]
##
    [722,]
            0.921995940 -0.1321810487
                                       1.645818558 -0.5630076710
            1.279443680 -1.3952782122 -1.005041880 -0.6127255675
##
    [723,]
##
            1.074224697 -0.9676219276 -1.362221832 -0.1527996324
    [724,]
##
    [725,] -1.208862181 -1.9330434047 -0.521081255 -0.3439655837
##
                        1.1071182602 -1.694405977 -0.0378808031
    [726,]
            0.792630153
##
    [727,] -1.267095535
                         0.0063978808 -0.576853740 -0.0785577535
##
    [728,] -1.771929280
                         0.2663385166 -0.460494301 -1.5111789960
##
    [729,] -0.165741635
                         1.4183661831 -0.680908652 1.4399407014
                                       1.902705483 -0.5220374438
##
    [730,] -0.421675829
                         1.5684056800
                                       0.606731452 -0.4792886109
##
    [731,]
            1.914112646 -0.9155508013
##
    [732,]
            0.481514300
                         0.3888195145 -1.421167572
                                                     0.0881071805
##
    [733,]
            0.991153520
                         0.1498238668 -0.945864942
                                                     0.0829704987
##
    [734,]
            2.259107744
                         0.9180530703
                                       0.057381493
                                                     0.2378150412
    [735,] 0.275887443 -1.3800917359 0.004960807 -1.3906045756
```

```
##
    [736,]
            0.604162506 -2.7069613166 -0.115238167 -1.6654653698
##
    [737,]
            1.329237177
                          0.1013962988
                                        0.057887359
                                                      0.0157159603
##
    [738,]
            0.987530205 -0.9623988815
                                        0.353114309
                                                      1.5632423658
##
    [739,] -1.038395020
                          2.2087311378 -0.399090865 -0.3311430087
                                       0.070091189 -1.0029404551
##
    [740,]
            0.873370639
                          2.9617150566
##
    [741,]
            1.065440503
                          2.0713453901 -0.479946515
                                                      0.8731139339
                                        1.244556753 -1.1356309845
##
    [742,]
            1.168158443 -1.1915475874
    [743,]
##
            2.252499723
                          1.0317129125 -0.200186144 -0.7143766237
##
    [744,] -1.113587233
                          0.5478166220 -0.390033953 -1.2537626593
    [745,]
            0.002399713 -0.1261690884
                                       2.280591729 -0.7847499134
##
    [746,] -0.452190875
                          1.2714230337 -0.134465874 -1.6955452688
##
##
    [747,] -1.061111163 -0.1047009074 -0.435328484
                                                      0.4839284332
##
    [748,]
            1.830110522 -1.2523210696
                                       1.138788478 -0.2867249527
##
    [749,]
            0.461387556 0.0224913135
                                        0.997167280
                                                      0.2954002717
            0.121803339 -0.6789474643 -0.005879442
##
    [750,]
                                                      0.1319161473
##
            0.783280584 0.7189937822
                                       1.216191945
                                                      0.1505514736
    [751,]
##
    [752,]
            0.810579642 -1.6774333719 -0.827598694
                                                      0.9509899893
##
                                        0.699444356
    [753,] -0.011196496 -0.4019646177
                                                      1.2654196690
##
    [754,]
            1.054141754 -1.6980037106 -0.504763342
                                                      0.1526091227
                         1.0631874545 -0.177386776 -0.6629002762
##
    [755,]
            0.584855814
##
    [756,]
            0.390945410
                          0.6574267146
                                        1.326153834
                                                      0.0301612621
##
    [757,]
            0.360920202
                         0.7237820815
                                        0.293913538
                                                      0.0057876178
##
    [758,]
            0.123589471 -0.1142755719
                                        2.122805170
                                                      0.4508376808
##
                          1.4006945765
                                        0.719998654 -0.6190294121
    [759,] -1.641679122
##
            1.596198129
                          0.2815657452
                                        2.755480463
                                                      0.6674362818
    [760,]
##
    [761,]
            1.603167756
                          0.0665148743 -1.041876730
                                                      0.1846369048
##
                          1.4764884984 -0.665320301 -1.0895653263
    [762,] -1.789444130
##
    [763,]
            0.606136523
                          1.9842202305 -0.307880440 -0.1011200565
##
    [764,]
            0.904412784 -1.1148565053
                                        0.163729780 -0.0277480652
            0.044362207 -1.7401338013
                                        1.766412987
                                                      0.0055671450
##
    [765,]
##
    [766,] -0.761292245
                          1.6289165582
                                        0.846103995 -1.0210066108
                                        1.912981021
##
    [767,]
            0.483297932
                          0.6552052441
                                                      0.3628037690
##
    [768,]
            1.053528536 -0.9384893249
                                        1.481980239
                                                      0.4667781750
##
    [769,] -0.910397536
                          0.1953181630 -1.082250562 -0.7090995883
##
    [770,]
            1.681100484
                          1.2961458598
                                        1.118905491
                                                      0.0850100275
##
            0.366008776 -0.8498220257 -0.105432179 -0.5314932079
    [771,]
##
    [772,] -0.530013646
                          0.6478397590 -1.089480392 -1.6696541307
            0.181323037 -0.3057054265 -0.250064283
                                                      1.4965139378
##
    [773,]
##
    [774,] -0.212333771
                          0.3262654875
                                        0.434959440
                                                      0.2427070172
##
    [775,]
            0.838694261 -0.2983358895 -0.971269025 -0.0445245697
##
                          1.2901555808
                                        0.262652896
                                                      1.6015930760
    [776,]
            1.859462828
##
    [777,]
            1.157673166
                          1.6130560442 -0.709028061
                                                      0.3801309299
##
    [778,] -1.874743698
                          0.6869293212 -1.173665007
                                                      1.4089890754
##
    [779,] -0.938556775 -0.5060913976 -0.503923403
                                                      2.2233829696
##
            1.359097614
                          0.2267601155
                                        0.471858347
                                                      1.4990557143
    [780,]
##
    [781,]
                          0.5409904243 -0.339261424 -0.0401844714
            0.547148272
##
            0.022587064 -1.8561990299
                                        1.547208285
                                                      0.9879544412
    [782,]
##
            0.918259882
                         0.3545244304
                                        1.571027256 -0.0366646828
    [783,]
##
    [784,] -0.302643007
                          0.7698556624
                                        0.346019647 -0.0767766511
    [785,] 0.492565661 -0.1542621875 1.178292490 -0.5561150444
```

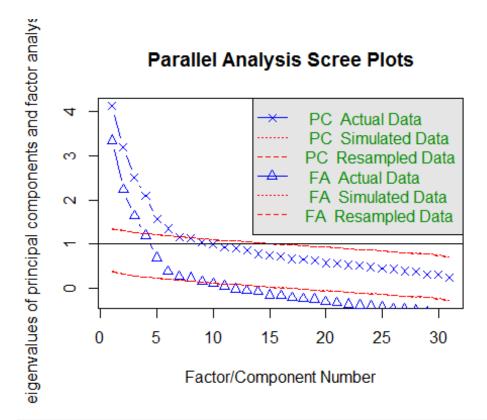
```
##
    [786,]
            0.204211147
                         0.5507048271 -1.146305098
                                                     1.0686030503
##
    [787,] -0.257183817
                         0.2336040971 1.123859409 -0.5185419444
##
    [788,]
            0.543063337
                         0.6234021653 -1.131347444
                                                     0.6273988858
##
    [789,] -0.217183785 -0.6907220352 -0.685864712
                                                     0.4936833794
    [790,] -0.002701459
##
                         0.3035083319
                                        0.085752568
                                                     1.9384771493
##
    [791,] -0.194052728 -0.9493652047
                                        1.917475207 -1.7273993979
            0.845431479 -1.4698352964 -0.146736384 -1.0448488707
##
    [792,]
##
    [793,] -1.647067621
                         0.6384751268 -0.310467705
                                                     0.3842180222
##
    [794,]
            0.945669680
                         0.1794007539
                                        0.292767308
                                                     0.0102121840
    [795,] -2.485011129 -0.2402476478 -0.301300146
##
                                                     0.8945430066
##
            1.005279636
                         1.8584771079
                                        1.034315090
                                                     0.8920614265
    [796,]
##
    [797,]
            1.478264004
                         1.3121350582
                                        0.227955433 -0.3372256260
##
    [798,] -1.616804251
                         1.2096288441 -1.151156897
                                                     1.1451518459
##
    [799,]
            1.038140145
                         0.8466614146 -1.083403826
                                                     0.0722179334
                                        0.561647160 -0.4298599354
##
    [800,]
            0.746469846
                         0.2765778985
##
    [801,] -0.556307864 -0.0456759166
                                       1.971112008 -1.0436187721
##
    [802,] -2.177327736
                         0.5194250374 -0.155340996 -0.4342227168
##
    [803,] -0.338747362 -0.4027749670
                                       0.203384823
                                                     1.3513171402
    [804,] -0.633990675
                         0.1078086461 -0.498276540
                                                     0.9166483833
##
                         0.1636459951 -0.669424590
##
    [805,]
           1.200037746
                                                     1.4168204214
##
    [806,]
            1.684855316 -0.3779334520
                                       0.327027687
                                                     1.5043815752
##
    [807,] -0.431731431
                         1.7144737015 -0.380880448
                                                     1.1181849590
##
    [808,]
            0.138154788
                         0.9153414309 -1.682319682
                                                     1.1967470173
##
    [809,] -1.650488404
                         0.5295445091 -0.807593163
                                                     0.5020435016
##
    [810,] -0.612761419
                         0.7413769370 -1.390922114 -0.4254145641
##
    [811,]
           1.585349922 -0.5093728908
                                        0.106258222
                                                     0.6373119861
                                        0.748619497 -0.7681449296
##
    [812,]
           1.599509777 -0.1056964660
    [813,] -1.025869745
##
                         1.3477216946 -0.738910301
                                                     1.6001633595
##
    [814,] -2.130238584
                         0.5708427530 -0.151512065
                                                     0.8093727096
                                        0.291197537
##
    [815,]
            1.439833307
                         0.4824416158
                                                     1.1897631178
##
    [816,]
            0.403861828
                         1.1581435568
                                        2.077530392 -0.7871043997
##
    [817,]
            1.375536299
                         2.0143169288
                                        0.139228824
                                                     1.3061702445
##
    [818,] -0.490487983 -0.1572806637
                                        0.452555831 -0.6568358462
##
    [819,] -0.630772432
                         1.5534041429 -0.445823033
                                                     0.5130090966
##
    [820,] -0.486622061
                         0.6107040206
                                        1.563905684 -0.0540369071
##
    [821,] -0.116223543 -0.8410904398 -1.318381622
                                                     0.7860236629
##
    [822,]
            0.179643846 -0.7060772366
                                       0.776774795 -0.3899379027
    [823,] -0.466270355 -1.6517316256 -1.509097450
##
                                                     0.5293243043
##
    [824,] 0.048661014 0.0852320983 -1.697885339
                                                     0.1517039833
    [825,] -0.331229135 -2.2533628060 -0.980277696 -0.5937961761
##
##
    [826,] -0.536062480 -1.3797397364 -0.039556055 -0.4629360780
##
    [827,]
            0.864932594 -1.4716167122
                                       0.229926053
                                                     0.6636682879
##
    [828,]
            0.526447405 -1.5936432408 -0.831765831
                                                     1.0556445667
##
    [829,] -0.225119186 -0.1348077340 -0.840426006 -1.0300770692
##
            2.261740089
                         0.0908662881 -1.280363592 -0.5219573422
    [830,]
##
    [831,]
                         0.9664146665
                                       2.265578942 -0.4105971018
            1.250861762
##
                        1.0463462233 -0.163558890
                                                     0.6845078066
    [832,]
            1.135042700
##
    [833,]
            1.428237941 -2.1955664332 0.841100464 -0.0370202526
##
    [834,]
            1.361815180 -0.0028693609 -1.233517926 -0.9313254450
    [835,] -0.134462495   0.1288524241   0.124431451 -0.1064451406
```

```
##
    [836,] -1.394847925
                         0.7614551985 -0.481339913 -1.3562871018
##
    [837,] -0.135761498
                         1.0385154752 -0.095789380
                                                     0.5478382004
##
    [838,]
            1.402946556
                         0.3139790672 2.272047048 -1.4434687040
##
    [839,] -0.703591420
                         0.1438853661 -0.512260550
                                                     1.5282109110
##
    [840,] -0.146826633 -0.0142418170 -0.974990842
                                                     1.5507447323
##
    [841,] -0.427177695
                         0.1386498294 -0.213897675
                                                     0.4353623676
    [842,] -0.563154530 -0.2579449738 -0.533447652 -0.1224597560
##
##
    [843,] -0.701885869 -0.2825760479 -0.389929173
                                                    -0.2922138312
##
    [844,]
            1.614622283
                         1.9831261709 -0.767993887
                                                     2.0132991693
    [845,]
                         1.7139917511 0.069050970 -0.4001675243
##
            2.464040070
            0.447763989 -0.8135786116 -0.945008403
                                                     0.8164422001
##
    [846,]
##
    [847,] -0.781278494 -0.2534129562 -0.440159875
                                                     0.7613802311
##
            0.717720934 -2.0325640466 -0.210410308
                                                     1.0005715489
    [848,]
##
    [849,] -0.871038738 0.0704113809 -0.900483992
                                                     0.0551006157
                                       0.341625590 -0.5105233862
##
    [850,]
            0.567265966 -0.0431024958
##
    [851,] -0.333888134 -1.2508617279
                                       0.971035630
                                                     0.6659787699
##
    [852,]
            0.834218301
                         2.0904718195 -0.304768754
                                                     0.7019089592
##
    [853,] -0.803222648
                         1.6751687748 -0.299333222
                                                     1.5974825683
    [854,]
                         0.3027687616
                                       0.892460263
                                                     0.6820396276
##
            0.783761055
    [855,] -1.260908613
##
                         0.6926879547 -0.390650643
                                                     0.2109442321
##
    [856,] 0.100801590
                         1.9159001496 0.451729783 -0.6357786671
##
    [857,] -0.035335786
                         0.3119488197 -0.252862172
                                                     1.4188956958
##
    [858,] -0.453207653 -0.3511824166 -0.898151617
                                                     0.7301188658
##
                         0.3883114899 -1.010334821 -0.3153650016
    [859,]
            0.273967833
##
    [860,] -0.638568155
                         1.1851312712 -1.250289104
                                                     0.4802688476
##
    [861,]
           0.691531562
                         1.0928023739 -1.035883623 -0.8153903121
##
    [862,]
            0.283676294
                         0.1398655783 -0.313722607
                                                     1.1524431031
    [863,] -0.084926775
##
                         2.0854983248 -1.035547962
                                                     0.9426109107
##
    [864,] -0.371485457 -0.9085072567 -0.793951996
                                                     0.5529796323
                         0.3111521586 -0.718087584 -0.2150804199
##
    [865,] -0.495541483
##
    [866,] -0.184071688 -0.0757098226 -0.433889903 -0.1788309231
    [867,] 0.373359744 -0.0422627762 0.733547230 -2.0086648602
##
##
    [868,] -0.583332795
                         0.5213544401
                                       0.374186777 -1.2272432742
##
    [869,] -0.404497425 -0.0362615821 -0.432455384
                                                     0.2320147441
##
    [870,]
            0.204332879 -0.7634233568
                                       1.027823013
                                                     1.1944498471
##
            0.183354250 -0.9848397531 -0.459450119 -0.2262597495
    [871,]
##
    [872,]
            1.195674803
                         2.0990891043
                                       0.769852152 -0.7728400744
                         0.1719926861
                                       2.139507517 -1.0313838266
##
    [873,] -1.180917025
##
    [874,] -0.617420543
                         0.3716211877 -0.419913853
                                                     0.2099594666
##
    [875,] -1.337583454
                         0.2291764254 -0.367828358
                                                     1.3475606408
##
                         0.7912216128
                                       0.978781591
                                                     0.8108628782
    [876,] -1.777108072
##
    [877,] -1.154575898
                         1.8695975449
                                       2.081010082 -0.4718248729
##
    [878,] 2.475907042
                         0.6989759354 -0.966261488 -0.6119405442
##
    [879,]
            1.109179672
                         1.3954383789
                                       0.904079527 -0.1755366047
##
    [880,] -0.541546902
                         1.5158889977 -0.235659382 -0.6335700700
##
    [881,] -1.037794378
                         0.4110290271 -0.543415883
                                                     1.3651992269
##
            0.743548024 -0.7169746923
                                        0.682656724
                                                     0.8175844317
    [882,]
##
    [883,] -0.472397095 -1.4676290619
                                       1.655278037
                                                     0.8467915566
##
    [884,]
            0.398107424 -0.8688849388 -1.266390630
                                                     0.1363223079
    [885,] 0.094682429 0.1635760959 -1.096753414 1.6829708079
```

```
[886,]
           0.009957098 -0.3391811792 1.002783846 1.2335289486
##
    [887,] -0.397041685
                        1.5808360137 -1.073233133 -2.2023030468
##
    [888,]
           0.019692654 -0.4307508709
                                      0.029088122 -0.2581853371
##
    [889,]
           0.482151796
                        0.2572189627
                                      1.425042444
                                                   1.9006539877
    [890,]
##
           1.581577048
                        0.1923325426 0.175921580
                                                   0.8267839106
##
    [891,] -1.564884156
                        2.4155787524 -0.324542370
                                                   0.3548938736
                        0.3285291839 -0.109135339
##
    [892,] -0.659521906
                                                   0.6306697317
##
    [893,] -0.803098306
                        1.0041930712 -0.609978544 -1.3710723219
##
    [894,] -0.293853271 -0.3769153552 -0.184609822 -0.6436547075
    [895,] -0.454319031
                                      0.139853973
                                                   1.7742240054
##
                        0.5146955517
##
    [896,] -1.530072494 -0.6224529786 0.190202159
                                                   0.0235334197
##
    [897,]
           0.815835454 -0.2258329867 -1.389374701 -0.6104000559
           0.132942265 -0.3538061043 -0.558517963 -0.7754902833
##
    [898,]
##
    [899,]
           0.380114131 -0.8438322495 -0.090793113 -0.2699127970
           ##
    [900,]
##
           0.403619447 -0.2215443249 -1.463009780 -0.0271026376
    [901,]
##
    [902,] -0.286406821 -1.3696198704 -1.269379043 -0.4979422727
##
    [903,] -0.622658051 -0.0700765740 0.089664330 -0.5630293192
##
    [904,] -0.516552626
                        1.0040919449
                                      1.133982148 -1.1751519606
                        0.7117440990 -0.717025625
                                                   0.5966326612
##
    [905,] 0.589995378
                        1.7114196820 -1.443131359
##
    [906,]
           0.167450700
                                                   1.1023567632
##
    [907,] -0.161095299 -0.2208389170 -1.508222437 -0.1488408142
##
    [908,] -0.644909980 -1.1401530711 -1.296987745 0.1042098234
##
           0.092760449 0.0962521279 0.189267406 -0.3089987599
    [909,]
##
    [910,]
           1.052574915
                        0.8183792222 -0.130074561
                                                   0.4288700288
##
    [911,]
           1.433927420
                        0.5242987262 -0.985556732
                                                   0.5848219818
##
           0.691532982  0.5030656747  0.060572942  -0.7586618572
    [912,]
##
    [913,] -0.441681183 -0.4724297773
                                     0.802746944 -0.5966328754
##
    [914,] 1.690524140 -1.2728329059
                                     0.092908537 -0.5949376820
    [915,] 2.300967555 -0.4093466337 0.284789934 0.4450485382
##
##
    [916,] -0.365651477 -0.6920320816 -1.038074643
                                                   0.8764721496
    [917,] -0.647500086 -0.2269598519 -1.589492065 -1.3019898007
##
##
    [918,] -1.016566113  0.5477780420 -0.923422704 -0.3691931728
##
    [919,] 0.427447998 -0.7848418581 -0.009694263 -0.2547588134
##
    [920,]
           1.796599541 -1.2017041793 -0.080489201
                                                   1.0609938299
    [921,] -0.557008716 -2.5826127657 -0.810046819 -0.3153350307
##
##
    [922,] -0.846893868 0.5703764615
                                     0.086671208 -0.2909397810
##
    [923,] 0.249217976 2.4191030357 -0.124779350
                                                   0.2111577789
##
    [924,] 0.198537713 -1.1924232778
                                      0.472232259
                                                   0.5320684617
##
    [925,] -0.363290997 -0.8850436525
                                      0.268542098
                                                   1.1818209320
##
    [926,] -0.183677834 -1.2746186813
                                      0.192979098
                                                   2.2122698049
##
    [927,] -0.925495473  0.7566877907 -1.074314742 -1.2563424898
##
    [928,] -0.350491230 -0.3686576988
                                      0.806268894
                                                   1.2010727344
                                      1.289824082
##
    [929,] -0.529556994 -1.5652781532
                                                   0.8938072449
##
    [930,] 1.151013751 -0.2270570415
                                      0.306312061 -0.4066853827
##
    [931,] -0.542980053  0.1778224891 -0.585574309
                                                   0.1924454787
##
    [932,] -0.962611929
                        0.1631349678 -0.642645597 -0.3345159992
##
   [933,] -1.446229166 0.5624158141 1.382528356
                                                   1.0288773369
##
    [934,] 0.557177104 -0.2199140508 -0.348205017
                                                   0.9151907537
## [935,] -0.282668700 -0.9647331122 -0.842461996 -0.9364424225
```

```
[936,] -1.445701137 -1.4374077367 -0.660958895
                                                  1.2693778509
##
    [937,] -0.844271185 -1.0753847602 -0.042079889
                                                  0.2586786829
##
    [938,]
          0.444179910 -0.6511968493
##
    [939,]
          1.058704109 -0.7249560765
##
    [940,]
           0.107500672  0.3039086287  0.418694714  -0.3010921345
##
    [941,] -0.650177823 -0.2443167966 -0.177959577 -0.9517802351
    [942,] 1.437485375 -0.6356715130 -0.922227440 0.3499455061
##
##
    [943,] -0.129356773 -0.1901560182 -0.946816496
                                                  1.3680554185
    [944,] -0.176705029
                        0.5647921860 -0.271275626
                                                  0.7875259636
    [945,] -0.152618885
                        0.2528170139 0.522956663
                                                 1.0600288375
##
##
    [946,] -0.891774938
                       1.9881555353 -0.327685211 -1.2261685220
##
    [947,] -0.747120473  0.5589840198 -0.568832095 -0.4069912019
    [948,] -0.819215992 -1.4779022732 -0.145141108
##
                                                 0.7478662708
##
    [949,] -0.259130230  0.0650778501  2.576654961  0.3033871154
    [950,] -1.489255769 -0.8584417212 -0.210503611 -0.2355125171
##
##
    [951,] -0.977755688  0.6953591970 -0.468967284 -0.7668966814
##
    [952,] -1.808154093
                       1.9267999101 -0.422271192 -1.2789505186
##
                        0.3104801506 -0.155124594 -1.6698712140
    [953,] -0.128097985
##
    [954,] 0.101474849 -0.3307048221 1.646127126 0.6285821308
##
    [955,] 0.817445489 -0.4183655842 0.119193135
                                                  1.1785911226
    [956,] -0.161891762 0.3787032370
                                     1.514757728 -0.4081523257
##
##
    [957,] -1.262432212 -1.3799795294 -0.633515777 -1.3055173379
    [958,] -1.756883433 -0.6963061297 -1.018721698 -1.4641026006
##
##
    [959,] -0.004466022 -1.1648495652
                                     1.730298475
                                                  2.0268527381
##
    [960,] -0.902432884 -0.6728746275 -0.415076608 -0.5033132979
##
    [961,]
          0.826858029 -0.1398680838 -0.594624524 -0.6464417353
##
           0.328952006 2.3173175115
                                     1.681731742 0.2242278839
    [962,]
##
    [963,]
           0.684281851 -1.6671768849 -0.337908208 -1.2402988444
##
    [964,] -0.468265316
                       1.5742963678 -0.501768368 -1.0107949347
          0.479367625 0.4137536945
                                    0.472135006 -0.4534190385
##
    [965,]
##
           0.781810001 -0.3594440655 -0.445402489
                                                  1.1803276604
    [966,]
           2.461577886 -1.0595087155 -0.152468903 2.0165763119
##
    [967,]
##
    [968,]
          0.528624365 0.8057373615
                                     1.270545273 -1.2902179523
##
    [969,] -1.931175531 1.3812334509 0.360949087 -0.5805593263
##
    [970,] -0.647123796 -0.2693596870 -1.242696476 -0.1502711774
    [971,] 0.269675520 0.5088579955 -1.174013986 -0.9506883907
##
##
    [972,] -0.241709768  0.6584978845  -0.349341216  -0.9089445326
##
    [973,] 0.749243332 -0.2103832590
                                     1.855949512 0.1049770055
##
    [974,] -0.177496995 -1.0234897874 0.022798094 -0.4716419345
           0.114533950 0.1948597662 0.444770923 -0.7592264683
##
    [975,]
##
           1.979763461 -0.3504580226 0.410083613 0.4903816772
    [976,]
##
    [977,]
           0.788689738  0.6492665463  0.060987033
                                                  0.1747288569
##
    [978,] -0.881456634 -0.2596090322 -1.173033264
                                                  0.3201045990
##
    [979,]
           0.494150974 -0.3112696869 -0.859413376
                                                  0.1017367634
    [980,]
           ##
##
    [981,]
           1.142460000 -1.5099510803 -1.312208382 -1.2231446795
##
    [982,]
          1.008466095 -1.8641617131 -0.725975213 -0.8626947646
   [983,] -0.865889229  0.6597010328 -0.341752438 -0.0669748953
##
##
    [984,] -0.481995935 -0.5427662828 -0.783753552 1.6809898641
## [985,] -0.153880782 -1.0015160528 -1.316075804 -0.4710829660
```

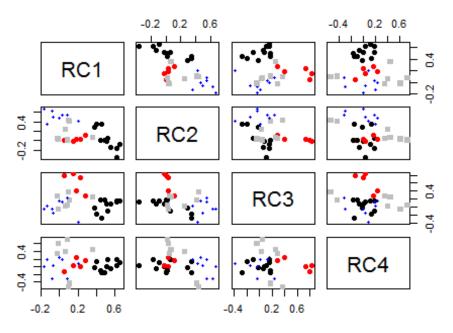
```
0.465129845 -1.4895264671 -0.947912202 -0.3174259258
   [986,]
##
   [987,] 1.694297281 -0.5390831497 -0.507549319 -2.0575169254
##
   [988,]
          0.632630707 -0.4901047360 -0.661159251 -1.4558335760
##
   [989,] 2.427050888 1.8079321446 1.702176925 -0.4424693992
   [990,]
##
          ##
   [991,] -0.613185384  0.8429028101 -1.502931933 -1.1671968540
   [992,] -1.611391634 -0.8826797822 -1.106739457 -1.1372814990
##
   [993,] -0.820109859 -0.2514967980 0.457353787 -2.8985041326
   [994,] 0.628294886 -0.6234968105 -1.976959104 0.7358637828
   [995,]
         0.358716948 -1.2236223580 0.089701922 0.0078966457
##
   [996,] -0.048766237 1.0929392074 -1.334796717 -0.4139528307
##
##
   [997,] -1.168297597 -1.1441959683 -0.685151131 -1.0306590105
##
   [998,] 0.471818559 0.3456823559 -0.073062235
                                             1.1562020103
  [999,] 0.751649988 0.5335170061 0.481971887 -1.6854355599
## [1000,] 1.744102191 1.5612373637 0.718071975 -1.2431756705
## [1001,] -1.116141486 -0.4023475284 1.796745606 1.9574460151
## [1002,] -0.830047788 -0.3012755628 -1.084560660 1.1503056306
## [1003,] -1.111560895 -0.4724648749 -0.996801880 -1.7517230388
## [1004,] 0.001262349 -1.2436659511 -0.206117339 0.2604245601
## [1005,] -0.487159304  0.2940337244  0.175441993 -0.0970928106
## [1006,] 0.940923679 -0.7004614808 -0.332859940 1.1593730846
## [1008,] -0.750923700 -1.6190153305 -1.053104632 -1.5164567797
## [1009,] 1.134152886 -0.0963284274 0.069800430 0.9284038148
# Play with FA utilities
fa.parallel(hobbies transformed[-1]) # See factor recommendation
```



Parallel analysis suggests that the number of factors = 8 and the number of components = 6

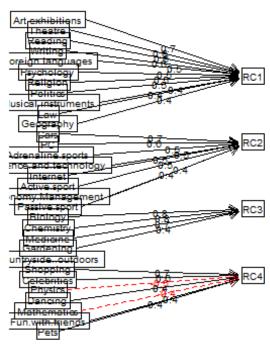
fa.plot(fit.pc.hobbies) # See Correlations within Factors

Principal Component Analysis

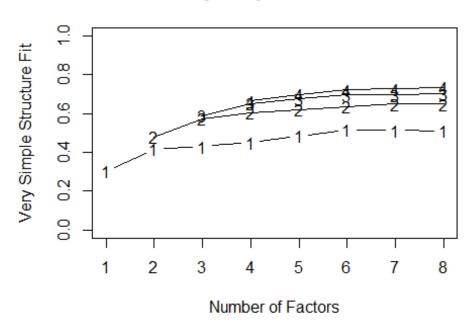


fa.diagram(fit.pc.hobbies) # Visualize the relationship

Components Analysis



Very Simple Structure



```
## Very Simple Structure
## Call: vss(x = hobbies transformed[-1])
## VSS complexity 1 achieves a maximimum of 0.52
                                                   with
                                                            factors
## VSS complexity 2 achieves a maximimum of 0.65
                                                   with
                                                            factors
##
## The Velicer MAP achieves a minimum of 0.01 with 5 factors
## BIC achieves a minimum of -873.28 with 7 factors
## Sample Size adjusted BIC achieves a minimum of
                                                   -84.44
                                                            with
##
## Statistics by number of factors
                                                 fit RMSEA BIC SABIC complex
                 map dof chisq
     vss1 vss2
                                   prob sqresid
## 1 0.30 0.00 0.019 434
                          5922
                                0.0e+00
                                              38 0.30 0.112 2920
                                                                  4298
                                                                           1.0
## 2 0.42 0.48 0.016 404
                          4425
                                0.0e+00
                                              28 0.48 0.099 1630
                                                                  2913
                                                                           1.2
## 3 0.43 0.57 0.015 375
                          3041
                                0.0e+00
                                              22 0.59 0.084 447
                                                                  1638
                                                                           1.5
## 4 0.45 0.61 0.013 347
                                              18 0.66 0.072 -254
                          2146 2.2e-256
                                                                   848
                                                                           1.7
## 5 0.48 0.62 0.012 320
                          1639 9.7e-176
                                              16 0.71 0.064 -575
                                                                   442
                                                                           1.8
## 6 0.52 0.63 0.013 294
                          1291 7.9e-125
                                              14 0.74 0.058 -743
                                                                   191
                                                                           1.8
                                              13 0.75 0.051 -873
## 7 0.51 0.65 0.014 269
                           988
                                1.1e-82
                                                                    -19
                                                                            1.9
                                              12 0.77 0.049 -863
## 8 0.51 0.65 0.016 245
                           832
                                5.2e-65
                                                                    -84
                                                                            2.0
     eChisq SRMR eCRMS
##
                           eBIC
                         9970.6
      12973 0.118 0.122
## 1
       7412 0.089 0.095
## 2
                         4616.8
## 3
       4262 0.067 0.075
                         1668.2
```

```
## 4 2392 0.050 0.058 -8.1

## 5 1591 0.041 0.050 -623.1

## 6 1105 0.034 0.043 -928.4

## 7 856 0.030 0.040 -1005.0

## 8 655 0.026 0.036 -1040.3
```

@Conclusion: The proportion of the total variance for RC1 is about 52% which restores maximum of the total variance. Also the components for RC1 contribute to Art exhibition, Theatre, Reading, Writing, Foreign Language, Psychology, Religion, Politics, Musical Instrument, Law and Geography.

```
#movie pca
eigvec.movie<- movie_pca$rotation</pre>
pcafactors.movies<- eigvec.movie[,1:4]</pre>
pcafactors.movies
##
                                            PC2
                                                        PC3
                               PC1
                                                                      PC4
                       -0.18067387 0.2943522148 -0.29434144 0.1753636709
## Movies
## Horror
                       -0.29774492 0.0281326824 -0.48865014 -0.3468640042
## Thriller
                       -0.38637808 0.0264578000 -0.39885764 -0.3255496550
## Comedy
                       0.00957783 0.3601720121 -0.23777270 0.5045943972
## Romantic
                       0.25313650 0.3635153351 -0.09666751 0.2900854864
## Sci.fi
                       -0.37660398 0.1182255631 0.04518061 0.1849454105
                       -0.40483304 0.0003113374 0.24428376 -0.0005316756
## War
## Fantasy.Fairy.tales 0.13147403 0.5530319979 0.14626774 -0.2789775438
                       0.05080348 0.5454401638 0.10708136 -0.3574114799
## Animated
## Documentary
                       -0.18889650 0.1506598727 0.47688883 -0.1906702214
## Western
                       -0.36669650 0.0334098269 0.35553267 0.1424325175
## Action
                       -0.41171847 0.0941099146 0.03483277 0.3282782261
unrot.fact.movies<- sweep(pcafactors.movies, MARGIN=2, movie_pca$sdev[1:4], `*`)</pre>
unrot.fact.movies
                                            PC2
                                                        PC3
##
                               PC1
                                                                      PC4
## Movies
                       -0.28754331 0.4281207554 -0.35572299 0.1756920182
## Horror
                       -0.47386244 0.0409175969 -0.59055256 -0.3475134652
## Thriller
                       -0.61492253 0.0384815632 -0.48203485 -0.3261592075
## Comedy
                       0.01524316 0.5238523992 -0.28735749 0.5055391894
## Romantic
                       0.40286793 0.5287150974 -0.11682641 0.2906286365
## Sci.fi
                       -0.59936701 0.1719532412 0.05460252
                                                             0.1852916985
## War
                       -0.64429368 0.0004528249 0.29522636 -0.0005326711
## Fantasy.Fairy.tales 0.20924153 0.8043577213 0.17677022 -0.2794998957
## Animated
                        0.08085397 0.7933157736 0.12941196 -0.3580806898
## Documentary
                       -0.30062967 0.2191273422 0.57633856 -0.1910272284
## Western
                       -0.58359919 0.0485929428 0.42967496 0.1426992052
## Action
                       -0.65525187 0.1368782217 0.04209675 0.3288928876
communalities.movies<- rowSums(unrot.fact.movies^2)</pre>
communalities.movies # 1 - this would be your unique variance
```

```
##
                Movies
                                                       Thriller
                                                                             C
                                    Horror
omedy
             0.4233751
                                 0.6957378
                                                      0.7183480
##
                                                                          0.61
27979
##
              Romantic
                                    Sci.fi
                                                            War Fantasy.Fairy.
tales
##
             0.5399556
                                 0.4261232
                                                      0.5022734
                                                                          0.80
01413
##
                               Documentary
              Animated
                                                        Western
                                                                             Α
ction
##
             0.7808565
                                 0.5070525
                                                      0.5479329
                                                                          0.55
80333
rot.fact.movies<- varimax(unrot.fact.movies)</pre>
View(unrot.fact.movies)
rot.fact.movies
## $loadings
##
## Loadings:
                       PC1
                              PC2
##
                                     PC3
                                            PC4
## Movies
                       -0.160 0.119 -0.348 0.512
## Horror
                                     -0.833
## Thriller
                                      -0.823
                       -0.199
## Comedy
                                              0.776
## Romantic
                        0.255
                               0.305 0.241
                                             0.569
## Sci.fi
                       -0.590
                                     -0.210 0.184
## War
                       -0.678
                                     -0.142 -0.150
## Fantasy.Fairy.tales
                               0.868
                                              0.198
## Animated
                               0.867
                                              0.153
## Documentary
                       -0.511 0.393 0.143 -0.267
## Western
                       -0.734
## Action
                       -0.661 -0.131 -0.182 0.267
##
                    PC1
                          PC2
                                PC3
##
                                      PC4
## SS loadings
                  2.180 1.795 1.681 1.457
## Proportion Var 0.182 0.150 0.140 0.121
## Cumulative Var 0.182 0.331 0.471 0.593
##
## $rotmat
##
              [,1]
                         [,2]
                                     [,3]
                                                  [,4]
## [1,] 0.8288249 0.1368652 0.54148538
                                           0.03332804
## [2,] -0.1220026  0.8082738 -0.05285963
                                           0.57359801
## [3,] -0.4882471
                    ## [4,] -0.2444983 -0.4993293 0.45774848
                                           0.69379910
fact.load.movies<- rot.fact.movies$loadings[1:9,1:4]</pre>
fact.load.movies
##
                                PC1
                                              PC2
                                                                       PC4
                                                           PC3
## Movies
                       -0.159830557   0.119206482   -0.348046265   0.51233082
```

```
## Horror
                     -0.024439028 -0.023857816 -0.833092518 0.02298240
## Thriller
                     -0.199260476 -0.025366021 -0.823263087 -0.01541745
                                  0.092493050 0.009908317
## Comedy
                     -0.034579417
                                                          0.77649792
## Romantic
                      0.255384335
                                  0.304606113
                                             0.241083925
                                                          0.56905899
## Sci.fi
                                                          0.18350388
                     -0.589712060 -0.020257509 -0.210425326
## War
                     -0.678075076 -0.004764028 -0.141545337 -0.14976599
## Fantasy.Fairy.tales 0.057320579 0.867910376 0.067144264
                                                          0.19768369
                     -0.005407689  0.867371471  -0.071063792
## Animated
                                                          0.15311415
scale.movies<- scale(movie_transformed[-1])</pre>
scale.movies
##
             Horror
                      Thriller
                                  Comedy
                                          Romantic
                                                       Sci.fi
                                                                    War
##
                               0.6468366
                                                   0.67817250 -1.5967598
     [1,]
           0.8561814 -1.1535953
                                         0.4229256
     [2,] -0.5614304 -1.1535953 -0.6366702 -0.4048938
                                                   0.67817250 -1.5967598
##
##
           0.1473755
                     0.5156472 -0.6366702 -1.2327132
                                                   0.67817250 -0.8559571
     [3,]
##
     [4,]
           0.8561814
                     0.5156472 -1.9201769 -0.4048938
                                                   0.67817250 -0.1151545
                    ##
     [5,]
           0.8561814
##
           1.5649873
                    1.3502685
                              0.6468366 -1.2327132 -0.08288775 -0.1151545
     [6,]
     ##
##
                    0.5156472
                               0.6468366 -1.2327132 -0.08288775 -0.1151545
     [8,]
           0.8561814
##
     [9,] -1.2702363
                    1.3502685
                               0.6468366 0.4229256 0.67817250 1.3664509
##
    [10,] -0.5614304 -1.9882166
                               0.6468366 1.2507450 -1.60500825 -0.1151545
##
    [11,]
          1.5649873
                    0.5156472
                               0.6468366 -0.4048938 -0.08288775 -0.8559571
##
    [12,]
           0.1473755
                     0.5156472 -0.6366702 -0.4048938 -0.84394800
                                                              1.3664509
##
    [13,] -1.2702363
                    1.3502685 -0.6366702 -0.4048938 -1.60500825
                                                               0.6256482
##
           0.1473755 -1.1535953
                               0.6468366 1.2507450 -0.84394800 -1.5967598
    [14,]
##
    [15,] -1.2702363 -0.3189741
                              ##
    [16,]
          1.5649873
                    1.3502685
                               0.6468366 -0.4048938 -0.08288775 1.3664509
##
    [17,]
           0.1473755 -0.3189741
                               0.6468366 -0.4048938 -0.84394800 -0.8559571
                               0.6468366 1.2507450
                                                   1.43923275 -0.8559571
##
    [18,]
           0.8561814 -1.1535953
##
    [19,] -0.5614304
                    0.5156472
                               0.6468366 0.4229256
                                                   1.43923275
                                                               1.3664509
##
                     0.5156472 -0.6366702 -1.2327132 -0.08288775
    [20,] -1.2702363
                                                               1.3664509
##
    [21,]
          1.5649873
                     1.3502685
                               0.6468366 -0.4048938 -0.08288775
                                                              0.6256482
##
    [22,]
                               0.6468366 -1.2327132
                                                   1.43923275 -0.1151545
           1.5649873
                     1.3502685
##
    [23,] -0.5614304 -0.3189741
                              0.6468366 0.4229256
                                                   0.67817250 -0.8559571
##
    [24,] -0.5614304 0.5156472
                              0.6468366 1.2507450
                                                   0.67817250 -0.1151545
##
           0.8561814 -1.1535953
                               0.6468366 1.2507450 -0.84394800 -0.8559571
    [25,]
##
    [26,] -1.2702363 -1.1535953
                               0.6468366
                                         1.2507450 -1.60500825 -1.5967598
                               ##
    [27,]
           0.1473755 -1.1535953
                                                              1.3664509
##
    [28,] -0.5614304  0.5156472 -1.9201769
                                         0.4229256
                                                  1.43923275 -0.1151545
##
          0.1473755 -0.3189741
                              0.6468366 -0.4048938 -1.60500825
    [29,]
                                                               1.3664509
##
    [30,]
           0.1473755 -1.1535953
                               0.6468366
                                         1.2507450 -0.84394800
                                                               0.6256482
##
    [31,] -0.5614304 1.3502685 -0.6366702 -0.4048938 0.67817250 0.6256482
##
                              0.6468366 1.2507450 -0.84394800 -0.8559571
    [32,] -1.2702363 -1.9882166
##
                    1.3502685
                               0.6468366 1.2507450 -0.84394800 -0.1151545
    [33,]
          1.5649873
##
    [34,]
           ##
    [35,] -0.5614304 -0.3189741 0.6468366 0.4229256 0.67817250 -0.8559571
##
    [36,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.08288775
                                                               0.6256482
##
    [37,] 0.1473755 1.3502685 -0.6366702 0.4229256 0.67817250 0.6256482
```

```
##
                     [39,] -1.2702363
##
    [40,]
          1.5649873
                     1.3502685
                               0.6468366 1.2507450 -0.08288775 0.6256482
##
                    1.3502685
                               0.6468366 -0.4048938 -0.84394800 -1.5967598
    [41,] -1.2702363
##
    [42,] -1.2702363
                     1.3502685
                               0.6468366 -2.0605326
                                                  1.43923275 1.3664509
##
                     0.5156472
                               0.6468366 1.2507450
                                                  1.43923275 -0.1151545
    [43,]
          0.8561814
##
    [44,] -1.2702363 -1.9882166
                               0.6468366
                                         0.4229256 -0.08288775 -0.8559571
##
                     0.5156472
                               [45,]
          0.1473755
##
                     0.5156472
                               0.6468366 -1.2327132 0.67817250 -1.5967598
    [46,]
          1.5649873
##
    [47,]
          1.5649873
                    1.3502685
                               0.6468366 -0.4048938 1.43923275 -1.5967598
##
    [48,]
          0.1473755 -0.3189741 -0.6366702 -1.2327132 -0.84394800 -0.1151545
##
    [49,] -0.5614304 -1.1535953 -1.9201769 -1.2327132 -0.84394800 -1.5967598
##
          0.1473755
                     0.5156472
                              0.6468366 -0.4048938 -0.08288775 -0.1151545
    [50,]
##
    [51,] -1.2702363
                     1.3502685
                               ##
    [52,] -0.5614304
                     0.5156472
                               0.6468366
                                        1.2507450
                                                  0.67817250 -0.1151545
                               0.6468366
                                                  1.43923275 1.3664509
##
    [53,]
          1.5649873
                    1.3502685
                                        1.2507450
##
    [54,]
          0.1473755 -0.3189741
                               0.6468366
                                        1.2507450 -1.60500825
                                                              1.3664509
##
    [55,]
          1.5649873
                    1.3502685
                               0.6468366 1.2507450
                                                  1.43923275 -0.1151545
##
    [56,] -0.5614304
                    0.5156472 -1.9201769 -0.4048938 -0.84394800 -0.1151545
##
          0.8561814 -1.1535953
                              0.6468366 1.2507450 -0.08288775 -0.8559571
    [57,]
##
          0.8561814
                    0.5156472
                              0.6468366 -0.4048938
                                                  1.43923275 -0.1151545
    [58,]
##
                     0.5156472
                              0.6468366 -2.0605326 -0.08288775 -0.8559571
    [59,] -0.5614304
##
          1.5649873 -0.3189741 -1.9201769 -0.4048938 0.67817250 -0.1151545
    [60,]
##
    [61,] -1.2702363
                     0.5156472 -0.6366702 0.4229256
                                                  0.67817250 1.3664509
##
                     0.5156472
                              0.6468366 1.2507450
                                                   1.43923275 -0.1151545
    [62,]
          0.1473755
##
    [63,]
          0.8561814
                     1.3502685
                               0.6468366 -2.0605326
                                                   1.43923275
                                                             1.3664509
##
                    1.3502685 -1.9201769 -1.2327132
                                                  0.67817250 1.3664509
    [64,]
          0.8561814
                              0.6468366 1.2507450 -1.60500825 -0.1151545
##
    [65,] -0.5614304 -1.9882166
##
    [66,]
                    1.3502685
                               0.6468366 -0.4048938
                                                   1.43923275
          1.5649873
                                                             1.3664509
##
    [67,]
          0.1473755 0.5156472
                               0.6468366 -0.4048938
                                                  1.43923275
                                                              1.3664509
##
                               0.6468366 1.2507450 -1.60500825 -0.8559571
    [68,]
          0.1473755 -0.3189741
##
    [69,] -1.2702363 -1.1535953
                               0.6468366 1.2507450 -1.60500825 -1.5967598
##
    [70,] -1.2702363 -1.9882166
##
                               0.6468366 -0.4048938 -0.08288775 -0.1151545
    [71,] -1.2702363 -0.3189741
##
                               0.6468366 -0.4048938 -1.60500825 -0.1151545
    [72,] -0.5614304 -0.3189741
##
    [73,] 0.8561814
                    1.3502685
                               0.6468366 1.2507450 -0.08288775 -0.1151545
##
    [74,]
                               0.6468366 0.4229256 -0.08288775
          0.8561814 0.5156472
                                                             1.3664509
##
    [75,] -1.2702363 -1.9882166
                               0.6468366 -2.0605326 0.67817250
                                                              1.3664509
    [76,] -0.5614304 -0.3189741
##
                               0.6468366 -1.2327132 -1.60500825
                                                              0.6256482
##
    [77,] -0.5614304 -1.1535953
                               0.6468366 -0.4048938 -0.08288775 -0.1151545
##
    [78,] -1.2702363 -1.1535953
                               0.6468366 -0.4048938 -1.60500825 -1.5967598
##
    [79.]
          0.1473755 -0.3189741
                               ##
    [80,]
          0.8561814
                     0.5156472
                               0.6468366 0.4229256
                                                  1.43923275 1.3664509
##
                               [81,]
          1.5649873
                     0.5156472
##
    [82,]
           0.8561814 - 0.3189741
                               0.6468366 -0.4048938
                                                  1.43923275 -0.1151545
##
    [83,] -1.2702363 -1.1535953 -1.9201769 -1.2327132 0.67817250 -0.1151545
##
    [84,]
          0.1473755
                    1.3502685
                              0.6468366 1.2507450 -1.60500825 -1.5967598
##
          1.5649873 1.3502685 -0.6366702 -2.0605326
                                                  1.43923275
    [85,]
                                                              1.3664509
##
    [86,]
          0.1473755 -0.3189741 0.6468366 0.4229256 -0.08288775
                                                              1.3664509
    [87,] -0.5614304  0.5156472 -0.6366702 -2.0605326  0.67817250  0.6256482
```

```
[88,] -1.2702363 1.3502685 0.6468366 0.4229256 -1.60500825 1.3664509
##
##
    [89,] 1.5649873
                   ##
    [90,] -1.2702363
                     0.5156472 -0.6366702 -0.4048938 -0.84394800 -0.1151545
##
                              [91,] -0.5614304 -1.1535953
##
    [92,]
          0.8561814 0.5156472
                              0.6468366 1.2507450 -0.08288775 -1.5967598
##
    [93,] -1.2702363 -0.3189741 -1.9201769 0.4229256 -0.08288775 -0.8559571
##
          0.8561814 -0.3189741 -1.9201769 -2.0605326
                                                  0.67817250 -0.1151545
    [94,]
##
    [95,]
          1.5649873 1.3502685
                              0.6468366 -2.0605326
                                                   0.67817250 -0.8559571
##
    [96,]
          0.1473755 -0.3189741
                              0.6468366 -0.4048938
                                                   1.43923275 1.3664509
##
    [97,] -1.2702363 -1.9882166
                              0.6468366 -2.0605326
                                                   1.43923275
                                                              1.3664509
##
    [98,] -0.5614304 -0.3189741
                              0.6468366 -0.4048938
                                                   1.43923275
                                                              1.3664509
##
    [99,] 0.1473755 -0.3189741 -3.2036837 -1.2327132
                                                   1.43923275
                                                              1.3664509
   [100,] -0.5614304 -1.9882166 0.6468366 0.4229256 -0.84394800 -1.5967598
##
##
   [101,] -0.5614304 -1.1535953
                               0.6468366 1.2507450 -0.08288775 -0.8559571
                              0.6468366 -0.4048938
                                                  0.67817250
##
   [102,] -1.2702363
                    0.5156472
                                                              1.3664509
                                                              0.6256482
##
   [103,] 0.8561814
                    1.3502685
                               0.6468366 0.4229256
                                                   1.43923275
##
   [104,] -1.2702363
                    1.3502685
                              0.6468366 1.2507450
                                                  0.67817250
                                                              0.6256482
##
   [105,] 0.8561814 0.5156472 -0.6366702 -1.2327132 -0.08288775
                                                              1.3664509
##
   [106,] -1.2702363 -1.1535953 -0.6366702 -0.4048938 -1.60500825
                                                              0.6256482
##
   [107,] -0.5614304 -0.3189741 0.6468366 1.2507450 1.43923275
                                                              1.3664509
##
   [108,] -1.2702363 -1.9882166 -0.6366702 -1.2327132 -0.84394800 -0.1151545
##
   [109,] 0.1473755
                   1.3502685 0.6468366 0.4229256 -0.08288775 -0.8559571
   ##
##
   [111,] -1.2702363 -1.1535953 0.6468366 -0.4048938 0.67817250
                                                              1.3664509
##
   [112,] -1.2702363 -1.1535953 -0.6366702 0.4229256 -0.84394800 -0.8559571
   [113,] -1.2702363 -0.3189741 -0.6366702 0.4229256 -0.08288775 -1.5967598
##
##
   [114,] 0.1473755 -0.3189741 0.6468366 1.2507450 -1.60500825 -1.5967598
##
   [115,] -1.2702363  0.5156472  -0.6366702  -0.4048938  -0.84394800  -0.8559571
   [116,] 1.5649873 1.3502685 0.6468366 -0.4048938 -0.08288775 -1.5967598
##
   [117,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [118,] -1.2702363 -1.1535953 -0.6366702 1.2507450 -0.84394800 -0.8559571
##
   [119,] 0.1473755 -1.1535953 -1.9201769 -1.2327132 -0.84394800 -0.1151545
##
##
   \lceil 120, \rceil -0.5614304 -0.3189741 -0.6366702 -0.4048938 -1.60500825 -0.8559571
   [121,] -1.2702363 -0.3189741 0.6468366 0.4229256 -0.84394800 1.3664509
##
##
   [122,]
          0.6256482
   [123,] 0.8561814 0.5156472 -1.9201769 -1.2327132 -0.84394800 -0.8559571
##
                     0.5156472 -0.6366702 -1.2327132 -1.60500825 -1.5967598
##
   [124,] -1.2702363
##
   [125,] 1.5649873 1.3502685 0.6468366 0.4229256
                                                  1.43923275 1.3664509
   [126,] -0.5614304 -0.3189741   0.6468366   0.4229256   0.67817250 -0.1151545
##
   [127,] -1.2702363 -1.1535953 -0.6366702 0.4229256 -1.60500825 -1.5967598
##
##
   ##
   [129,] -1.2702363 0.5156472 -1.9201769 1.2507450
                                                   1.43923275
                                                              1.3664509
##
   [130,] -1.2702363 -1.9882166 -0.6366702 1.2507450 -0.84394800 -0.8559571
##
   [131,]
          0.8561814
                    1.3502685 -0.6366702 -1.2327132 -0.08288775 0.6256482
                    1.3502685 -3.2036837 -2.0605326
##
   [132,]
          0.1473755
                                                  0.67817250 -0.1151545
##
   [133,]
          0.8561814 0.5156472 0.6468366 1.2507450
                                                   1.43923275
                                                              0.6256482
##
   [134,] -1.2702363 -1.9882166 -3.2036837 -1.2327132 -1.60500825
                                                              0.6256482
          1.5649873 -0.3189741 0.6468366 1.2507450
                                                  1.43923275 -0.1151545
##
   [135,]
##
   [136,]
          0.1473755
                    1.3502685 0.6468366 -1.2327132 0.67817250
                                                             1.3664509
   [137,] 0.8561814 0.5156472 0.6468366 0.4229256 -0.08288775 1.3664509
```

```
[138,] -1.2702363 -0.3189741 -0.6366702 -0.4048938 -1.60500825 -0.8559571
##
    [139,] -1.2702363 -1.1535953 0.6468366 1.2507450 -1.60500825 -0.1151545
##
    [140,]
          0.1473755 -0.3189741 0.6468366 1.2507450 -0.84394800 -1.5967598
##
                                                    1.43923275 1.3664509
    [141,] -1.2702363 -1.1535953 0.6468366 1.2507450
##
    [142,]
          0.1473755 -1.9882166 0.6468366 1.2507450 -1.60500825 -1.5967598
##
    [143,] -1.2702363 -1.1535953 -0.6366702 0.4229256
                                                    0.67817250 -1.5967598
    [144,] 0.8561814 -1.1535953 -0.6366702 -0.4048938 -0.08288775 -1.5967598
##
##
    [145,]
          1.5649873 -1.1535953 0.6468366 -0.4048938
                                                    1.43923275 1.3664509
    [146,] -0.5614304  0.5156472  -0.6366702  0.4229256  -1.60500825  -0.8559571
##
                     1.3502685
                               0.6468366 0.4229256 -0.08288775 0.6256482
    [147,]
           0.1473755
##
    [148,] -0.5614304 -0.3189741 -1.9201769 -0.4048938
                                                    0.67817250 -0.1151545
          0.8561814 0.5156472 0.6468366 1.2507450 0.67817250 -0.1151545
##
    [149,]
    [150,] -0.5614304 -1.1535953 -0.6366702 -1.2327132
                                                    1.43923275 1.3664509
##
##
    [151,] -0.5614304   0.5156472   -0.6366702   -0.4048938   0.67817250   -0.8559571
           0.8561814 0.5156472 0.6468366 -1.2327132 -0.84394800 -0.8559571
##
    [152,]
##
          1.5649873 -0.3189741 0.6468366 -0.4048938 -0.84394800 1.3664509
    [153,]
##
    [154,] -0.5614304
                     0.5156472   0.6468366   0.4229256   -0.08288775   -0.1151545
##
                     [155,]
           0.8561814
##
    [156,]
                     0.5156472 -1.9201769 -0.4048938   0.67817250 -0.8559571
           1.5649873
                     ##
    [157,]
           0.8561814
                     1.3502685 -1.9201769 -1.2327132 0.67817250 1.3664509
##
    [158,]
           1.5649873
##
    [159,]
           0.8561814
                     0.5156472 0.6468366 1.2507450
                                                    0.67817250 -1.5967598
##
    [160,] -0.5614304
                     0.5156472 -0.6366702 -0.4048938  0.67817250  0.6256482
##
                     0.5156472
                               0.6468366 -0.4048938
                                                     1.43923275
    [161,]
           1.5649873
                                                                1.3664509
##
    [162,] -0.5614304
                     1.3502685
                               0.6468366 -0.4048938
                                                    1.43923275 -0.8559571
##
    [163,] -0.5614304 -1.1535953 0.6468366 1.2507450 -0.08288775
                                                                1.3664509
##
                    1.3502685 -1.9201769 -0.4048938
                                                    1.43923275 -0.1151545
    [164,] 1.5649873
##
    [166,] -1.2702363 -1.9882166 0.6468366 1.2507450 -0.84394800 1.3664509
##
          0.8561814 0.5156472 0.6468366 -0.4048938 -0.08288775 -0.8559571
##
    [167,]
    [168,] -1.2702363 -1.1535953 0.6468366 -1.2327132 -0.08288775 -1.5967598
##
          1.5649873 1.3502685 0.6468366 -0.4048938 -0.08288775 -0.1151545
##
    [169,]
##
           0.1473755 -1.1535953 -3.2036837 -2.0605326 -0.84394800 0.6256482
    [170,]
##
    [171,] -1.2702363 -1.1535953 0.6468366 -1.2327132 -0.08288775
##
    [172,]
           1.5649873 1.3502685
                               0.6468366 -0.4048938 -0.08288775
                                                                0.6256482
           0.1473755 -0.3189741 -0.6366702 -1.2327132
##
                                                    1.43923275
                                                                0.6256482
    [173,]
##
    [174,]
           0.8561814 -0.3189741 0.6468366 0.4229256
                                                     1.43923275 -0.1151545
##
                    1.3502685
                               0.6468366 1.2507450
                                                     1.43923275 1.3664509
    [175,] -1.2702363
##
    [176,] -0.5614304  0.5156472  0.6468366  1.2507450  -1.60500825  -1.5967598
           0.1473755 -1.1535953 -0.6366702 -0.4048938
##
    [177,]
                                                    0.67817250 -0.1151545
##
           0.1473755 0.5156472 0.6468366 1.2507450 0.67817250 -0.1151545
    [178,]
##
    [179.]
           0.1473755 -0.3189741 -1.9201769 -1.2327132 -0.84394800 -0.8559571
##
    [180,]
           0.8561814 0.5156472 -0.6366702 -1.2327132 0.67817250 1.3664509
##
    [181,]
           1.5649873
                     1.3502685 0.6468366 -2.0605326 1.43923275 -1.5967598
    [182,] -0.5614304 -0.3189741 -0.6366702 -1.2327132 -0.84394800 -0.1151545
##
##
    [183,] -1.2702363  0.5156472  0.6468366  0.4229256  -0.08288775  -1.5967598
##
    [184,] -1.2702363  0.5156472 -0.6366702 -1.2327132 -0.84394800  1.3664509
   [185,] 0.1473755 -0.3189741 0.6468366 -1.2327132 -0.08288775 -1.5967598
##
##
    [186,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.08288775 -0.1151545
  [187,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.84394800 -0.8559571
```

```
[189,] -0.5614304 -1.1535953 -3.2036837 -1.2327132 -0.84394800 1.3664509
##
##
   [190,]
           1.5649873
                    1.3502685 -0.6366702 0.4229256 0.67817250 1.3664509
                    1.3502685 -0.6366702 0.4229256 -0.08288775 -0.1151545
##
           0.1473755
   [191,]
##
   [192,] -1.2702363 -1.1535953 -0.6366702
                                         1.2507450 -1.60500825 -1.5967598
##
   [193,]
           0.1473755 -0.3189741
                               0.6468366
                                         0.4229256 -0.08288775 -0.8559571
                    0.5156472
                               0.6468366 1.2507450 0.67817250 -0.1151545
##
   [194,]
           0.1473755
##
   [195,]
           0.1473755
                     1.3502685 -0.6366702 -1.2327132
                                                   0.67817250 0.6256482
##
   [196,]
           1.5649873
                    1.3502685
                               [197,] -1.2702363 -1.1535953
                               0.6468366 1.2507450 0.67817250 -0.1151545
##
##
   [198,]
                    0.5156472
                              0.6468366 1.2507450 -1.60500825 -0.1151545
           0.8561814
##
   [199,]
           1.5649873 -0.3189741 -1.9201769 -1.2327132 -0.08288775
                                                              1.3664509
##
   [200,] -1.2702363
                     0.5156472
                               0.6468366 -1.2327132 -0.08288775 -0.1151545
##
   [201,]
           0.8561814 0.5156472
                               0.6468366 1.2507450
                                                   1.43923275
                                                               1.3664509
                              0.6468366 1.2507450
                                                    0.67817250
##
   [202,]
           0.1473755 -0.3189741
                                                               0.6256482
##
           1.5649873 -0.3189741 0.6468366 -1.2327132
                                                   1.43923275
                                                               1.3664509
   [203,]
##
   [204,]
           0.1473755 -0.3189741
                              0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [205,] -1.2702363 -1.1535953 -0.6366702 -1.2327132
                                                   1.43923275 -1.5967598
##
   [206,] -1.2702363 -1.9882166 -0.6366702 0.4229256 -0.08288775 -0.1151545
                     0.5156472 -0.6366702 -2.0605326
                                                   0.67817250
##
   [207,]
           1.5649873
                                                               0.6256482
                              0.6468366 1.2507450
                                                   1.43923275
##
   [208,]
           1.5649873
                    1.3502685
                                                               1.3664509
   [209,]
##
           0.1473755
                     0.5156472 -0.6366702 -1.2327132 -0.08288775
                                                               1.3664509
##
   [210,] -1.2702363
                     0.5156472
                               0.6468366 -0.4048938 -0.08288775
                                                               1.3664509
##
                     1.3502685
                               0.6468366 1.2507450
                                                   1.43923275
                                                               1.3664509
   [211,]
          1.5649873
##
   [212,] -0.5614304
                    1.3502685
                               0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [213,]
          1.5649873
                     1.3502685
                               0.6468366 -0.4048938
                                                   1.43923275
                                                               1.3664509
##
   [214,] -1.2702363 -0.3189741
                               ##
   [215,] -1.2702363 -0.3189741
                               0.6468366 -1.2327132 -0.08288775 -0.8559571
##
   [216,] 1.5649873 -1.9882166
                              0.6468366 -0.4048938 -1.60500825
                                                               1.3664509
          0.8561814 -1.1535953 -1.9201769 -2.0605326 -1.60500825
##
   [217,]
                                                               0.6256482
##
   [218,] -1.2702363 -0.3189741
                              0.6468366 1.2507450 -0.08288775 -0.8559571
                               0.6468366 -0.4048938 1.43923275
##
   [219,]
           0.1473755 -1.1535953
                                                               1.3664509
##
   [220,]
           1.5649873
                    1.3502685
                               0.6468366 -2.0605326 -0.08288775
                                                               1.3664509
   [221,]
##
           0.1473755 -0.3189741
                               0.6468366 -0.4048938 -0.84394800 -0.1151545
##
   [222,]
           0.8561814 1.3502685
                               ##
   [223,] -1.2702363 -0.3189741
                               0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [224,] -1.2702363 -1.1535953
                              0.6468366 -0.4048938 -0.84394800 -0.8559571
##
           0.8561814 -0.3189741 -0.6366702 -0.4048938  0.67817250
   [225,]
                                                              1.3664509
                                                               1.3664509
##
           0.1473755 -0.3189741 -0.6366702 -1.2327132 1.43923275
   [226,]
##
   [227,]
           0.1473755 -0.3189741 0.6468366 -2.0605326 -0.08288775 -1.5967598
##
   ##
   [229,] -1.2702363 -1.1535953 -1.9201769 -1.2327132
                                                   1.43923275
                                                               1.3664509
##
   [230,] -1.2702363 -0.3189741 -0.6366702 -2.0605326 -0.84394800 -0.8559571
##
   [231,] -1.2702363 -0.3189741 -0.6366702 0.4229256
                                                   0.67817250
                                                              0.6256482
##
   [232,]
           0.8561814 0.5156472
                               0.6468366
                                         1.2507450 -0.84394800 -1.5967598
##
   [233,]
                    1.3502685
                               0.6468366
                                         1.2507450
                                                   1.43923275 1.3664509
           0.8561814
##
           1.5649873
                    1.3502685
                               0.6468366
                                         1.2507450
                                                   0.67817250 -0.1151545
   [234,]
##
   [235,] -1.2702363 -1.9882166 0.6468366 1.2507450 -0.84394800 -0.8559571
##
   [236,] -1.2702363 -1.1535953 0.6468366 -0.4048938 -1.60500825 0.6256482
  [237,] -0.5614304 -0.3189741 0.6468366 -0.4048938 -0.08288775 1.3664509
```

```
0.1473755 -1.1535953 0.6468366 1.2507450 -0.84394800 -0.1151545
##
    [238,]
##
    [239,]
           1.5649873 0.5156472
                               0.6468366 1.2507450 -0.08288775 0.6256482
##
    [240,] -1.2702363 -0.3189741
                                0.6468366 -0.4048938 -0.08288775 -0.1151545
                                0.6468366 -0.4048938 -0.08288775 0.6256482
##
           0.1473755 -0.3189741
    [241,]
##
    [242,]
           0.1473755 -0.3189741 -0.6366702 0.4229256
                                                     0.67817250 1.3664509
##
    [243,] -1.2702363
                      1.3502685
                                0.6468366
                                           0.4229256
                                                      0.67817250 -0.8559571
                      0.5156472 -3.2036837 -1.2327132
                                                      0.67817250 0.6256482
##
    [244,] -0.5614304
##
    [245,]
           1.5649873
                      1.3502685
                                ##
    [246,]
           1.5649873
                      0.5156472
                                0.6468366 -0.4048938 -0.84394800 -1.5967598
                                                      1.43923275 1.3664509
    [247,]
                      0.5156472
                                0.6468366
                                          0.4229256
##
           0.8561814
##
    [248,] -1.2702363 -1.9882166
                                0.6468366
                                           1.2507450 -0.84394800 -0.1151545
##
    [249,]
           0.8561814
                      0.5156472
                                0.6468366
                                           1.2507450
                                                     0.67817250 -0.1151545
##
           0.8561814
                      0.5156472
                                0.6468366 -0.4048938
                                                     1.43923275 -0.1151545
    [250,]
##
    [251,]
           0.1473755
                      1.3502685
                                0.6468366
                                          1.2507450
                                                     0.67817250 -0.8559571
                                0.6468366
##
    [252,]
           1.5649873
                      0.5156472
                                           1.2507450
                                                      1.43923275 -0.1151545
##
    [253,] -0.5614304 -1.1535953
                                0.6468366
                                           1.2507450
                                                     0.67817250 0.6256482
##
    [254,]
          1.5649873
                     1.3502685
                                0.6468366
                                           1.2507450 -0.08288775 -1.5967598
##
    [255,] -1.2702363 -1.1535953
                                0.6468366
                                           1.2507450 -1.60500825 1.3664509
##
    [256,] -1.2702363 -0.3189741 -0.6366702 0.4229256 -0.84394800 -1.5967598
                                0.6468366 1.2507450 -0.84394800 -0.8559571
##
    [257,] -0.5614304 -1.1535953
                                0.6468366 -0.4048938
                                                     1.43923275 1.3664509
##
    [258,]
           0.1473755 0.5156472
##
    [259,]
           0.8561814 1.3502685
                                0.6468366 -1.2327132
                                                     1.43923275 -0.1151545
##
    [260,] -1.2702363 -1.9882166
                               0.6468366 -2.0605326 -1.60500825 0.6256482
           0.1473755 -0.3189741 -1.9201769 -0.4048938 -0.08288775 -0.1151545
##
    [261,]
##
          1.5649873 0.5156472
                               0.6468366 1.2507450 0.67817250 -1.5967598
    [262,]
##
    [263,] -1.2702363 -1.1535953 -1.9201769 -0.4048938 -0.08288775 -0.1151545
##
                                [264,]
           0.8561814 -1.1535953
                                           0.4229256 0.67817250 1.3664509
##
    [265,]
           1.5649873 1.3502685
                                0.6468366
##
           0.1473755 -0.3189741
                                0.6468366
                                           1.2507450
                                                     0.67817250 -0.8559571
    [266,]
    [267,] -0.5614304 -0.3189741
                                0.6468366
                                           1.2507450 -0.08288775 -0.1151545
##
    [268,] -0.5614304 -0.3189741
##
                                0.6468366
                                           0.4229256 -0.84394800 -0.8559571
                                0.6468366 1.2507450 0.67817250 -0.8559571
##
    [269,] -1.2702363 -1.9882166
##
    [270,]
           0.8561814 0.5156472 -0.6366702 -0.4048938 -0.08288775
                                                                 0.6256482
    [271,]
##
           0.1473755 -0.3189741
                               ##
    [272,]
           0.8561814 -0.3189741 -0.6366702 -1.2327132 -1.60500825
                                                                 1.3664509
##
           0.1473755 -1.1535953
                                0.6468366 -1.2327132 -0.84394800
                                                                 0.6256482
    [273,]
##
    [274,]
           0.1473755
                     1.3502685 -0.6366702
                                          1.2507450 0.67817250 1.3664509
           0.1473755 -0.3189741
                                0.6468366
                                           0.4229256 -1.60500825 -0.8559571
##
    [275,]
           0.8561814 - 0.3189741
##
                                0.6468366
                                           0.4229256
                                                     1.43923275 -0.1151545
    [276,]
                                           0.4229256
##
    [277,]
           0.8561814
                      0.5156472
                                0.6468366
                                                      1.43923275
                                                                 0.6256482
    [278,]
##
                      0.5156472
                                0.6468366
                                           0.4229256
                                                     1.43923275
           1.5649873
                                                                 1.3664509
##
    [279,]
           0.8561814
                      0.5156472
                                0.6468366 -1.2327132
                                                     1.43923275 -0.1151545
##
    [280,]
           0.1473755 -0.3189741
                                0.6468366 1.2507450 -0.08288775 -0.8559571
##
    [281,] -1.2702363 -1.9882166
                                0.6468366 1.2507450 -0.08288775 -1.5967598
                                0.6468366 -1.2327132 -0.08288775 -0.1151545
##
    [282,] -1.2702363
                      0.5156472
##
    [283,]
           0.1473755
                      0.5156472
                                0.6468366 -1.2327132 -1.60500825 -1.5967598
##
    [284,] -0.5614304
                      0.5156472 -0.6366702 0.4229256 -0.08288775
                                                                 0.6256482
##
    [285,]
           0.8561814
                      0.5156472 -0.6366702 -1.2327132 1.43923275
                                                                 1.3664509
##
    [286,]
           0.1473755
                      0.8561814 0.5156472 0.6468366 -0.4048938 -0.08288775 0.6256482
   [287,]
```

```
0.1473755 -0.3189741 -0.6366702 0.4229256 -0.84394800 -0.1151545
   [288,]
##
   [289,]
          1.5649873
                   1.3502685 0.6468366 -0.4048938 -1.60500825 1.3664509
##
   [290,]
          0.1473755 -0.3189741 -0.6366702 -1.2327132 -0.84394800 0.6256482
##
   [291,] -0.5614304
                    ##
   [292,] -0.5614304
                    0.5156472 -0.6366702 0.4229256 0.67817250 -0.1151545
##
   [293,] -0.5614304
                    0.5156472   0.6468366   1.2507450   -0.08288775   -0.8559571
   [294,] -1.2702363 -1.9882166 0.6468366 0.4229256
                                                1.43923275 0.6256482
##
##
   [295,]
         0.1473755 -0.3189741 -0.6366702 -1.2327132 -0.84394800 -0.1151545
##
   [296,]
          0.1473755
                   1.3502685 -1.9201769 0.4229256 -0.84394800
   [297,]
                            0.6468366 -2.0605326 0.67817250
##
          1.5649873
                   1.3502685
                                                           0.6256482
##
   [298,] -0.5614304 -1.1535953 -0.6366702 -0.4048938 0.67817250 -0.8559571
##
   [299,] -0.5614304 -1.1535953 0.6468366 0.4229256 -0.84394800
                                                           1.3664509
                             0.6468366 -0.4048938 -1.60500825 -0.1151545
##
   [300,] 1.5649873
                   1.3502685
##
   [302,] -1.2702363 -0.3189741 -0.6366702 -1.2327132 0.67817250
##
                                                           1.3664509
##
   [303,] 0.1473755 0.5156472 0.6468366 0.4229256 -1.60500825 -1.5967598
##
   [304,] -1.2702363 -0.3189741
                             [305,] -1.2702363 -0.3189741
   [306,] -1.2702363 -1.9882166
                             0.6468366 1.2507450 -0.84394800 0.6256482
##
   [307,]
          0.1473755 -1.9882166
                             0.6468366 1.2507450 -0.84394800 -1.5967598
##
   [308,] -1.2702363 -1.9882166 0.6468366 -0.4048938 0.67817250 -1.5967598
##
##
          0.1473755
                   0.5156472 -0.6366702 0.4229256
                                                1.43923275 0.6256482
   [309,]
##
   [310,]
          1.5649873
                    1.3502685 -1.9201769 -1.2327132 -0.08288775 -0.8559571
          0.1473755
                    0.5156472 -1.9201769 -0.4048938 -0.08288775 -0.8559571
##
   [311,]
##
          0.8561814
                    0.5156472 0.6468366 0.4229256
                                                1.43923275 -0.1151545
   [312,]
##
   [313,]
          0.8561814
                    0.5156472 -0.6366702 -0.4048938
                                                0.67817250 1.3664509
##
                    0.5156472
                            0.6468366 0.4229256
                                                1.43923275 -0.1151545
   [314,]
          0.8561814
##
   [315,]
          0.8561814
                    0.5156472
                             0.6468366 1.2507450
                                                 1.43923275
                                                           1.3664509
##
   [316,] -1.2702363 -0.3189741 -0.6366702 -2.0605326 -0.84394800
                                                           1.3664509
   [317,] -0.5614304 -0.3189741
                             ##
##
         1.5649873
                   1.3502685
                             0.6468366 -2.0605326
                                                1.43923275
                                                           1.3664509
   [318,]
          ##
   [319,]
##
   [320,] -1.2702363 -0.3189741
                             0.6468366 1.2507450 -0.08288775
                                                           0.6256482
##
   [321,] -0.5614304
                    0.5156472
                             0.6468366 -1.2327132 -0.08288775
##
   [322,]
          1.5649873
                    1.3502685
                             ##
   [323,] -1.2702363 -1.1535953
                             0.6468366
                                       1.2507450 -0.84394800 -0.1151545
##
   [324,] -0.5614304 0.5156472
                             [325,] -0.5614304 -0.3189741
                             0.6468366 1.2507450 -0.08288775 -0.8559571
##
##
   [326,] -1.2702363 -1.1535953 -0.6366702 -0.4048938 -0.08288775 0.6256482
##
   [327,]
          1.5649873 0.5156472
                             0.6468366 1.2507450 0.67817250
                                                           1.3664509
##
          0.1473755
                    0.5156472
                             0.6468366 -0.4048938 -0.08288775 -0.1151545
   [328,]
##
   [329,]
          0.8561814
                    1.3502685
                             0.6468366 1.2507450 0.67817250
                                                           1.3664509
##
   [330,]
          0.8561814
                   1.3502685 -0.6366702 0.4229256 -0.84394800
                                                           0.6256482
##
   [331,] -1.2702363 -1.9882166
                             ##
   [332,] -0.5614304 -1.9882166
                             0.6468366 -0.4048938 -0.08288775
                                                           1.3664509
##
   [333,]
          0.1473755 -1.9882166
                             0.6468366 1.2507450 -1.60500825 -0.8559571
##
   [334,] -0.5614304 -1.1535953
                             0.6468366 1.2507450 -0.08288775 -0.8559571
                             0.6468366 -1.2327132 -1.60500825
##
   [335,]
          0.8561814
                   1.3502685
                                                           1.3664509
##
   [336,]
          1.5649873
                   0.5156472
                             0.6468366 -0.4048938
                                                0.67817250
                                                           1.3664509
  [337,] 1.5649873 0.5156472 0.6468366 -0.4048938 0.67817250 -1.5967598
```

```
[338,] -0.5614304 -1.1535953 0.6468366 -2.0605326 -0.84394800 1.3664509
##
   [339,]
          0.8561814 -0.3189741 0.6468366 1.2507450 -0.08288775 -1.5967598
##
   [340,] -1.2702363 -1.1535953
                             0.6468366 1.2507450 -1.60500825 -0.1151545
##
   [341,] -0.5614304 -1.1535953 -0.6366702 0.4229256
                                                  0.67817250 1.3664509
                                                  0.67817250 1.3664509
##
   [342,] 1.5649873 1.3502685
                              0.6468366 -2.0605326
##
   [343,] -1.2702363 -1.1535953
                              0.6468366 -0.4048938
                                                  1.43923275 -0.8559571
   [345,] -1.2702363 -1.1535953
##
                              [346,] -1.2702363 -0.3189741
                              0.6468366 -0.4048938
                                                  1.43923275 0.6256482
   [347,]
          0.1473755 0.5156472
                              0.6468366 -0.4048938
                                                 0.67817250 -0.1151545
##
##
   [348,] -1.2702363 -0.3189741
                              ##
   [349,] -1.2702363 -1.9882166
                              0.6468366 -1.2327132 -0.08288775 -1.5967598
                              0.6468366 1.2507450 -0.84394800 -1.5967598
##
   [350,] 1.5649873
                   1.3502685
##
   [351,]
          0.1473755 -0.3189741 -0.6366702 -1.2327132 1.43923275 -0.1151545
                              0.6468366 1.2507450 -0.84394800 -0.1151545
##
   [352,]
          0.8561814
                    0.5156472
##
   [353,] -0.5614304
                    1.3502685
                              0.6468366 -0.4048938 -0.08288775 1.3664509
##
   [354,] 0.8561814
                    0.5156472
                              0.6468366   0.4229256   -0.84394800   -0.8559571
##
                    0.5156472 -0.6366702 1.2507450 -0.08288775 0.6256482
   [355,] -1.2702363
##
   [356,] -0.5614304
                    0.5156472
                              0.6468366 -0.4048938 -0.08288775
                                                             0.6256482
                             0.6468366 -1.2327132 1.43923275 -0.1151545
##
   [357,] 0.1473755 -1.1535953
                              0.6468366 0.4229256 0.67817250 0.6256482
##
   [358,] -0.5614304 -1.1535953
   [359,] -0.5614304 -1.1535953
##
                              0.6468366 -0.4048938 -0.08288775
                                                             1.3664509
                              0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [360,] -1.2702363 -1.1535953
##
   [361,] -1.2702363 -1.1535953
                              0.6468366 1.2507450 -1.60500825 -0.8559571
                    ##
   [362,] 1.5649873
##
   [363,] -0.5614304
                    1.3502685 -3.2036837 -0.4048938
                                                 0.67817250 -0.1151545
##
   [364,] -1.2702363
                    0.5156472 -3.2036837 -0.4048938 0.67817250 -0.1151545
##
   [365,] -0.5614304
                    0.5156472 -1.9201769 -1.2327132 -1.60500825
                                                             0.6256482
##
   [366,] -1.2702363
                    1.3502685 -3.2036837 -1.2327132 -1.60500825
                                                             1.3664509
                    1.3502685 0.6468366 -1.2327132
                                                  1.43923275
##
   [367,]
          1.5649873
                                                             0.6256482
                                                             1.3664509
##
   [368,] -0.5614304
                    0.5156472
                             0.6468366 0.4229256
                                                  1.43923275
                             0.6468366 1.2507450
                                                  1.43923275 -0.1151545
##
   [369,]
          1.5649873
                    1.3502685
##
   [370,]
          1.5649873
                    1.3502685 -1.9201769 -0.4048938 -0.08288775
                                                             1.3664509
   [371,] -1.2702363 0.5156472
                             0.6468366 -0.4048938 -1.60500825 -0.1151545
##
   [372,] -1.2702363 -1.1535953
                              0.6468366 1.2507450 -0.08288775 -0.8559571
   [373,] 0.1473755 -0.3189741 -0.6366702 -0.4048938
##
                                                 1.43923275 0.6256482
##
   [374,] -0.5614304 0.5156472
                              0.6468366 0.4229256
                                                 1.43923275 -0.1151545
##
                    0.5156472
                              0.6468366 1.2507450 -0.84394800 0.6256482
   [375,] 0.1473755
##
   [376,] -1.2702363 -1.1535953
                              0.6468366 1.2507450 -0.84394800 -1.5967598
                              0.6468366 1.2507450 -1.60500825 -1.5967598
##
   [377,] -0.5614304 -0.3189741
##
                    1.3502685
                              0.6468366 -0.4048938 -1.60500825 -0.1151545
   [378,]
          1.5649873
##
   [379,]
          1.5649873
                    0.5156472
                              0.6468366 -0.4048938 -0.84394800 -1.5967598
##
   [380,]
          0.1473755
                    0.5156472
                             0.6468366 -0.4048938 0.67817250 0.6256482
##
   [381,]
          0.8561814 -0.3189741 -0.6366702 -0.4048938 -0.84394800 -1.5967598
   ##
##
   [383,]
          0.8561814 -1.1535953
                             0.6468366 1.2507450 -0.84394800 0.6256482
##
          1.5649873 1.3502685
                              [384,]
   [385,] -1.2702363 -1.9882166 -1.9201769 -0.4048938 -1.60500825 -1.5967598
##
##
   [386,] 0.1473755 -0.3189741 0.6468366 1.2507450
                                                  1.43923275 0.6256482
  [387,] 0.1473755 -0.3189741 0.6468366 -0.4048938 1.43923275 -0.8559571
```

```
1.5649873 1.3502685 0.6468366 1.2507450 -1.60500825 -1.5967598
    [388,]
##
    [389,]
           0.1473755 1.3502685 -0.6366702 0.4229256 -0.84394800 1.3664509
           0.1473755 -0.3189741 -0.6366702 0.4229256 -0.08288775 -0.1151545
##
    [390,]
##
    [391,] -1.2702363 -1.9882166 -0.6366702 -0.4048938 -0.08288775 -0.8559571
##
    [392,] -0.5614304 -1.1535953 -0.6366702 0.4229256 -0.08288775 -0.1151545
           0.8561814 1.3502685 -0.6366702 0.4229256 -0.84394800 -0.1151545
##
    [393,]
##
          1.5649873 0.5156472 -1.9201769 -2.0605326 1.43923275 1.3664509
    [394,]
    [395,] -0.5614304  0.5156472  -0.6366702  -0.4048938  -1.60500825  -0.8559571
##
    [396,] 0.8561814 0.5156472 -1.9201769 -1.2327132 1.43923275 1.3664509
##
    [397,] -0.5614304 -1.1535953 -0.6366702 0.4229256 0.67817250 -1.5967598
##
    [398,] 0.1473755 -0.3189741 0.6468366 1.2507450 -0.84394800 -0.8559571
##
    [399,] -1.2702363 -0.3189741 0.6468366 1.2507450 -0.08288775 -0.8559571
    [400,] 0.8561814 1.3502685
                               ##
##
    [401,] -0.5614304 -0.3189741 -0.6366702 -1.2327132 0.67817250 0.6256482
    [402,] -0.5614304 -1.9882166
                               0.6468366 -1.2327132 -1.60500825 -0.1151545
##
    [403,] 0.8561814 0.5156472 0.6468366 -1.2327132 -1.60500825 1.3664509
##
    [404,] -0.5614304 -1.1535953 0.6468366 -0.4048938 0.67817250 -0.8559571
    [405,] -1.2702363 -1.9882166 0.6468366 1.2507450
                                                    1.43923275 -1.5967598
##
    [406,] -1.2702363 -1.9882166 -0.6366702 0.4229256 -1.60500825 -0.1151545
##
    [407,] -1.2702363 -0.3189741
                               0.6468366 1.2507450 1.43923275 -1.5967598
##
    [408,] 0.1473755 -0.3189741 0.6468366 -0.4048938 -0.84394800 0.6256482
##
    [409,] 1.5649873 0.5156472 0.6468366 1.2507450 -0.84394800 -0.1151545
    [410,] -0.5614304 -0.3189741 0.6468366 1.2507450 -0.08288775 -0.8559571
##
##
          1.5649873 1.3502685
                               0.6468366 -2.0605326 1.43923275 1.3664509
    [411,]
    [412,] -1.2702363 -0.3189741 -0.6366702 1.2507450 -0.84394800 -0.1151545
##
##
    [413,] -1.2702363 -1.9882166 0.6468366 -0.4048938 -1.60500825 -1.5967598
    [414,] 0.1473755 -0.3189741 -0.6366702 -1.2327132 -0.08288775 1.3664509
##
           0.8561814 -0.3189741 -0.6366702 0.4229256 -0.08288775 -0.8559571
##
    [415,]
    [416,] 1.5649873 1.3502685 0.6468366 0.4229256 -1.60500825 -0.1151545
##
##
    [417,] 0.1473755 -0.3189741 -0.6366702 1.2507450 -0.84394800 -0.1151545
##
    [418,]
          1.5649873 1.3502685 -1.9201769 -2.0605326 -0.08288775 0.6256482
    [419,] -1.2702363 1.3502685 0.6468366 0.4229256 -0.08288775 -1.5967598
##
##
    [420,] -1.2702363 -1.1535953 -3.2036837 -1.2327132 -0.84394800 1.3664509
##
    [421,] -1.2702363 -0.3189741 0.6468366 -2.0605326 -0.84394800 -0.1151545
    [422,] -1.2702363 -1.1535953 0.6468366 1.2507450 1.43923275
##
                                                                1.3664509
                               0.6468366 1.2507450
                                                    1.43923275
##
    [423,] 1.5649873 1.3502685
                                                                1.3664509
    [424,] 0.8561814 1.3502685 -0.6366702 -2.0605326 -1.60500825 -1.5967598
##
##
    [425,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.84394800 1.3664509
   [426,] 0.8561814 1.3502685 0.6468366 1.2507450 1.43923275 1.3664509
##
    [427,] -1.2702363  0.5156472  -0.6366702  -1.2327132  -0.08288775  -0.1151545
##
##
    [428,] -0.5614304  0.5156472  -0.6366702  -0.4048938  0.67817250  -0.8559571
    [429,] -1.2702363 -0.3189741 -0.6366702 1.2507450 -0.08288775 -1.5967598
##
##
    [430,] 0.8561814 1.3502685 -0.6366702 -0.4048938 -0.84394800 -0.8559571
    [431,] -1.2702363 -0.3189741 0.6468366 0.4229256 0.67817250 -0.1151545
##
           0.8561814 0.5156472 0.6468366 -0.4048938 -0.08288775 -0.8559571
##
    [432,]
##
    [433,]
           1.5649873 0.5156472 -0.6366702 -1.2327132 -0.08288775 -0.1151545
##
           [434,]
   [435,] -1.2702363 -0.3189741 -0.6366702 -2.0605326 0.67817250 -0.1151545
##
##
    [436,] -0.5614304 -1.1535953 -0.6366702 -0.4048938 -0.84394800 -0.8559571
  [437,] 0.1473755 -0.3189741 0.6468366 0.4229256 0.67817250 -0.1151545
```

```
0.1473755 -0.3189741 -0.6366702 0.4229256 -0.84394800 -0.1151545
   [438,]
##
   [439,] -1.2702363 -1.1535953 -0.6366702 1.2507450 -0.84394800 -0.8559571
##
   [440,]
          0.1473755 1.3502685 0.6468366 -0.4048938 -0.08288775 0.6256482
##
                             [441,]
          0.1473755 -0.3189741
##
   [442,] -1.2702363 -1.1535953
                             0.6468366 1.2507450 -0.84394800 -1.5967598
##
   [443,]
          1.5649873 0.5156472
                             ##
          0.1473755  0.5156472 -0.6366702 -1.2327132  1.43923275  0.6256482
   [444,]
   [445,]
##
          0.1473755 -0.3189741 -0.6366702 -1.2327132 -0.08288775 -0.1151545
   [446,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.08288775 -1.5967598
          0.8561814 -0.3189741 0.6468366 -2.0605326 -0.08288775 -0.1151545
##
   [447,]
##
   [448,] -0.5614304 -1.1535953 -0.6366702 0.4229256 -1.60500825 -1.5967598
##
   [449,]
          0.1473755
                    0.5156472
                             1.3502685
                              ##
   [450,]
          1.5649873
##
   [451,]
          0.8561814
                    1.3502685
                              0.6468366 -0.4048938 1.43923275 -0.1151545
                    0.5156472 -0.6366702 0.4229256 -0.84394800 0.6256482
##
   [452,] -0.5614304
##
         0.1473755
                    1.3502685
                             0.6468366 1.2507450 -1.60500825 -1.5967598
   [453,]
##
   [454,]
          1.5649873
                    1.3502685
                              0.6468366  0.4229256  -0.84394800  -1.5967598
##
                              [455,]
         1.5649873
                    1.3502685
##
   [456,] -1.2702363 -0.3189741
                              0.6468366 1.2507450 -1.60500825 -1.5967598
##
   [457,] 0.1473755 -0.3189741
                              0.6468366 -2.0605326 -0.84394800 -0.8559571
   [458,] -0.5614304 0.5156472
                              0.6468366 -0.4048938 1.43923275 1.3664509
##
##
   [459,] -1.2702363 -1.9882166
                              0.6468366 1.2507450
                                                 1.43923275 -1.5967598
                              ##
   [460,] -1.2702363 -1.1535953
##
         1.5649873 1.3502685
                             0.6468366 -1.2327132 -0.84394800 -0.1151545
   [461,]
   [462,] -0.5614304 -0.3189741 0.6468366 -0.4048938 -0.84394800 -0.1151545
##
##
   [463,] -0.5614304 -0.3189741 0.6468366 0.4229256 -0.08288775 0.6256482
##
   [464,] -1.2702363 -1.9882166 -0.6366702 1.2507450 -1.60500825 -1.5967598
##
   [465,] -1.2702363  0.5156472  -0.6366702  1.2507450  -1.60500825  -0.1151545
   [466,] -0.5614304 -0.3189741 0.6468366 -0.4048938 -0.08288775 0.6256482
##
   [467,] 0.1473755 -0.3189741 -1.9201769 -0.4048938 -0.08288775 -0.1151545
##
##
   [468,] -0.5614304 -1.1535953 0.6468366 0.4229256 -0.84394800 -1.5967598
          0.8561814 -0.3189741 -0.6366702 -0.4048938 -0.08288775 -0.1151545
##
   [469,]
##
   [470,]
          1.5649873
                   1.3502685
                             ##
   [471,] 1.5649873
                    1.3502685
                             0.6468366 1.2507450 -0.84394800 -1.5967598
##
   [472,] -0.5614304
                   0.5156472
                             0.6468366 -0.4048938 1.43923275 0.6256482
         1.5649873
                             0.6468366 -1.2327132 -0.84394800 -0.8559571
##
                   0.5156472
   [473,]
   [474,] -1.2702363 -1.1535953 -0.6366702 -0.4048938 -1.60500825 -1.5967598
##
##
   [475,] 0.1473755 -0.3189741
                             0.6468366 -0.4048938 -0.08288775 -1.5967598
   [476,] 0.8561814 -0.3189741 0.6468366 1.2507450 -0.84394800 -0.1151545
##
   [477,] -1.2702363 -1.1535953
                             ##
##
          0.8561814 0.5156472 -0.6366702 -0.4048938 0.67817250 -0.8559571
   [478,]
##
   [479,]
          0.8561814
                    0.5156472 -1.9201769 -2.0605326
                                                 0.67817250 0.6256482
##
   [480,] 0.8561814
                    0.5156472
                             0.6468366 -0.4048938 -0.08288775 -0.8559571
##
   [481,] -0.5614304
                    0.5156472
                             0.6468366 1.2507450
                                                 1.43923275 -0.8559571
                    0.5156472 -1.9201769 -1.2327132
##
   [482,] -1.2702363
                                                 0.67817250 0.6256482
##
   [483,] -1.2702363
                    0.5156472
                             0.6468366 0.4229256
                                                 0.67817250 -0.8559571
##
   [484,] -1.2702363 -0.3189741
                             0.6468366 1.2507450 -0.84394800 -1.5967598
                    0.5156472 -0.6366702 -0.4048938   0.67817250 -0.1151545
##
   [485,] -0.5614304
##
   [486,] -0.5614304
                    [487,] -0.5614304 1.3502685 0.6468366 0.4229256 -0.08288775 -0.1151545
```

```
1.5649873 -1.9882166 0.6468366 1.2507450 1.43923275 -1.5967598
   [488,]
##
   [489,]
          0.8561814 0.5156472 -0.6366702 -1.2327132 0.67817250 0.6256482
##
   [490,]
          0.1473755
                    1.3502685
                              0.6468366 -1.2327132 -1.60500825
                                                              1.3664509
                              0.6468366 1.2507450 -1.60500825 -1.5967598
##
   [491,] -0.5614304 -1.1535953
##
   [492,]
          0.8561814 0.5156472
                              ##
   [493,] -1.2702363 -1.1535953 -1.9201769 1.2507450 -0.84394800
                                                             1.3664509
   [494,] 0.1473755 1.3502685 -0.6366702 -1.2327132 -0.08288775
##
                                                              0.6256482
   [495,] -0.5614304 -0.3189741 0.6468366 1.2507450 -0.08288775 -0.1151545
##
                    1.3502685 -0.6366702 -0.4048938 -0.08288775 -0.8559571
   [496,] -1.2702363
   [497,]
          ##
##
   [498,] -1.2702363 -1.9882166 0.6468366 -0.4048938 -0.08288775 -0.1151545
##
   [499,] -1.2702363 -1.9882166 -0.6366702 -0.4048938 -0.84394800 0.6256482
   [500,] -0.5614304   0.5156472   0.6468366   -1.2327132   0.67817250
##
                                                              1.3664509
##
   [501,]
          0.1473755 -0.3189741 0.6468366 1.2507450
                                                  1.43923275
                                                              1.3664509
                   1.3502685 -1.9201769 1.2507450 -1.60500825
##
   [502,]
          0.8561814
                                                              1.3664509
##
          0.1473755
                    1.3502685 -0.6366702 -1.2327132
                                                  1.43923275
                                                             1.3664509
   [503,]
##
   [504,] -0.5614304 -1.9882166
                              0.6468366 1.2507450
                                                   1.43923275 -0.1151545
##
                              0.6468366 -0.4048938
                                                   0.67817250 1.3664509
   [505,] 1.5649873 0.5156472
##
   [506,] -0.5614304
                     0.5156472
                              0.6468366 -0.4048938
                                                  0.67817250 -0.1151545
   [507,] -1.2702363
                    ##
   [508,] -0.5614304 -0.3189741 -1.9201769 -1.2327132 0.67817250 -1.5967598
##
##
   [509,] -0.5614304  0.5156472  -0.6366702  -1.2327132  -0.08288775  -0.1151545
   [510,] 0.1473755 -1.1535953 0.6468366 0.4229256 -0.08288775 -1.5967598
##
##
   [511,] -0.5614304 -0.3189741 -0.6366702 0.4229256
                                                  0.67817250 0.6256482
##
   [512,] 0.1473755 -0.3189741 0.6468366 0.4229256
                                                  0.67817250 -0.8559571
##
   [513,] -1.2702363 -1.1535953
                              0.6468366 1.2507450
                                                   1.43923275 -1.5967598
##
                    1.3502685
                               0.6468366 -0.4048938 -0.08288775 -0.1151545
   [514,]
          0.1473755
##
   [515,]
          0.1473755
                    0.5156472
                               0.6468366 -0.4048938 -0.08288775
                                                             1.3664509
##
          1.5649873
                     0.5156472
                               0.6468366 -2.0605326
                                                  0.67817250
                                                              0.6256482
   [516,]
                              0.6468366 -2.0605326 1.43923275
##
   [517,]
          1.5649873
                    1.3502685
                                                              1.3664509
##
          0.8561814
                    1.3502685 -1.9201769 -1.2327132 -1.60500825 -1.5967598
   [518,]
   [519,] -1.2702363 -1.1535953 0.6468366 -0.4048938 -0.08288775 -0.8559571
##
##
          0.1473755 -0.3189741 -0.6366702 -1.2327132 -0.08288775
   [520,]
##
   [521,] -0.5614304 -0.3189741
                              0.6468366 1.2507450 -0.08288775 -0.8559571
##
   [522,]
          0.1473755
                    1.3502685
                              ##
   [523,] -1.2702363 -1.1535953
                             0.6468366 1.2507450 -0.84394800 1.3664509
##
   [524,]
          0.8561814
                    0.5156472
##
                     0.5156472 -1.9201769 -0.4048938 -0.08288775 -0.1151545
   [525,]
          0.1473755
                    ##
          0.1473755
   [526,]
##
   [527,]
          1.5649873
                     0.5156472   0.6468366   -0.4048938   0.67817250   0.6256482
##
                     0.5156472 -1.9201769 -1.2327132 0.67817250 0.6256482
   [528,]
          1.5649873
##
   [529,] -0.5614304 1.3502685 0.6468366 -1.2327132 1.43923275 -0.1151545
##
   [530,] -1.2702363 -1.1535953 -1.9201769 -1.2327132 -0.84394800 -0.1151545
##
   [531,] -1.2702363 -1.9882166 0.6468366 -0.4048938 -0.08288775 -1.5967598
   [532,] -0.5614304 -1.9882166 -0.6366702 0.4229256 -0.08288775 0.6256482
##
##
   [533,]
          0.8561814 -0.3189741 0.6468366 0.4229256 -0.84394800 -0.8559571
##
          0.1473755 -0.3189741 -0.6366702 -0.4048938 -0.08288775 -0.1151545
   [534,]
   [535,] -1.2702363 0.5156472 0.6468366 1.2507450
##
                                                  1.43923275 -1.5967598
##
   [536,] 0.8561814 0.5156472 0.6468366 1.2507450
                                                  1.43923275 1.3664509
  [537,] 1.5649873 1.3502685 0.6468366 -0.4048938 -1.60500825 -0.1151545
```

```
0.5156472 -1.9201769 0.4229256 -1.60500825 0.6256482
    [538,] -0.5614304
            0.1473755
##
    [539,]
                       0.5156472 0.6468366 0.4229256
                                                        0.67817250 -0.1151545
##
    [540,] -0.5614304
                       1.3502685 -3.2036837 -2.0605326
                                                         1.43923275
                                                                     1.3664509
                                                                     1.3664509
##
            0.1473755
                      1.3502685 -0.6366702 0.4229256
                                                        1.43923275
    [541,]
##
    [542,]
            0.1473755 -0.3189741 0.6468366 1.2507450 -0.08288775 -0.8559571
##
    [543,]
            0.1473755 -0.3189741 -0.6366702 0.4229256
                                                         0.67817250
                                                                    0.6256482
    [544,] -1.2702363 -1.9882166
                                 0.6468366 -0.4048938 -0.08288775 -0.1151545
##
##
    [545,] -1.2702363
                       0.5156472 -4.4871904 -1.2327132
                                                         0.67817250
                                                                    0.6256482
##
    [546,]
           1.5649873
                       1.3502685
                                  0.6468366 -0.4048938
                                                        1.43923275
                                                                     1.3664509
    [547,]
                                  0.6468366 -0.4048938
                                                        1.43923275
##
            1.5649873
                       1.3502685
                                                                     1.3664509
##
    [548,]
            0.1473755
                      1.3502685
                                  0.6468366 -1.2327132 -0.84394800
                                                                     0.6256482
    [549,] -1.2702363 -1.9882166 -0.6366702 0.4229256 -0.84394800 -0.1151545
##
                                 0.6468366 -1.2327132 -1.60500825 -0.1151545
##
    [550,] -0.5614304 -1.1535953
##
    [551,] -1.2702363 -0.3189741 -0.6366702 -0.4048938 1.43923275 -0.1151545
                                 0.6468366
                                             0.4229256 -0.08288775
##
    [552,] -1.2702363 -1.1535953
                                                                    0.6256482
##
    [553,] -0.5614304 0.5156472
                                 0.6468366
                                             1.2507450 -1.60500825
##
    [554,] -0.5614304 -1.1535953
                                 0.6468366
                                             1.2507450 -0.08288775 -0.8559571
##
                                             0.4229256 -0.84394800 -0.1151545
    [555,] -1.2702363 -1.1535953 -0.6366702
##
    [556,] -0.5614304 0.5156472
                                 0.6468366
                                             1.2507450 -1.60500825 -0.8559571
    [557,]
                                             0.4229256 -0.84394800 -0.8559571
##
            0.1473755 -1.1535953 -0.6366702
                                             1.2507450 1.43923275 -0.8559571
##
    [558,]
            0.1473755 0.5156472
                                  0.6468366
##
    [559,] -1.2702363 -1.1535953
                                  0.6468366
                                             0.4229256 -0.84394800 -0.8559571
##
    [560,]
            0.8561814 1.3502685
                                  0.6468366
                                             1.2507450 -0.84394800 -1.5967598
    [561,] -1.2702363 -1.1535953
                                  0.6468366 1.2507450 0.67817250 -0.1151545
##
##
           0.1473755
                       0.5156472
                                  0.6468366 -1.2327132
                                                        1.43923275
                                                                    1.3664509
    [562,]
##
    [563,]
            0.8561814
                       0.5156472
                                  0.6468366 -0.4048938 -0.08288775
                                                                     0.6256482
##
                       0.5156472
                                  0.6468366 -0.4048938 -0.08288775
    [564,]
            0.8561814
                                                                     1.3664509
##
    [565,] -1.2702363
                       1.3502685
                                  0.6468366 -0.4048938
                                                        1.43923275
                                                                     1.3664509
##
            0.1473755
                      1.3502685
                                  0.6468366
                                            1.2507450
                                                        1.43923275 -0.1151545
    [566,]
                                  0.6468366 1.2507450 -0.84394800 0.6256482
##
    [567,] -1.2702363 -1.1535953
    [568,] 0.8561814 -0.3189741
##
                                  0.6468366 -0.4048938 -0.84394800 -0.1151545
                                  0.6468366 1.2507450 -1.60500825 -1.5967598
##
    [569,] -0.5614304 -0.3189741
##
    [570,] -0.5614304 -1.1535953
                                  0.6468366 1.2507450 0.67817250 -0.1151545
##
    [571,] 0.8561814 -1.1535953
                                  0.6468366 -0.4048938 -1.60500825 1.3664509
##
    [572,]
           1.5649873 -1.1535953 -1.9201769
                                             0.4229256
                                                       1.43923275 -0.8559571
##
    [573,] -1.2702363 -0.3189741
                                  0.6468366
                                             0.4229256 -1.60500825 -1.5967598
                                  0.6468366 -0.4048938 -0.08288775 0.6256482
##
    [574,] -1.2702363 -0.3189741
##
                                  0.6468366 1.2507450 -1.60500825 -1.5967598
    [575,] -1.2702363 -0.3189741
##
    [576,] -0.5614304 -1.1535953
                                  0.6468366 -0.4048938 -0.08288775 -0.1151545
##
    [577,]
            0.1473755
                      1.3502685
                                  0.6468366
                                             1.2507450
                                                        1.43923275 1.3664509
##
            0.8561814 0.5156472 -0.6366702
                                             1.2507450
                                                        0.67817250 -0.8559571
    [578,]
##
    [579,]
            0.1473755 -0.3189741
                                  0.6468366 1.2507450
                                                         1.43923275 -0.8559571
##
    [580,]
            0.1473755
                      1.3502685
                                  0.6468366 -0.4048938
                                                         1.43923275 -0.8559571
##
    [581,] -0.5614304 -0.3189741
                                  0.6468366 -2.0605326
                                                         1.43923275 -0.1151545
##
    [582,] -0.5614304
                       0.5156472
                                  0.6468366 -1.2327132 -1.60500825 -1.5967598
##
    [583,]
            0.8561814 -0.3189741 -1.9201769 -1.2327132
                                                         0.67817250 0.6256482
##
    [584,]
                       1.3502685
                                  0.6468366 -0.4048938
                                                         1.43923275 -0.8559571
            0.8561814
##
    [585,] -1.2702363
                       0.5156472
                                 0.6468366 1.2507450 -0.08288775 -0.1151545
##
    [586,] -1.2702363
                       0.5156472
                                 0.6468366 1.2507450
                                                        0.67817250 1.3664509
   [587,] -1.2702363 1.3502685 -3.2036837 -0.4048938 1.43923275 0.6256482
```

```
1.5649873 -0.3189741 -1.9201769 -0.4048938 0.67817250 1.3664509
   [588,]
          0.1473755 -0.3189741 0.6468366 1.2507450 -0.84394800 -0.8559571
##
   [589,]
##
   [590,]
          0.1473755
                    0.5156472   0.6468366   0.4229256   -0.08288775
                                                              1.3664509
                                                  1.43923275
##
          0.8561814  0.5156472  -0.6366702  -1.2327132
                                                              0.6256482
   [591,]
##
   [592,] -1.2702363 -1.9882166
                             0.6468366 -1.2327132  0.67817250 -0.8559571
                             0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [593,] -1.2702363
                    0.5156472
                    ##
   [594,]
          0.8561814
##
   [595,] -0.5614304 -0.3189741 -3.2036837 -0.4048938 -0.08288775 -0.1151545
                             0.6468366 -2.0605326 0.67817250 1.3664509
          1.5649873 -0.3189741
##
   [597,]
                    0.5156472 -0.6366702 0.4229256 0.67817250 -0.1151545
          0.8561814
##
   [598,]
          0.8561814
                    ##
   [599,]
          0.1473755
                    0.5156472
                             1.3502685
                              0.6468366 -0.4048938 0.67817250 1.3664509
##
          0.8561814
   [600,]
##
   [601,] -1.2702363 -1.9882166 -0.6366702 0.4229256 -1.60500825 0.6256482
   [602,] -1.2702363 -1.1535953 -1.9201769 0.4229256 -1.60500825 -0.8559571
##
##
   [603,] 1.5649873 0.5156472 0.6468366 -0.4048938 1.43923275 0.6256482
##
   [604,] -0.5614304 -1.1535953
                              ##
                              0.6468366 1.2507450 0.67817250 -1.5967598
   [605,] 1.5649873
                    1.3502685
##
   [606,] -1.2702363
                    0.5156472
                              0.6468366 -0.4048938 -0.08288775 -1.5967598
                    0.5156472
                              ##
   [607,]
          0.1473755
                              0.6468366 -0.4048938 -1.60500825 -0.8559571
##
   [608,] -1.2702363
                    1.3502685
##
          1.5649873
                    1.3502685
                              0.6468366 1.2507450
                                                  1.43923275 1.3664509
   [609,]
##
   [610,] -1.2702363 -1.1535953
                              ##
          0.1473755 -0.3189741
                              0.6468366 0.4229256
                                                  1.43923275 -0.1151545
   [611,]
##
          0.8561814 0.5156472
                             0.6468366 0.4229256
                                                  0.67817250 -0.1151545
   [612,]
##
   [613,]
          0.8561814
                    0.5156472 -0.6366702 0.4229256 -0.08288775 1.3664509
##
          0.8561814 -1.1535953 -0.6366702 -0.4048938 -0.84394800 -0.1151545
   [615,] -1.2702363 -0.3189741 0.6468366 1.2507450 0.67817250 -1.5967598
##
   [616,] -0.5614304 -0.3189741 -1.9201769 -0.4048938
##
                                                  1.43923275 -0.8559571
          1.5649873 1.3502685 0.6468366 -2.0605326 0.67817250 1.3664509
##
   [617,]
   [618,] -0.5614304 -1.1535953 -0.6366702 0.4229256 -0.84394800 0.6256482
##
   [619,] 1.5649873 1.3502685 0.6468366 -0.4048938 1.43923275 -1.5967598
##
   [620,] -0.5614304   0.5156472   -0.6366702   -1.2327132   -0.84394800   1.3664509
##
   [621,] -0.5614304 -1.1535953 -0.6366702 -2.0605326 -0.84394800 0.6256482
##
##
          0.8561814 -0.3189741 0.6468366 0.4229256
                                                  1.43923275 -1.5967598
##
   [623,] -1.2702363 -1.1535953 0.6468366 1.2507450
                                                  1.43923275 0.6256482
          0.8561814 -0.3189741 0.6468366 -2.0605326 -0.08288775 0.6256482
##
   [624,]
##
          0.8561814 -0.3189741
                              0.6468366 1.2507450 -0.08288775 -1.5967598
   [625,]
   [626,] -0.5614304 -0.3189741 0.6468366 1.2507450 -0.08288775 -1.5967598
##
          0.8561814 0.5156472 -0.6366702 0.4229256 -0.84394800 1.3664509
##
   [627,]
##
          0.1473755 -1.1535953 0.6468366 1.2507450 -0.84394800 -1.5967598
   [628,]
                    0.5156472 -0.6366702 -1.2327132 1.43923275 0.6256482
##
   [629,]
          0.1473755
##
   [630,]
          0.8561814 0.5156472
                             ##
   [631,]
          0.1473755 -1.9882166
                              0.6468366 1.2507450 -1.60500825 -1.5967598
   [632,] -1.2702363  0.5156472  0.6468366  1.2507450  -1.60500825  -0.1151545
##
##
   [633,] -0.5614304 -0.3189741 -0.6366702 -1.2327132 -0.84394800 0.6256482
##
   [634,] -1.2702363 -1.9882166 0.6468366 -0.4048938 -0.08288775 -0.8559571
   [635,] -1.2702363 -1.1535953 -0.6366702 1.2507450 -0.84394800 -0.1151545
##
##
   [636,] -1.2702363  0.5156472 -1.9201769 -0.4048938 -0.84394800 -1.5967598
  [637,] 0.8561814 0.5156472 -4.4871904 1.2507450 -1.60500825 0.6256482
```

```
[638,]
##
   [639,]
          1.5649873 0.5156472 0.6468366 0.4229256 -0.84394800 -0.8559571
##
   [640,]
          0.1473755 -0.3189741
                              0.6468366 -0.4048938 -0.08288775
                                                             1.3664509
##
                              0.6468366 1.2507450
   [641,] -1.2702363 -0.3189741
                                                  1.43923275 -0.8559571
##
   [642,]
          0.1473755 -0.3189741
                              0.6468366 -0.4048938
                                                  1.43923275 1.3664509
##
   [643,] -1.2702363 -0.3189741 -0.6366702 -1.2327132
                                                   1.43923275 -1.5967598
   [644,] -1.2702363 -1.1535953
                              0.6468366 1.2507450
                                                  0.67817250 -0.8559571
##
   [645,] -0.5614304 -1.1535953
##
                              0.6468366 1.2507450 -0.84394800
                                                             1.3664509
   [646,] -1.2702363 0.5156472
                              0.6468366 -2.0605326
                                                   0.67817250
                                                              1.3664509
          0.8561814 0.5156472
                              0.6468366 -0.4048938
                                                   0.67817250
                                                              0.6256482
##
   [647,]
##
   [648,] -1.2702363 -0.3189741
                              0.6468366 1.2507450 -0.08288775
                                                              0.6256482
##
   [649,]
          0.1473755 -0.3189741
                              0.6468366 1.2507450
                                                  0.67817250
                                                              0.6256482
                              ##
          0.8561814 - 0.3189741
   [650,]
##
   [651,]
          1.5649873
                   1.3502685
                               0.6468366 -1.2327132
                                                  1.43923275
                                                            0.6256482
                              0.6468366 -0.4048938 -0.08288775
##
   [652,]
          0.1473755
                    0.5156472
                                                              0.6256482
##
   [653,] -1.2702363 -1.1535953 0.6468366 -1.2327132 0.67817250
##
          0.8561814 0.5156472 0.6468366 -1.2327132 -0.08288775 -0.1151545
   [654,]
##
          0.1473755  0.5156472 -0.6366702  0.4229256 -0.84394800  0.6256482
   [655,]
##
   [656,] -1.2702363 -1.1535953 -0.6366702 0.4229256 -0.84394800 -0.1151545
   [657,] 0.8561814 -0.3189741 -0.6366702 1.2507450 -0.08288775 -0.1151545
##
   [658,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.84394800 -1.5967598
##
##
   [659,] -0.5614304 -1.1535953 0.6468366 -1.2327132 0.67817250 -1.5967598
                             0.6468366 0.4229256 1.43923275 1.3664509
##
   [660,] -1.2702363 -1.1535953
##
          [661,]
          ##
   [662,]
##
   [663,] -0.5614304 -0.3189741
                             0.6468366 -0.4048938 -0.08288775 0.6256482
##
   [664,] 0.8561814 0.5156472 -0.6366702 -0.4048938 1.43923275 -0.1151545
   [665,] -1.2702363 -1.1535953 0.6468366 1.2507450 -1.60500825 -0.1151545
##
   [666,] -0.5614304 -0.3189741 0.6468366 -0.4048938 -0.84394800 0.6256482
##
          1.5649873 -0.3189741 0.6468366 0.4229256 1.43923275 -0.8559571
##
   [667,]
##
   [668,] -0.5614304 -1.1535953 0.6468366 -1.2327132 -0.84394800 -0.8559571
          0.8561814  0.5156472 -3.2036837 -1.2327132  1.43923275 -0.1151545
##
   [669,]
##
   [670,]
          0.8561814 0.5156472 -0.6366702 -0.4048938 0.67817250 1.3664509
##
   [671,]
          [672,] -0.5614304 -1.1535953 0.6468366 1.2507450 0.67817250 -0.1151545
##
          1.5649873 1.3502685 -0.6366702 0.4229256 -0.84394800 0.6256482
##
          0.1473755 -0.3189741 -0.6366702 0.4229256 -1.60500825 -0.8559571
##
   [674,]
##
   [675,] -1.2702363  0.5156472  -0.6366702  -0.4048938  -1.60500825
                                                              1.3664509
   [676,] -0.5614304 -0.3189741 0.6468366 1.2507450 -0.84394800 1.3664509
##
   [677,] -1.2702363 -1.1535953 -3.2036837 -0.4048938 -1.60500825 -0.8559571
##
##
          1.5649873 1.3502685
                             0.6468366 1.2507450 -0.08288775 1.3664509
   [678,]
##
   [679,]
          0.8561814 -1.1535953
                             0.6468366 0.4229256 -0.08288775 -1.5967598
##
   [680,]
          1.5649873 -0.3189741
                              0.6468366 1.2507450 -0.08288775 -0.1151545
##
   [681,]
          1.5649873 0.5156472
                              0.6468366
                                         0.4229256 -0.08288775 -0.8559571
                                         0.4229256 -0.08288775 -0.1151545
##
   [682,] -1.2702363
                    0.5156472 -0.6366702
##
   [683,] -0.5614304  0.5156472  -0.6366702  -1.2327132  0.67817250
                                                             1.3664509
##
   [684,] -1.2702363 -1.9882166
                             0.6468366 1.2507450
                                                  1.43923275
                                                              0.6256482
                                        0.4229256 -0.84394800 -1.5967598
##
   [685,] -0.5614304 0.5156472 0.6468366
##
   [686,] -1.2702363 -1.1535953 0.6468366 0.4229256 0.67817250 0.6256482
  [687,] 0.1473755 -0.3189741 -1.9201769 -0.4048938 -0.08288775 1.3664509
```

```
[688,] -0.5614304 -0.3189741 0.6468366 0.4229256 -0.84394800 -0.1151545
                              0.6468366 1.2507450 -1.60500825 -0.1151545
##
   [689,]
           0.1473755
                    1.3502685
##
   [690,]
           0.1473755 -0.3189741 0.6468366 0.4229256 -0.08288775 -0.1151545
##
                     0.5156472 -0.6366702 -1.2327132  0.67817250 -0.1151545
   [691,] -0.5614304
##
   [692,]
           0.1473755
                     0.5156472
                               ##
   [693,] -0.5614304
                     1.3502685
                               0.6468366 -0.4048938
                                                   1.43923275 1.3664509
##
                    1.3502685
                               0.6468366 -1.2327132 -0.84394800 -1.5967598
   [694,]
          1.5649873
   [695,]
##
          0.8561814
                     1.3502685
                               0.6468366 -0.4048938 0.67817250 1.3664509
   [696,] -1.2702363 -1.9882166
                               0.6468366 1.2507450 -0.08288775 -0.8559571
   [697,] -1.2702363 -0.3189741
                               0.6468366 1.2507450 -0.08288775 -1.5967598
##
##
   [698,] -0.5614304 0.5156472
                               0.6468366
                                         0.4229256 -0.84394800 1.3664509
   [699,] -1.2702363 -1.9882166  0.6468366  1.2507450 -1.60500825 -0.8559571
##
   [700,] -0.5614304 -1.9882166  0.6468366 -0.4048938 -1.60500825 -0.8559571
##
##
   [701,] 0.1473755 -0.3189741 -3.2036837 1.2507450 -1.60500825 0.6256482
                    1.3502685 -1.9201769 0.4229256
                                                   1.43923275
##
   [702,] -1.2702363
                                                               1.3664509
##
          0.1473755
                    1.3502685 0.6468366 -1.2327132 1.43923275
                                                               1.3664509
   [703,]
##
   [704,]
           1.5649873
                    1.3502685 -0.6366702 -1.2327132 -0.08288775
                                                               1.3664509
##
   [705,] -1.2702363 -0.3189741 0.6468366 1.2507450 -0.84394800 -0.8559571
##
   [706,]
           0.1473755 -0.3189741 0.6468366 0.4229256 0.67817250
                                                              0.6256482
##
           0.8561814
                    1.3664509
   [707,]
##
                     0.5156472 -0.6366702 -0.4048938 -0.84394800
   [708,]
           0.1473755
                                                               1.3664509
   [709,]
##
           0.8561814
                     0.5156472
                              0.6468366 -0.4048938 0.67817250 -0.8559571
                              ##
   [710,]
           0.1473755
                     0.5156472
##
           1.5649873
                    1.3502685
                              0.6468366 0.4229256 0.67817250 0.6256482
   [711,]
##
   [712,] -1.2702363 -1.1535953 -3.2036837
                                         0.4229256 -0.84394800 -1.5967598
##
   [713,]
          0.8561814 0.5156472 0.6468366 1.2507450 0.67817250 -1.5967598
##
           0.1473755 -0.3189741 -0.6366702 0.4229256 -1.60500825 0.6256482
   [714,]
##
   [715,] -0.5614304 -0.3189741 0.6468366 0.4229256 -0.08288775 -0.1151545
   [716,] -0.5614304  0.5156472 -0.6366702 -0.4048938
                                                   1.43923275
##
                                                               1.3664509
##
          0.8561814   0.5156472   -0.6366702   0.4229256   0.67817250
   [717,]
                                                              1.3664509
           0.1473755 -0.3189741 -0.6366702 -0.4048938 -0.08288775 -1.5967598
##
   [718,]
           0.1473755 -0.3189741 0.6468366 -1.2327132 0.67817250 -0.1151545
##
   [719,]
##
   [720,]
           0.1473755
                    1.3502685 -1.9201769 -0.4048938 -0.08288775
                    1.3502685 -0.6366702 0.4229256 -0.08288775 -0.8559571
##
   [721,] -1.2702363
   [722,] -1.2702363 -1.9882166 -0.6366702 -0.4048938 -1.60500825 -1.5967598
##
   ##
                    ##
   [724,] -1.2702363
##
           0.1473755 0.5156472
                              0.6468366 1.2507450 -0.08288775 -0.8559571
   [725,]
   [726,] -1.2702363 -1.1535953 -0.6366702 -2.0605326 -0.08288775
                                                               0.6256482
##
           1.5649873 0.5156472 0.6468366 -0.4048938 -0.84394800
##
   [727,]
                                                               0.6256482
##
           0.1473755 -0.3189741 0.6468366 -0.4048938 -0.84394800 -0.1151545
   [728,]
##
   [729,]
           1.5649873 -0.3189741 0.6468366 -0.4048938 -1.60500825
                                                               1.3664509
##
   [730,]
           0.1473755 -0.3189741 0.6468366 -0.4048938 -0.08288775
                                                               0.6256482
##
   [731,]
           0.8561814
                    1.3502685 -1.9201769 1.2507450
                                                   1.43923275
                                                               1.3664509
           0.8561814  0.5156472  0.6468366  -0.4048938  -1.60500825
##
   [732,]
                                                               0.6256482
##
   [733,] -0.5614304 -1.1535953  0.6468366  0.4229256
                                                   0.67817250 -0.8559571
##
   [734,] -1.2702363 -1.9882166 -0.6366702 1.2507450
                                                   0.67817250 -0.1151545
   [735,] -1.2702363 -0.3189741 -0.6366702 -0.4048938 0.67817250 -0.8559571
##
##
   [736,] -1.2702363 -1.9882166 -1.9201769 0.4229256 -0.84394800 -0.8559571
  [737,] 0.1473755 -0.3189741 -0.6366702 0.4229256 0.67817250 0.6256482
```

```
##
                    1.3502685 0.6468366 -2.0605326 -1.60500825
##
    [739,]
           1.5649873
                                                                1.3664509
##
    [740,]
           1.5649873
                     0.5156472   0.6468366   -1.2327132   1.43923275
                                                                 1.3664509
##
                               0.6468366 -1.2327132 0.67817250
    [741,]
           0.1473755
                     1.3502685
                                                                1.3664509
##
    [742,] -1.2702363 -1.9882166 -0.6366702 0.4229256 -0.84394800 -1.5967598
##
    [743,] -0.5614304 -0.3189741
                               0.6468366 0.4229256 -0.08288775
                                                                 1.3664509
##
    [744,] -1.2702363 -1.9882166 -0.6366702 1.2507450 -0.84394800 -0.8559571
##
    [745,] 0.8561814 1.3502685
                               0.6468366 0.4229256 -1.60500825
                                                                1.3664509
                               0.6468366 -2.0605326 -0.08288775 -0.1151545
    [746,] -1.2702363 -1.1535953
                               0.6468366 1.2507450 -0.08288775 -0.8559571
##
    [747,]
                     1.3502685
          1.5649873
##
    [748,] -1.2702363  0.5156472 -1.9201769 -0.4048938 -0.08288775 -0.8559571
          0.8561814 -0.3189741 0.6468366 0.4229256
##
    [749,]
                                                    1.43923275 -0.1151545
##
    [750,] -1.2702363 -1.9882166
                               0.6468366 -0.4048938
                                                     1.43923275
                                                                1.3664509
##
    [751,] 0.1473755 0.5156472 0.6468366 0.4229256
                                                     0.67817250 0.6256482
    [752,] -0.5614304 -1.1535953 0.6468366 1.2507450
                                                     1.43923275 -1.5967598
##
##
    [753,] -1.2702363 -1.1535953 -0.6366702 1.2507450 -1.60500825 0.6256482
##
    [754,] -0.5614304 -1.1535953 -0.6366702 -0.4048938 -0.84394800 0.6256482
##
           0.1473755  0.5156472  -0.6366702  0.4229256
                                                    1.43923275 -0.1151545
    [755,]
##
    [756,]
           0.8561814
                     1.3502685
                               ##
           1.5649873
                     1.3502685
                               0.6468366 -0.4048938
                                                     1.43923275 0.6256482
    [757,]
##
    [758,] -1.2702363 -0.3189741 -1.9201769 1.2507450 -1.60500825
                                                                1.3664509
##
    [759,]
          1.5649873 1.3502685
                               0.6468366 -0.4048938
                                                     1.43923275
                                                                1.3664509
    [760,] -1.2702363 -0.3189741 0.6468366 1.2507450
##
                                                     1.43923275 -0.1151545
##
           0.1473755  0.5156472  -0.6366702  0.4229256
                                                     0.67817250 -0.1151545
    [761,]
           0.8561814 -0.3189741 0.6468366 -2.0605326 -0.08288775 -0.8559571
##
    [762,]
##
    [763,]
           1.5649873 1.3502685
                               0.6468366 -0.4048938 -0.84394800 -0.1151545
##
    [764,] -0.5614304 -0.3189741 -0.6366702 -0.4048938
                                                    0.67817250 0.6256482
    [765,] -1.2702363 -1.1535953 0.6468366 0.4229256 -0.84394800 -0.1151545
##
##
    [766,] 0.1473755 -0.3189741 0.6468366 -1.2327132
                                                    1.43923275 -0.8559571
##
    [767,] -0.5614304 -0.3189741 -1.9201769 -0.4048938
                                                    0.67817250 0.6256482
##
           0.8561814 0.5156472 -0.6366702 0.4229256
                                                     0.67817250 0.6256482
    [768,]
                    1.3502685 0.6468366 -0.4048938 -1.60500825 -0.1151545
##
    [769,]
           1.5649873
                               0.6468366 1.2507450
##
    [770,]
           1.5649873
                     1.3502685
                                                    1.43923275 1.3664509
    [771,]
           0.8561814 -0.3189741 -1.9201769 -1.2327132 -0.84394800 -1.5967598
##
##
    [772,] -1.2702363 0.5156472 -1.9201769 -1.2327132
                                                    1.43923275 1.3664509
           0.1473755 -0.3189741 0.6468366 0.4229256
                                                     0.67817250 -0.1151545
##
    [773,]
           1.5649873 1.3502685 0.6468366 1.2507450
                                                    1.43923275 1.3664509
##
    [774,]
##
    [775,] -1.2702363 -1.9882166 -0.6366702 -0.4048938 -0.08288775 -0.1151545
    [776,] -0.5614304 -0.3189741 0.6468366 1.2507450 -0.08288775 -1.5967598
##
    [777,] -1.2702363 -0.3189741 0.6468366 1.2507450 -0.08288775 1.3664509
##
##
          0.1473755 -0.3189741 -0.6366702 -0.4048938 0.67817250 -0.1151545
    [778,]
           0.1473755 -0.3189741 0.6468366 1.2507450 -1.60500825 -1.5967598
##
    [779,]
##
    [780,] -1.2702363 -1.9882166
                               0.6468366 -0.4048938 -1.60500825 -0.1151545
##
    [781,]
           0.1473755 0.5156472
                               0.6468366 1.2507450 -0.08288775 -0.1151545
           0.8561814 -1.1535953 -0.6366702 -0.4048938 -0.84394800 -1.5967598
##
    [782,]
##
    [783,]
           1.5649873
                     0.5156472
                                0.6468366 -0.4048938
                                                    1.43923275 -0.1151545
##
           1.5649873
                     1.3502685
                                0.6468366 1.2507450
                                                     1.43923275 1.3664509
    [784,]
                               ##
    [785,] -1.2702363
                     0.5156472
##
    [786,] 0.1473755
                     0.5156472
                               0.6468366 -0.4048938
                                                    0.67817250 -0.1151545
  [787,] -0.5614304  0.5156472 -0.6366702  0.4229256  1.43923275  1.3664509
```

```
0.1473755 -0.3189741 0.6468366 0.4229256 -0.08288775 1.3664509
   [789,] -1.2702363 -0.3189741 -0.6366702 -0.4048938 -0.84394800 -0.1151545
##
##
   [790,]
           0.8561814 0.5156472 0.6468366 -0.4048938
                                                   1.43923275 -1.5967598
##
                    1.3502685 -0.6366702 -0.4048938
                                                   1.43923275 -0.8559571
   [791,]
           1.5649873
##
   [792,] -0.5614304 -1.1535953 -1.9201769 -1.2327132 -0.08288775 -1.5967598
##
   [793,] -0.5614304
                     ##
                    1.3502685   0.6468366   -1.2327132   0.67817250   -0.1151545
   [794,]
           1.5649873
##
   [795,]
           1.5649873
                     1.3502685 0.6468366 -1.2327132 0.67817250
                                                              1.3664509
##
   [796,] -0.5614304
                     0.5156472 -3.2036837 0.4229256 -0.84394800 0.6256482
##
   [797,]
           0.1473755
                     0.5156472 -0.6366702 1.2507450 -0.08288775 -0.1151545
   [798,]
##
           0.1473755
                     0.5156472 -1.9201769 0.4229256 1.43923275 -0.1151545
           0.8561814 1.3502685 -0.6366702 -2.0605326 -1.60500825
##
   [799,]
                                                              1.3664509
   [800,] -1.2702363 -1.9882166 -0.6366702 -0.4048938 0.67817250
##
                                                               0.6256482
##
   [801,]
           0.8561814 0.5156472 0.6468366 0.4229256 -0.84394800
                                                               1.3664509
           ##
   [802,]
                                                               1.3664509
##
           0.1473755 -0.3189741 0.6468366 0.4229256 0.67817250 -0.8559571
   [803,]
##
   [804,]
           0.1473755
                     0.5156472
                              0.6468366  0.4229256  -1.60500825  -0.8559571
##
                              0.6468366 1.2507450 -0.84394800 -0.8559571
   [805,]
           1.5649873
                    0.5156472
##
   [806,] -0.5614304 -1.1535953 -1.9201769 -0.4048938 -0.84394800 -0.8559571
   [807,]
          1.5649873 0.5156472
                              0.6468366 0.4229256 -0.08288775
                                                               1.3664509
##
##
   [808,] -1.2702363 -1.1535953
                              0.6468366 0.4229256 0.67817250
                                                               0.6256482
##
   [809,]
          1.5649873 1.3502685
                               0.6468366 -1.2327132 -0.08288775 -0.8559571
                               0.6468366 1.2507450 -0.08288775
##
   [810,]
           0.1473755 -1.9882166
                                                               1.3664509
##
           0.1473755
                    1.3502685
                              0.6468366 0.4229256
                                                   1.43923275
                                                               0.6256482
   [811,]
           ##
   [812,]
   [813,] -0.5614304 -1.9882166 -0.6366702 0.4229256 -1.60500825
                                                               0.6256482
##
   [814,] -0.5614304 -1.9882166
                              0.6468366 0.4229256 -0.84394800
                                                               1.3664509
##
   [815,]
           0.6468366 -0.4048938 -0.08288775
##
   [816,] -1.2702363 1.3502685
                                                               0.6256482
##
          1.5649873 -1.9882166 0.6468366 0.4229256 0.67817250
   [817,]
                                                               1.3664509
   [818,]
         0.1473755 -1.1535953 -0.6366702 1.2507450 -0.08288775 -0.1151545
##
         1.5649873 1.3502685 0.6468366 -2.0605326 -0.84394800 0.6256482
##
   [819,]
##
   [820,] -1.2702363 -1.9882166 -0.6366702 -1.2327132 -0.84394800 -0.8559571
   [821,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.08288775 -0.1151545
##
          0.1473755 1.3502685 0.6468366 0.4229256 1.43923275 -0.1151545
##
   [822,]
   [823,] -0.5614304 -1.1535953 -0.6366702 -1.2327132 -0.08288775 -0.1151545
##
   [824,] 1.5649873 0.5156472 0.6468366 -0.4048938 -0.84394800 -0.8559571
##
##
   [825,] -1.2702363 -0.3189741 -0.6366702 -1.2327132 -1.60500825 -1.5967598
   [826,] 0.8561814 -0.3189741 -1.9201769 -0.4048938 0.67817250 0.6256482
##
   [827,] -0.5614304 -1.1535953 -0.6366702 0.4229256 -1.60500825 -0.1151545
##
##
   [828,] -1.2702363 -1.1535953 -0.6366702 0.4229256 -0.08288775 -0.8559571
##
   [829,]
           0.8561814 1.3502685 -0.6366702 -0.4048938 -0.84394800 0.6256482
##
   [830,]
           0.1473755 0.5156472 0.6468366 -0.4048938
                                                   1.43923275 -0.1151545
##
   [831,]
           0.1473755 -1.1535953
                              0.6468366 1.2507450
                                                   1.43923275 -0.8559571
                              0.6468366 0.4229256
##
   [832,]
          1.5649873 1.3502685
                                                   0.67817250 0.6256482
##
   [833,] -1.2702363 -1.9882166 -0.6366702 -0.4048938 -0.84394800 -1.5967598
##
   [834,] -0.5614304 -1.1535953 0.6468366 -0.4048938 -0.84394800 -0.8559571
   [835,] 0.1473755 0.5156472 -0.6366702 -0.4048938 0.67817250 0.6256482
##
##
   [836,] -1.2702363 -0.3189741 0.6468366 0.4229256 0.67817250 0.6256482
## [837,] -0.5614304 -1.1535953 0.6468366 0.4229256 0.67817250 0.6256482
```

```
[838,] -1.2702363 -0.3189741 0.6468366 0.4229256 -1.60500825 1.3664509
           1.5649873 0.5156472 0.6468366 -0.4048938 -0.84394800 -1.5967598
##
    [839,]
##
    [840,]
           0.8561814 -0.3189741 -0.6366702 0.4229256 -0.08288775 -0.8559571
##
           0.8561814 1.3502685 -0.6366702 -0.4048938 -1.60500825 -0.8559571
    [841,]
##
    [842,]
           0.1473755 -0.3189741
                               0.6468366 -1.2327132 -0.84394800 -0.8559571
##
    [843,] -1.2702363 1.3502685
                                0.6468366 1.2507450 1.43923275
                                                                 0.6256482
    [844,] -0.5614304 -0.3189741
                               0.6468366 -0.4048938 -0.84394800
##
                                                                 1.3664509
##
    [845,]
          1.5649873 -0.3189741
                                0.6468366
                                          1.2507450 -1.60500825
                                                                 0.6256482
    [846,] -0.5614304 -1.1535953
                                0.6468366
                                           1.2507450 0.67817250
##
    [847,]
          0.1473755 -0.3189741
                                0.6468366 1.2507450
                                                     1.43923275 -0.8559571
##
    [848,] -1.2702363 -1.1535953
                               0.6468366 1.2507450 -0.08288775 -0.1151545
##
    [849,] -1.2702363 -1.1535953 -1.9201769 0.4229256 0.67817250 -0.8559571
    [850,] -1.2702363 -0.3189741 -0.6366702 1.2507450 -0.84394800 -0.8559571
##
##
    [851,] -1.2702363 0.5156472
                               0.6468366 -1.2327132 -0.08288775 -1.5967598
                                0.6468366 1.2507450 -0.84394800
##
    [852,]
           1.5649873
                     1.3502685
                                                                1.3664509
##
           0.1473755
                     1.3502685
                               0.6468366 -1.2327132 1.43923275
    [853,]
##
    [854,]
           0.1473755 -0.3189741
                               0.6468366 1.2507450 -1.60500825 -0.1151545
##
           0.1473755 -0.3189741
                               0.6468366 1.2507450 -0.08288775 -0.8559571
    [855,]
##
    [856,]
           0.1473755
                      0.5156472
                                0.6468366 -0.4048938
                                                    0.67817250 0.6256482
    [857,] -0.5614304 -0.3189741 -1.9201769 -1.2327132
                                                     0.67817250 -0.1151545
##
                      0.67817250
##
    [858,]
           0.8561814
                                                                0.6256482
##
    [859,]
           0.8561814
                      0.5156472
                               0.6468366 -0.4048938
                                                     1.43923275
                                                                 1.3664509
##
    [860,]
           0.8561814
                      0.5156472
                               0.6468366 -2.0605326 -0.84394800
                                                                 1.3664509
##
                      0.5156472 -0.6366702 -0.4048938
                                                     1.43923275
    [861,]
           0.8561814
                                                                 0.6256482
##
    [862,] -0.5614304
                      0.5156472 -0.6366702 -0.4048938
                                                     1.43923275
                                                                 1.3664509
##
    [863,]
           1.5649873
                      0.5156472
                               0.6468366 0.4229256 -0.08288775
                                                                 0.6256482
##
           0.8561814 - 0.3189741
                               0.6468366 -1.2327132
                                                    0.67817250
    [864,]
                                                                 0.6256482
##
    [865,]
           0.1473755
                     1.3502685
                               0.6468366 0.4229256
                                                     1.43923275
                                                                 0.6256482
           ##
                                                     0.67817250
                                                                 1.3664509
    [867,] -1.2702363 -0.3189741 -0.6366702 -1.2327132 0.67817250
##
                                                                 1.3664509
    [868,] -1.2702363 -1.1535953 0.6468366 -0.4048938 -0.84394800 -0.8559571
##
    [869,] 0.1473755 -1.1535953 0.6468366 1.2507450 -0.84394800 -0.1151545
##
##
    [870,] -0.5614304 -1.1535953 -0.6366702 0.4229256 -1.60500825
                                                                 1.3664509
    [871,] 0.1473755 -0.3189741 -0.6366702 0.4229256 -0.84394800 -0.8559571
##
##
    [872,] -0.5614304 -0.3189741 0.6468366 0.4229256 -0.84394800 -0.1151545
    ##
           0.8561814 -0.3189741 0.6468366 -0.4048938
##
    [874,]
                                                    1.43923275 1.3664509
##
    [875,] 0.8561814 0.5156472 -0.6366702 0.4229256 -0.84394800 -0.1151545
    [876,] -1.2702363 -0.3189741 -1.9201769 -0.4048938 -0.08288775 -0.8559571
##
    [877,] -0.5614304 -0.3189741 0.6468366 0.4229256
                                                    1.43923275
##
                                                                 1.3664509
##
    [878,] -1.2702363 -0.3189741 -1.9201769 -0.4048938 -1.60500825
                                                                 1.3664509
##
    [879.]
           0.8561814 0.5156472 0.6468366 0.4229256 -0.84394800 0.6256482
##
    [880,]
           1.5649873
                     1.3502685
                               0.6468366 -2.0605326 0.67817250 -0.8559571
##
    [881,]
           0.8561814 0.5156472 -0.6366702 0.4229256 -0.08288775 -0.1151545
                                          1.2507450 -1.60500825 1.3664509
##
    [882,] -0.5614304 -1.9882166
                               0.6468366
##
    [883,] -1.2702363 -0.3189741
                               0.6468366
                                          1.2507450 -1.60500825 -1.5967598
##
    [884,] -0.5614304 -0.3189741 0.6468366 1.2507450 1.43923275 -0.8559571
    [885,] -1.2702363 -1.1535953 0.6468366 1.2507450 -0.08288775 -1.5967598
##
##
    [886,] -0.5614304  0.5156472 -0.6366702 -0.4048938 -1.60500825
                                                                1.3664509
  [887,] 1.5649873 1.3502685 -3.2036837 -2.0605326 1.43923275 0.6256482
```

```
0.1473755 -1.1535953 -0.6366702 -1.2327132 -0.08288775 -0.8559571
   [888,]
           0.8561814 1.3502685 0.6468366 1.2507450 -1.60500825
##
   [889,]
                                                               0.6256482
##
   [890,]
           0.1473755  0.5156472  0.6468366  1.2507450  0.67817250
                                                               0.6256482
##
                              0.6468366 -0.4048938
                                                   1.43923275
   [891,] -0.5614304 -1.1535953
                                                               0.6256482
##
   [892,]
           0.1473755
                    1.3502685
                               0.6468366 -0.4048938
                                                   1.43923275
                                                               1.3664509
##
   [893,] -0.5614304 -0.3189741
                              0.6468366 -0.4048938 -0.84394800 -0.1151545
   [894,] 0.1473755 -1.1535953 -0.6366702 -0.4048938 -0.84394800 -0.1151545
##
   [895,] -0.5614304 -0.3189741 0.6468366 1.2507450 0.67817250 0.6256482
##
   [896,] 0.1473755 -0.3189741 0.6468366 -1.2327132 -0.08288775 -0.1151545
##
   [897,]
           ##
   [898,] -0.5614304 -0.3189741 -3.2036837 -0.4048938 -0.84394800 0.6256482
##
   [900,] -0.5614304 -0.3189741 -1.9201769 -0.4048938 -0.08288775 -0.1151545
##
##
   [901,] -0.5614304  0.5156472  0.6468366  1.2507450  0.67817250  0.6256482
   [902,] -0.5614304  0.5156472  0.6468366  1.2507450  0.67817250
##
                                                               1.3664509
   [903,] 0.1473755 -1.1535953 -0.6366702 -1.2327132 -0.08288775
                                                               1.3664509
##
   [904,] -0.5614304 -1.1535953  0.6468366 -2.0605326
                                                   1.43923275
                                                               1.3664509
   [905,] -0.5614304 -0.3189741 -0.6366702 1.2507450 -0.08288775 -0.8559571
##
   [906.]
          0.1473755 0.5156472 0.6468366 0.4229256
                                                   1.43923275
                                                              1.3664509
##
   [907,] 1.5649873 -0.3189741 -1.9201769 -2.0605326
                                                   0.67817250
                                                               1.3664509
##
   [908,] -0.5614304 -1.1535953 0.6468366 1.2507450 -0.84394800 -0.8559571
##
   [909,] 0.1473755 0.5156472 -1.9201769 0.4229256 -0.08288775 -0.8559571
           0.8561814 -1.1535953 -3.2036837 -1.2327132 0.67817250
##
   [910,]
                                                              0.6256482
   [911,] -1.2702363 0.5156472 0.6468366 1.2507450 -0.84394800
##
                                                               0.6256482
   [912,] -1.2702363 -1.9882166 -0.6366702 0.4229256 -1.60500825
##
   [913,] -0.5614304 -0.3189741 -0.6366702 -0.4048938 -0.84394800
##
   [914,] -0.5614304 -0.3189741 -3.2036837 -1.2327132 -0.84394800 -0.8559571
##
   [915,] -1.2702363  0.5156472 -1.9201769 -1.2327132  0.67817250  0.6256482
##
           0.8561814 0.5156472 0.6468366 0.4229256 0.67817250 -0.1151545
   [916,]
   [917,] -1.2702363  0.5156472 -0.6366702 -1.2327132 -0.84394800 -0.1151545
##
##
   [918,]
           0.1473755
                     0.5156472 -0.6366702 -0.4048938 -0.08288775 0.6256482
           0.1473755 -0.3189741 -0.6366702 -1.2327132 -1.60500825 0.6256482
##
   [919,]
           1.5649873 -0.3189741 -0.6366702 1.2507450 -0.08288775 -0.1151545
##
   [920,]
   [921,]
##
           1.5649873 -0.3189741 -0.6366702 -1.2327132 -0.84394800 -0.1151545
##
   [922,]
           0.1473755 -1.1535953 -1.9201769 -0.4048938 -0.08288775 -0.8559571
##
   [923,]
           0.1473755
                    0.6468366 -0.4048938 -0.84394800 -0.1151545
##
   [924,]
           0.8561814
                     0.5156472
##
           0.1473755
                     1.3502685
                              0.6468366 -1.2327132 -1.60500825 1.3664509
   [925,]
                     ##
   [926,]
           0.8561814
                     0.5156472 -0.6366702 -1.2327132 -0.84394800 -0.8559571
##
   [927,]
           0.8561814
   [928,] -0.5614304 -0.3189741 0.6468366 1.2507450 0.67817250 0.6256482
##
##
   [929,]
           1.5649873
                     0.5156472 0.6468366
                                         1.2507450 -0.08288775 -0.8559571
##
   [930,] -0.5614304
                    0.5156472 -4.4871904
                                          0.4229256 0.67817250 0.6256482
##
   [931,]
           0.1473755 -1.1535953 0.6468366
                                         1.2507450 -0.84394800 -0.1151545
           0.8561814 0.5156472 -1.9201769
                                          0.4229256 0.67817250 1.3664509
##
   [932,]
##
   [933,] -1.2702363 -1.9882166 0.6468366
                                          0.4229256 -0.08288775 -1.5967598
##
           0.1473755
                     0.5156472 -0.6366702
                                         0.4229256 0.67817250 0.6256482
   [934,]
   [935,] 1.5649873 1.3502685 -1.9201769 -1.2327132 -0.08288775 -0.8559571
##
##
   [936,] -1.2702363 -1.9882166 0.6468366 1.2507450 -0.84394800 -0.8559571
  [937,] -0.5614304 -0.3189741 -0.6366702 0.4229256 -0.08288775 -0.1151545
```

```
[938,] -1.2702363 -0.3189741 0.6468366 1.2507450 0.67817250 -0.8559571
##
   [939,] -1.2702363 1.3502685 -0.6366702 -1.2327132
                                                   1.43923275 -1.5967598
##
   [940,]
           0.8561814 -1.1535953 0.6468366 1.2507450
                                                   0.67817250 -1.5967598
                              0.6468366 -0.4048938
                                                   1.43923275 1.3664509
##
           0.8561814 -1.1535953
   [941,]
##
   [942,] -1.2702363 -1.1535953 -1.9201769 0.4229256 -0.84394800 -0.1151545
##
   [943,]
           1.5649873
                     0.5156472
                              0.6468366 -0.4048938 -0.08288775
                                                               0.6256482
                     0.5156472
                              ##
   [944,]
           1.5649873
##
   [945,]
           0.8561814
                     0.5156472
                              0.6468366 0.4229256
                                                    1.43923275
                                                               0.6256482
   [946,]
           0.8561814
                     0.5156472 -0.6366702 -1.2327132
                                                    1.43923275
   [947,] -1.2702363
                     0.5156472 -0.6366702 -0.4048938
                                                    1.43923275
                                                               1.3664509
##
##
   [948,] -0.5614304 -1.1535953 -1.9201769 0.4229256 -0.08288775 -0.1151545
##
   [949,]
          0.8561814 -0.3189741 0.6468366 1.2507450
                                                   0.67817250 -0.8559571
          1.5649873 0.5156472 0.6468366 -0.4048938
                                                   0.67817250 -0.8559571
##
   [950,]
##
   [951,] -0.5614304 -0.3189741 0.6468366 -0.4048938
                                                    1.43923275 -0.1151545
                    1.3502685 -0.6366702 -1.2327132
                                                    1.43923275 -0.1151545
##
   [952,]
          1.5649873
##
   [953,] -0.5614304 -0.3189741 0.6468366 0.4229256
                                                    1.43923275 0.6256482
##
   [954,] -1.2702363
                     0.5156472 -0.6366702 0.4229256
                                                    0.67817250 -0.1151545
##
                     0.5156472 -0.6366702 1.2507450 -0.84394800 -0.1151545
   [955,] -0.5614304
##
   [956,] -1.2702363
                     [957,] -0.5614304 -1.1535953 -1.9201769 -0.4048938
                                                    0.67817250 0.6256482
##
                     0.5156472
                              0.6468366 0.4229256
                                                   0.67817250 0.6256482
##
   [958,]
          0.8561814
##
   [959,]
           1.5649873
                    1.3502685
                              0.6468366  0.4229256  -0.08288775  -0.8559571
                     0.5156472 -0.6366702 -0.4048938 -0.84394800 1.3664509
##
   [960,]
           1.5649873
   [961,] -0.5614304
                     0.5156472 -0.6366702 -0.4048938
                                                   0.67817250 -0.1151545
##
##
          1.5649873
                     0.5156472
                              0.6468366 0.4229256
                                                   0.67817250 1.3664509
   [962,]
##
   [963,]
           0.1473755
                     ##
           1.5649873
                     1.3502685
                              0.6468366 -2.0605326
                                                   1.43923275 1.3664509
   [964,]
                     0.5156472 -0.6366702 -0.4048938 -0.08288775 -0.1151545
##
   [965,]
           0.8561814
                                                              1.3664509
##
           1.5649873
                    1.3502685
                               0.6468366 1.2507450
                                                   1.43923275
   [966,]
           1.5649873 -1.9882166
                              0.6468366 1.2507450 -1.60500825 -0.1151545
##
   [967,]
   [968,]
##
           0.8561814
                     0.5156472
                               0.6468366 -2.0605326
                                                   1.43923275
                                                               1.3664509
                               0.6468366 -0.4048938
                                                   0.67817250 0.6256482
##
   [969,]
           0.1473755 -0.3189741
##
   [970,]
           0.1473755
                     0.5156472
                               0.6468366 0.4229256
                                                    0.67817250
                                                               1.3664509
##
   [971,]
           1.5649873
                    0.5156472
                              0.6468366 1.2507450
                                                    0.67817250 1.3664509
##
   [972,] -0.5614304 -1.1535953 -0.6366702 -1.2327132
                                                    0.67817250 -0.8559571
##
   [973,]
           0.1473755
                    0.5156472
                              0.6468366 1.2507450
                                                   1.43923275 0.6256482
##
   [974,]
           1.5649873 -0.3189741
                              0.6468366 -0.4048938
                                                   0.67817250 -0.8559571
##
          0.1473755
                    0.5156472
                              0.6468366 0.4229256
                                                   0.67817250 -0.1151545
   [975,]
##
           0.1473755
                    0.5156472 -0.6366702 0.4229256 -0.08288775 -0.8559571
   [976,]
                              0.6468366
                                         1.2507450 -0.08288775 -0.1151545
##
   [977,] -1.2702363 -0.3189741
##
          0.8561814 1.3502685 -0.6366702 0.4229256 -0.08288775 0.6256482
   [978,]
##
   [979,] -0.5614304 -0.3189741 0.6468366 -0.4048938 -0.08288775 -0.8559571
##
   [980,] -0.5614304 -0.3189741 0.6468366 0.4229256 -0.08288775 1.3664509
##
   [981,]
           0.1473755
                    1.3502685 -1.9201769 -0.4048938 -0.84394800 -0.8559571
          1.5649873 1.3502685 -0.6366702 -0.4048938
                                                   1.43923275 -0.1151545
##
   [982,]
##
   [983,] -1.2702363 -1.9882166 -0.6366702 -2.0605326 0.67817250 -0.8559571
##
           [984,]
           1.5649873 -1.1535953 -1.9201769 -1.2327132 -1.60500825 -1.5967598
##
   [985,]
##
   [986,]
           [987,] -1.2702363 -1.9882166 -1.9201769 -0.4048938 -0.84394800 -0.8559571
```

```
0.5156472 -1.9201769 -2.0605326 -0.08288775 -0.1151545
    [988,]
            1.5649873
                                 0.6468366 -0.4048938
##
    [989,]
            0.1473755
                       1.3502685
                                                        1.43923275
                                                                    1.3664509
##
    [990,] -1.2702363 -1.9882166
                                  0.6468366 1.2507450 -1.60500825 -0.1151545
                       0.5156472
                                  0.6468366 -1.2327132 -0.08288775
##
    [991,] -0.5614304
                                                                     0.6256482
    [992,]
##
            0.8561814
                       1.3502685 -0.6366702 -2.0605326
                                                       0.67817250 0.6256482
                       0.5156472 -0.6366702 -0.4048938
##
    [993,]
            0.8561814
                                                         1.43923275 -0.1151545
    [994,] -1.2702363 -1.9882166
                                 0.6468366 1.2507450 -1.60500825 -0.8559571
##
##
    [995,]
            0.1473755 -0.3189741 -1.9201769 -0.4048938 -0.08288775 -0.1151545
                       1.3502685 -0.6366702 -0.4048938
    [996,]
            0.8561814
                                                        1.43923275 -0.1151545
    [997,]
          -0.5614304
                      0.5156472 -0.6366702 -2.0605326 -0.08288775 -0.8559571
##
    [998,]
##
            1.5649873 -0.3189741
                                  ##
    [999,]
            0.8561814
                      1.3502685
                                  0.6468366 -0.4048938
                                                        1.43923275
                                                                     0.6256482
            0.8561814 - 0.3189741
                                  0.6468366
                                             0.4229256
                                                        1.43923275
##
   [1000,]
                                                                     0.6256482
## [1001,]
            1.5649873
                      1.3502685
                                  0.6468366
                                             1.2507450 -0.84394800
                                                                    1.3664509
            0.8561814 - 0.3189741
                                  0.6468366
                                            0.4229256 -1.60500825 -1.5967598
## [1002,]
                       0.5156472 -1.9201769 -2.0605326 -0.84394800 -0.8559571
## [1003,]
            1.5649873
   [1004,]
            0.8561814
                       0.5156472
                                  0.6468366 0.4229256
                                                         0.67817250 -0.1151545
            0.8561814
                       0.5156472
                                  0.6468366 -0.4048938
                                                        0.67817250 0.6256482
   [1005,]
                                                         0.67817250 -0.8559571
   [1006,] -0.5614304 -0.3189741 -0.6366702 1.2507450
  [1007,] -0.5614304
                       1.3502685
                                  0.6468366 -2.0605326
                                                         1.43923275
                                                                    1.3664509
                       1.3502685 -1.9201769 1.2507450 -0.84394800 -1.5967598
## [1008,]
            1.5649873
                                 0.6468366 -0.4048938 -1.60500825 -0.8559571
## [1009,]
            0.1473755
                       0.5156472
   [1010,] -0.5614304 -0.3189741 0.6468366 -1.2327132 -0.08288775 -1.5967598
##
           Fantasy.Fairy.tales
                                 Animated Documentary
                                                          Western
                                                                      Action
                               0.9924396
##
                     1.0594802
                                           -0.5661120 -0.9910356 -1.2392572
      [1,]
##
      [2,]
                    -0.6350171
                                0.9924396
                                            0.3148943 -0.9910356
                                                                  0.3768174
##
                     1.0594802
                                0.9924396
                                           -1.4471183 -0.1122420 -2.0472944
      [3,]
##
      [4,]
                    -2.3295144 -1.4663438
                                            1.1959007 -0.9910356 -1.2392572
##
                                           -0.5661120 -0.9910356
                     0.2122316
                                0.1728452
                                                                  0.3768174
      [5,]
##
                     0.2122316 -0.6467493
                                           -0.5661120 -0.1122420
      [6,]
                                                                  0.3768174
                     1.0594802
##
      [7,]
                                0.9924396
                                           -0.5661120 -0.9910356 -1.2392572
##
                     0.2122316
                                0.1728452
                                           -0.5661120 -0.9910356 -0.4312199
      [8,]
##
      [9,]
                     0.2122316
                                0.1728452
                                            1.1959007 -0.9910356 -2.0472944
                                0.1728452
                                            0.3148943 -0.9910356 -1.2392572
##
     [10,]
                     0.2122316
##
     [11,]
                     1.0594802
                                0.9924396
                                           -0.5661120 -0.9910356 -0.4312199
                                0.9924396
                                            1.1959007 -0.9910356
                                                                  0.3768174
##
                     1.0594802
     [12,]
                                           -0.5661120 -0.9910356 -2.0472944
##
     [13,]
                     1.0594802 -0.6467493
##
                     1.0594802
                                0.1728452
                                            -1.4471183 -0.9910356 -0.4312199
     [14,]
                     1.0594802
                                0.9924396
                                           -0.5661120 -0.9910356
##
     [15,]
                                                                  0.3768174
##
                     0.2122316
                                0.1728452
                                            1.1959007 -0.1122420
     [16,]
                                                                  0.3768174
##
     [17,]
                    -1.4822657 -1.4663438
                                            0.3148943 -0.9910356 -1.2392572
##
     [18,]
                     0.2122316
                                0.1728452
                                            1.1959007 -0.9910356 -0.4312199
                                                                   1.1848546
##
     [19,]
                     0.2122316
                                0.1728452
                                            1.1959007 2.5241391
##
     [20,]
                     0.2122316
                                0.1728452
                                            1.1959007 -0.1122420
                                                                   1.1848546
##
                                           -0.5661120 -0.1122420
                    -0.6350171 -0.6467493
                                                                   0.3768174
     [21,]
##
     [22,]
                    -0.6350171
                                0.1728452
                                            1.1959007 -0.1122420
                                                                   1.1848546
##
     [23,]
                     0.2122316
                                0.9924396
                                            1.1959007 0.7665517 -0.4312199
##
                                           -0.5661120 -0.1122420 -1.2392572
     [24,]
                     1.0594802
                                0.9924396
##
     [25,]
                    -1.4822657 -1.4663438
                                           -0.5661120 -0.9910356
                                                                  0.3768174
##
                     0.2122316 -0.6467493 -0.5661120 -0.9910356 -2.0472944
     [26,]
```

```
##
     [27,]
                      1.0594802
                                  0.9924396
                                              1.1959007 -0.1122420 -2.0472944
##
     [28,]
                     -1.4822657
                                  0.1728452
                                              1.1959007 -0.1122420
                                                                      1.1848546
     [29,]
##
                      0.2122316
                                  0.1728452
                                             -0.5661120
                                                          1.6453454
                                                                      0.3768174
##
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420
     [30,]
                                                                    -1.2392572
##
     [31,]
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          0.7665517
                                                                      1.1848546
                                              0.3148943 -0.9910356 -2.0472944
##
     [32,]
                      1.0594802
                                  0.9924396
##
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.1122420
                                                                      0.3768174
     [33,]
##
     [34,]
                      1.0594802
                                 0.1728452
                                              1.1959007 -0.1122420
                                                                    -0.4312199
##
     [35,]
                     -1.4822657
                                  0.9924396
                                             -0.5661120 -0.9910356
                                                                      1.1848546
##
     [36,]
                     -2.3295144 -2.2859383
                                             -2.3281247 -0.9910356
                                                                      1.1848546
##
     [37,]
                      1.0594802
                                  0.9924396
                                             -0.5661120 -0.9910356
                                                                      1.1848546
##
     [38,]
                     -1.4822657 -1.4663438
                                              0.3148943
                                                          0.7665517
                                                                      0.3768174
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                      1.1848546
##
     [39,]
                                              0.3148943 -0.1122420 -0.4312199
##
     [40,]
                      1.0594802
                                 0.9924396
                     -1.4822657 -1.4663438
                                              0.3148943 -0.9910356
                                                                      1.1848546
##
     [41,]
##
     [42,]
                     -2.3295144 -2.2859383
                                              1.1959007
                                                          2.5241391
                                                                      1.1848546
##
     [43,]
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                          0.7665517
                                                                      1.1848546
##
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356
                                                                      0.3768174
     [44,]
##
     [45,]
                      1.0594802
                                 0.1728452
                                              0.3148943 -0.9910356 -0.4312199
##
                     -1.4822657 -2.2859383
                                              1.1959007 -0.1122420 -1.2392572
     [46,]
##
                     -0.6350171 -1.4663438
                                             -2.3281247 -0.9910356
     [47,]
                                                                     1.1848546
##
     [48,]
                     -0.6350171
                                 0.9924396
                                             -1.4471183 -0.9910356
                                                                     1.1848546
                                             -0.5661120 -0.9910356 -1.2392572
##
     [49,]
                     -1.4822657 -1.4663438
##
     [50,]
                      1.0594802 -0.6467493
                                             -2.3281247 -0.9910356
                                                                      0.3768174
##
     [51,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356
                                                                      1.1848546
##
     [52,]
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                          0.7665517
                                                                      1.1848546
##
     [53,]
                      1.0594802
                                 0.9924396
                                               1.1959007
                                                          2.5241391
                                                                      1.1848546
##
     [54,]
                      1.0594802 -0.6467493
                                             -0.5661120 -0.9910356
                                                                      1.1848546
                                 0.9924396
                                              1.1959007 -0.1122420
##
     [55,]
                      1.0594802
                                                                      1.1848546
##
                      0.2122316
                                 0.1728452
                                             -0.5661120 -0.1122420
                                                                    -0.4312199
     [56,]
                      0.2122316
##
     [57,]
                                 0.1728452
                                             -0.5661120
                                                          0.7665517
                                                                    -0.4312199
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                     0.3768174
     [58,]
##
     [59,]
                     -0.6350171 -0.6467493
                                              1.1959007 -0.9910356
                                                                     0.3768174
                     -0.6350171 -1.4663438
##
     [60,]
                                             -0.5661120 -0.9910356 -0.4312199
##
     [61,]
                     -0.6350171 -1.4663438
                                              0.3148943
                                                          0.7665517
                                                                      0.3768174
                                             -1.4471183 -0.1122420
##
     [62,]
                      0.2122316
                                 0.1728452
                                                                      0.3768174
                                              1.1959007 -0.9910356
##
     [63,]
                      1.0594802
                                 0.9924396
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          0.7665517
                                                                      0.3768174
     [64,]
                      1.0594802
                                 0.9924396
                                             -1.4471183 -0.9910356 -1.2392572
##
     [65,]
                      0.2122316
                                 0.1728452
                                             -0.5661120 -0.1122420
##
     [66,]
                                                                     1.1848546
##
     [67,]
                      1.0594802
                                 0.9924396
                                              ##
     [68,]
                      0.2122316 -2.2859383
                                             -1.4471183 -0.9910356 -0.4312199
##
     [69,]
                      1.0594802
                                 0.9924396
                                             -1.4471183 -0.9910356 -0.4312199
##
     [70,]
                     -0.6350171
                                 0.9924396
                                             -2.3281247 -0.9910356 -2.0472944
##
                                             -1.4471183 -0.9910356 -2.0472944
                     -1.4822657 -0.6467493
     [71,]
##
     [72,]
                     -0.6350171
                                 0.1728452
                                             -0.5661120 -0.9910356
                                                                      1.1848546
##
     [73,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420
                                                                      1.1848546
                                                          0.7665517
##
     [74,]
                      1.0594802
                                 0.9924396
                                             -0.5661120
                                                                      1.1848546
##
     [75,]
                     -0.6350171 -2.2859383
                                              0.3148943
                                                          2.5241391
                                                                      1.1848546
##
                     -2.3295144 -1.4663438
                                              0.3148943 1.6453454
                                                                     0.3768174
     [76,]
```

```
[77,]
                      -2.3295144 -1.4663438
                                              -0.5661120 -0.1122420
##
                                                                       0.3768174
##
     [78,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                       0.3768174
##
     [79,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           0.7665517
                                                                      -0.4312199
##
                                               1.1959007
     [80,]
                      1.0594802
                                  0.9924396
                                                           0.7665517
                                                                       0.3768174
##
     [81,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420 -0.4312199
##
     [82,]
                      1.0594802
                                  0.1728452
                                               0.3148943
                                                           0.7665517
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           0.7665517
     [83,]
                                                                       0.3768174
##
     [84,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                       1.1848546
##
     [85,]
                     -0.6350171
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                       1.1848546
##
     [86,]
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                           0.7665517 -0.4312199
##
     [87,]
                     -0.6350171
                                  0.1728452
                                               0.3148943
                                                           0.7665517
                                                                       1.1848546
##
     [88,]
                     -0.6350171 -1.4663438
                                               0.3148943 -0.1122420
                                                                     -0.4312199
                     -0.6350171 -0.6467493
                                               0.3148943 -0.9910356
##
     [89,]
                                                                       1.1848546
##
     [90,]
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                           0.7665517 -0.4312199
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356
                                                                       1.1848546
##
     [91,]
##
     [92,]
                      1.0594802
                                  0.9924396
                                              -2.3281247 -0.9910356 -0.4312199
##
     [93,]
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                           0.7665517 -0.4312199
##
                                              -0.5661120
                                                           0.7665517 -2.0472944
     [94,]
                     -0.6350171
                                  0.1728452
##
     [95,]
                     -1.4822657 -0.6467493
                                              -0.5661120 -0.9910356
                                                                       1.1848546
##
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.9910356
     [96,]
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                              -2.3281247 -0.9910356 -1.2392572
     [97,]
##
     [98,]
                     -0.6350171
                                  0.9924396
                                               1.1959007
                                                           0.7665517
                                                                       1.1848546
##
     [99,]
                     -2.3295144 -0.6467493
                                               1.1959007
                                                           0.7665517
                                                                       1.1848546
##
    [100,]
                      0.2122316 -0.6467493
                                               1.1959007 -0.9910356 -0.4312199
##
    [101,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
##
    [102,]
                      0.2122316
                                  0.9924396
                                               1.1959007
                                                           1.6453454
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                       1.1848546
    [103,]
##
    [104,]
                     -1.4822657
                                  0.9924396
                                               1.1959007
                                                           1.6453454
                                                                       0.3768174
##
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                           0.7665517
                                                                       0.3768174
    [105,]
                      0.2122316
                                  0.9924396
                                               1.1959007
                                                           0.7665517 -0.4312199
##
    [106,]
##
    [107,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                           0.7665517
                                                                       0.3768174
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356 -2.0472944
##
    [108,]
##
    [109,]
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.9910356
                                                                       1.1848546
##
    [110,]
                     -0.6350171 -0.6467493
                                               0.3148943
                                                           0.7665517
                                                                       1.1848546
##
    [111,]
                      0.2122316 -0.6467493
                                               0.3148943
                                                           2.5241391
                                                                       0.3768174
                                               0.3148943 -0.1122420
##
                      1.0594802
                                  0.1728452
                                                                       0.3768174
    [112,]
    [113,]
                                               0.3148943 -0.9910356 -1.2392572
##
                      0.2122316
                                  0.1728452
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420 -0.4312199
##
    [114,]
                                              -0.5661120 -0.1122420
##
    [115,]
                      1.0594802
                                  0.9924396
                                                                       0.3768174
                                              -0.5661120 -0.9910356
##
    [116,]
                     -0.6350171
                                  0.9924396
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356 -1.2392572
    [117,]
##
    [118,]
                      0.2122316 -1.4663438
                                               0.3148943 -0.9910356
                                                                       0.3768174
##
    [119,]
                     -1.4822657 -1.4663438
                                              -0.5661120
                                                           0.7665517 -1.2392572
##
    [120,]
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356
                                                                     -1.2392572
##
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                           0.7665517
                                                                       1.1848546
    [121,]
##
    [122,]
                     -0.6350171
                                  0.1728452
                                              -2.3281247
                                                           0.7665517
                                                                       0.3768174
##
                      0.2122316
                                  0.1728452
                                               1.1959007 -0.1122420
                                                                       1.1848546
    [123,]
##
    [124,]
                     -1.4822657
                                  0.1728452
                                               1.1959007 -0.9910356
                                                                       0.3768174
##
    [125,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                       0.3768174
##
                      0.2122316
                                 0.1728452 -0.5661120 -0.1122420 -1.2392572
    [126,]
```

```
0.9924396
                                            -0.5661120 -0.9910356
                                                                   0.3768174
##
    [127,]
                      1.0594802
##
    [128,]
                     -0.6350171 -0.6467493
                                             0.3148943 -0.1122420
                                                                    0.3768174
##
    [129,]
                     -1.4822657
                                 0.9924396
                                            -1.4471183 -0.9910356 -2.0472944
##
    [130,]
                     1.0594802
                                 0.9924396
                                             1.1959007 -0.1122420 -1.2392572
##
    [131,]
                     -1.4822657 -0.6467493
                                             -0.5661120 -0.9910356 -1.2392572
##
    [132,]
                     -0.6350171 -0.6467493
                                             -0.5661120
                                                         1.6453454
                                                                    1.1848546
                     -1.4822657
                                 0.9924396
                                             0.3148943 -0.9910356 -0.4312199
##
    [133,]
##
    [134,]
                     1.0594802
                                 0.1728452
                                             1.1959007 -0.9910356
                                                                    0.3768174
##
    [135,]
                     1.0594802
                                 0.9924396
                                             1.1959007
                                                         0.7665517
                                                                    0.3768174
    [136,]
                     -0.6350171 -0.6467493
                                              1.1959007 -0.1122420
                                                                    0.3768174
##
##
                     -1.4822657 -1.4663438
                                              0.3148943
                                                         0.7665517
                                                                    0.3768174
    [137,]
##
    [138,]
                     0.2122316
                                 0.9924396
                                             -0.5661120 -0.9910356 -0.4312199
                     1.0594802
##
                                 0.1728452
                                             0.3148943
                                                         0.7665517 -1.2392572
    [139,]
##
    [140,]
                     -0.6350171
                                 0.1728452
                                             -2.3281247 -0.1122420 -0.4312199
                     1.0594802
                                 0.9924396
                                             1.1959007
                                                         1.6453454
##
    [141,]
                                                                    1.1848546
##
                     1.0594802
                                 0.9924396
                                             1.1959007 -0.9910356 -2.0472944
    [142,]
##
    [143,]
                     -0.6350171
                                 0.1728452
                                             -2.3281247 -0.9910356 -1.2392572
##
                                 0.9924396
                                             0.3148943 -0.9910356 -1.2392572
    [144,]
                     0.2122316
##
    [145,]
                     -0.6350171
                                 0.1728452
                                              1.1959007 -0.9910356
                                                                    0.3768174
                     -1.4822657 -1.4663438
                                             0.3148943 -0.9910356 -2.0472944
##
    [146,]
                     -1.4822657 -1.4663438
                                              1.1959007 -0.1122420
##
    [147,]
                                                                    1.1848546
##
    [148,]
                     0.2122316 -1.4663438
                                             0.3148943 -0.1122420
                                                                    0.3768174
                     -0.6350171 -0.6467493
                                             0.3148943 0.7665517
##
    [149,]
                                                                    0.3768174
##
                     0.2122316
                                 0.1728452
                                             0.3148943 -0.1122420 -1.2392572
    [150,]
##
                     -1.4822657 -1.4663438
                                            -0.5661120 -0.9910356
                                                                    0.3768174
    [151,]
##
    [152,]
                     -0.6350171 -0.6467493
                                            -1.4471183 -0.9910356
                                                                    0.3768174
##
                     -1.4822657 -0.6467493
                                             1.1959007 -0.1122420
                                                                    0.3768174
    [153,]
##
    [154,]
                     -0.6350171 0.9924396
                                             0.3148943 -0.1122420
                                                                    0.3768174
                                             1.1959007
##
                     -2.3295144 -2.2859383
                                                         0.7665517
                                                                    0.3768174
    [155,]
                     -0.6350171 0.1728452
                                            -0.5661120 -0.9910356 -1.2392572
##
    [156,]
##
    [157,]
                     -0.6350171 -1.4663438
                                            -0.5661120 -0.1122420
                                                                    0.3768174
                     -0.6350171 -0.6467493
                                                        1.6453454
##
    [158,]
                                             -0.5661120
                                                                    0.3768174
##
    [159,]
                     1.0594802
                                 0.9924396
                                             -1.4471183 -0.9910356
                                                                    0.3768174
##
    [160,]
                     -0.6350171
                                 0.1728452
                                             -0.5661120
                                                         0.7665517
                                                                    0.3768174
##
    [161,]
                     0.2122316
                                 0.1728452
                                             0.3148943 -0.9910356 -0.4312199
##
                     0.2122316
                                 0.1728452
                                            -0.5661120 -0.9910356
                                                                    1.1848546
    [162,]
    [163,]
##
                     -1.4822657 -2.2859383
                                             1.1959007 0.7665517 -1.2392572
                     -1.4822657 -1.4663438
                                             0.3148943 -0.9910356 -0.4312199
##
    [164,]
##
    [165,]
                     -0.6350171 -1.4663438
                                             -0.5661120 -0.9910356 -1.2392572
                                             0.3148943 -0.9910356 -0.4312199
##
    [166,]
                     -0.6350171 -1.4663438
##
                     -0.6350171
                                0.1728452
                                             -0.5661120 -0.9910356
                                                                    0.3768174
    [167,]
##
    [168,]
                     -2.3295144 -1.4663438
                                              1.1959007 -0.1122420 -1.2392572
##
    [169,]
                     0.2122316
                                 0.1728452
                                             0.3148943 0.7665517
                                                                    0.3768174
##
    [170,]
                     -0.6350171
                                 0.9924396
                                             -0.5661120 -0.1122420 -0.4312199
                                             0.3148943 -0.9910356 -0.4312199
##
                     0.2122316
                                 0.9924396
    [171,]
##
    [172,]
                     -0.6350171
                                 0.1728452
                                            -0.5661120 -0.1122420
                                                                    0.3768174
##
                     -0.6350171
                                 0.1728452
                                             1.1959007
                                                         0.7665517 -0.4312199
    [173,]
##
    [174,]
                     -0.6350171
                                 0.1728452
                                             1.1959007
                                                         0.7665517
                                                                    0.3768174
##
    [175,]
                     1.0594802 -2.2859383
                                             1.1959007
                                                         0.7665517
                                                                    1.1848546
##
                     [176,]
```

```
-0.5661120 -0.1122420
##
    [177,]
                     -0.6350171
                                  0.1728452
                                                                      0.3768174
##
    [178,]
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                          0.7665517
                                                                      0.3768174
##
    [179,]
                      1.0594802
                                  0.9924396
                                              0.3148943
                                                          0.7665517 -0.4312199
##
    [180,]
                      0.2122316
                                  0.9924396
                                              1.1959007 -0.1122420
                                                                      0.3768174
##
    [181,]
                     -2.3295144 -2.2859383
                                               0.3148943 -0.9910356 -0.4312199
##
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                          0.7665517 -0.4312199
    [182,]
                      1.0594802
                                  0.9924396
                                              0.3148943 -0.1122420
##
    [183,]
                                                                      0.3768174
##
    [184,]
                      0.2122316 -0.6467493
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
    [185,]
                     -0.6350171 -0.6467493
                                              -0.5661120 -0.1122420 -2.0472944
    [186,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
##
                      0.2122316 -2.2859383
                                               1.1959007 -0.1122420 -1.2392572
##
    [187,]
##
    [188,]
                     -1.4822657 -1.4663438
                                              -1.4471183 -0.9910356 -0.4312199
                                  0.9924396
                                              1.1959007
                                                          0.7665517 -0.4312199
##
                      1.0594802
    [189,]
##
    [190,]
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          2.5241391
                                                                     0.3768174
                      0.2122316
                                  0.1728452
                                              0.3148943 -0.1122420 -1.2392572
##
    [191,]
##
                      1.0594802
                                  0.9924396
                                              0.3148943 -0.9910356 -2.0472944
    [192,]
##
    [193,]
                      1.0594802
                                  0.9924396
                                              0.3148943 -0.9910356 -1.2392572
##
                                               1.1959007 -0.9910356
    [194,]
                     -0.6350171
                                  0.1728452
                                                                     0.3768174
##
    [195,]
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.1122420 -0.4312199
                     -0.6350171 -1.4663438
                                              -0.5661120 -0.1122420
                                                                      0.3768174
##
    [196,]
                      1.0594802
                                 0.9924396
                                              0.3148943 0.7665517 -0.4312199
##
    [197,]
##
    [198,]
                     -0.6350171 -1.4663438
                                              -2.3281247 -0.9910356 -2.0472944
                                              -0.5661120 -0.1122420 -0.4312199
##
    [199,]
                      1.0594802
                                  0.9924396
##
                     -0.6350171 -0.6467493
                                              0.3148943 -0.1122420
                                                                      0.3768174
    [200,]
##
                      0.2122316
                                  0.1728452
                                              1.1959007
                                                          1.6453454 -0.4312199
    [201,]
##
    [202,]
                      1.0594802
                                  0.9924396
                                              1.1959007 -0.1122420
                                                                      1.1848546
##
                      0.2122316
                                  0.1728452
                                              -1.4471183
                                                          0.7665517
                                                                      1.1848546
    [203,]
                                  0.9924396
##
    [204,]
                      1.0594802
                                              -1.4471183 -0.1122420
                                                                      0.3768174
##
                      0.2122316
                                  0.9924396
                                              0.3148943 -0.1122420 -0.4312199
    [205,]
                      1.0594802
                                  0.1728452
                                              1.1959007 -0.1122420 -2.0472944
##
    [206,]
##
    [207,]
                     -1.4822657 -1.4663438
                                              0.3148943
                                                          1.6453454
                                                                      1.1848546
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356
##
    [208,]
                                                                      0.3768174
##
    [209,]
                      1.0594802 -0.6467493
                                              0.3148943 -0.9910356 -0.4312199
##
    [210,]
                     -0.6350171
                                  0.1728452
                                               0.3148943
                                                          0.7665517
                                                                      0.3768174
##
    [211,]
                      1.0594802
                                  0.9924396
                                              1.1959007
                                                          2.5241391
                                                                      1.1848546
##
                      1.0594802 -2.2859383
                                              -0.5661120
                                                         -0.1122420
                                                                      1.1848546
    [212,]
    [213,]
##
                      1.0594802
                                  0.9924396
                                              1.1959007
                                                          0.7665517
                                                                      1.1848546
                      1.0594802
                                  0.9924396
                                              0.3148943 -0.1122420
                                                                      1.1848546
##
    [214,]
##
    [215,]
                      0.2122316
                                  0.1728452
                                              1.1959007
                                                          0.7665517
                                                                      0.3768174
    [216,]
                                              -0.5661120
##
                     -2.3295144 -2.2859383
                                                          1.6453454
                                                                      1.1848546
##
                     -2.3295144 -2.2859383
                                              -0.5661120 -0.9910356 -1.2392572
    [217,]
##
    [218,]
                      1.0594802
                                  0.9924396
                                              0.3148943 -0.1122420
                                                                      0.3768174
##
    [219,]
                     -0.6350171
                                  0.1728452
                                               1.1959007 -0.9910356
                                                                      1.1848546
##
    [220,]
                     -0.6350171
                                 -0.6467493
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
                      0.2122316
                                  0.9924396
                                              0.3148943
                                                          0.7665517
                                                                      0.3768174
    [221,]
##
    [222,]
                      0.2122316
                                  0.9924396
                                              0.3148943
                                                          0.7665517 -1.2392572
##
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                          0.7665517 -0.4312199
    [223,]
##
    [224,]
                      0.2122316
                                  0.9924396
                                              0.3148943 -0.9910356
                                                                      0.3768174
##
    [225,]
                     -1.4822657
                                  0.1728452
                                              -0.5661120 -0.9910356
                                                                      1.1848546
                     -1.4822657 0.1728452
                                             1.1959007 0.7665517 1.1848546
##
    [226,]
```

```
1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356
##
    [227,]
                                                                     1.1848546
##
    [228,]
                      0.2122316
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                      0.3768174
##
    [229,]
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          0.7665517 -0.4312199
                                             -0.5661120
##
    [230,]
                     -0.6350171 -1.4663438
                                                          0.7665517
                                                                      1.1848546
##
    [231,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.1122420
                                                                     0.3768174
##
                      0.2122316 -0.6467493
                                             -0.5661120 -0.9910356 -0.4312199
    [232,]
                     -1.4822657 -0.6467493
                                             -0.5661120 -0.1122420
##
    [233,]
                                                                     1.1848546
##
    [234,]
                      0.2122316
                                 0.1728452
                                             -0.5661120 -0.1122420
                                                                    -0.4312199
##
    [235,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420 -0.4312199
    [236,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.1122420 -0.4312199
##
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                     1.1848546
    [237,]
##
    [238,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420 -0.4312199
                                 0.9924396
                                             -0.5661120 -0.1122420
                                                                    -0.4312199
##
                      1.0594802
    [239,]
##
    [240,]
                      0.2122316
                                 0.1728452
                                             -1.4471183 -0.9910356
                                                                     0.3768174
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                          0.7665517
##
    [241,]
                                                                      0.3768174
##
                      0.2122316 -0.6467493
                                             -0.5661120 -0.1122420
                                                                     0.3768174
    [242,]
##
                     -0.6350171 -1.4663438
                                             -1.4471183 -0.9910356
                                                                    -0.4312199
    [243,]
##
                      0.2122316 -0.6467493
                                              0.3148943 -0.1122420
    [244,]
                                                                    -1.2392572
##
    [245,]
                      1.0594802
                                 0.9924396
                                             -1.4471183 -0.9910356
                                                                     0.3768174
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.1122420
##
                                                                     1.1848546
    [246,]
                      1.0594802 -1.4663438
                                              1.1959007
                                                          2.5241391
##
    [247,]
                                                                     1.1848546
##
    [248,]
                      0.2122316
                                 0.9924396
                                              1.1959007 -0.9910356 -1.2392572
                                             -0.5661120 -0.1122420
##
    [249,]
                      1.0594802
                                 0.9924396
                                                                     1.1848546
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                     1.1848546
    [250,]
##
                     -1.4822657 -1.4663438
                                             -1.4471183 -0.1122420 -0.4312199
    [251,]
##
    [252,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                    -1.2392572
##
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                         0.7665517
    [253,]
                                                                     0.3768174
##
    [254,]
                     -1.4822657 -2.2859383
                                             -1.4471183 -0.9910356 -1.2392572
##
                      1.0594802 -1.4663438
                                             -0.5661120 -0.9910356
                                                                     0.3768174
    [255,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          1.6453454 -1.2392572
##
    [256,]
##
    [257,]
                      1.0594802
                                 0.9924396
                                             -1.4471183 -0.1122420 -1.2392572
                                              1.1959007
                      0.2122316
                                 0.9924396
                                                          1.6453454
##
    [258,]
                                                                     1.1848546
##
    [259,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356 -1.2392572
##
    [260,]
                     -0.6350171 -2.2859383
                                              1.1959007 -0.9910356 -2.0472944
##
    [261,]
                     -0.6350171 -0.6467493
                                             -0.5661120
                                                          0.7665517 -0.4312199
##
                      0.2122316
                                 0.9924396
                                             -0.5661120 -0.9910356
                                                                     0.3768174
    [262,]
    [263,]
##
                      0.2122316
                                 0.1728452
                                              1.1959007 0.7665517 -0.4312199
                      0.2122316
                                 0.9924396
                                             -2.3281247 -0.9910356 -0.4312199
##
    [264,]
##
    [265,]
                     -0.6350171
                                 0.9924396
                                             -0.5661120 -0.1122420
                                                                     1.1848546
    [266,]
                                             -1.4471183 -0.9910356 -0.4312199
##
                     -1.4822657 -1.4663438
##
                      0.2122316
                                 0.1728452
                                             -0.5661120 -0.1122420 -1.2392572
    [267,]
##
    [268,]
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                          1.6453454
                                                                     0.3768174
##
    [269,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420 -0.4312199
##
    [270,]
                      0.2122316
                                  0.1728452
                                              0.3148943 -0.1122420 -0.4312199
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                     1.1848546
    [271,]
##
    [272,]
                     -0.6350171 -0.6467493
                                              0.3148943 -0.1122420
                                                                     1.1848546
##
                     -0.6350171
                                 0.9924396
                                              1.1959007 -0.9910356 -1.2392572
    [273,]
##
    [274,]
                      1.0594802
                                 0.9924396
                                              0.3148943 0.7665517 -0.4312199
##
    [275,]
                     -0.6350171
                                 0.1728452
                                              1.1959007 -0.1122420 -1.2392572
                      1.0594802 0.9924396
                                              0.3148943 0.7665517 0.3768174
##
    [276,]
```

```
1.0594802
                                              -0.5661120
                                                          0.7665517
##
    [277,]
                                  0.9924396
                                                                      1.1848546
##
    [278,]
                     -0.6350171 -0.6467493
                                               0.3148943
                                                          1.6453454
                                                                      0.3768174
##
    [279,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
    [280,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                    -2.0472944
##
    [281,]
                     -0.6350171
                                  0.1728452
                                              -0.5661120 -0.1122420
                                                                      0.3768174
##
                      0.2122316 -2.2859383
                                               1.1959007
                                                          2.5241391
                                                                      1.1848546
    [282,]
                     -0.6350171 -0.6467493
                                              -2.3281247 -0.9910356 -1.2392572
##
    [283,]
##
    [284,]
                     -0.6350171 -0.6467493
                                               1.1959007
                                                          1.6453454
                                                                      0.3768174
##
    [285,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                      1.1848546
    [286,]
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356 -0.4312199
##
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.9910356
                                                                      0.3768174
##
    [287,]
##
    [288,]
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420 -1.2392572
                                  0.1728452
##
                      0.2122316
                                               1.1959007
                                                          2.5241391
                                                                      1.1848546
    [289,]
##
    [290,]
                     -1.4822657 -0.6467493
                                              -1.4471183 -0.1122420
                                                                      0.3768174
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356 -1.2392572
##
    [291,]
##
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420
                                                                      0.3768174
    [292,]
##
    [293,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420
                                                                      1.1848546
##
                                  0.9924396
                                                          0.7665517 -2.0472944
    [294,]
                      1.0594802
                                               0.3148943
##
    [295,]
                     -1.4822657 -1.4663438
                                               0.3148943 -0.1122420 -1.2392572
                      1.0594802
                                  0.1728452
                                               0.3148943
                                                          1.6453454 -1.2392572
##
    [296,]
                     -2.3295144 -2.2859383
                                                          1.6453454
##
    [297,]
                                              -0.5661120
                                                                      1.1848546
##
    [298,]
                     -1.4822657 -0.6467493
                                              -1.4471183 -0.1122420 -0.4312199
                                               0.3148943 -0.1122420 -0.4312199
##
    [299,]
                      1.0594802
                                  0.9924396
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                      1.1848546
    [300,]
##
                      0.2122316
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                      0.3768174
    [301,]
##
    [302,]
                      1.0594802 -1.4663438
                                               1.1959007
                                                          1.6453454
                                                                      1.1848546
##
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356 -2.0472944
    [303,]
##
    [304,]
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                          1.6453454
                                                                      1.1848546
##
                      0.2122316
                                  0.1728452
                                              -1.4471183 -0.9910356
                                                                      0.3768174
    [305,]
                      1.0594802
                                  0.1728452
                                               0.3148943 -0.9910356
##
    [306,]
                                                                      0.3768174
##
    [307,]
                      1.0594802
                                  0.9924396
                                             -1.4471183 -0.9910356 -2.0472944
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356 -2.0472944
##
    [308,]
##
    [309,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420 -0.4312199
##
    [310,]
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356 -0.4312199
##
    [311,]
                     -1.4822657
                                  0.1728452
                                              -0.5661120 -0.9910356
                                                                      1.1848546
##
                      0.2122316
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
    [312,]
    [313,]
##
                     -1.4822657 -1.4663438
                                             -0.5661120 -0.9910356 -0.4312199
##
                      0.2122316 -0.6467493
                                              -0.5661120 -0.9910356 -0.4312199
    [314,]
##
    [315,]
                      1.0594802
                                 0.9924396
                                               1.1959007
                                                          1.6453454
                                                                      1.1848546
                      0.2122316 -0.6467493
##
    [316,]
                                              -0.5661120 -0.1122420
                                                                      0.3768174
##
                     -0.6350171
                                 0.9924396
                                              -0.5661120 -0.9910356 -0.4312199
    [317,]
##
    [318,]
                     -0.6350171 -0.6467493
                                              -0.5661120 -0.9910356
                                                                      1.1848546
##
    [319,]
                     -1.4822657 -2.2859383
                                              -2.3281247
                                                          1.6453454 -0.4312199
##
    [320,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420
                                                                      0.3768174
##
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                          1.6453454
                                                                      1.1848546
    [321,]
##
    [322,]
                     -0.6350171
                                  0.9924396
                                              -0.5661120
                                                          1.6453454
                                                                      0.3768174
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356 -1.2392572
    [323,]
                                               1.1959007 -0.9910356
##
    [324,]
                     -0.6350171 -1.4663438
                                                                      1.1848546
##
    [325,]
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420
                                                                      0.3768174
                      0.2122316 0.1728452
                                              1.1959007 -0.1122420 0.3768174
##
    [326,]
```

```
-0.6350171 -0.6467493
                                              0.3148943 -0.1122420 -1.2392572
##
    [327,]
##
    [328,]
                      0.2122316
                                  0.9924396
                                              1.1959007 -0.9910356
                                                                     1.1848546
##
    [329,]
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                          0.7665517 -0.4312199
                                              -0.5661120 -0.9910356 -1.2392572
##
    [330,]
                      1.0594802
                                  0.1728452
##
    [331,]
                      0.2122316
                                  0.1728452
                                              0.3148943 -0.9910356 -0.4312199
##
                     -1.4822657 -1.4663438
                                              -1.4471183
                                                          2.5241391 -1.2392572
    [332,]
                      1.0594802
                                 0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
##
    [333,]
##
    [334,]
                      1.0594802
                                 0.9924396
                                              -0.5661120
                                                          0.7665517 -0.4312199
##
    [335,]
                     -0.6350171
                                 0.1728452
                                              0.3148943 -0.9910356 -2.0472944
    [336,]
                     -0.6350171 -0.6467493
                                              0.3148943 -0.1122420 -0.4312199
##
                     -0.6350171
                                  0.9924396
                                               1.1959007 -0.9910356 -0.4312199
##
    [337,]
##
    [338,]
                      1.0594802
                                  0.9924396
                                              1.1959007
                                                          0.7665517
                                                                      0.3768174
                                 0.1728452
                                              -0.5661120 -0.9910356 -0.4312199
##
                      0.2122316
    [339,]
##
    [340,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356 -1.2392572
                                              1.1959007 -0.9910356 -1.2392572
##
    [341,]
                     -0.6350171 -0.6467493
##
                     -2.3295144 -2.2859383
                                              0.3148943 2.5241391
                                                                     1.1848546
    [342,]
##
    [343,]
                      0.2122316
                                 0.1728452
                                              -0.5661120 -0.1122420 -0.4312199
##
                                 0.9924396
                                              0.3148943 -0.9910356 -2.0472944
    [344,]
                      1.0594802
    [345,]
                      1.0594802 -1.4663438
                                              -2.3281247 -0.9910356 -2.0472944
##
                     -1.4822657 -2.2859383
                                              -2.3281247 -0.9910356
##
                                                                      1.1848546
    [346,]
                     -1.4822657 -2.2859383
                                              -0.5661120 -0.1122420
##
    [347,]
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                             -0.5661120 -0.1122420
                                                                      1.1848546
    [348,]
##
    [349,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                         0.7665517
                                                                      0.3768174
##
                      1.0594802
                                 0.9924396
                                              -0.5661120 -0.9910356 -0.4312199
    [350,]
##
                     -1.4822657
                                 0.9924396
                                              -1.4471183
                                                          0.7665517
                                                                      1.1848546
    [351,]
##
    [352,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420
                                                                    -0.4312199
##
                     -0.6350171 -1.4663438
                                              1.1959007
                                                          2.5241391
                                                                      0.3768174
    [353,]
##
    [354,]
                     -1.4822657 -1.4663438
                                              -0.5661120 -0.1122420 -1.2392572
##
                      1.0594802
                                 0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
    [355,]
                      1.0594802
                                 0.9924396
                                              -1.4471183 -0.1122420
##
    [356,]
                                                                      0.3768174
##
    [357,]
                      0.2122316
                                 0.1728452
                                              0.3148943
                                                          1.6453454
                                                                      0.3768174
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420 -0.4312199
##
    [358,]
##
    [359,]
                     -0.6350171 -1.4663438
                                              0.3148943
                                                          0.7665517 -0.4312199
##
    [360,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          0.7665517
                                                                      0.3768174
##
    [361,]
                      1.0594802 -0.6467493
                                              -0.5661120 -0.1122420
                                                                      0.3768174
##
                      1.0594802
                                 0.9924396
                                              -1.4471183 -0.9910356 -1.2392572
    [362,]
##
    [363,]
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          0.7665517
                                                                      0.3768174
                     -1.4822657 -1.4663438
                                              0.3148943
                                                          0.7665517
                                                                      0.3768174
##
    [364,]
##
    [365,]
                     -2.3295144 -2.2859383
                                               0.3148943
                                                          1.6453454
                                                                      1.1848546
##
    [366,]
                     -1.4822657 -1.4663438
                                               1.1959007
                                                          0.7665517
                                                                      0.3768174
##
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                          1.6453454
                                                                      1.1848546
    [367,]
##
    [368,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.1122420
                                                                      1.1848546
##
    [369,]
                      1.0594802
                                 0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
    [370,]
                      1.0594802
                                  0.9924396
                                              0.3148943
                                                          2.5241391
                                                                      1.1848546
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                      1.1848546
    [371,]
##
    [372,]
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                          0.7665517 -1.2392572
##
                     -0.6350171
                                  0.9924396
                                              1.1959007 -0.9910356
                                                                      0.3768174
    [373,]
##
    [374,]
                      0.2122316
                                  0.1728452
                                              -2.3281247
                                                          0.7665517
                                                                      1.1848546
##
    [375,]
                      1.0594802 -0.6467493
                                             -0.5661120 -0.1122420 -1.2392572
                      1.0594802 0.9924396 -0.5661120 -0.9910356 -0.4312199
##
    [376,]
```

```
1.1959007 -0.9910356 -1.2392572
##
    [377,]
                      1.0594802
                                 0.9924396
##
    [378,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356 -1.2392572
##
    [379,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -1.2392572
##
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                         0.7665517
                                                                     1.1848546
    [380,]
##
    [381,]
                      1.0594802
                                 0.1728452
                                             -1.4471183 -0.9910356
                                                                     0.3768174
##
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420
                                                                     0.3768174
    [382,]
                                 0.9924396
                                              0.3148943 -0.1122420
##
    [383,]
                      1.0594802
                                                                     0.3768174
##
    [384,]
                      0.2122316
                                 0.1728452
                                              1.1959007 -0.9910356
                                                                     1.1848546
##
    [385,]
                      0.2122316
                                 0.1728452
                                             -1.4471183 -0.9910356
                                                                   -2.0472944
    [386,]
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                         1.6453454
##
                                                                     1.1848546
                     -1.4822657 -1.4663438
                                              0.3148943 -0.1122420 -0.4312199
##
    [387,]
##
    [388,]
                      1.0594802
                                 0.9924396
                                            -0.5661120 -0.9910356
                                                                    1.1848546
                                              0.3148943 -0.9910356
##
                      1.0594802 -0.6467493
                                                                     1.1848546
    [389,]
##
    [390,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.1122420 -1.2392572
                      1.0594802
                                 0.9924396
                                                         1.6453454
##
    [391,]
                                              1.1959007
                                                                     0.3768174
##
                      0.2122316 -0.6467493
                                             -0.5661120 -0.1122420
                                                                     0.3768174
    [392,]
##
    [393,]
                      1.0594802
                                 0.9924396
                                             -0.5661120
                                                         0.7665517 -0.4312199
##
                                                         1.6453454
    [394,]
                     -1.4822657 -2.2859383
                                             -0.5661120
                                                                     1.1848546
                      0.2122316 -0.6467493
    [395,]
                                             -0.5661120 -0.9910356
                                                                     0.3768174
##
                     -0.6350171 -1.4663438
                                             -0.5661120
                                                         0.7665517
##
    [396,]
                                                                     1.1848546
                     -0.6350171 -0.6467493
                                             -1.4471183 -0.1122420 -0.4312199
##
    [397,]
##
    [398,]
                     -0.6350171 -0.6467493
                                             -1.4471183 -0.9910356 -0.4312199
##
    [399,]
                     -0.6350171 -1.4663438
                                              1.1959007 0.7665517
                                                                    0.3768174
##
                     -1.4822657 -0.6467493
                                             -2.3281247 -0.9910356 -0.4312199
    [400,]
##
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.1122420
                                                                    0.3768174
    [401,]
##
    [402,]
                     -0.6350171 -0.6467493
                                             -2.3281247 -0.9910356 -2.0472944
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356
                                                                    0.3768174
    [403,]
##
    [404,]
                      1.0594802
                                 0.1728452
                                              1.1959007 0.7665517 -0.4312199
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356 -1.2392572
    [405,]
                      1.0594802
                                 0.1728452
                                              ##
    [406,]
##
    [407,]
                      1.0594802
                                 0.9924396
                                            -0.5661120 -0.9910356 -0.4312199
                                 0.9924396
                                              0.3148943 -0.1122420 -0.4312199
##
    [408,]
                      1.0594802
##
    [409,]
                      1.0594802 -0.6467493
                                              1.1959007 -0.9910356 -1.2392572
##
    [410,]
                     -1.4822657 -1.4663438
                                             -2.3281247
                                                         2.5241391 -1.2392572
##
    [411,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                         2.5241391
                                                                     1.1848546
                      1.0594802
##
                                 0.9924396
                                             -1.4471183 -0.9910356 -0.4312199
    [412,]
                                             -2.3281247 -0.9910356 -0.4312199
##
    [413,]
                     -2.3295144 -0.6467493
                     -0.6350171 -0.6467493
                                              0.3148943 -0.1122420
                                                                    1.1848546
##
    [414,]
##
    [415,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356 -1.2392572
##
    [416,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -2.0472944
##
                     -0.6350171
                                 0.1728452
                                             -1.4471183 -0.9910356 -2.0472944
    [417,]
##
    [418,]
                     -2.3295144 -2.2859383
                                             -0.5661120 -0.1122420
                                                                    0.3768174
##
    [419,]
                     -0.6350171 -0.6467493
                                             -0.5661120 -0.9910356 -1.2392572
                                                                    0.3768174
##
    [420,]
                      0.2122316 -2.2859383
                                              1.1959007 -0.1122420
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356
                                                                     0.3768174
    [421,]
##
    [422,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                     1.1848546
##
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                         0.7665517
    [423,]
                                                                     1.1848546
##
    [424,]
                      0.2122316
                                 0.9924396
                                              0.3148943 -0.9910356 -2.0472944
##
    [425,]
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                         0.7665517 -1.2392572
                      1.0594802 0.9924396
                                              1.1959007 -0.9910356 1.1848546
##
    [426,]
```

```
0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356 -2.0472944
##
    [427,]
##
    [428,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356 -0.4312199
##
    [429,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356 -0.4312199
                                              0.3148943 -0.1122420 -1.2392572
##
                      1.0594802
                                 0.1728452
    [430,]
##
    [431,]
                      0.2122316
                                 0.9924396
                                              1.1959007 -0.1122420 -0.4312199
##
    [432,]
                      0.2122316
                                 0.9924396
                                              0.3148943
                                                         0.7665517
                                                                     1.1848546
                     -1.4822657 -0.6467493
                                              0.3148943
                                                         1.6453454 -1.2392572
##
    [433,]
##
    [434,]
                     -1.4822657 -1.4663438
                                              1.1959007 -0.9910356 -1.2392572
##
    [435,]
                     -1.4822657 -0.6467493
                                              1.1959007
                                                         1.6453454
                                                                    1.1848546
    [436,]
                     -0.6350171 0.1728452
                                             -1.4471183 -0.9910356 -1.2392572
##
##
                      0.2122316
                                 0.1728452
                                             -1.4471183 -0.1122420
                                                                    0.3768174
    [437,]
##
    [438,]
                     -2.3295144 -2.2859383
                                             -0.5661120 -0.9910356 -0.4312199
                                 0.9924396
                                              0.3148943 -0.9910356 -1.2392572
##
    [439,]
                      1.0594802
##
    [440,]
                     -1.4822657 -1.4663438
                                            -0.5661120 -0.1122420
                                                                    1.1848546
                     -0.6350171 -1.4663438
                                            -0.5661120 -0.1122420 -1.2392572
##
    [441,]
##
                      1.0594802
                                0.9924396
                                              0.3148943 -0.9910356 -0.4312199
    [442,]
##
    [443,]
                      1.0594802
                                 0.9924396
                                              0.3148943 0.7665517 -0.4312199
##
                                            -1.4471183 -0.9910356
                                                                    0.3768174
    [444,]
                     -0.6350171 -0.6467493
                     -1.4822657 -0.6467493
##
                                             -0.5661120 -0.1122420 -1.2392572
    [445,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356 -0.4312199
##
    [446,]
                     -2.3295144 -1.4663438
                                            -0.5661120 -0.9910356
##
    [447,]
                                                                    0.3768174
    [448,]
##
                     -0.6350171 -0.6467493
                                              1.1959007 -0.9910356 -2.0472944
                                            -0.5661120 -0.1122420 -1.2392572
##
    [449,]
                      0.2122316
                                 0.1728452
##
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -1.2392572
    [450,]
##
    [451,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356
                                                                    1.1848546
##
    [452,]
                     -0.6350171 -0.6467493
                                              1.1959007
                                                         0.7665517
                                                                     0.3768174
##
                      1.0594802 -1.4663438
                                             -0.5661120 -0.9910356 -2.0472944
    [453,]
##
    [454,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -1.2392572
                                              0.3148943 -0.9910356 -0.4312199
##
                      1.0594802
                                 0.9924396
    [455,]
                      1.0594802 0.1728452
                                            -0.5661120 -0.9910356
##
    [456,]
                                                                    1.1848546
##
    [457,]
                     -2.3295144 -2.2859383
                                              0.3148943 -0.1122420
                                                                    1.1848546
                     -1.4822657 -0.6467493
                                              0.3148943 -0.1122420
##
    [458,]
                                                                    1.1848546
##
    [459,]
                      1.0594802 -2.2859383
                                              1.1959007 -0.9910356 -2.0472944
##
    [460,]
                      1.0594802 0.9924396
                                              0.3148943 -0.1122420 -2.0472944
##
    [461,]
                     -0.6350171 -0.6467493
                                              1.1959007
                                                         0.7665517
                                                                     1.1848546
##
                     -0.6350171 -0.6467493
                                              0.3148943
                                                         0.7665517 -0.4312199
    [462,]
                                              1.1959007 -0.9910356 -1.2392572
##
    [463,]
                      1.0594802 0.9924396
                      0.2122316
                                 0.9924396
                                            -1.4471183 -0.9910356 -1.2392572
##
    [464,]
##
    [465,]
                     -0.6350171 -0.6467493
                                            -1.4471183 -0.1122420 -2.0472944
    [466,]
                                                         1.6453454
##
                     -0.6350171 -0.6467493
                                              0.3148943
                                                                    0.3768174
##
                     -0.6350171 -0.6467493
                                            -0.5661120
                                                         0.7665517 -0.4312199
    [467,]
##
    [468,]
                     -0.6350171 -0.6467493
                                             -1.4471183 -0.9910356
                                                                     0.3768174
                                                         1.6453454
##
    [469,]
                     -0.6350171 -0.6467493
                                             -0.5661120
                                                                     0.3768174
##
    [470,]
                      1.0594802
                                0.9924396
                                             -0.5661120
                                                         0.7665517
                                                                     1.1848546
##
                     -0.6350171 -0.6467493
                                             -1.4471183 -0.9910356 -0.4312199
    [471,]
##
    [472,]
                      0.2122316 0.9924396
                                              0.3148943
                                                        0.7665517
                                                                     1.1848546
##
                     -2.3295144 -2.2859383
                                              0.3148943 -0.1122420 -2.0472944
    [473,]
                                              1.1959007 -0.9910356 -1.2392572
##
    [474,]
                      0.2122316 -0.6467493
##
    [475,]
                     -1.4822657 -1.4663438
                                              1.1959007 -0.9910356
                                                                    0.3768174
##
                      1.0594802 0.9924396 -0.5661120 -0.9910356 -1.2392572
    [476,]
```

```
-0.6350171 -0.6467493
                                              0.3148943 -0.9910356 -0.4312199
##
    [477,]
##
    [478,]
                     -0.6350171 -0.6467493
                                             -0.5661120
                                                          0.7665517
                                                                      0.3768174
##
    [479,]
                     -2.3295144 -1.4663438
                                             -1.4471183 -0.1122420
                                                                      1.1848546
##
                      0.2122316
                                 0.1728452
                                             -0.5661120 -0.1122420
                                                                      1.1848546
    [480,]
                                                          0.7665517
##
    [481,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                                      0.3768174
##
                     -0.6350171 -1.4663438
                                               1.1959007
                                                          2.5241391 -1.2392572
    [482,]
                     -1.4822657 -0.6467493
                                              -0.5661120 -0.9910356
##
    [483,]
                                                                      0.3768174
##
    [484,]
                      1.0594802
                                 0.9924396
                                              -0.5661120 -0.9910356
                                                                    -1.2392572
##
    [485,]
                      0.2122316
                                  0.1728452
                                             -1.4471183 -0.9910356
                                                                      0.3768174
    [486,]
                     -2.3295144
                                 0.9924396
                                              -0.5661120 -0.9910356
##
                                                                     0.3768174
                      0.2122316 -1.4663438
                                              0.3148943 -0.1122420 -2.0472944
##
    [487,]
##
    [488,]
                      1.0594802 -1.4663438
                                             -0.5661120 -0.9910356
                                                                     1.1848546
                     -0.6350171 -0.6467493
                                                         1.6453454
##
                                              0.3148943
                                                                      0.3768174
    [489,]
##
    [490,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -2.0472944
                      1.0594802
                                 0.1728452
                                              -2.3281247 -0.9910356 -2.0472944
##
    [491,]
##
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356
                                                                      0.3768174
    [492,]
##
    [493,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420
                                                                      0.3768174
##
                     -1.4822657 -0.6467493
                                              -0.5661120 -0.1122420
    [494,]
                                                                      1.1848546
    [495,]
                     -0.6350171
                                  0.1728452
                                             -0.5661120 -0.9910356 -2.0472944
##
                     -0.6350171 -0.6467493
                                             -1.4471183 -0.9910356
                                                                      0.3768174
##
    [496,]
                      1.0594802
                                 0.1728452
                                              0.3148943 -0.1122420 -1.2392572
##
    [497,]
##
    [498,]
                     -2.3295144 -2.2859383
                                              1.1959007 -0.1122420 -1.2392572
##
    [499,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420 -0.4312199
                      0.2122316
                                  0.1728452
                                              0.3148943
                                                          2.5241391 -0.4312199
##
    [500,]
##
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -0.4312199
    [501,]
##
    [502,]
                     -1.4822657 -1.4663438
                                              0.3148943 -0.9910356 -2.0472944
##
                      1.0594802
                                 0.9924396
                                                          2.5241391
                                                                     1.1848546
    [503,]
                                              -0.5661120
##
    [504,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          1.6453454 -1.2392572
##
                      0.2122316 -1.4663438
                                              -0.5661120 -0.9910356 -1.2392572
    [505,]
                     -0.6350171
                                 0.1728452
                                              0.3148943
                                                          2.5241391
##
    [506,]
                                                                     1.1848546
##
    [507,]
                     -1.4822657 -1.4663438
                                             -0.5661120 -0.1122420
                                                                     0.3768174
                      1.0594802 -2.2859383
                                              1.1959007
                                                          0.7665517 -1.2392572
##
    [508,]
##
    [509,]
                      0.2122316
                                  0.1728452
                                              0.3148943
                                                          1.6453454
                                                                      1.1848546
##
    [510,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                          0.7665517
                                                                      1.1848546
##
    [511,]
                      0.2122316 -0.6467493
                                              0.3148943
                                                          1.6453454
                                                                      0.3768174
##
                      0.2122316
                                  0.1728452
                                              -0.5661120
                                                          0.7665517
                                                                      0.3768174
    [512,]
    [513,]
                                              -2.3281247 -0.9910356 -0.4312199
##
                     -0.6350171 -2.2859383
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420
                                                                      0.3768174
##
    [514,]
##
    [515,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          1.6453454
                                                                      0.3768174
                     -2.3295144
                                              -0.5661120
##
    [516,]
                                 0.1728452
                                                          2.5241391
                                                                      1.1848546
##
                      1.0594802
                                 0.9924396
                                             -0.5661120
                                                          0.7665517
                                                                      1.1848546
    [517,]
##
    [518,]
                      0.2122316
                                  0.9924396
                                              0.3148943 -0.1122420 -0.4312199
##
    [519,]
                      1.0594802
                                  0.9924396
                                              1.1959007 -0.9910356
                                                                      0.3768174
##
    [520,]
                     -1.4822657 -1.4663438
                                              0.3148943 -0.1122420
                                                                      0.3768174
##
                     -0.6350171 -0.6467493
                                              0.3148943 -0.1122420 -0.4312199
    [521,]
##
    [522,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -2.0472944
##
                      0.2122316
                                  0.1728452
                                             -0.5661120 -0.1122420
                                                                      0.3768174
    [523,]
##
    [524,]
                     -2.3295144
                                  0.9924396
                                              0.3148943 0.7665517
                                                                      0.3768174
##
    [525,]
                      0.2122316
                                 0.9924396
                                              0.3148943 -0.9910356 -2.0472944
                     -1.4822657 -0.6467493 -0.5661120 -0.1122420 -1.2392572
##
    [526,]
```

```
-0.5661120 -0.1122420
##
    [527,]
                      1.0594802
                                 0.9924396
                                                                     1.1848546
##
    [528,]
                     -2.3295144 -2.2859383
                                              0.3148943
                                                          1.6453454
                                                                     1.1848546
##
    [529,]
                      0.2122316
                                 0.1728452
                                              1.1959007 -0.9910356
                                                                     1.1848546
##
    [530,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.1122420
                                                                    -1.2392572
##
    [531,]
                     -0.6350171 -2.2859383
                                              1.1959007 -0.9910356
                                                                     1.1848546
##
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.1122420 -0.4312199
    [532,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356 -0.4312199
##
    [533,]
    [534,]
##
                     -0.6350171 -0.6467493
                                             -0.5661120 -0.9910356
                                                                    -0.4312199
##
    [535,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                         2.5241391
                                                                     1.1848546
    [536,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.1122420
                                                                     1.1848546
##
##
                     -0.6350171 -0.6467493
                                             -1.4471183 -0.9910356
                                                                     1.1848546
    [537,]
##
    [538,]
                     -1.4822657
                                 0.1728452
                                              0.3148943 -0.1122420
                                                                    -0.4312199
                                 0.9924396
                                             -1.4471183 -0.9910356
##
                      1.0594802
                                                                     0.3768174
    [539,]
##
    [540,]
                     -1.4822657 -2.2859383
                                              1.1959007
                                                         1.6453454 -0.4312199
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356
##
    [541,]
                                                                     1.1848546
##
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.1122420
                                                                     0.3768174
    [542,]
##
    [543,]
                      0.2122316
                                 0.1728452
                                              0.3148943
                                                         0.7665517
                                                                     0.3768174
##
                      0.2122316
                                 0.1728452
                                              1.1959007 -0.1122420
    [544,]
                                                                     0.3768174
##
    [545,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356 -0.4312199
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                          2.5241391
##
                                                                     1.1848546
    [546,]
                     -0.6350171
                                 0.9924396
                                             -0.5661120 -0.1122420
##
    [547,]
                                                                     0.3768174
##
                      0.2122316
                                 0.1728452
                                              1.1959007
                                                         0.7665517
                                                                     0.3768174
    [548,]
                                             -0.5661120 -0.1122420
##
    [549,]
                     -0.6350171 -0.6467493
                                                                     0.3768174
##
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356
                                                                     0.3768174
    [550,]
##
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420
                                                                     0.3768174
    [551,]
##
    [552,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356
                                                                     0.3768174
##
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.9910356 -1.2392572
    [553,]
##
    [554,]
                      0.2122316 -0.6467493
                                             -1.4471183
                                                          0.7665517
                                                                     0.3768174
##
                     -0.6350171 -1.4663438
                                              0.3148943 -0.1122420
                                                                     0.3768174
    [555,]
                      0.2122316 -1.4663438
                                              0.3148943 -0.1122420
##
    [556,]
                                                                     1.1848546
##
    [557,]
                     -0.6350171 -2.2859383
                                             -1.4471183 -0.9910356 -1.2392572
                     -0.6350171 -0.6467493
                                              0.3148943
                                                         0.7665517
##
    [558,]
                                                                     1.1848546
##
    [559,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356 -1.2392572
##
    [560,]
                     -0.6350171 -0.6467493
                                             -2.3281247 -0.9910356 -1.2392572
##
    [561,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          1.6453454
                                                                     1.1848546
##
                      0.2122316
                                 0.1728452
                                              0.3148943
                                                         0.7665517
                                                                     0.3768174
    [562,]
##
    [563,]
                     -1.4822657 -1.4663438
                                             -0.5661120
                                                          0.7665517
                                                                     0.3768174
                      0.2122316 -0.6467493
                                             -0.5661120
                                                          0.7665517
                                                                     1.1848546
##
    [564,]
##
    [565,]
                      1.0594802
                                 0.9924396
                                              1.1959007 -0.9910356
                                                                     1.1848546
##
    [566,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.1122420
                                                                     1.1848546
##
                     -0.6350171 -0.6467493
                                             -1.4471183
                                                         0.7665517
                                                                     1.1848546
    [567,]
##
    [568,]
                     -0.6350171 -0.6467493
                                             -2.3281247 -0.9910356
                                                                     0.3768174
##
    [569,]
                     -1.4822657
                                 0.1728452
                                              1.1959007 -0.9910356 -0.4312199
##
    [570,]
                      0.2122316
                                 0.1728452
                                              0.3148943 -0.1122420 -0.4312199
##
                     -0.6350171 -0.6467493
                                             -0.5661120 -0.9910356
                                                                     1.1848546
    [571,]
##
    [572,]
                     -2.3295144 -2.2859383
                                             -2.3281247 -0.9910356
                                                                     1.1848546
##
                     -0.6350171 -1.4663438
                                             -0.5661120 -0.9910356 -0.4312199
    [573,]
                                              1.1959007 -0.9910356
##
    [574,]
                     -0.6350171 -0.6467493
                                                                     0.3768174
##
    [575,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356 -0.4312199
                      1.0594802 0.1728452
                                              ##
    [576,]
```

```
1.1959007 2.5241391
##
    [577,]
                      0.2122316
                                  0.9924396
                                                                      1.1848546
##
    [578,]
                     -1.4822657 -0.6467493
                                              -1.4471183 -0.9910356 -1.2392572
##
    [579,]
                      1.0594802
                                  0.9924396
                                              -1.4471183 -0.1122420
                                                                      1.1848546
##
                      0.2122316
                                  0.9924396
                                               0.3148943 -0.9910356
                                                                      1.1848546
    [580,]
##
    [581,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356
                                                                      0.3768174
##
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.9910356
                                                                      0.3768174
    [582,]
                     -0.6350171 -1.4663438
                                               0.3148943 -0.1122420
##
    [583,]
                                                                      0.3768174
##
    [584,]
                     -1.4822657 -1.4663438
                                              -0.5661120 -0.9910356
                                                                      1.1848546
##
    [585,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356
                                                                      0.3768174
    [586,]
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.9910356
##
                                                                      1.1848546
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
    [587,]
##
    [588,]
                     -1.4822657 -1.4663438
                                              -1.4471183
                                                          0.7665517
                                                                      0.3768174
                                              -0.5661120 -0.9910356 -0.4312199
##
                      1.0594802
                                  0.9924396
    [589,]
##
    [590,]
                      1.0594802
                                  0.1728452
                                               1.1959007 -0.9910356 -0.4312199
                      0.2122316 -1.4663438
                                              -0.5661120 -0.1122420
##
    [591,]
                                                                      0.3768174
                                                                      0.3768174
##
                     -0.6350171
                                 0.1728452
                                               1.1959007 -0.1122420
    [592,]
##
    [593,]
                      1.0594802 -2.2859383
                                              -0.5661120 -0.9910356 -2.0472944
##
                      0.2122316 -0.6467493
                                               0.3148943 -0.9910356 -1.2392572
    [594,]
    [595,]
                     -0.6350171 -0.6467493
                                               0.3148943 -0.9910356 -1.2392572
##
                     -0.6350171
                                  0.1728452
                                              -1.4471183 -0.9910356 -0.4312199
##
    [596,]
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420
##
    [597,]
                                                                      0.3768174
##
    [598,]
                      0.2122316
                                  0.9924396
                                              -1.4471183 -0.1122420
                                                                      1.1848546
##
    [599,]
                      1.0594802
                                  0.1728452
                                              -1.4471183
                                                           0.7665517
                                                                      0.3768174
##
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
    [600,]
##
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                     -1.2392572
    [601,]
##
    [602,]
                      1.0594802
                                  0.1728452
                                              -0.5661120 -0.9910356
                                                                     -1.2392572
##
                     -0.6350171
                                  0.1728452
                                              -0.5661120 -0.1122420
    [603,]
                                                                      0.3768174
##
    [604,]
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420 -0.4312199
##
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                      0.3768174
    [605,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           2.5241391
##
    [606,]
                                                                      1.1848546
##
    [607,]
                      0.2122316
                                  0.1728452
                                               1.1959007 -0.9910356
                                                                      0.3768174
                                  0.1728452
                                               0.3148943 -0.9910356
                     -0.6350171
##
    [608,]
                                                                      1.1848546
##
    [609,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                      1.1848546
##
    [610,]
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                           2.5241391
                                                                      1.1848546
##
    [611,]
                     -0.6350171
                                  0.1728452
                                               0.3148943
                                                           0.7665517
                                                                      0.3768174
##
                      0.2122316
                                  0.1728452
                                              -1.4471183 -0.9910356 -0.4312199
    [612,]
    [613,]
##
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                      1.1848546
                      0.2122316
                                  0.9924396
                                              -1.4471183 -0.9910356 -0.4312199
##
    [614,]
##
    [615,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356
                                                                      0.3768174
    [616,]
                      0.2122316 -0.6467493
##
                                               0.3148943 -0.1122420
                                                                      0.3768174
##
                      0.2122316
                                  0.1728452
                                               1.1959007 -0.1122420
                                                                      1.1848546
    [617,]
##
    [618,]
                     -1.4822657 -1.4663438
                                               0.3148943 -0.9910356 -2.0472944
##
    [619,]
                     -0.6350171
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                      1.1848546
##
    [620,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
                     -2.3295144 -2.2859383
                                               0.3148943 -0.1122420 -0.4312199
    [621,]
##
    [622,]
                     -1.4822657
                                  0.1728452
                                               0.3148943 -0.9910356 -1.2392572
##
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                          0.7665517
                                                                      1.1848546
    [623,]
##
    [624,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
    [625,]
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.9910356 -0.4312199
                      1.0594802 0.9924396 -0.5661120 -0.9910356 0.3768174
##
    [626,]
```

```
1.0594802
                                  0.9924396
                                             -0.5661120 -0.9910356 -1.2392572
##
    [627,]
##
    [628,]
                      0.2122316
                                  0.1728452
                                              -2.3281247
                                                          0.7665517 -1.2392572
##
    [629,]
                      0.2122316
                                  0.9924396
                                              1.1959007
                                                          2.5241391
                                                                     1.1848546
                      1.0594802
##
                                 0.9924396
                                              -1.4471183 -0.9910356 -0.4312199
    [630,]
##
    [631,]
                      1.0594802
                                  0.9924396
                                              1.1959007 -0.9910356 -2.0472944
##
                      1.0594802
                                  0.9924396
                                             -0.5661120 -0.1122420
                                                                      0.3768174
    [632,]
                     -0.6350171 -0.6467493
                                              0.3148943 -0.1122420
##
    [633,]
                                                                      0.3768174
    [634,]
##
                      0.2122316
                                  0.1728452
                                              -0.5661120
                                                          0.7665517
                                                                      1.1848546
##
    [635,]
                      1.0594802
                                 0.1728452
                                              -0.5661120 -0.9910356 -1.2392572
    [636,]
                     -1.4822657 -0.6467493
                                              -0.5661120 -0.9910356 -2.0472944
##
##
                     -1.4822657 -0.6467493
                                              1.1959007
                                                          1.6453454
                                                                      1.1848546
    [637,]
##
    [638,]
                     -1.4822657 -0.6467493
                                              1.1959007 -0.1122420
                                                                      0.3768174
    [639,]
                                              0.3148943
                                                          0.7665517
                                                                    -0.4312199
##
                      1.0594802
                                 0.9924396
##
    [640,]
                     -0.6350171
                                 0.1728452
                                              0.3148943
                                                          0.7665517
                                                                      1.1848546
                     -2.3295144 -2.2859383
                                              1.1959007 -0.9910356 -2.0472944
##
    [641,]
##
                     -0.6350171
                                 0.9924396
                                              0.3148943
                                                          0.7665517
                                                                      1.1848546
    [642,]
##
    [643,]
                      0.2122316 -1.4663438
                                              1.1959007 -0.9910356
                                                                      0.3768174
##
                                 0.9924396
                                              1.1959007 -0.9910356
    [644,]
                     -0.6350171
                                                                      0.3768174
    [645,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          0.7665517
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                              1.1959007
                                                          1.6453454
                                                                      1.1848546
##
    [646,]
                      0.2122316
                                 0.9924396
                                              0.3148943 -0.1122420
                                                                      0.3768174
##
    [647,]
##
    [648,]
                      1.0594802
                                 0.9924396
                                             -0.5661120 -0.9910356
                                                                      1.1848546
                                             -0.5661120 -0.9910356 -0.4312199
##
    [649,]
                      0.2122316 -0.6467493
##
                     -0.6350171
                                 0.1728452
                                              0.3148943 -0.1122420 -1.2392572
    [650,]
##
                     -1.4822657
                                 0.9924396
                                             -0.5661120
                                                          0.7665517
                                                                      1.1848546
    [651,]
##
    [652,]
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          2.5241391
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                              1.1959007 -0.9910356
                                                                      1.1848546
    [653,]
##
    [654,]
                      1.0594802
                                 0.9924396
                                              0.3148943
                                                          2.5241391
                                                                      0.3768174
                                              0.3148943 -0.1122420
##
                     -1.4822657 -1.4663438
                                                                      0.3768174
    [655,]
                     -0.6350171
                                 0.1728452
                                             -1.4471183 -0.9910356 -1.2392572
##
    [656,]
##
    [657,]
                     -0.6350171 -0.6467493
                                              0.3148943
                                                          0.7665517 -0.4312199
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.9910356 -0.4312199
##
    [658,]
##
    [659,]
                      1.0594802
                                 0.9924396
                                              1.1959007
                                                          0.7665517 -0.4312199
##
    [660,]
                     -1.4822657 -2.2859383
                                              0.3148943
                                                          0.7665517 -0.4312199
##
    [661,]
                      1.0594802
                                 0.9924396
                                              0.3148943 -0.1122420 -1.2392572
                                              -1.4471183 -0.9910356 -0.4312199
##
                     -0.6350171
                                 0.1728452
    [662,]
##
    [663,]
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356 -0.4312199
                      1.0594802
                                 0.9924396
                                             -0.5661120
                                                          0.7665517
                                                                      0.3768174
##
    [664,]
##
    [665,]
                      1.0594802
                                 0.1728452
                                              0.3148943
                                                          1.6453454
                                                                      0.3768174
                                                          0.7665517 -1.2392572
##
    [666,]
                     -1.4822657 -0.6467493
                                              0.3148943
##
                     -0.6350171
                                 0.1728452
                                              0.3148943 -0.1122420 -1.2392572
    [667,]
##
    [668,]
                     -1.4822657 -1.4663438
                                              1.1959007 -0.1122420 -1.2392572
##
    [669,]
                      0.2122316 -0.6467493
                                              1.1959007 -0.9910356 -1.2392572
##
    [670,]
                      0.2122316
                                 0.1728452
                                              -1.4471183 -0.1122420
                                                                     0.3768174
                                              0.3148943
                                                         0.7665517 -0.4312199
##
                     -0.6350171 -0.6467493
    [671,]
                                                                     0.3768174
##
    [672,]
                     -0.6350171 -1.4663438
                                              0.3148943 -0.1122420
##
                     -0.6350171 -1.4663438
                                              0.3148943 -0.1122420 -2.0472944
    [673,]
                                             -0.5661120 -0.1122420 -2.0472944
##
    [674,]
                     -0.6350171 -0.6467493
##
    [675,]
                     -1.4822657
                                  0.9924396
                                              1.1959007 -0.9910356 -1.2392572
##
                      1.0594802 0.9924396 -2.3281247 -0.9910356 -0.4312199
    [676,]
```

```
-0.6350171
                                               1.1959007 -0.9910356 -0.4312199
##
    [677,]
                                  0.1728452
##
    [678,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517 -0.4312199
##
    [679,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517 -0.4312199
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356 -2.0472944
    [680,]
##
    [681,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                          0.7665517 -0.4312199
##
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                      0.3768174
    [682,]
                      1.0594802
                                  0.1728452
                                               0.3148943
                                                          0.7665517
##
    [683,]
                                                                      1.1848546
    [684,]
##
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          2.5241391
                                                                      1.1848546
##
    [685,]
                      1.0594802 -0.6467493
                                              -2.3281247 -0.9910356 -1.2392572
    [686,]
                      1.0594802 -2.2859383
                                               0.3148943
                                                          0.7665517
                                                                      0.3768174
##
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                          0.7665517 -0.4312199
##
    [687,]
##
    [688,]
                      0.2122316
                                  0.9924396
                                              -0.5661120 -0.9910356
                                                                      0.3768174
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356
##
                                                                     -2.0472944
    [689,]
##
    [690,]
                     -0.6350171
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
                     -1.4822657 -0.6467493
                                              -0.5661120
                                                          1.6453454
##
    [691,]
                                                                      0.3768174
##
                      1.0594802
                                  0.1728452
                                              -1.4471183 -0.1122420
                                                                     -1.2392572
    [692,]
##
    [693,]
                     -0.6350171
                                  0.1728452
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                              -2.3281247 -0.9910356 -0.4312199
    [694,]
    [695,]
                      0.2122316
                                  0.1728452
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356
##
    [696,]
                                                                      1.1848546
                      1.0594802 -0.6467493
                                               1.1959007 -0.9910356
                                                                     -1.2392572
##
    [697,]
##
    [698,]
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356
                                                                      1.1848546
##
    [699,]
                      0.2122316 -0.6467493
                                              -1.4471183 -0.9910356
                                                                      0.3768174
##
                      0.2122316
                                  0.9924396
                                              -1.4471183 -0.9910356 -2.0472944
    [700,]
##
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356
                                                                      1.1848546
    [701,]
##
    [702,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                      1.1848546
    [703,]
##
    [704,]
                      0.2122316
                                  0.1728452
                                               0.3148943
                                                          2.5241391
                                                                      1.1848546
##
                      1.0594802
                                  0.1728452
                                              -0.5661120 -0.9910356
                                                                     -0.4312199
    [705,]
                      0.2122316
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
    [706,]
##
    [707,]
                     -1.4822657 -0.6467493
                                               0.3148943 -0.1122420
                                                                      0.3768174
                     -0.6350171 -1.4663438
                                               1.1959007 -0.1122420 -0.4312199
##
    [708,]
##
    [709,]
                     -0.6350171 -0.6467493
                                              -0.5661120 -0.9910356
                                                                      1.1848546
##
    [710,]
                      1.0594802
                                  0.1728452
                                              -1.4471183 -0.1122420 -0.4312199
##
    [711,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                          0.7665517 -0.4312199
    [712,]
##
    [713,]
                      0.2122316
                                  0.9924396
                                              -1.4471183 -0.9910356
                                                                      1.1848546
                     -2.3295144 -2.2859383
                                               1.1959007
                                                          0.7665517 -1.2392572
##
    [714,]
##
    [715,]
                      1.0594802
                                 0.9924396
                                               0.3148943 -0.9910356 -1.2392572
    [716,]
                      0.2122316
##
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                      0.3768174
##
                     -0.6350171 -0.6467493
                                               1.1959007
                                                          1.6453454
                                                                      0.3768174
    [717,]
##
    [718,]
                     -0.6350171 -0.6467493
                                              -0.5661120 -0.9910356 -0.4312199
##
    [719,]
                     -0.6350171 -1.4663438
                                               0.3148943
                                                          1.6453454
                                                                      1.1848546
##
    [720,]
                     -0.6350171 -0.6467493
                                               1.1959007
                                                          0.7665517
                                                                      0.3768174
##
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356
                                                                      0.3768174
    [721,]
##
    [722,]
                     -0.6350171 -0.6467493
                                               0.3148943 -0.9910356
                                                                      0.3768174
##
                      1.0594802
                                  0.1728452
                                               1.1959007 -0.1122420 -2.0472944
    [723,]
##
    [724,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420 -1.2392572
##
    [725,]
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420 -0.4312199
                     -2.3295144 -2.2859383
                                              0.3148943 -0.9910356 -0.4312199
##
    [726,]
```

```
-0.6350171
                                              -2.3281247 -0.1122420
##
    [727,]
                                  0.1728452
                                                                      1.1848546
##
    [728,]
                      0.2122316
                                  0.1728452
                                               0.3148943
                                                           1.6453454
                                                                      1.1848546
##
    [729,]
                      0.2122316
                                  0.1728452
                                               1.1959007 -0.9910356
                                                                      1.1848546
                      0.2122316
##
                                  0.1728452
                                               0.3148943
                                                          1.6453454
                                                                      0.3768174
    [730,]
##
    [731,]
                     -0.6350171 -0.6467493
                                               0.3148943 -0.1122420 -0.4312199
##
    [732,]
                     -0.6350171
                                  0.1728452
                                               0.3148943 -0.9910356 -1.2392572
                     -1.4822657 -1.4663438
                                               0.3148943 -0.1122420
##
    [733,]
                                                                      1.1848546
##
    [734,]
                      1.0594802
                                  0.1728452
                                               0.3148943
                                                          0.7665517 -1.2392572
##
    [735,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
    [736,]
                     -0.6350171 -2.2859383
                                               0.3148943 -0.1122420 -1.2392572
##
##
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                          0.7665517 -0.4312199
    [737,]
##
    [738,]
                      0.2122316
                                  0.9924396
                                              -1.4471183 -0.9910356 -0.4312199
    [739,]
                     -2.3295144 -1.4663438
                                              -1.4471183
                                                          1.6453454
##
                                                                      1.1848546
##
    [740,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                           2.5241391
                                                                      1.1848546
                     -0.6350171 -0.6467493
                                               0.3148943
                                                           0.7665517
##
    [741,]
                                                                      1.1848546
##
                      1.0594802
                                  0.1728452
                                              -0.5661120 -0.9910356 -0.4312199
    [742,]
##
    [743,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                           2.5241391
                                                                      1.1848546
##
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420 -1.2392572
    [744,]
##
    [745,]
                     -0.6350171
                                  0.1728452
                                               1.1959007
                                                           1.6453454
                                                                      1.1848546
                      0.2122316
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
    [746,]
                     -0.6350171
                                  0.1728452
                                              -1.4471183 -0.9910356
##
    [747,]
                                                                      0.3768174
##
    [748,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                      0.3768174
##
    [749,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517 -0.4312199
##
    [750,]
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                           0.7665517
                                                                      0.3768174
##
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517 -0.4312199
    [751,]
##
    [752,]
                      0.2122316 -1.4663438
                                              -0.5661120 -0.9910356
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356 -1.2392572
    [753,]
##
    [754,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420 -1.2392572
                                               0.3148943 -0.1122420
##
                     -1.4822657 -1.4663438
                                                                      1.1848546
    [755,]
                     -1.4822657 -2.2859383
                                              -2.3281247 -0.1122420 -2.0472944
##
    [756,]
##
    [757,]
                      0.2122316
                                  0.1728452
                                               0.3148943
                                                          1.6453454
                                                                      1.1848546
                     -1.4822657 -0.6467493
                                               1.1959007
                                                           0.7665517 -1.2392572
##
    [758,]
##
    [759,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                      1.1848546
##
    [760,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                      1.1848546
##
    [761,]
                     -1.4822657
                                  0.1728452
                                              -0.5661120 -0.1122420 -0.4312199
                                              -1.4471183 -0.9910356
##
                     -2.3295144 -2.2859383
                                                                      1.1848546
    [762,]
##
    [763,]
                     -1.4822657 -1.4663438
                                               0.3148943
                                                          0.7665517
                                                                      1.1848546
##
                     -1.4822657
                                  0.9924396
                                               1.1959007 -0.1122420 -0.4312199
    [764,]
                      0.2122316
                                               0.3148943 -0.9910356 -0.4312199
##
    [765,]
                                  0.1728452
                      0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420
##
    [766,]
                                                                      1.1848546
##
                     -0.6350171
                                  0.1728452
                                               0.3148943
                                                          1.6453454
                                                                      0.3768174
    [767,]
##
    [768,]
                      0.2122316
                                  0.1728452
                                               0.3148943
                                                           1.6453454
                                                                      0.3768174
##
    [769,]
                     -0.6350171 -0.6467493
                                              -0.5661120 -0.9910356
                                                                      1.1848546
##
    [770,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                      1.1848546
                                                           1.6453454 -0.4312199
##
                     -2.3295144
                                  0.9924396
                                               1.1959007
    [771,]
##
    [772,]
                     -0.6350171 -0.6467493
                                               0.3148943
                                                           0.7665517
                                                                      1.1848546
##
                      0.2122316 -0.6467493
                                              -1.4471183 -0.9910356 -0.4312199
    [773,]
                                                           2.5241391
##
    [774,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                                      1.1848546
##
    [775,]
                      0.2122316 -1.4663438
                                               0.3148943
                                                           0.7665517
                                                                      0.3768174
##
                      0.2122316 0.9924396
                                               1.1959007 -0.1122420 -0.4312199
    [776,]
```

```
1.0594802
                                               1.1959007
                                                          2.5241391
##
    [777,]
                                  0.9924396
                                                                      1.1848546
##
    [778,]
                      0.2122316
                                  0.1728452
                                              -2.3281247 -0.1122420
                                                                      0.3768174
##
    [779,]
                      0.2122316 -0.6467493
                                              -1.4471183 -0.9910356 -1.2392572
                      1.0594802
##
                                  0.9924396
                                               1.1959007
                                                          0.7665517
                                                                     -0.4312199
    [780,]
##
    [781,]
                     -0.6350171
                                  0.1728452
                                               1.1959007
                                                           0.7665517
                                                                      0.3768174
##
    [782,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356 -1.2392572
                     -0.6350171
                                  0.1728452
                                               1.1959007
                                                           2.5241391
##
    [783,]
                                                                      0.3768174
##
    [784,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                      1.1848546
##
    [785,]
                      0.2122316
                                  0.9924396
                                              -0.5661120 -0.9910356
                                                                      0.3768174
    [786,]
                     -1.4822657 -0.6467493
                                              -1.4471183 -0.1122420
                                                                      1.1848546
##
##
                     -0.6350171
                                  0.1728452
                                               0.3148943 -0.9910356
                                                                      1.1848546
    [787,]
##
    [788,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420
                                                                      0.3768174
                                  0.1728452
                                              -1.4471183 -0.9910356 -2.0472944
##
                      0.2122316
    [789,]
##
    [790,]
                      1.0594802
                                  0.1728452
                                              -0.5661120 -0.9910356 -0.4312199
                     -1.4822657
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
    [791,]
##
                      0.2122316
                                  0.1728452
                                               1.1959007 -0.9910356 -0.4312199
    [792,]
##
    [793,]
                     -1.4822657 -2.2859383
                                               0.3148943
                                                           0.7665517
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                                           0.7665517
    [794,]
                                              -0.5661120
                                                                      0.3768174
##
    [795,]
                     -1.4822657 -1.4663438
                                              -1.4471183 -0.9910356
                                                                      1.1848546
                     -1.4822657
                                  0.1728452
                                              -1.4471183
                                                           1.6453454 -1.2392572
##
    [796,]
                     -1.4822657 -0.6467493
                                              -0.5661120
                                                           0.7665517 -0.4312199
##
    [797,]
##
    [798,]
                      1.0594802 -0.6467493
                                              -1.4471183 -0.1122420
                                                                      1.1848546
##
    [799,]
                     -0.6350171 -0.6467493
                                              -0.5661120
                                                           1.6453454
                                                                      1.1848546
##
                     -0.6350171
                                  0.1728452
                                               1.1959007
                                                          0.7665517 -0.4312199
    [800,]
##
                     -0.6350171
                                  0.9924396
                                              -2.3281247 -0.1122420
                                                                      1.1848546
    [801,]
##
    [802,]
                     -1.4822657 -0.6467493
                                               0.3148943 -0.1122420
                                                                      1.1848546
##
                      0.2122316
                                  0.9924396
                                               0.3148943 -0.9910356
    [803,]
                                                                      0.3768174
##
    [804,]
                     -0.6350171 -1.4663438
                                              -1.4471183 -0.9910356 -1.2392572
                                              -0.5661120 -0.1122420
##
                      1.0594802
                                  0.9924396
                                                                      1.1848546
    [805,]
                      0.2122316
                                  0.9924396
                                               0.3148943 -0.9910356 -1.2392572
##
    [806,]
##
    [807,]
                     -1.4822657 -0.6467493
                                               0.3148943
                                                          0.7665517
                                                                      1.1848546
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                           1.6453454
##
    [808,]
                                                                      1.1848546
##
    [809,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                      1.1848546
##
    [810,]
                     -1.4822657 -1.4663438
                                               0.3148943 -0.1122420
                                                                      1.1848546
##
    [811,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                          1.6453454
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                               1.1959007 -0.1122420
                                                                     -1.2392572
    [812,]
    [813,]
                                              -1.4471183 -0.9910356
##
                     -2.3295144 -2.2859383
                                                                      0.3768174
                     -2.3295144 -1.4663438
                                              -0.5661120 -0.9910356
##
    [814,]
                                                                      1.1848546
##
    [815,]
                      0.2122316
                                  0.1728452
                                              -0.5661120
                                                           0.7665517
                                                                      0.3768174
                      0.2122316 -0.6467493
                                                           2.5241391
##
    [816,]
                                               1.1959007
                                                                      1.1848546
##
                      0.2122316
                                  0.9924396
                                               1.1959007 -0.1122420 -2.0472944
    [817,]
##
    [818,]
                      0.2122316
                                  0.9924396
                                              -2.3281247
                                                           1.6453454 -0.4312199
##
    [819,]
                     -0.6350171
                                  0.1728452
                                               1.1959007
                                                           1.6453454
                                                                      1.1848546
##
    [820,]
                     -0.6350171 -1.4663438
                                               1.1959007 -0.9910356 -1.2392572
                                                          1.6453454 -1.2392572
##
                     -0.6350171 -1.4663438
                                              -0.5661120
    [821,]
##
    [822,]
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                           0.7665517
                                                                      1.1848546
##
                     -0.6350171
                                  0.1728452
                                              -1.4471183 -0.1122420 -0.4312199
    [823,]
                                               1.1959007 -0.9910356
##
    [824,]
                     -0.6350171 -1.4663438
                                                                      1.1848546
##
    [825,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           1.6453454 -0.4312199
                      1.0594802 0.9924396
                                               1.1959007 -0.1122420 -1.2392572
##
    [826,]
```

```
0.2122316
                                  0.1728452
                                              -0.5661120 -0.1122420 -1.2392572
##
    [827,]
##
    [828,]
                      0.2122316 -1.4663438
                                              -1.4471183 -0.1122420 -2.0472944
##
    [829,]
                     -1.4822657 -0.6467493
                                              -0.5661120 -0.1122420
                                                                      1.1848546
##
    [830,]
                      0.2122316
                                  0.1728452
                                              -1.4471183 -0.1122420
                                                                      1.1848546
##
    [831,]
                     -1.4822657 -1.4663438
                                               1.1959007 -0.9910356 -1.2392572
##
                      0.2122316
                                  0.1728452
                                              -0.5661120
                                                          0.7665517
                                                                      0.3768174
    [832,]
                                  0.9924396
                      1.0594802
                                               1.1959007 -0.1122420 -0.4312199
##
    [833,]
##
    [834,]
                     -1.4822657 -1.4663438
                                               0.3148943 -0.1122420 -0.4312199
##
    [835,]
                     -0.6350171 -0.6467493
                                               0.3148943
                                                          0.7665517
                                                                      0.3768174
    [836,]
                     -0.6350171 -0.6467493
                                               0.3148943
                                                          2.5241391
                                                                      1.1848546
##
##
                      0.2122316
                                  0.1728452
                                              -0.5661120
                                                          0.7665517 -0.4312199
    [837,]
##
    [838,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                          2.5241391
                                                                      0.3768174
                                  0.9924396
                                              -1.4471183 -0.9910356
##
                      0.2122316
                                                                      0.3768174
    [839,]
##
    [840,]
                      1.0594802
                                  0.9924396
                                              -1.4471183 -0.1122420 -1.2392572
                      0.2122316 -0.6467493
                                              -1.4471183 -0.9910356 -0.4312199
##
    [841,]
##
                     -0.6350171
                                  0.9924396
                                              -1.4471183 -0.1122420
                                                                      0.3768174
    [842,]
##
    [843,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.9910356
                                                                      1.1848546
##
                                  0.1728452
                                               1.1959007 -0.1122420 -0.4312199
    [844,]
                      0.2122316
                                               1.1959007 0.7665517
    [845,]
                     -0.6350171 -1.4663438
                                                                      1.1848546
##
                                  0.9924396
                                              -0.5661120 -0.9910356 -1.2392572
##
                      1.0594802
    [846,]
                     -1.4822657
                                  0.1728452
                                               0.3148943 -0.1122420 -0.4312199
##
    [847,]
##
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.9910356 -1.2392572
    [848,]
                                              -2.3281247 -0.9910356 -0.4312199
##
    [849,]
                     -2.3295144 -1.4663438
##
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
    [850,]
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                      0.3768174
    [851,]
##
    [852,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.1122420
                                                                      1.1848546
##
                     -0.6350171 -0.6467493
                                               0.3148943 -0.1122420
                                                                      1.1848546
    [853,]
                      1.0594802 -0.6467493
##
    [854,]
                                               0.3148943
                                                          1.6453454 -0.4312199
##
                     -1.4822657 -1.4663438
                                              -0.5661120 -0.9910356
                                                                      0.3768174
    [855,]
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                          1.6453454
##
    [856,]
                                                                      1.1848546
##
    [857,]
                     -0.6350171 -1.4663438
                                               0.3148943
                                                          1.6453454
                                                                      1.1848546
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                          0.7665517
                                                                      0.3768174
##
    [858,]
##
    [859,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                          2.5241391
                                                                      1.1848546
##
    [860,]
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                      0.3768174
##
    [861,]
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                      0.3768174
##
                      0.2122316
                                  0.1728452
                                              -1.4471183 -0.9910356
                                                                      1.1848546
    [862,]
                                  0.1728452
##
    [863,]
                      1.0594802
                                               0.3148943
                                                          0.7665517
                                                                      1.1848546
                      1.0594802
                                  0.1728452
                                              -1.4471183 -0.9910356
                                                                      0.3768174
##
    [864,]
##
    [865,]
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                          0.7665517
                                                                      0.3768174
##
    [866,]
                     -1.4822657 -0.6467493
                                              -1.4471183
                                                          1.6453454 -1.2392572
##
                     -1.4822657 -0.6467493
                                               0.3148943
                                                          1.6453454
                                                                      0.3768174
    [867,]
##
    [868,]
                     -0.6350171
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                      0.3768174
##
    [869,]
                     -0.6350171
                                  0.1728452
                                              -2.3281247 -0.1122420
                                                                      0.3768174
##
    [870,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420
                                                                     -1.2392572
##
                     -0.6350171
                                  0.1728452
                                              -1.4471183 -0.1122420
                                                                     -1.2392572
    [871,]
##
    [872,]
                      0.2122316
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                      0.3768174
##
                     -1.4822657 -0.6467493
                                              -0.5661120 -0.1122420
                                                                      0.3768174
    [873,]
##
    [874,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.1122420
                                                                      0.3768174
##
    [875,]
                     -1.4822657 -0.6467493
                                              -1.4471183 -0.9910356
                                                                      0.3768174
##
                      0.2122316  0.1728452  -0.5661120  -0.9910356
                                                                     1.1848546
    [876,]
```

```
0.2122316
                                0.9924396
                                             0.3148943 -0.1122420
                                                                    0.3768174
##
    [877,]
                                             1.1959007 -0.9910356
##
    [878,]
                     -0.6350171
                                0.1728452
                                                                    1.1848546
##
    [879,]
                     0.2122316
                                 0.1728452
                                            -1.4471183 -0.1122420
                                                                    0.3768174
                                             0.3148943 -0.1122420
##
                     -1.4822657 -1.4663438
                                                                    1.1848546
    [880,]
                     -1.4822657 -0.6467493
##
    [881,]
                                            -1.4471183 -0.9910356
                                                                    1.1848546
##
    [882,]
                     1.0594802
                                0.9924396
                                             1.1959007 -0.1122420 -1.2392572
                     0.2122316
                                0.1728452
                                            -2.3281247 -0.9910356 -0.4312199
##
    [883,]
##
    [884,]
                     1.0594802
                                0.1728452
                                            -1.4471183 -0.9910356
                                                                   0.3768174
##
    [885,]
                     1.0594802
                                0.9924396
                                             0.3148943 -0.9910356
                                                                   1.1848546
    [886,]
                     0.2122316
                                0.1728452
                                            -0.5661120 -0.9910356 -1.2392572
##
##
                     -2.3295144 -1.4663438
                                            -2.3281247 -0.9910356
                                                                   1.1848546
    [887,]
##
    [888,]
                     0.2122316 -1.4663438
                                            -0.5661120
                                                        0.7665517
                                                                    0.3768174
                                             0.3148943 -0.1122420 -1.2392572
                     0.2122316 -2.2859383
##
    [889,]
##
    [890,]
                     0.2122316 0.1728452
                                             1.1959007 -0.1122420 -0.4312199
                    -1.4822657 -1.4663438
                                            -2.3281247 -0.1122420
##
    [891,]
                                                                   1.1848546
##
                     0.2122316
                                0.9924396
                                             0.3148943 0.7665517
                                                                   1.1848546
    [892,]
##
    [893,]
                     -0.6350171
                                0.1728452
                                             0.3148943 -0.9910356 -0.4312199
##
                                             0.3148943
                                                       0.7665517 -1.2392572
    [894,]
                    -0.6350171 -1.4663438
##
    [895,]
                     1.0594802
                               0.9924396
                                             0.3148943 -0.1122420 -1.2392572
                    -0.6350171 -0.6467493
                                            -0.5661120 -0.1122420
                                                                   0.3768174
##
    [896,]
                    -1.4822657 -1.4663438
                                           -0.5661120 -0.1122420 -0.4312199
##
    [897,]
##
    [898,]
                    -0.6350171 -1.4663438
                                           -0.5661120
                                                        0.7665517 -1.2392572
                    -0.6350171 -0.6467493
                                                        0.7665517 -2.0472944
##
    [899,]
                                             1.1959007
##
                    -1.4822657 -0.6467493
                                             0.3148943 -0.1122420 -1.2392572
    [900,]
##
    [901,]
                     0.2122316 -0.6467493
                                           -1.4471183 -0.9910356
                                                                   1.1848546
##
    [902,]
                     -1.4822657 -1.4663438
                                             0.3148943 -0.1122420
                                                                   0.3768174
##
                    -1.4822657 -0.6467493
                                             1.1959007
                                                        1.6453454 -0.4312199
    [903,]
##
    [904,]
                     -0.6350171 0.1728452
                                             0.3148943
                                                        0.7665517 -0.4312199
                                            -0.5661120 -0.9910356 -0.4312199
##
                     0.2122316
                                0.1728452
    [905,]
                     0.2122316
                                0.1728452
                                             1.1959007 0.7665517
##
    [906,]
                                                                   1.1848546
##
    [907,]
                     1.0594802
                                0.9924396
                                             1.1959007 -0.9910356 -1.2392572
                     1.0594802
                                0.9924396
                                            -0.5661120 -0.1122420
                                                                   0.3768174
##
    [908,]
##
    [909,]
                     -0.6350171 -1.4663438
                                             0.3148943
                                                        0.7665517 -0.4312199
##
    [910,]
                     0.2122316 -0.6467493
                                            -1.4471183 -0.1122420 -0.4312199
##
    [911,]
                     1.0594802
                                0.9924396
                                             1.1959007 -0.1122420
                                                                   1.1848546
                                             1.1959007 -0.9910356
##
                     0.2122316
                                0.1728452
                                                                   1.1848546
    [912,]
                                             0.3148943 -0.1122420 -0.4312199
##
    [913,]
                     -1.4822657 -0.6467493
##
                    -0.6350171
                                0.1728452
                                             0.3148943
                                                        0.7665517
                                                                    0.3768174
    [914,]
##
    [915,]
                     0.2122316 -0.6467493
                                            -0.5661120
                                                        0.7665517 -1.2392572
                     0.2122316
                                                        0.7665517 -1.2392572
##
    [916,]
                                0.9924396
                                            -1.4471183
##
                     -2.3295144 -2.2859383
                                            -2.3281247 -0.1122420 -0.4312199
    [917,]
##
    [918,]
                     -2.3295144 -1.4663438
                                            -0.5661120
                                                        1.6453454
                                                                   0.3768174
##
    [919,]
                     0.2122316 -0.6467493
                                            -1.4471183 -0.9910356 -0.4312199
##
    [920,]
                     1.0594802 0.1728452
                                             0.3148943 -0.1122420 -0.4312199
                    -0.6350171 -0.6467493
                                            -0.5661120 -0.9910356 -0.4312199
##
    [921,]
##
    [922,]
                     -0.6350171 -0.6467493
                                           -2.3281247 -0.1122420 -0.4312199
##
    [923,]
                     -0.6350171 -0.6467493
                                             1.1959007 -0.9910356
                                                                   1.1848546
                                             0.3148943 -0.1122420 -1.2392572
##
    [924,]
                     1.0594802
                                0.9924396
##
    [925,]
                     1.0594802
                                0.9924396
                                             0.3148943 -0.9910356 -2.0472944
                     [926,]
```

```
-0.6350171 -0.6467493
                                               1.1959007 -0.9910356
##
    [927,]
                                                                       1.1848546
##
    [928,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356
                                                                       0.3768174
##
    [929,]
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.1122420 -0.4312199
##
    [930,]
                      0.2122316
                                  0.1728452
                                              -0.5661120
                                                           0.7665517 -0.4312199
##
    [931,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.1122420 -0.4312199
##
                      1.0594802
                                  0.1728452
                                              -0.5661120
                                                           1.6453454
                                                                       1.1848546
    [932,]
                      1.0594802
                                  0.1728452
                                              -1.4471183 -0.9910356 -0.4312199
##
    [933,]
##
    [934,]
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                     -1.2392572
##
    [935,]
                      -0.6350171 -1.4663438
                                              -1.4471183 -0.1122420
                                                                       0.3768174
    [936,]
                      1.0594802 -0.6467493
                                              -1.4471183 -0.9910356 -1.2392572
##
##
                      0.2122316 -0.6467493
                                              -0.5661120
                                                           0.7665517
                                                                       0.3768174
    [937,]
##
    [938,]
                      0.2122316
                                  0.9924396
                                              -0.5661120
                                                           2.5241391
                                                                       1.1848546
                      1.0594802
                                               1.1959007 -0.9910356
##
                                  0.1728452
                                                                       1.1848546
    [939,]
##
    [940,]
                     -0.6350171
                                  0.9924396
                                               0.3148943 -0.1122420 -2.0472944
                      0.2122316 -0.6467493
                                                           1.6453454
##
    [941,]
                                               1.1959007
                                                                       1.1848546
##
                     -0.6350171 -0.6467493
                                              -1.4471183 -0.9910356
                                                                       0.3768174
    [942,]
##
    [943,]
                      0.2122316 -1.4663438
                                              -0.5661120
                                                           1.6453454
                                                                       0.3768174
##
                                               0.3148943 -0.1122420 -0.4312199
    [944,]
                     -0.6350171
                                  0.9924396
    [945,]
                      1.0594802
                                  0.9924396
                                              -0.5661120 -0.9910356
                                                                       1.1848546
##
    [946,]
                     -0.6350171
                                  0.9924396
                                              -1.4471183
                                                           1.6453454
##
                                                                       1.1848546
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                           0.7665517
##
    [947,]
                                                                       1.1848546
##
    [948,]
                      0.2122316
                                  0.1728452
                                              -1.4471183 -0.9910356 -0.4312199
##
    [949,]
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                           0.7665517 -0.4312199
##
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                       1.1848546
    [950,]
##
                     -0.6350171
                                  0.1728452
                                              -1.4471183
                                                           1.6453454
                                                                       1.1848546
    [951,]
##
    [952,]
                     -1.4822657
                                  0.1728452
                                              -1.4471183 -0.1122420
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                               0.3148943
                                                           1.6453454
                                                                       0.3768174
    [953,]
##
    [954,]
                      0.2122316
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                       0.3768174
##
                      1.0594802 -0.6467493
                                               0.3148943 -0.1122420
                                                                       0.3768174
    [955,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.9910356
##
    [956,]
                                                                       1.1848546
##
    [957,]
                     -0.6350171
                                  0.1728452
                                               0.3148943
                                                           2.5241391
                                                                       1.1848546
                     -0.6350171 -1.4663438
                                              -0.5661120 -0.1122420
##
    [958,]
                                                                       1.1848546
##
    [959,]
                     -1.4822657 -1.4663438
                                              -0.5661120 -0.1122420
                                                                     -1.2392572
##
    [960,]
                      1.0594802
                                  0.9924396
                                               0.3148943 -0.1122420
                                                                       0.3768174
##
    [961,]
                     -0.6350171 -1.4663438
                                               0.3148943
                                                           0.7665517
                                                                       0.3768174
##
                      0.2122316
                                  0.1728452
                                               1.1959007
                                                           0.7665517
                                                                       0.3768174
    [962,]
##
    [963,]
                     -0.6350171
                                  0.1728452
                                               1.1959007 -0.1122420 -2.0472944
                      1.0594802
                                  0.9924396
                                               1.1959007 -0.9910356
                                                                       0.3768174
##
    [964,]
##
    [965,]
                      0.2122316
                                  0.1728452
                                               0.3148943
                                                           0.7665517
                                                                       0.3768174
    [966,]
##
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           0.7665517
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                              -2.3281247 -0.1122420 -2.0472944
    [967,]
##
    [968,]
                      0.2122316
                                  0.9924396
                                               1.1959007
                                                           2.5241391
                                                                       1.1848546
##
    [969,]
                     -0.6350171
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                       0.3768174
##
    [970,]
                      1.0594802
                                  0.9924396
                                              -1.4471183 -0.1122420
                                                                       1.1848546
##
                      1.0594802
                                  0.9924396
                                              -0.5661120
                                                           0.7665517
                                                                       0.3768174
    [971,]
##
    [972,]
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.1122420
                                                                       0.3768174
##
                      0.2122316
                                  0.1728452
                                               0.3148943 -0.9910356
                                                                       0.3768174
    [973,]
##
    [974,]
                      1.0594802
                                  0.9924396
                                               1.1959007
                                                           0.7665517 -2.0472944
##
    [975,]
                     -0.6350171 -0.6467493
                                               1.1959007 -0.1122420
                                                                       0.3768174
                     -0.6350171 0.9924396
                                               1.1959007 0.7665517 -0.4312199
##
    [976,]
```

```
0.2122316 0.9924396
                                             0.3148943 0.7665517 0.3768174
##
    [977,]
##
    [978,]
                     -0.6350171 -1.4663438
                                           -0.5661120
                                                         0.7665517 -1.2392572
##
    [979,]
                     1.0594802
                                 0.9924396
                                           -0.5661120 -0.1122420
                                                                    0.3768174
##
                     1.0594802
                                 0.9924396
                                             0.3148943 -0.1122420
                                                                    1.1848546
    [980,]
##
    [981,]
                     -1.4822657 -1.4663438
                                           -0.5661120 -0.1122420 -0.4312199
##
                     -0.6350171
                                 0.1728452
                                            -1.4471183 -0.1122420 -0.4312199
    [982,]
##
                     -1.4822657 -0.6467493
                                           -1.4471183 -0.9910356 -0.4312199
    [983,]
    [984,]
##
                     1.0594802
                                 0.9924396
                                            -2.3281247 -0.9910356 -1.2392572
##
    [985,]
                     -0.6350171 -0.6467493
                                            -0.5661120 -0.9910356 -1.2392572
##
                     0.2122316
                                 0.9924396
                                           -2.3281247 -0.9910356 -1.2392572
    [986,]
                                             1.1959007 -0.1122420 -2.0472944
##
                     0.2122316 -0.6467493
    [987,]
##
    [988,]
                     -1.4822657 -0.6467493
                                             0.3148943
                                                        0.7665517 -1.2392572
                     1.0594802 -1.4663438
                                             1.1959007 -0.1122420 -0.4312199
##
    [989,]
##
    [990,]
                     1.0594802 -0.6467493
                                           -0.5661120
                                                        0.7665517 -0.4312199
                     -1.4822657 -1.4663438
                                             1.1959007
                                                         1.6453454 0.3768174
##
    [991,]
##
                     -2.3295144 -2.2859383
                                             0.3148943
                                                        0.7665517
                                                                    1.1848546
    [992,]
##
    [993,]
                     0.2122316
                                 0.1728452
                                             0.3148943
                                                         0.7665517
                                                                    0.3768174
##
                                0.9924396
                                           -1.4471183 -0.9910356 -1.2392572
    [994,]
                     1.0594802
##
                     1.0594802
                                 0.9924396
                                             1.1959007 -0.9910356 -0.4312199
    [995,]
##
                    -0.6350171 -0.6467493
                                             0.3148943 -0.9910356
                                                                   0.3768174
    [996,]
##
                    -0.6350171 -1.4663438
                                           -0.5661120 -0.1122420
    [997,]
                                                                    0.3768174
    [998,]
##
                     1.0594802 -1.4663438
                                           -0.5661120 -0.1122420 -0.4312199
                                             0.3148943 1.6453454
##
    [999,]
                     0.2122316
                                0.9924396
                                                                    1.1848546
## [1000,]
                     -0.6350171
                                 0.1728452
                                             1.1959007 -0.1122420
                                                                    1.1848546
## [1001,]
                     1.0594802
                                 0.9924396
                                           -0.5661120 -0.1122420 -1.2392572
   [1002,]
                     -0.6350171 -0.6467493
                                           -1.4471183 -0.1122420
                                                                   -0.4312199
## [1003,]
                    -1.4822657 -1.4663438
                                           -1.4471183 -0.1122420 -0.4312199
                     -0.6350171 -0.6467493
## [1004,]
                                           0.3148943 -0.1122420
                                                                   0.3768174
                                 0.9924396
## [1005,]
                     0.2122316
                                           -0.5661120 0.7665517 -0.4312199
                     1.0594802
                                0.9924396
                                           -1.4471183 -0.9910356
## [1006,]
                                                                   0.3768174
## [1007,]
                     -2.3295144
                                 0.9924396
                                             1.1959007 -0.1122420
                                                                    1.1848546
                                 0.1728452
                                           -0.5661120 -0.9910356 -0.4312199
## [1008,]
                     0.2122316
## [1009,]
                     1.0594802
                                 0.9924396
                                           -0.5661120 -0.9910356
                                                                   0.3768174
                                             0.3148943 -0.9910356
## [1010,]
                     0.2122316 -1.4663438
                                                                    0.3768174
## attr(,"scaled:center")
##
                Horror
                                   Thriller
                                                          Comedy
                                                                             Rom
antic
##
              2.792079
                                   3.382178
                                                        4.496040
                                                                             3.4
89109
                Sci.fi
                                        War Fantasy.Fairy.tales
##
                                                                             Ani
mated
##
              3.108911
                                   3.155446
                                                        3.749505
                                                                             3.7
89109
##
           Documentary
                                    Western
                                                          Action
                                                        3.533663
##
              3.642574
                                   2.127723
## attr(,"scaled:scale")
##
                Horror
                                   Thriller
                                                          Comedy
                                                                             Rom
antic
##
             1.4108235
                                  1.1981482
                                                       0.7791155
                                                                           1.20
79930
```

```
##
                Sci.fi
                                      War Fantasy.Fairy.tales
                                                                         Ani
mated
                                                                         1.22
##
             1.3139564
                                 1.3498871
                                                    1.1802911
01156
                                                        Action
##
           Documentary
                                   Western
##
             1.1350656
                                 1.1379235
                                                     1.2375667
#as.matrix(scale.hobbies)%*%fact.load.hobbies%*%solve(t(fact.load.hobbies)%*%
fact.load.hobbies)
fit.pc.movies<- principal(movie_transformed[-1], nfactors=4, rotate="varimax"</pre>
fit.pc.movies
## Principal Components Analysis
## Call: principal(r = movie_transformed[-1], nfactors = 4, rotate = "varimax
")
## Standardized loadings (pattern matrix) based upon correlation matrix
##
                         RC1
                               RC2
                                     RC3
                                          RC4
                                                 h2
                                                     u2 com
## Horror
                       0.05 -0.02 0.86 0.03 0.74 0.26 1.0
## Thriller
                       0.21 -0.01 0.82 -0.09 0.72 0.28 1.2
## Comedy
                       0.11 0.12 0.06 0.82 0.70 0.30 1.1
                       -0.21 0.32 -0.21 0.59 0.54 0.46 2.1
## Romantic
## Sci.fi
                       0.61 0.00 0.22 0.14 0.44 0.56 1.4
## War
                       0.66 0.00 0.11 -0.23 0.50 0.50 1.3
## Fantasy.Fairy.tales -0.05 0.87 -0.06 0.19 0.80 0.20 1.1
## Animated
                       0.01 0.87 0.07 0.13 0.78 0.22 1.1
                      0.48 0.39 -0.18 -0.33 0.52 0.48 3.1
## Documentary
## Western
                      0.73 0.01 -0.05 -0.11 0.55 0.45 1.1
                      0.69 -0.11 0.20 0.22 0.57 0.43 1.4
## Action
##
##
                          RC1 RC2 RC3 RC4
## SS loadings
                        2.15 1.80 1.60 1.33
## Proportion Var
                         0.20 0.16 0.15 0.12
## Cumulative Var
                         0.20 0.36 0.50 0.62
## Proportion Explained 0.31 0.26 0.23 0.19
## Cumulative Proportion 0.31 0.57 0.81 1.00
## Mean item complexity = 1.4
## Test of the hypothesis that 4 components are sufficient.
## The root mean square of the residuals (RMSR) is 0.09
## with the empirical chi square 916.68 with prob < 5.8e-184
## Fit based upon off diagonal values = 0.81
round(fit.pc.movies$values, 3)
    [1] 2.491 2.000 1.386 0.994 0.798 0.749 0.674 0.595 0.585 0.424 0.306
fit.pc.movies$loadings
```

```
##
## Loadings:
                       RC1
                              RC2
                                     RC3
##
                                             RC4
## Horror
                                      0.859
## Thriller
                        0.206
                                      0.816
## Comedy
                        0.110 0.117
                                              0.821
## Romantic
                       -0.213 0.321 -0.205 0.593
## Sci.fi
                        0.609
                                      0.222 0.139
## War
                        0.661
                                      0.113 -0.235
## Fantasy.Fairy.tales
                               0.873
                                              0.190
## Animated
                               0.873
                                              0.127
## Documentary
                        0.476 0.386 -0.182 -0.328
## Western
                        0.730
                                             -0.106
                        0.688 -0.110 0.197 0.216
## Action
##
##
                          RC2
                                RC3
                    RC1
                                      RC4
## SS loadings
                  2.145 1.802 1.596 1.327
## Proportion Var 0.195 0.164 0.145 0.121
## Cumulative Var 0.195 0.359 0.504 0.625
# Loadings with more digits
for (i in c(1,3,2,4)) { print(fit.pc.movies$loadings[[1,i]])}
## [1] 0.04840021
## [1] 0.8593561
## [1] -0.01548186
## [1] 0.03258734
# Communalities
fit.pc.movies$communality
##
                Horror
                                  Thriller
                                                         Comedy
                                                                           Rom
antic
             0.7421372
                                 0.7168332
                                                      0.7039137
                                                                          0.54
##
17855
                Sci.fi
                                       War Fantasy.Fairy.tales
##
                                                                           Ani
mated
##
             0.4399539
                                 0.5044557
                                                      0.8040352
                                                                          0.78
32244
##
           Documentary
                                   Western
                                                         Action
##
             0.5162718
                                 0.5477333
                                                      0.5706387
# Rotated factor scores, Notice the columns ordering: RC1, RC3, RC2 and RC4
fit.pc.hobbies$scores
##
                                                              RC4
                    RC1
                                   RC2
                                                RC3
      [1,] -0.013510277  0.4653126347  0.917318248  0.3105168598
##
##
      [2,] 0.133862917 -0.1379748048 -1.738352054 -1.1610100427
##
      [3,] 1.956079019 -0.3301226183 -0.431162349 0.3823538415
##
      [4,] 1.459731308 -1.7092300568 -1.063138469 -1.8472695001
##
      [5,] -0.304038372 -1.2511368710 0.513893953 -0.7516882539
```

```
##
      [6,] -0.310119912  0.5700252284  0.961317222 -1.3779489423
##
      [7,] -0.832481547 -0.6185245510 1.863435585
                                                     0.6647612899
##
      [8,] -1.246746643 -0.3306023215 -0.665115403
                                                     0.2609972209
##
      [9,] -1.037982087 -2.9315306246 -0.248073698 -0.0649522268
                                                     0.6661685406
##
     [10,] 1.083461655 -0.3913669616 -0.949061694
     [11,] -0.137667093  0.0803661872  -0.778955546
##
                                                     0.3006072080
##
     [12,] -0.152159766 -0.3342430614 -1.473779928 -0.7695700908
##
     [13,] -0.004065369 -0.8442354420
                                       1.588221071
                                                     0.0730379195
##
     [14,] -0.491047636 -0.8813027109 -0.593901992
                                                     1.9540969471
##
     [15,]
            0.242585729 -1.8096864741 -0.376793230
                                                     1.4363149855
##
     [16,]
            0.595061201 1.5344083441
                                       0.359551002 -0.6936162427
##
     [17,] -2.027620450 -0.6932184739
                                        0.959235869
                                                     1.1573162668
     [18,] -1.117371071 -1.4586021965
                                       2.028186441 -0.4500616006
##
                                       0.389719721 -2.2490305794
##
     [19,] -0.737913843  0.4149694940
##
                         0.9145522217 -0.938801743 -0.5959489508
     [20,] -0.167344464
##
     [21,] -0.117681446
                         1.1520542400
                                       1.032346374 -1.1167401401
##
     [22,] 0.387131512
                         1.1363542400 -0.538191127 -0.5517468872
##
     [23,] -0.542754237 -0.2811938604
                                        0.044681169 -0.3714159754
##
     [24.]
            0.530078433 -0.1596719869
                                        1.809094600
                                                     0.6405676267
##
     [25,] 1.960569926
                         1.1387891760
                                        0.061340726
                                                     1.4643831482
                                                     1.7459694354
##
     [26,] -0.348710702 -0.5491029127 -1.492212078
##
     [27,] -0.915943551
                         0.2670222327
                                        2.233221446
                                                     0.9526354413
     [28,] -1.456972909 -0.7702247738
                                       1.525479888
                                                     0.2908272231
##
##
     [29,] -1.718545502
                         0.9307869783 -0.482099225
                                                     1.5013467879
                                        0.368146451
##
     [30,] 0.835683390
                         0.0517686135
                                                     1.2492445234
##
     [31,] -0.056472553
                         0.4889762704 -0.388286248
                                                     0.4254218018
##
     [32,]
            0.561644284 -1.3921198259 -0.437629917 -0.5133050548
##
     [33,] -0.019360140 -0.3398237218 -1.374666850
                                                     0.6835689824
##
     [34,]
                         0.9712163093
                                       0.567483236
            1.352629562
                                                     1.2808919052
##
            0.973155869
                         1.3087977151 -0.572920172 -0.5196268745
     [35,]
##
     [36,]
            0.078984755 -0.2784430030 -0.786929076
                                                     1.5617727016
     [37,]
##
            0.305939085 -0.0748224151
                                       1.451869472 -0.0088067032
##
     [38,]
            0.171508023
                         0.9208274071
                                        1.261938596 -0.1586765720
##
     [39,]
            1.770997927 -0.1452488779
                                        0.291612074
                                                     0.7775731921
##
     [40,] -1.845052816
                         0.1445482196
                                       1.860459728
                                                     0.1917804267
     [41,] -1.719084954 -0.7586795268 -0.888473457 -0.0247295158
##
                                       0.761546083 -2.4132613515
##
     [42,]
            0.322204052
                         0.7339524662
##
     [43,] -0.200457000
                         0.6438450173
                                       0.277824858 -0.1594630387
##
     [44,]
            0.962010680 -0.0497351736 -1.555894728
                                                     1.1317135722
##
                         0.6735736714 -0.451873497
                                                     0.6107740806
     [45,]
            1.417539675
##
     [46,]
            0.016165179
                         0.9062337373 -0.158104240 -1.0520495116
##
     [47,]
            0.517266327
                         0.6574975012 -0.113902625
                                                     1.3771539157
##
     [48,] -0.390855624 -0.8065627046 -0.682165317
                                                     0.5000031174
##
     [49,]
            0.347115870 -0.3512491162 -0.121267189 -0.0422368892
##
     [50,] -1.039321162 -0.8933112877 -1.019117060
                                                     0.4200357378
##
     [51,] -0.577777201 -0.6240603475
                                       1.947796869
                                                     0.1606211220
##
     [52,]
            0.002539722
                         1.4604652159
                                        2.004121501 -1.0849204563
                                        0.899800910
                                                     0.4840387249
##
     [53,]
            1.344758009
                         0.3285074773
##
     [54,]
            1.618807554
                         0.2036952915
                                        0.404404973
                                                     0.5396529611
##
     [55,] 1.172899765 -0.9619039727 0.681755701 -0.6902013203
```

```
[56,]
            0.300931659 0.4323476824 0.501068013 -0.0557240105
##
##
     [57,]
            1.408545232
                         0.1669832772 -1.107841690 -0.7733320151
##
     [58,]
            0.718143532 -0.8495272546 -0.051947797
                                                     1.7376712454
##
     [59,] -1.488770048
                         0.2408301109
                                       1.903084653
                                                     0.2527071721
     [60,]
##
            0.745067893 -1.9772326454 -2.166309680 -2.0323122208
##
     [61,]
            2.319296097
                         0.5278623362 -0.395137348 -1.9903938108
##
     [62,] -0.571214912
                         0.8104719422 -0.776675758 -0.5227069129
##
     [63,] -0.146087250
                         2.4536993479 0.168153299 -1.4666819032
##
     [64,] -0.542441131
                         1.3126998241 -1.028020146
                                                     0.3071445207
##
     [65,] -1.058989196 -0.7878184471
                                       1.699681876
                                                     0.5844762179
##
     [66,] -1.224949989 -0.3168017885 -0.866861698 -0.8282313286
                         0.8764617192 -0.212368326 -1.2486769023
##
     [67,] -1.454206369
     [68,] 0.479115416 -0.6440293934 -0.143642067
                                                     0.5173940505
##
##
     [69,]
            0.032850124
                         0.4217842755 -0.031628834 -0.9711987833
     [70,] -1.352593272 -1.9475084988
                                       1.456903745
                                                     1.1815621191
##
##
     [71,] -1.003036438
                         0.6033740831 -1.035838246
                                                     0.8226333463
##
     [72,] -0.782629271
                         0.9831352620 -1.527044442
                                                     0.7846540451
##
     [73,] -1.328177826 -0.5474833289 -0.435811795
                                                     0.6266140328
     [74,]
##
            0.277423332
                         1.2506790920 -0.528300502
                                                     0.7921901873
##
     [75,]
            0.690247740
                         0.6534347050 -1.676636784 -0.2030782324
##
                         1.4934391520 -0.041334524
                                                     0.6820146216
     [76,]
            1.568446021
##
     [77,] -0.963576399
                         1.1045865420 -1.091947565
                                                     0.1780052540
##
     [78,]
            0.214882565 -1.2184290274
                                       1.433697783
                                                     1.0988134593
##
     [79,]
            1.385727483
                         0.0976762576
                                       1.855899312
                                                     0.2323769812
     [80,]
##
            0.216166374
                         1.4884701786 -0.986071976
                                                     1.1177719476
##
     [81,] -0.313341393
                         1.1544959759 -0.641851736
                                                     1.5241052485
##
     [82,] -0.564755137
                         1.6249769474 -0.808661928
                                                     0.5509253881
##
     [83,]
            0.652025056 -1.5763494697 -0.127838976
                                                     0.1808598037
##
     [84,] -0.365449198
                         0.3173334058
                                       1.167060309
                                                     1.0659832568
##
            0.922530624 -0.0697978769
                                       0.418700378
                                                     0.0872346856
     [85,]
     [86,]
##
            0.185903058
                         1.1446543322
                                       0.525508372 -1.0073417944
     [87,]
                                       0.593030681 -1.0747556339
##
            2.720359582
                         1.8578304660
##
     [88,]
            0.823518478
                         0.4946143863 -1.057520893
                                                     1.3664074836
##
     [89,]
            1.368764269 -1.2001991787 -0.744329673
                                                     1.1050032420
##
     [90,]
            0.411796239 -2.0739947289 -1.017407458 -0.0210240783
     [91,] -1.205036011 -1.1827295839
##
                                       0.345822576
                                                     0.0409893042
                                       0.837321703
##
     [92,] -1.491411079 -0.2369227469
                                                     1.1768604171
##
     [93,] 1.441705454 -1.5311155690 -0.171927279 -0.7855007976
     [94,] -1.137772619 1.7827648591 -0.076694797 -1.4721207031
##
     [95,] -0.883024319 -0.0965171465 -0.584592081 -0.9635159773
##
##
     [96,] -0.348988301
                         1.4558318229 -0.918227952 0.1590841579
##
     [97,] -2.467997720 -2.3063615842 0.937175445 -1.0323596218
##
     [98,] -0.905125480
                         0.0303587801 -0.601140621 -1.4812687909
##
     [99,] -0.885126236
                         0.2306250381 -0.118974054 -0.1733022922
                                       1.074393329 -0.7222170124
##
    [100,] -0.388144190 -0.3537393048
##
    [101,] -0.491002813 -0.0454775759
                                       1.808271846 -0.3115690460
##
    [102,] -0.732665390 -0.6974646247 -1.291117344 -0.8696530648
           2.035260890 0.5292270051 0.720379210 -1.3603197429
##
    [103,]
##
    [104,]
            1.402617026
                        1.2547545944 -0.966305959 0.1682670150
    [105,] 1.070427901 0.2897204723 -1.080489642 -1.0282445778
```

```
[106,] -1.061232219 -0.7422575893 0.263852519 -0.4128183630
##
   [107,] -0.218748880  0.7559727969  -1.335904178  -0.5552673307
##
   [108,]
          0.465729108 -0.4461629676 1.826809336 -0.0741434528
   [109,] -0.542585629 -1.4620706351 -1.015591679 -1.6017016418
##
##
   [110,] -0.742072123  0.4580454976 -0.756716864 -1.7103588782
##
   [111,] -0.685063255 -0.1058323084 0.559307935 -0.9746678149
         1.270395689 -1.6758856754 0.143847706 -0.0644003065
##
   [112,]
   [113,]
##
         0.523375661 -1.6937377990
                                  1.896215666 -0.1208168460
##
   [114,] -2.266732188 -0.1825131103
                                  1.250787133
                                              1.4230237343
   [115,]
          0.555199509 -0.9037580935 -0.439740124 0.6783764339
##
          ##
   [116,]
##
   [117,] 0.326342953 -2.7462935566 -0.519107831 -1.1200377308
   [118,] -1.679701893    0.0383539341    -0.489253516    -1.0539849713
##
##
   [119,] -0.038590241 -0.2592561362 -0.218409331 -1.2538697901
   [120,] -0.431348936 -1.5442044601 0.538359965 -2.0413366156
##
##
   [121,] 1.190413164 0.7998552143 0.904473214 -1.6395326808
##
   [122,] -1.383196247 1.2553581957 -0.128466857 -0.6829401353
##
          0.260182479 -1.5205581617 -0.621259089 0.4546570888
   [123,]
##
   [124.]
          0.730878984 -0.8537389213 0.912161851 -0.6830067677
   [125,] 1.603232142 1.1798512287 -0.048068886 -1.0578361487
##
          1.755480981 -0.9611086435 0.501943538 0.4267774480
##
   [126,]
##
   [127,] -0.525795761 -1.2099465493 -1.216147102 -0.0952834237
          ##
   [128,]
##
          2.452695764 0.3703747465 1.472249928 -1.1479041630
   [129,]
##
   [130,] -0.673724613 -1.5066003179 1.396110741 0.0001112662
##
   [131,]
          1.778307032 0.6291055219 -1.728075773
                                              0.7029583491
##
   [132,] -1.155765686 0.5378325406 -0.868523091
                                              0.5240648399
   [133,] -0.035232819 -0.5571431732 -0.202696319 -0.9370988994
##
   [134,] 1.094886902 -2.3788845393 0.489095262 0.3808736635
##
   [135,] -0.057259525 -0.2778718302 0.580166250 -0.2221097197
##
##
          [136,]
          0.192003099 1.0539711701 1.872647018 -0.4900919493
##
   [137,]
##
   [138,]
          0.528068015 -0.2824469185 -0.173331571 -1.6195691303
   [139,]
          0.473513215 -1.8645994670
##
                                  1.270367688 -0.4251940023
##
   [140,]
          0.349885085 -0.8245692012 0.343673350 1.3709706640
##
   [141.]
          1.448111005 -1.1808219809 -0.594218014 -0.3995013304
##
   0.3432637786 -1.080991196 0.5284088823
##
   [143,] -0.246105267
##
   [144,] -1.511882102 -0.5709072910 -0.905050264 0.8547517581
                                  2.261738454 -0.5175853386
##
   [145,] -0.495024347
                      0.2663057248
##
          0.104615326 -1.5825268022 -0.499136124 -1.1108745387
   [146,]
##
   [147,]
          0.902919506
                     1.1402385821 -1.100332590 0.5236953613
##
   [148,]
          0.239724208
                      ##
   [149,]
          0.507267640
                      ##
   [150,] -0.875238957
##
   [151,]
                      0.9816095234 -0.719756102 -0.6955280393
          0.091254051
##
   [152,] -0.020385215 -0.3839475177 -0.380244939 -0.3242604976
##
   [153,] 0.605115391 0.2463217248 -0.779772307 -0.3239832486
##
   [154,]
          0.017637095 -0.3086784104 -0.962933886 -0.1809515676
  [155,] 0.084949794 1.0749441236 -1.227754409 -1.9489677292
```

```
1.124190998 -0.5531964049 0.934683915 -0.2986102820
   [156,]
##
   [157,]
           0.084291302 -1.0518190882 -1.732454183 -0.1377422951
##
   [158,] -0.218004750 -0.3139158975 -0.374230093 -0.9872457009
                                    0.984391235
##
           0.216773350 -0.1077628726
                                                 1.1136756906
   [159,]
   [160,]
##
           1.266213403 0.9290952879 0.362040080
                                                 0.2304244623
##
   [161,]
           0.688871679
                       2.0009826742 -0.796570118 -1.5669267495
   [162,] -0.948181264 -1.2953412178 1.735296249
##
                                                1.2144403293
##
   [163,] -0.338509175 -0.3639344539 -1.649911466 -1.0647207683
##
   [164,] -0.689386659 -1.7373127693 -0.673333842 -2.0153505106
##
   [165,] -0.106734805 -1.8011530712 -0.935619530 0.7072420380
##
   [166,] 2.301107611 0.5456664303 -1.620094646
                                                 0.4540930331
##
   [167,] -0.111507116 -1.2064105109 0.102802032 -1.0290371313
   [168,] -1.669515372 -0.3400730524 -0.253774542 -1.2132111599
##
##
   [169,]
           0.373616914 1.0995561089 -2.086947549 0.1321591656
           1.003428014 -2.4434137998 -0.941362723 -0.4137772173
##
   [170,]
##
          1.549248381 0.1152974677 -0.265206001 -0.9991881493
   [171,]
##
   [172,]
           ##
                       0.7265009096 -0.701709283 -1.6518143421
   [173,]
           0.511265411
##
   [174,] -1.518518688
                       [175,] 1.739601318 0.1271070793 -0.188079998
                                                1.1093540497
##
   [176,] -0.563596715 -1.1037761358 0.582654209 0.2228654718
##
##
   [177,] -1.101827649 1.2342823346 -0.153226920 -0.9955859140
   [178,] -0.346406109 -1.1387273646 0.082859271 0.4723229243
##
##
           0.250186998 -1.8738538621 0.599724103 -1.5491720408
   [179,]
   [180,]
##
           0.701670212 -0.2050842524 0.489761034 -0.5124294265
##
   [181,]
           ##
           0.216532289 -0.1769913856 -0.155700744 -1.0164705465
   [182,]
   [183,] -0.232082304 -0.2122827681
##
                                    1.628712952 0.5824764102
                                    0.715039385
##
   [184,] 1.011596165 -0.0175592356
                                                 0.2669271550
          0.604909208 -2.8827496315 -1.007827770 -1.0616815185
##
   [185,]
##
           0.521911448 -0.6526106280 0.982910799 -0.0427199194
   [186,]
           0.173186116 -1.5279686721 -0.710228508 0.9771589323
##
   [187,]
##
   [188,] -1.224574281 -1.9640154117 -1.074310700 -1.4952692533
##
   [189,] 0.208135369 0.1534287762 1.162104516 -1.7707432240
##
   [190,] -0.081332782 -0.7414601091 -1.299859784 -1.0661915752
                                    1.460537611 -0.9589919711
##
   [191.] -0.970253820
                       0.4438014968
##
   [192,] -0.059073440 -1.8590266363 -0.374986744 -0.0149178511
##
   [193,] -0.079856740 -0.5129637695 -0.959905195
                                                 1.5622203986
##
   [194,] -0.226675490 -1.4639726313 0.736576634 -0.4991745498
##
   [195,] 0.331626176
                       0.0043729971 -1.529573116 -0.9123057019
##
                       0.9517957276 -0.413076967
                                                 0.4540627947
   [196,] -0.033081897
##
   [197,] -0.049853835
                       0.4775824625 -0.249341214
                                                 0.7940008530
##
   [198,] -1.151062257 -0.6487624968 -0.883731172
                                                 1.3266280237
##
   [199,] -1.532826853 -0.4390694744 -0.554477080 -0.4344748675
##
   [200,] -0.909563172
                       0.2407524050 -0.200103390
                                                 0.3412390291
##
   [201,] -0.796302901
                       0.1583849048 -1.100718115 -1.4948168124
##
   [202,] 1.563286510 -0.0130074491 -1.463226850
                                                 1.2229513528
##
   [203,] -1.393835043
                       0.4414221979 0.891626172 0.9505823475
##
   [204,] -0.890800968  0.3949514873  1.722680028
                                                0.7519862855
## [205,] -0.646182693 -1.0101474342 -0.554691779 -2.2164678915
```

```
##
    [206,]
            1.461384587 -1.9903961499 1.714386872 -0.8538820469
##
    [207,]
            1.837364924
                         0.5217068267 -0.130426463 -2.0364900283
##
    [208,]
            0.291212411
                         0.3637342065 -0.201734438
                                                     0.6955594007
##
    [209,] -0.248640557 -0.5663101971
                                        0.313477165
                                                     1.5761527894
##
    [210,]
            0.772127347
                         1.3289705351 -0.521011206 -1.3333303077
##
    [211,]
            2.062880502
                         1.8360738091
                                        1.407969981
                                                     0.8468393486
##
    [212,] -0.646249146
                         0.3081885965 -1.145409698
                                                     2.1669143609
##
    [213,]
            2.098810148
                         0.9898836819
                                        0.184109869 -1.2524157292
##
    [214,]
            0.660735520
                         1.5849700859
                                        1.550082271
                                                     0.3821819323
    [215,]
##
            0.610836675
                         0.2726747583
                                        1.180328168 -0.3686926279
    [216,] -2.222641556 -0.5682877360 -0.416573884
                                                     1.1598497355
##
##
    [217,] -0.934546630 -1.2660499721
                                        1.108752086 -0.9772017342
##
    [218,]
           1.236197830 -0.5018419257 -0.528277818
                                                     0.2264412553
##
    [219,]
                         1.3952763534
                                        1.674032169
                                                     0.0171712762
            0.010281016
##
    [220,] -0.979425586
                         1.8274246368 -1.266837869
                                                     0.8201025816
    [221,] -0.759908005
                         0.0012722011
                                       1.888404474
                                                     0.4341473076
##
##
    [222,]
            0.834737338
                         1.5606581201
                                        0.168312020 -0.8764347648
##
    [223,] -0.858965725 -1.4707304193 -0.618653106 -0.4806258873
    [224,]
                         0.3582326769
                                        1.044662816
                                                     0.6024648284
##
            0.818052471
    [225,] -1.095974862 -0.4977637366 -1.407499118 -2.0625591777
##
                         1.4773927575 -0.212911946 -1.2614813822
##
    [226,]
           0.607742312
##
    [227,] -1.209597333
                         0.3184572674 -0.248906690
                                                     2.2357639808
##
    [228,]
            1.242808368 -0.2026828860
                                        0.618139970 -1.6667266671
##
            0.748917631 -0.4916497019
                                        1.869777376 -0.4140424930
    [229,]
##
    [230,] -0.849278089
                         0.9579812437
                                        0.289364382 -1.0400252974
##
    [231,]
            0.759760879
                         0.2333014914 - 0.642957835
                                                     1.3051256815
##
                         0.3447447710 -0.208303006
    [232,]
            0.694746987
                                                     2.2142782303
##
    [233,]
            0.073442221
                         0.6447974339 -1.640507680
                                                     0.0155870640
##
    [234,] -0.645918118 -0.7993404915
                                        1.297387887
                                                     1.1673394392
                         0.6500579168 -0.113154733
##
    [235,] -1.915917151
                                                     0.5476074060
##
            1.014458771 -1.1186696504 -0.983528452
                                                     0.2466589622
    [236,]
##
    [237,]
            1.357325243 0.2558932618
                                       0.037428299
                                                     0.3553797785
##
    [238,] -0.076210150
                         0.6353010734 -0.911832117
                                                     0.9963457238
##
    [239,] -0.848834602 -0.6362570038 -0.990992269
                                                     0.5507951436
##
    [240,]
            0.699778464 -0.7980618748
                                        0.080397416
                                                     0.1885923338
##
    [241,] -0.574297742
                        1.8611462449 -0.889073678
                                                    -0.0350210374
##
    [242,]
            0.116021205
                         0.9452005194 -0.373952920
                                                     0.5520484436
            0.966100543 -1.4255523997 -0.990827249
##
    [243,]
                                                     0.4577660483
##
            0.450218084 -1.6217122153
                                      0.928245285
                                                    -1.7983310169
    [244,]
##
    [245,] -0.821404180 -1.8414655333 -0.181831638
                                                     1.3984594181
##
            1.120661393 -0.9264803469 -0.570376639
                                                     0.7267299408
    [246,]
##
    [247,] -1.252578878 1.4161970840 -0.867796255
                                                    -0.6595217447
##
    [248,]
            0.594000789 -0.5872618158
                                        1.510378353
                                                     1.3590052379
##
    [249,]
            1.109701783 -0.5647930127 -0.704295935
                                                     0.0343080145
                                       2.206789672
##
    [250,] -0.229691815 -0.1685686736
                                                     0.3579290454
##
    [251,] -0.548653946 -0.6247978973 -1.242441514
                                                     1.4077341475
##
    [252,] -0.680354734 -0.3868462182
                                        1.733137740
                                                     0.3930188129
##
    [253,] 0.563344024 -0.3421459516 -0.281307315
                                                     1.3586213615
##
    [254,] -1.563620353 0.7508643742
                                       0.924221752 -0.3665639083
    [255,] -1.169488630 -0.2425960330 -0.509115813 1.4071903181
```

```
1.672597012 -0.9130410893 1.395388903 -0.8530476026
##
    [256,]
##
    [257,] -1.424793214 -0.2059458012 -1.323731432 1.4400518652
##
    [259,] -0.088290457 -0.3739930011 -0.520839814 -2.0060919824
##
##
    [260,]
           1.197246870 -0.6969075104
                                     0.134568061 -0.6037554532
##
    [261,]
           0.356789774 -0.6225718540
                                     0.291811018 -0.5788236875
           1.237896977   0.8257840837   -0.735480809
##
    [262,]
                                                   1.3429304271
##
    [263,]
           2.099191899 -1.1562277046 -0.125184553 -0.8344004546
##
    [264,]
           0.192687082 -0.3268381933 -0.453057062
                                                   0.8470402230
    [265,] -0.600039851
                                     1.892326155
                                                   0.2912840100
##
                        0.6211250575
    [266,] -1.880719062 -1.1320605694 -0.396604901
                                                   0.2723949881
##
##
    [267,]
           0.184305199 0.5237928298
                                     0.091639199
                                                   0.5453493557
##
    [268,]
           1.302276480 -0.4167238300
                                     0.444502811 -0.5803708190
##
    [269,] -1.704961921
                        0.2179813845
                                     2.281998224
                                                   0.7052062595
           0.719058290 -1.1361748201
                                     1.199257812 -1.5716430294
##
    [270,]
##
           0.193408560 -1.0356922436 -1.071015994
                                                  1.0515682971
    [271,]
##
    [272,] -0.973632429
                        0.8816174832 -0.277406961
                                                   1.4652118876
##
                                     1.971366435 -0.9271173007
    [273,]
           0.719064433 -1.8301234040
    [274,]
                       0.8796438142 -0.607905074
                                                   0.5070859010
##
           0.981953876
                        0.0803624430 -0.660247535
                                                   0.0250941998
##
    [275,]
           1.146055908
                                                   0.2629131338
                        0.0769829244 -0.995702486
##
    [276,]
           1.929900305
##
    [277,] -0.487568849 -0.5996261594 -1.117220330
                                                   0.5558940250
##
    [278,] -0.469082885
                        0.8947460005 -1.766784917 -0.7972414731
##
                        1.0702223919
                                     1.877000761
                                                   0.0907841657
    [279,] -0.037629074
##
    [280,] -1.139432366 -1.5161056808 -1.083708102
                                                   0.4340028497
##
    [281,] 0.614610324 -0.7187418543
                                     0.266205545
                                                   0.9734915026
##
    [282,] -0.515196870 -0.0330634920
                                     1.897329268 -0.8502126554
##
    [283,] -1.300893452 -1.0320246488 -1.011948547
                                                   0.3809954075
##
    [284,] -0.726269386
                       1.7616112249
                                     0.364799575 -0.7856253241
                       1.1243220759 -0.680187001 -0.2214761652
##
    [285,] -1.712530105
##
    [286,] 0.168096215 -1.3927989281
                                     1.242676648
                                                   0.2987561537
    [287,] -0.041600663  0.0171287966  -0.214485776
##
                                                   1.5859923185
##
    [288,]
           0.103402150 -0.4116315597 -0.034239706
                                                   0.6759067696
##
    [289,] -0.856640263
                        0.9705910086
                                     0.139002329 -0.4466137217
##
    [290,] -0.041579040
                        1.2598380971 -0.833714828
                                                   0.1912209391
##
    [291.]
           1.467284318 -1.4209076839
                                     1.549755270
                                                   0.0704854490
##
    [292,]
           0.224494543 -0.1147023747 -1.101395618 -0.2774844702
           0.953692119 -0.8726802001 -1.304366155
                                                   1.2967233195
##
    [293,]
##
    [294,]
           0.141065357 -0.4421076647
                                     0.069126810 -1.6621475668
##
    [295,]
           0.889826180 -0.6797719847 -1.124056076
                                                   0.3511870161
##
    [296,] -0.191469021 -0.4573325453
                                     0.038203532
                                                   0.9617080701
##
    ##
    [298,] -0.241382597 -1.0093210102
                                     1.586489633 -1.5533312103
##
    [299,]
           0.550586894 -1.3642202569 -0.308702734
                                                   0.6752934608
    [300,] -0.452395677 -0.4169329307 -0.714061275
##
                                                   0.5985804590
##
    [301,]
           1.498861537 -1.1876223599
                                     0.283907519 -1.6813818043
##
           0.036497410 -0.9460802050
                                     0.397303226 -2.0416188030
    [302,]
##
           0.887145540 -0.0874448765 -1.056305487
                                                   0.8747506246
    [303,]
##
    [304,] -0.258079692  0.7248952381  0.087737276
                                                   0.8825771006
  [305,] 0.269431402 -1.1699417421 -1.094576828 -0.0076345300
```

```
##
    [306,]
            1.441427766
                         0.1549281689 -0.739335007
                                                     0.1568233480
                                                     1.1245723953
##
    [307,] -0.189394669
                         2.0321186733 -0.084904742
##
    [308,]
            0.198739873 -0.3329314216
                                        1.619914424 -2.8458192725
##
    [309,] -0.220413519
                         1.2515859956
                                        0.618648020
                                                     1.0050532750
    [310,] -0.357367373 -0.5809215019
##
                                        1.123335887
                                                     0.4866834661
##
    [311,] -2.292206086
                         0.2269267116
                                        2.062109665
                                                     0.0904870221
##
    [312,]
           1.036646893
                         0.7662704719 -0.150306180
                                                     0.8129858106
##
    [313,] -2.484689925 -0.5920910741 -0.314099400
                                                    -1.0686435013
##
    [314,] -0.010259289 -0.3730871185 -0.435334341
                                                     0.5249375280
    [315,]
                         2.1536917609
##
            1.452646785
                                       0.805631363 -0.4523316496
    [316,] -0.754267248 -0.0398649689 -1.362402461
                                                     0.7154631638
##
##
    [317,] -1.607136568
                         0.1102442467
                                        1.739005831
                                                     1.7807052811
##
    [318,] -1.786792366
                         0.7062514278
                                        0.501978083 -0.2650000788
##
    [319,]
            0.280781665 -0.2724310882
                                       2.052359960
                                                     1.4789142248
##
    [320,]
            1.724487919 -0.4120296564 -1.225269146
                                                     0.5958622962
    [321,] -0.014807550
                        1.0714581322 -0.041004390
                                                     0.3426511428
##
##
    [322,]
            0.341356452 -0.5815071761
                                        1.242707702
                                                     1.1241886702
##
    [323,]
            0.374925312 -0.0470285032 -1.101840898
                                                     0.8066341139
    [324,] -1.076161378
                         0.2091158104
                                        2.305405776 -0.4132197459
##
    [325,] -0.424059185 -0.5277331169
##
                                        0.354352562
                                                     0.4313965931
##
    [326,] -0.024787361
                         1.6098678875
                                        2.150980619
                                                     0.6356186815
##
    [327,] -0.609743877 -0.4679424459 -1.060532948
                                                     0.2226261402
##
    [328,]
            0.023721571
                         0.1308358666 -1.034108540
                                                     0.3041205843
                         1.4835374701 -2.054636960 -0.4630317111
##
    [329,]
            0.097095666
##
    [330,] -1.528711341
                         0.3527497898
                                       0.052410662
                                                     1.5354711266
##
    [331,] -0.626915157 -0.9113548660 -0.555882869
                                                     0.2957346549
##
                                       2.019440728 -0.0142863242
    [332,]
            0.268107451
                         0.7181239668
##
    [333,]
            0.433461307 -0.6198575046
                                        2.350758399 -0.9977424661
##
    [334,]
                         0.2656653320
                                        0.608784936
                                                     0.2087514491
            0.710497128
            0.410990417 -0.2413398549 -1.256387315
##
    [335,]
                                                     0.3057853391
##
    [336,] -0.005932612
                         1.0012023808
                                       0.641273580 -0.1386345976
                                        1.579909416 -2.0860968217
##
    [337,] -1.570799475 -0.1737427194
##
    [338,] -0.730021578
                        1.7449103778 -0.183633738 -0.5157447668
    [339,]
##
            0.693596091 -0.2620459511 -0.507300767
                                                     1.0035420608
##
    [340,]
            0.317203055 -0.1747276291 -1.081916339
                                                     0.5121842697
##
            1.008209656 -1.6601903678 -0.862810029 -1.9302724435
    [341.]
##
    [342,] -0.995298390
                         1.0660110094 -0.239704051
                                                     1.4722325462
                         0.0286721776 -0.034156481
                                                     0.0936456698
##
    [343,] -0.569614090
##
    [344,] -0.175523202 -1.1649022716
                                       1.262835228
                                                     0.9676853518
##
    [345,] -1.216717836 -0.7148309110 -1.352311657
                                                     0.8321650545
##
    [346,] -0.160768731 -0.2572097927 -0.984989336
                                                     0.6761628666
##
    [347,] -1.293421349
                         0.0158709706 -0.736640281
                                                     0.2806835684
##
    [348,] -1.611436035
                         0.7661386143 -1.028299979 -0.4724291742
##
    [349,] -0.252492103 -0.0814653888
                                       2.209302791
                                                     0.2779261240
    [350,] -1.069312885
##
                         0.5059833270 -0.475451745
                                                     1.5919622610
##
    [351,] -2.493387985
                         0.3873055318 -0.484389470 -1.2714548436
##
                         1.0453793828
                                       2.443642751
                                                     0.9416022495
    [352,]
            0.081317283
##
    [353,] -2.190991829
                         0.1586177893
                                       2.262511490 -0.8865772154
##
    [354,] 1.819975271 -0.7447176592 -1.001478941
                                                     0.0248909985
    [355,] 2.144731173 0.2021388141 0.684654354 -0.0028835538
```

```
[356,] -0.240610909 1.3572148835 -1.523888500 -0.2604960704
    [357,] -0.671164100
##
                       1.3752376492 -0.489321163 -1.7650357903
##
    [358,] -1.470085353 -0.2287649127 1.072102236 -0.3026980137
##
    [359,] -1.156700426 -0.6781252853 -0.249752152 -0.3033155003
##
    [360,] -0.576783114 -1.5069914360 -0.442713404
                                                   1.1831250118
##
    [361,] -0.968584529
                        0.7143461121 -0.721265379
                                                   0.5853490464
           1.411506184 -0.0724136796 0.427628854
##
    [362,]
                                                   0.2025836016
##
    [363,]
           0.146683684 -0.2268276864 -0.436698583
                                                   0.0027667592
##
           0.420073912 -0.9256463883 -0.567916276 -0.4362571791
    [365,] -1.101993970
                        0.5163603598 -1.397410549
                                                   0.2521273246
##
##
                        0.1709277550 -0.035141694 -0.3339438568
    [366,] 1.457541907
##
    [367,] -1.719827128
                        0.8411469609 -0.939186350 -1.0986562533
    [368,] -0.953703068  0.9935309271 -0.762369089
##
                                                   0.0439217649
##
    [369,] -0.358848426
                        0.6066760683 0.361153530
                                                   1.8256366164
##
    [370,] -0.687576306
                       1.3894812314 0.620589852 -0.2426008302
##
    [371,] -0.017788216 -0.3977581327
                                      1.671074211
                                                  1.1351733359
##
    [372,] 1.005605375 -0.4252386890
                                      2.336893715 -0.7392981109
##
                        0.2196828621 -1.390432284 -1.9943856099
    [373,] -0.549685283
    [374,] -1.153727279
                        0.5522210478 -1.080695643 0.0261812346
##
    [375,] -1.799482568 -0.5062745968
                                     2.424829405
##
                                                   1.4187461110
                                      1.396091600 -0.5581208897
##
    [376,] -1.554832653 -0.8448381867
##
    [377,] -2.141469684 -1.4547614004
                                      1.409641518
                                                   1.0201090222
##
    [378,] 1.923642571 1.4198895286
                                     1.213519532 -1.0686245504
##
    [379,] -0.390425335 -0.7714165920 -0.023910686
                                                   0.8211311018
##
    [380,] 1.061018104 1.3856671693 -0.197127768 -0.6145689464
##
    [381,] -0.965318705 -0.1574082243
                                      1.689468014
                                                   1.2091739720
##
    [382,] 0.495605331 -1.0874762961 -1.304077152
                                                   0.2111765187
##
    [383,] -1.237454448 0.6357201908
                                     0.793927031
                                                   2.3284885685
##
    [384,] -0.872948334
                        0.5370659727 -0.904361065 -1.6648704612
    [385,] 0.434210391 -1.5250275112 0.265299519 -0.3326103586
##
##
    [386,] -0.258450269
                        1.2387334374 -0.018483103 -0.3950653100
                        ##
    [387,]
           0.406546167
##
    [388,]
           0.459167800 0.7009995145 0.721801048
                                                   1.4750016347
    [389,]
##
           1.646347989 -0.2229473849 -0.063506272 -0.7778368770
##
    [390,]
           0.434825478 -0.6997554585 0.695005193
                                                   0.8903249210
                        0.2206917741 -0.290770195 -0.6023035528
##
    [391.]
           0.738362762
##
    [392,] -0.178790949 -1.6782325817 -0.281265016 0.4263618893
##
    [393,] -0.809351427 -0.8997533040 -0.296700035
                                                   0.3128044780
##
    [394,] -1.532243474 -0.2546792313 -0.823716168 -1.0008359780
    [395,] -0.782271392  0.4084812121  0.445979834 -0.0972484362
##
##
    [396,] -1.315830881 1.4060337062 -0.531076787 -0.8488336483
##
    [397,] -0.409957706 -1.2220998735 -0.309912792 -1.4217829005
##
    [398,]
           0.065586385 -0.3579533043 -0.923804660 0.1949964612
##
    [399,]
           1.703175031
                       1.8497462786 -0.585390364 0.5823320349
           1.912622945 -0.2735831171 0.764498031 -0.7483507937
##
    [400,]
##
    [401,]
           0.144529126 -0.2433673022
                                     1.199630627 -2.8874736843
##
    [402,] -0.559345826 -2.1227366391 -0.970936246 -0.8002930165
   [403,] -1.665921641  0.9492005248 -0.599887699 -0.0242568263
##
##
    [404,] -1.031351369 -0.9559735683 -0.278143568 -0.6213649904
  [405,] -0.051332354 -0.2555978524 0.865107594 0.1350921914
```

```
1.838112912 -0.2934489550 -0.801657173 -0.3198479585
##
    [406,]
##
    [407,]
           0.117007479 -0.7031760187 -0.836413257 -0.8186350893
##
    [408,]
           1.679556088 0.0044207687 -0.392205773 0.7620115561
##
    [409,]
           0.687582991 -1.8902800698 -0.462572376 -0.7036579605
##
    [410,] -0.148530404
                        0.6375248117 -0.234606152
                                                  1.2137773216
##
    [411,] -2.246809839
                        1.8444862844 0.032449978 -0.3395969444
    [412,] 1.265400493 0.2237104756 -1.380418830 0.9362227158
##
##
    [413,] -0.176712279 -2.2385589807 -0.886910118
                                                   0.0674108684
##
    [414,] -1.145576720 0.5601545559
                                     0.147382889 -0.0472687368
    [415.]
           1.456400267 -0.7798418770 -1.488234058 -1.1133937083
##
    [416,] -0.402074828 -1.0297071303 1.070795103 1.7924205037
##
##
    [417,] -0.109289899 -0.1343023327 0.154643977 -0.0782233735
    [418,] -0.075255983  0.8539864315  0.183690154 -1.5245642129
##
##
    [419,]
           0.221728931 -1.5958268705 -0.676967100 0.4791230320
           0.492220595 -1.4878703656 0.786153243 -1.5491096976
##
    [420,]
##
           0.777415054 -0.6800595913 -1.575752306 -0.3255516464
    [421,]
##
    [422,]
           1.465088893 0.8117690103 0.503586132
                                                   0.4398154740
##
    [423,] -0.264401683 1.3305037783 -0.003386672
                                                  2.6971451410
##
    [424,]
           0.440323733 -0.2125177136
                                     1.565344352 0.3775222841
    [425,] -1.524518748 -0.2622428239 -0.750436310
                                                   0.2627197255
##
    [426,] 0.783900774 0.1948531926 0.285573466
                                                   2.2390740423
##
##
    [427,] -1.249358435 -2.6065539671 -0.693898880 -0.8245806799
           1.190054668 -2.3218220415 -0.928411155 -1.1655978103
##
    [428,]
##
           0.780895679 -0.5537997056 -0.541735538
                                                   1.5837798163
    [429,]
    [430,]
##
           0.410947616 -0.4625967797 -0.674803040
                                                   0.8997689995
##
    [431,] 0.691447599 -0.6315061049
                                      0.749418008
                                                   0.3836139457
##
    [432,] -0.823402384 1.4356400930 0.698194824 -1.3074505199
           0.743277884 -0.0521832632 -0.489397978 -1.5930027932
##
    [433,]
##
    [434,] -0.257563358
                        0.1386829964 -1.835241397 -1.4115731523
    [435,] -0.501914820  0.8921733398  2.153392741  0.6463960915
##
##
    [436,] -1.619542536 -1.3214497199
                                     1.713579656
                                                  0.8827842532
    [437,] -1.299072337 -0.2212157887 1.991456908 -0.3885385356
##
##
    [438,] -0.578604715 -0.5699065307 -1.268969433 -0.6392710664
    [439,] 0.046357335 -1.0996657260 -0.513959404 -0.5222556017
##
##
    [440,] -0.866070169  0.6749506928 -1.562617318  0.4481050384
    [441,] -0.100284657 -0.0009862945 -0.746577459
##
                                                   1.1897533641
##
                                     2.130626686 0.2425180635
    [442,] -0.653439342 -1.1061726209
##
    [443,] 0.116487377 -0.0955441411 0.496046845 -0.0171086466
##
    [444,] 1.303958242 -0.6393689136 -1.397705916 -0.7732773535
    [445,]
           ##
##
    [446,] -0.189863901  0.2549911376 -1.037015935  2.5611559856
##
    [447,] -1.171591041 0.1543992964 -1.513561195 -0.5261126579
##
    [448,] 2.977741903 -1.0458175915
                                     0.496957799 -2.2921820118
##
    [449,]
          0.212592985 -0.5500612853 -1.450704263 0.7400988719
##
    [450,] -0.515199353 -1.2393981139
                                     1.968232514 -0.0315513744
##
    [451,] -1.785567331 -0.0214555754
                                     1.646441937 0.9127330041
##
    [452,] -0.929547116 -0.2668970626
                                     1.312610795 -0.1133194421
##
    [453,] 0.914024757 1.0897556804 0.252867164 1.9926031847
##
    [454,] -0.492044666 -1.4567858818
                                     1.697901882 0.0622942371
## [455,] 0.729175330 0.3620699724 -1.195130591 1.6218074391
```

```
0.060248542 -0.68888888050 0.502207771 1.2610897902
    [456,]
##
    [457,] -0.333697075
                       ##
    [458,] -0.689864338
                        1.5830139427 -0.303600011 -1.7854918211
##
    [459,] 2.154152180 -0.0932480275
                                     0.545356300
                                                  0.3399770157
##
    [460,]
           0.555239769 -1.3734833352 0.859820914 0.0299960858
##
    [461,] -0.305555156
                       1.2843596683 -1.632358087 -0.3824655113
    [462,] 0.883901154 0.6741980058 -0.299087508 0.1707604009
##
##
    [463,] -0.380692927 -0.5186424420
                                     0.689677569 -1.4084888108
##
    [464,] -0.138090228 -1.5989628388 0.464056235 0.2831027510
    [465,] -0.400702478 -0.3127926919 -1.083905688 -0.1679684498
##
##
    [466,] 0.532558481 -0.2517279507 -0.961165937 -0.6939765080
##
    [467,] -1.481217881 1.0731744627 -1.291692295 1.0766709440
    [468,] -1.112921709 -1.2754470935 -1.776297080 -0.5823253311
##
##
    [469,] -0.321214693  0.5182791195 -1.035988101 -0.3859481526
    [470,] -0.522750109  0.9845625868 -0.607548987 -0.5527194693
##
##
    [471,] -0.125994278 -0.2201909424 -0.656186989 -0.0663083446
##
    [472,] -1.453119732 1.3433420927
                                     0.821270623 -1.1180149947
##
                                     0.527472026 -2.3861653405
    [473,] -1.756167650 -1.0209933568
    [474,] 0.112317362 -1.6771937176
                                     1.399487237 -1.8051704780
##
    [475,] 0.039618636 1.4427132110
                                     2.220626141 -1.3942203449
##
    [476,] 0.693459244 -0.8407878853 -0.143370698 -0.0966195363
##
##
    [477,] -0.199411942 -1.7058876937
                                     1.501546559 0.0430247973
    [478,] -0.529746532 -1.1399294427
                                     0.736123128 -1.4527417447
##
##
          1.666444896 -0.6908690702 -0.958083149 0.2725033043
    [479,]
##
    [480,] -0.301177968 -0.6710032425
                                     1.410009125 -0.0028827345
##
    [481,] 0.371352228 0.4149822239
                                     1.691925825 0.9978143640
                                    0.145266375 -2.2397923861
##
    [482,] 1.630650886 -0.9783618580
##
    [483,] -0.858576115 -0.0378536123 -0.442990937 -1.3281544747
##
    [484,] -0.853167554 0.0417194673
                                     1.804411576 -0.3713441247
                        0.0469841827 -1.356637699
                                                  0.3424694908
##
    [485,] -0.334746816
##
    [486,] -1.094076179 -0.7790140276 -0.697319309 -0.5882640290
    [487,] 1.509429484 -0.4195396663 -0.938849484
##
                                                  0.4583233109
##
    [488,] -0.498172750
                       1.8653860393
                                     1.373359817
                                                  1.0846210344
##
    [489,] 1.245653034
                       1.1584267831 -0.492678348 -1.3716239034
##
    [490,]
          1.0478209492
    [491,] -0.813096524 -0.5507032250 -1.168513032
##
                                                  1.3837512847
##
    [492,] -0.371196345 -0.9427554829
                                     0.970669235 0.1187957769
##
    [493,] 1.907397882 -1.1673107566
                                     0.997703020 0.1039987419
##
    [494,] -1.928974512  0.9781320184 -0.405417734  0.0162684055
                                     0.037590726
##
    [495,] 0.236402137 0.0537031687
                                                  0.0739278272
##
    [496,] -0.109866952 -0.3936722964
                                     0.588998546
                                                  1.5378468590
##
    [497,] -0.245332389 -0.6788530430 0.210028685 -0.8500015942
##
    [498,] 1.091489913 -1.1482926165 -0.932931578 -0.2878724277
##
    [499,]
          0.718110694 -1.0299001239 -0.252710303 0.3872713641
##
    [500,] -0.954478624  0.1254264422  -0.594418957  -1.6908601868
##
    [501,]
           0.751804590 -0.2011189401
                                     1.841675785 -0.2872216275
##
           0.318181422
                        0.0147206052 -0.627866630 0.0023511272
    [502,]
##
   [503,] -1.170309849 1.1238303966 -1.543586941 -0.7466042042
##
    [504,] 0.185465671 0.1900644115
                                     1.354338786 -2.2497671955
  [505,] -0.374191095 1.5489164857 1.313178797 1.7125506665
```

```
##
    [506,] -1.431249303
##
    [507,] -1.804220142
                         1.1307510450 -0.205675527 -0.4832172797
##
    [508,] -0.165385231 -0.3596492240
                                       1.876975104 -0.1622640800
##
            0.668211592 -0.1302308088 -1.897232455 -0.2618778882
    [509,]
##
    [510,] -0.176218527
                         0.7573445388 -0.424431516
                                                    1.4801987775
##
    [511,]
            0.143359255
                         1.7188327486
                                       0.474868296
                                                    0.1119551046
##
    [512,] -0.325982095
                         1.4746326003
                                       0.872433836 -0.8923305008
##
    [513,]
           1.855853482 -0.3699133916 -1.360486023
                                                    0.4376786211
##
    [514,] -1.097687691
                         1.5560879757 -0.219942230 -0.2587091462
    [515,] -0.541832037 -1.3164217456 -1.021588260 -0.3859886330
##
                         0.1085949165 -0.886877317
                                                     0.3391057005
##
    [516,]
            0.088189320
##
    [517,] -0.342246885
                         1.3589796022
                                       0.302322578
                                                    1.7160381134
##
    [518,] 1.725070514
                         1.1328924740
                                       1.007043964
                                                    0.8678548366
##
    [519,] -0.389822991 -1.3970024591
                                       1.859232326
                                                    0.8342045656
##
    [520,] -0.738666312
                         0.2514795558 -0.238744429
                                                    0.0187938889
    [521,] 0.216872282
                         0.4438417797
                                       0.029938543
                                                    1.0738787521
##
##
    [522,] -0.167262776 -0.9741715546
                                       1.080790053
                                                    0.9521940001
##
    [523,] 0.163961367
                         0.0497344064 -0.790806787
                                                     1.0349620964
    [524,] -1.005580860
                         1.1321033684 -0.243928157 -0.9040897248
##
    [525,] -0.534385258 -0.5466616697
                                       1.731639590
                                                    0.9624933896
##
##
    [526,]
           0.673610537
                         0.4415062642
                                       0.704571404
                                                    0.3869210269
##
    [527,] -0.375653535
                         1.8801330389
                                       2.165729973 -1.1200564481
##
    [528,]
            1.002778370
                         1.0976025208
                                       0.061647693 -0.7876757480
##
                         1.8299545509 -0.240783599 -1.9402687967
    [529,] -1.219814852
##
    [530,] -0.731173979 -0.4096026311 -1.468825617 -0.4721803904
##
    [531,]
            0.920356020 -0.1390236113
                                       0.358619953 -1.3833133912
##
                         1.6427443686 -0.971014791 -1.3966334948
    [532,]
            0.774281043
##
    [533,]
            0.901545619 -0.3062279239 -1.252452543
                                                    1.4458415517
##
    [534,]
                         0.8916072407 -0.228709316 -0.2413184842
            0.263911248
    [535,] -0.572417653 -1.5480302543 -0.429408365 -0.0879293146
##
##
            0.670536107
                         1.3921814824
                                       0.151455090
                                                    0.9450070266
    [536,]
##
    [537,] -0.576709936
                         0.7887560614 -1.340883348
                                                    2.0294316468
##
    [538,]
                         1.7369885067 -0.472252144 -0.8011940039
            1.022426179
##
    [539,] -1.160072697 -0.5575700804
                                       1.410997974 0.3915639243
##
    [540,]
           1.233899909
                         1.1024598704
                                       0.544131136 -1.0959411306
##
    [541,]
            0.475298724
                         1.1374095331
                                       2.235427146 -0.4224024643
##
    [542,] -1.545807900 -0.9904426824
                                       1.166320717
                                                    0.5197418865
                         1.3004765214 -0.891633192
                                                    0.6512889644
##
    [543,]
           0.910970474
##
    [544,] -0.593378120
                         0.3995042044 -0.716823349 -1.0268399317
##
    [545,] -1.197173978 -1.0483707947
                                       2.194470785
                                                    0.2784029092
##
                         0.2681162829 -0.401632455
                                                    0.6007412161
    [546,] -1.264659912
##
    [547,]
            1.116940690
                         2.0603972581
                                       0.396325904 -0.5577010352
##
    [548,]
            1.790971572 -0.5399079189 -0.737085779 -0.4498770405
##
    [549,] -1.218285349 -1.6771704098
                                       0.127884599
                                                    0.0466921688
##
    [550,] -0.688351187 -1.4923386148 -0.736358418 -0.0992654576
##
    [551,]
            1.117634040 -0.6053019599 -0.228681854
                                                    0.3644006841
##
    [552,] -0.378526599 -1.1579428048
                                       0.099389035
                                                    0.0293292929
                                                    1.7140087610
##
    [553,]
           2.518681691 0.1810114034 -0.174230601
##
    [554,]
            0.241138088
                         0.3353675927 -0.376506834
                                                    0.9650705823
    [555,] 0.453049835 1.4304201656 0.344032544 -0.4131294315
```

```
##
    [556,] -0.674707640 -1.0813795245 -1.022117005
                                                     1.6795677800
##
    [557,] -1.425406531 -0.9736347753 -1.065128358
                                                     1.1935147415
##
    [558,]
            0.594555126 -0.2832361274 -0.818710324
                                                     0.8150138810
##
    [559,]
            0.770573158 -1.3285008236 -0.119127675
                                                     0.1613331477
##
    [560,] -1.542156870 -0.9163401296 -1.030434071
                                                     0.6676849198
##
    [561,]
            1.482641608
                         1.1135083213
                                        1.565794693
                                                     0.6856793259
##
    [562,]
            0.912177636
                         0.2557225781 -0.117034047 -0.6386221389
##
    [563,] -1.108697452
                         1.5582127963 -0.155343809
                                                     0.8840211981
##
    [564,] -1.049737540
                         1.2118694156
                                        0.239602619
                                                     1.4522111716
    [565,] -1.228084905
##
                         0.9887983583 -1.386477300 -0.4011869165
                         0.8207309128
                                        0.566095785
                                                     2.4942868332
##
    [566,] -0.134545340
##
    [567,]
           0.731207991 -1.4660028257 -0.560327475 -0.3907162911
##
    [568,] -1.786813526 -0.2897187529
                                        0.640251946
                                                    -0.2455085694
##
    [569,] -1.077086455 -0.0084053941 -0.696997898
                                                     1.7573325421
##
    [570,]
            0.642097073
                         0.7617953528
                                        0.340485321
                                                     0.4571533854
##
    [571,] -1.031712715
                         0.9115503288 -0.625320642
                                                     1.0873305468
##
    [572,]
           0.027908659
                         1.3740196961
                                        0.465020524 -0.0267851115
##
    [573,] -0.770914685
                         0.5268659643
                                        2.125921746
                                                     1.2667906994
    [574,] -1.500443202
                         0.7131734285
                                        0.006618884
                                                     0.7253468195
##
##
    [575,] -1.406448482
                         0.5890166114
                                        1.626745145
                                                     1.3560130329
                         0.0329400289
                                        1.919015304
##
    [576,]
           1.074519123
                                                     0.1310715172
##
    [577,] -0.672509022
                         2.0056436000
                                        0.183588534
                                                     0.1946044255
##
    [578,] -0.245655767
                         0.2007803283 -0.012734003
                                                     0.4019444344
##
    [579,] -0.224743798 -0.7656293893
                                        1.652936592
                                                     0.8419183061
##
    [580,] -1.211626982
                         1.1526991628 -0.212635763 -1.0220828888
##
    [581,] -1.034028736 -0.0990006239 -1.110350949
                                                    -1.2148555952
##
                         0.3282643581 -0.339791923
    [582,] -0.883525140
                                                     1.2420142322
##
    [583,]
            0.485480208 -0.3389679913 -0.797316238 -0.8771758883
##
           1.078162984
                         0.9153152651 -1.482783023 -1.3058220677
    [584,]
    [585,] -1.651502530 -1.2837831741 -0.278661333 -0.9945892276
##
##
    [586,] -1.629722884 -0.8458921907 -0.949590367
                                                     0.0270923155
                         0.2847418491 -0.873867704 -0.1737441260
##
    [587,]
            1.266832374
##
    [588,] -1.357221966 -0.2000918684
                                       0.501371911
                                                     0.7218158321
    [589,]
##
            0.102803891 -0.3280627219 -0.169580862
                                                     1.9611320593
##
    [590,]
            1.431120968
                         0.5892229190 -0.380675730
                                                     0.9693929168
##
                         0.9873966201
                                       0.964300508 -1.1225160470
    [591,]
            0.626981745
##
    [592,]
            1.792656029
                         0.3463371373 -0.660035358
                                                     0.5052875016
                         0.7271995882 -0.438754800
                                                     1.4800606477
##
    [593,]
            0.727714303
##
    [594,] -0.717069639 -1.4908631909
                                        2.381634015
                                                     0.0512202714
##
    [595,]
            0.742942830 -0.8912105502 -0.474077836 -0.8180723394
##
    [596,] -0.208875134 -1.7945942612
                                       0.665285345 -0.8841814314
##
    [597,] -1.353571792
                         0.2833166396 -0.120802387 -1.0331457440
##
    [598,] -1.299348082
                         0.9903110197
                                        0.065230807
                                                     0.0822201274
##
    [599,] -1.331123711
                         0.4039216296
                                        0.185445082
                                                     0.0506881709
##
    [600,] -0.414732288
                         1.1317599442 -0.581679460
                                                     0.0994948901
##
    [601,] -0.313089244 -0.6702812623
                                        0.041405016
                                                     1.4538015184
##
            0.696285793 -1.8095672483
                                        0.629787861
                                                     0.4048232590
    [602,]
##
    [603,] -0.664960798
                         0.5849853451 -0.333679218 -0.0922546040
##
    [604,] -0.530583380
                         0.6246936691 -0.864162076
                                                     1.2951701690
    [605,] 0.393033722 0.2427576747 -0.143276193 1.5248592332
```

```
[606,] -0.773483140  0.4931802457  0.919365940 -0.3231844134
##
##
    [607,] -1.550219870 -0.5721616995 -0.008784268 -1.2361901112
##
    [608,] -0.425929638 -1.2560451875
                                      1.410679344 -0.5049604728
##
                        0.5208371991  0.546749614  -0.8423897492
    [609,] 0.537334661
##
    [610,]
           ##
    [611,] -1.262739352 -0.1678791193
                                      1.028433678 -0.9615857844
                        0.5279296458 -0.363323955
##
    [612,] -0.506180423
                                                  1.2264462356
##
    [613,] -0.466164267
                        0.0740621626 -0.745482803 -1.4161796042
##
    [614,] -0.062652463 -0.5850359124 -0.716059118 0.7107113083
    [615,]
                                      0.322589126
                                                   1.4242977078
##
           0.352763658 -0.4661987357
##
           0.630817178 -1.2934951186
                                      0.299851670 -1.5349327764
    [616,]
##
    [617,] -1.776494997
                        1.4231792525
                                      1.866290876 -1.3771903714
          1.862778139
                        0.3168825534 -2.044272590
##
    [618,]
                                                   0.2024695139
##
    [619,]
                        1.0408955491 -1.229743284
                                                   0.3007597540
           0.783085708
                        1.0935991652 -0.212727297 -2.3929896532
##
    [620,] -0.975228093
##
    [621,] 0.395720199 -0.5237252721 -1.316548086 -0.8197941803
##
    [622,] -1.770814879 -2.8695094636 -0.779740957 -1.2461052930
##
    [623,] 0.364824670 0.4074003624 -1.431914603
                                                   1.0084302678
    [624,] -1.818826667 -0.4104093949 -0.180294406 -0.0207928292
##
    [625,] 0.101111725 -0.9211709468
                                      0.046925033
                                                   1.7491603015
##
                        0.7214556049 -0.578213806
##
    [626,] -0.144427102
                                                   0.8669059482
##
    [627,] -0.630544162
                        0.4278626091
                                     0.350839260
                                                   0.8557093702
##
    [628,] -0.512994850 -0.1855098459
                                      0.358881316
                                                   0.1943638402
##
                        1.0821048810
                                      0.409834172 -1.3214296216
    [629,] -1.424391456
##
    [630,] 0.491007264 -0.4739891640 -1.154115956
                                                   1.9120547616
##
    [631,] -0.371155336
                        1.0840335289 -0.611155100
                                                   0.8263665790
##
    [632,] 2.132957294 -0.0577048796
                                      0.609805408 -0.0743387945
##
    [633,] -1.213695030
                        0.3574885950
                                      0.769194405 -0.7561102837
##
    [634,] -1.499211623
                        0.3587654980 -0.410043538 -0.1139499815
    [635,] 0.689637532 -0.8872405733
                                      0.447918736
                                                  1.0314217497
##
##
           0.262805205 -1.1564586261
                                      0.995993417 -1.1521061040
    [636,]
##
    [637,] -0.289674258
                       1.1233106910
                                      0.301865815 1.2773637891
##
    [638,] 0.014863848
                        1.3083382488
                                      1.340446839 -0.4698518961
##
    [639,] -0.413960667 -0.6589949790
                                      0.973034322 0.5817574690
##
    [640,] -0.995840420 -0.4460006835 -0.406714463 -2.0778438461
##
    [641.] 0.195568870 0.9716455001
                                      0.367638376
                                                  1.3484679803
##
    [642,] -2.021053663 -0.5732228759 -0.315411927 -0.8175973615
                                      2.985679913 -0.1649569448
##
    [643,] -0.535763589 -0.0376944225
##
           1.418839368 0.0501147909 -0.144247484 0.5756967746
    [644,]
##
    [645,]
           1.044009948 -0.2551107556
                                      0.937569376
                                                   0.5375487123
##
           0.319561639 1.8313513311
                                      0.843646913
                                                   0.5357798806
    [646,]
##
    [647,] -1.807590277 -0.4317804771 -1.205050000 -0.4750512852
##
    [648,] -0.984707161 -0.6146120423
                                      0.500836132
                                                  1.5100316974
##
    [649,] -0.225577113 -0.7702434451
                                      1.437121595
                                                   0.4091569637
##
    [650,] 0.529472865 -0.1513145616
                                      0.165085750
                                                   1.3932981311
##
    [651,] -1.566557203  0.6551432443  0.357127620 -0.2336101931
##
    [652,] 0.313013189 0.8661347027 -2.166785713 -0.1677579812
    [653,] -1.030773141 -0.1103372529 -1.231374046 -2.5081728050
##
    [654,] 0.441404547 -0.4836819133 -0.521476107 0.3560941837
##
   [655,] -0.649211957  0.9084150058 -0.032271911 -0.2298143071
```

```
##
    [656,] -0.272258786 -1.4539435715 0.012133243 -0.7092718913
##
    [657,]
           2.258850160 1.9289263917 1.850805345
                                                   0.1417493027
##
    [658,] -0.440504703 -0.7296155870 -0.424685444
                                                   0.6080484539
    [659,] -0.622883984 2.1704094452 -0.640358441 -0.3780801536
##
##
    [660,]
           0.380726980 -0.3655681059 -0.821834838 -0.6399953334
##
    [661,]
           0.875900381 -1.2255016009 -0.698594729
                                                   0.3378113524
    [662,] -0.089905076 -0.8814760216 -0.319780756
##
                                                   0.3828870437
##
    [663,] -0.495938464 -0.4332404493 -0.112989169 -0.0189170557
##
           0.459686749 -0.5798233407 0.529615947 -0.8145547368
    [665,]
           0.010432227 -0.0441890784 0.954099364
                                                   1.0470133001
##
##
           0.4781429245
    [666,]
##
    [667,]
           0.850989983 -0.8284467193 -0.761494125 -0.2247468462
           ##
    [668,]
##
    [669,]
           1.263879172 -0.8308205224
                                     1.540725572 -2.7286585841
                        0.1689966457
                                      0.256917163
##
    [670,] -0.161051242
                                                   0.1555881014
##
    [671,] 0.057525850 -0.2627273308 -0.313218376 -0.0139377019
##
    [672,]
           0.535173522
                        0.6784420243
                                     0.618817703
                                                   0.8477960052
##
    [673,] -0.287124208 -0.6842557119 -0.201798463
                                                   0.9430813318
    [674,] -0.165749637 -1.3612831928 -0.289472435
                                                   0.5150834339
##
                       1.4380312042 -0.803629884 -0.7336511996
##
    [675,] -0.552168776
          0.178216809 -0.9016640983
                                     0.026705815
##
    [676,]
                                                   0.9563217002
##
    [677,] -0.702996329 -0.1464642059 -0.876718202
                                                   1.4158739998
##
    [678,] -0.180461945
                        0.4611459973 -0.513908413
                                                   0.8450610564
##
                        0.6023071755
                                      0.761752443 -0.1863643555
    [679,]
           0.145705799
    [680,] 1.307750991 -0.6881749367
##
                                      0.021558735
                                                   0.2048681627
##
    [681,] -0.066084549
                        1.0644073189
                                      1.610123019
                                                   0.8379656150
##
                                      1.587661298 -0.1850435147
    [682,] 1.010615473
                        0.8218903065
##
    [683,] -0.379461432
                        0.2184145116 -0.291520616 -0.8288161309
##
    [684,]
           0.184341332 -0.2416120417
                                      1.567634379
                                                   0.7726530539
                        0.2213092820
                                                   1.3239055677
##
    [685,] -0.549088743
                                      0.635700382
##
           0.944281227 -0.1096475454
                                      0.418644081
                                                   0.7058917446
    [686,]
##
    [687,]
           0.370166258 -0.2385169078
                                      0.436551516 -0.6750959975
##
    [688,]
           0.288320351
                        1.7013426801 -0.730586053
                                                   0.4058106734
##
    [689,]
           0.012925808 -1.3693228272
                                     0.527786763 -0.4271902616
##
    [690,]
           0.220522698
                        0.4194959315 -0.476115723
                                                   0.5005153777
    [691,]
##
           0.875634839
                        0.7909618655 -0.191748374 -0.4243372582
##
    [692,] -0.893065673 -0.3565887516 -0.736217821
                                                   0.9234798167
##
                        0.5505866772 -0.321987700 -0.9417914511
    [693,]
           2.045684529
##
    [694,] -0.799027362
                        0.4806843635 -1.032400389
                                                   1.2444449224
                       1.8847654718 -0.810924825 -1.4063244893
##
    [695,]
           1.209150926
##
           0.362732368 -0.5420146665 -0.441695252
                                                  1.0679205845
    [696,]
##
    [697,]
           0.512571248 -0.9728359726 -0.565128198 -0.0141131386
##
    [698,]
           0.388825670 -0.9292309546 -1.676239485 -0.7147517309
##
    [699,]
           0.032492857 -0.0973442099
                                      0.605252191
                                                   1.9222892906
##
    [700,] -0.532298202 -0.3640189780
                                     0.141908854
                                                  1.6010294206
##
    [701,] -1.383257496 -1.3809791279 -0.564203720 -0.1822005438
##
    [702,] -0.104525261
                        0.0125921652
                                      1.468102107 -0.8848737427
##
    [703,] 1.305242385 1.1612452395 -0.235511025 -2.6877525741
##
    [704,] -0.766546020
                       1.2344426746
                                     0.450183857
                                                   0.6807848028
  [705,] -0.337805885  0.1721557874  0.114921748  1.5816314282
```

```
##
    [706,]
           1.534872999 1.8191258256 0.989948520
                                                   0.6478309461
##
    [707,] -0.291118846
                        0.8094528741 -1.267298638
                                                   0.5662832921
##
    [708,]
           0.235857880 -0.7187235212
                                      1.542943377 -0.5910155429
                        0.7282312395 -0.892192949 -0.7421988008
##
    [709,] -0.889894088
##
    [710,] -0.530033306 -0.3291238926 -0.756909158
                                                   1.3946482100
    [711,] -0.307028916 -0.5002139211 0.330534462 -1.1792479497
##
    [712,] -1.284159678 -1.9595274717 -0.397585621
##
                                                   0.1903388258
    [713,]
##
           0.340389644 -0.6406076382
                                      0.093235947
                                                   0.2796130450
##
    [714,]
           1.817584187 -1.5771940443 -0.404478630
                                                   0.3641841253
    [715,]
           0.635866004 0.5427037333
                                      0.930028487
##
                                                   1.4407602576
##
                        0.5449374861
                                      0.682833482 -0.8919400347
    [716,] -1.263761414
##
    [717,]
           1.753183637
                        1.1201207355
                                      0.620027055 -1.4205861635
           0.054458428 -1.5846551006
##
    [718,]
                                      0.608700035
                                                   0.5481734204
##
    [719,]
           0.106446871 0.1485055413
                                      1.711864434 0.8366333296
    [720,] -1.167843743 -0.4395103683 -0.771638155 -1.3812398074
##
##
    [721,] 1.586830037 -0.0370510581
                                      1.337262805 -0.1218004522
##
    [722,]
           0.921995940 -0.1321810487
                                      1.645818558 -0.5630076710
##
           1.279443680 -1.3952782122 -1.005041880 -0.6127255675
    [723,]
    [724,]
           1.074224697 -0.9676219276 -1.362221832 -0.1527996324
##
    [725,] -1.208862181 -1.9330434047 -0.521081255 -0.3439655837
##
    [726,] 0.792630153 1.1071182602 -1.694405977 -0.0378808031
##
##
    0.2663385166 -0.460494301 -1.5111789960
##
    [728,] -1.771929280
##
                        1.4183661831 -0.680908652 1.4399407014
    [729,] -0.165741635
##
    [730,] -0.421675829
                       1.5684056800
                                     1.902705483 -0.5220374438
##
    [731,]
           1.914112646 -0.9155508013
                                      0.606731452 -0.4792886109
##
           0.481514300
                        0.3888195145 -1.421167572 0.0881071805
    [732,]
##
    [733,]
           0.991153520
                        0.1498238668 -0.945864942
                                                   0.0829704987
##
    [734,]
           2.259107744
                        0.9180530703 0.057381493
                                                   0.2378150412
           0.275887443 -1.3800917359
                                      0.004960807 -1.3906045756
##
    [735,]
##
           0.604162506 -2.7069613166 -0.115238167 -1.6654653698
    [736,]
                                      0.057887359 0.0157159603
##
    [737,]
           1.329237177 0.1013962988
##
    [738,]
           0.987530205 -0.9623988815
                                      0.353114309
                                                   1.5632423658
##
    [739,] -1.038395020
                        2.2087311378 -0.399090865 -0.3311430087
##
    [740,]
           0.873370639
                        2.9617150566
                                     0.070091189 -1.0029404551
           1.065440503
##
    [741,]
                        2.0713453901 -0.479946515 0.8731139339
                                      1.244556753 -1.1356309845
##
    [742,]
           1.168158443 -1.1915475874
                       1.0317129125 -0.200186144 -0.7143766237
##
    [743,]
           2.252499723
##
    [744,] -1.113587233  0.5478166220 -0.390033953 -1.2537626593
    [745,]
                                      2.280591729 -0.7847499134
##
           0.002399713 -0.1261690884
##
    [746,] -0.452190875 1.2714230337 -0.134465874 -1.6955452688
##
    [747,] -1.061111163 -0.1047009074 -0.435328484 0.4839284332
##
    [748,]
           1.830110522 -1.2523210696
                                      1.138788478 -0.2867249527
##
    [749,]
           0.461387556 0.0224913135
                                     0.997167280
                                                   0.2954002717
##
    [750,]
           0.121803339 -0.6789474643 -0.005879442
                                                   0.1319161473
##
    [751,]
           0.783280584 0.7189937822
                                      1.216191945
                                                   0.1505514736
##
           0.810579642 -1.6774333719 -0.827598694
                                                   0.9509899893
    [752,]
##
    [753,] -0.011196496 -0.4019646177 0.699444356
                                                   1.2654196690
##
    [754,] 1.054141754 -1.6980037106 -0.504763342 0.1526091227
  [755,] 0.584855814 1.0631874545 -0.177386776 -0.6629002762
```

```
##
    [756,]
            0.390945410
                          0.6574267146
                                        1.326153834
                                                      0.0301612621
##
    [757,]
            0.360920202
                          0.7237820815
                                        0.293913538
                                                      0.0057876178
##
    [758,]
            0.123589471 -0.1142755719
                                        2.122805170
                                                      0.4508376808
##
    [759,] -1.641679122
                          1.4006945765
                                        0.719998654 -0.6190294121
    [760,]
##
            1.596198129
                          0.2815657452
                                        2.755480463
                                                      0.6674362818
##
    [761,]
            1.603167756
                          0.0665148743
                                       -1.041876730
                                                      0.1846369048
##
    [762,]
          -1.789444130
                          1.4764884984 -0.665320301 -1.0895653263
    [763,]
##
            0.606136523
                          1.9842202305
                                       -0.307880440 -0.1011200565
##
    [764,]
            0.904412784 -1.1148565053
                                        0.163729780 -0.0277480652
    [765,]
                                                      0.0055671450
##
            0.044362207 -1.7401338013
                                        1.766412987
##
    [766,] -0.761292245
                          1.6289165582
                                        0.846103995 -1.0210066108
##
    [767,]
            0.483297932
                          0.6552052441
                                        1.912981021
                                                      0.3628037690
##
    [768,]
            1.053528536 -0.9384893249
                                        1.481980239
                                                      0.4667781750
##
    [769,] -0.910397536
                          0.1953181630 -1.082250562 -0.7090995883
                                        1.118905491
##
    [770,]
            1.681100484
                          1.2961458598
                                                      0.0850100275
##
            0.366008776 -0.8498220257 -0.105432179 -0.5314932079
    [771,]
##
    [772,] -0.530013646
                          0.6478397590 -1.089480392 -1.6696541307
##
    [773,]
            0.181323037 -0.3057054265 -0.250064283
                                                      1.4965139378
    [774,] -0.212333771
                          0.3262654875
                                        0.434959440
                                                      0.2427070172
##
    [775,]
            0.838694261 -0.2983358895 -0.971269025
                                                     -0.0445245697
##
##
    [776,]
            1.859462828
                          1.2901555808
                                        0.262652896
                                                      1.6015930760
##
    [777,]
            1.157673166
                          1.6130560442 -0.709028061
                                                      0.3801309299
##
    [778,] -1.874743698
                          0.6869293212 -1.173665007
                                                      1.4089890754
##
    [779,] -0.938556775 -0.5060913976 -0.503923403
                                                      2.2233829696
##
            1.359097614
                          0.2267601155
                                        0.471858347
                                                      1.4990557143
    [780,]
##
    [781,]
            0.547148272
                          0.5409904243
                                       -0.339261424 -0.0401844714
##
                                        1.547208285
                                                      0.9879544412
    [782,]
            0.022587064 -1.8561990299
##
    [783,]
            0.918259882
                          0.3545244304
                                        1.571027256 -0.0366646828
##
    [784,] -0.302643007
                          0.7698556624
                                        0.346019647 -0.0767766511
            0.492565661 -0.1542621875
                                        1.178292490 -0.5561150444
##
    [785,]
##
            0.204211147
                          0.5507048271 -1.146305098
                                                      1.0686030503
    [786,]
##
    [787,] -0.257183817
                          0.2336040971
                                        1.123859409 -0.5185419444
##
    [788,]
            0.543063337
                          0.6234021653 -1.131347444
                                                      0.6273988858
##
    [789,] -0.217183785 -0.6907220352 -0.685864712
                                                      0.4936833794
##
    [790,] -0.002701459
                          0.3035083319
                                        0.085752568
                                                      1.9384771493
##
    [791,] -0.194052728 -0.9493652047
                                        1.917475207 -1.7273993979
##
    [792,]
            0.845431479 -1.4698352964 -0.146736384 -1.0448488707
##
    [793,] -1.647067621
                          0.6384751268 -0.310467705
                                                      0.3842180222
##
    [794,]
            0.945669680
                          0.1794007539
                                        0.292767308
                                                      0.0102121840
##
    [795,] -2.485011129 -0.2402476478 -0.301300146
                                                      0.8945430066
##
            1.005279636
                          1.8584771079
                                        1.034315090
                                                      0.8920614265
    [796,]
##
    [797,]
            1.478264004
                          1.3121350582
                                        0.227955433
                                                    -0.3372256260
##
    [798,] -1.616804251
                          1.2096288441 -1.151156897
                                                      1.1451518459
##
    [799,]
            1.038140145
                          0.8466614146 -1.083403826
                                                      0.0722179334
    [800,]
##
            0.746469846
                          0.2765778985
                                        0.561647160 -0.4298599354
##
    [801,] -0.556307864 -0.0456759166
                                        1.971112008 -1.0436187721
##
    [802,] -2.177327736
                          0.5194250374 -0.155340996 -0.4342227168
##
    [803,] -0.338747362 -0.4027749670
                                       0.203384823
                                                      1.3513171402
##
    [804,] -0.633990675
                          0.1078086461 -0.498276540
                                                      0.9166483833
    [805,] 1.200037746 0.1636459951 -0.669424590 1.4168204214
```

```
##
    [806,]
           1.684855316 -0.3779334520 0.327027687
                                                    1.5043815752
    [807,] -0.431731431
##
                         1.7144737015 -0.380880448
                                                    1.1181849590
##
    [808,]
           0.138154788
                         0.9153414309 -1.682319682
                                                    1.1967470173
##
    [809,] -1.650488404
                         0.5295445091 -0.807593163
                                                    0.5020435016
                         0.7413769370 -1.390922114 -0.4254145641
##
    [810,] -0.612761419
##
    [811,]
           1.585349922 -0.5093728908
                                       0.106258222
                                                    0.6373119861
##
    [812,]
           1.599509777 -0.1056964660
                                       0.748619497 -0.7681449296
##
    [813,] -1.025869745
                         1.3477216946 -0.738910301
                                                    1.6001633595
##
    [814,] -2.130238584
                         0.5708427530 -0.151512065
                                                    0.8093727096
    [815,]
                                       0.291197537
##
           1.439833307
                         0.4824416158
                                                    1.1897631178
##
                         1.1581435568
                                       2.077530392 -0.7871043997
    [816,]
            0.403861828
##
    [817,]
           1.375536299
                         2.0143169288
                                       0.139228824
                                                    1.3061702445
##
    [818,] -0.490487983 -0.1572806637
                                       0.452555831 -0.6568358462
##
    [819,] -0.630772432
                         1.5534041429 -0.445823033
                                                    0.5130090966
                                       1.563905684 -0.0540369071
##
    [820,] -0.486622061
                         0.6107040206
##
    [821,] -0.116223543 -0.8410904398 -1.318381622
                                                    0.7860236629
##
    [822,]
           0.179643846 -0.7060772366
                                      0.776774795 -0.3899379027
##
    [823,] -0.466270355 -1.6517316256 -1.509097450
                                                    0.5293243043
##
    [824,]
           0.048661014 0.0852320983 -1.697885339
                                                    0.1517039833
    [825,] -0.331229135 -2.2533628060 -0.980277696 -0.5937961761
##
    [826,] -0.536062480 -1.3797397364 -0.039556055 -0.4629360780
##
##
    [827,]
           0.864932594 -1.4716167122 0.229926053
                                                    0.6636682879
##
    [828,]
            0.526447405 -1.5936432408 -0.831765831
                                                    1.0556445667
##
    [829,] -0.225119186 -0.1348077340 -0.840426006 -1.0300770692
##
           2.261740089
                         0.0908662881 -1.280363592 -0.5219573422
    [830,]
##
    [831,]
           1.250861762
                         0.9664146665
                                      2.265578942 -0.4105971018
##
                         1.0463462233 -0.163558890
                                                    0.6845078066
    [832,]
           1.135042700
           1.428237941 -2.1955664332 0.841100464 -0.0370202526
##
    [833,]
##
    [834,]
           1.361815180 -0.0028693609 -1.233517926 -0.9313254450
                         ##
    [835,] -0.134462495
##
    [836,] -1.394847925
                         0.7614551985 -0.481339913 -1.3562871018
                         1.0385154752 -0.095789380 0.5478382004
##
    [837,] -0.135761498
##
    [838,]
           1.402946556
                         0.3139790672
                                      2.272047048 -1.4434687040
##
    [839,] -0.703591420
                         0.1438853661 -0.512260550
                                                    1.5282109110
##
    [840,] -0.146826633 -0.0142418170 -0.974990842
                                                    1.5507447323
##
    [841,] -0.427177695
                         0.1386498294 -0.213897675
                                                    0.4353623676
##
    [842,] -0.563154530 -0.2579449738 -0.533447652 -0.1224597560
##
    [843,] -0.701885869 -0.2825760479 -0.389929173 -0.2922138312
##
    [844,]
           1.614622283
                         1.9831261709 -0.767993887
                                                    2.0132991693
##
    [845,]
           2.464040070
                         1.7139917511 0.069050970 -0.4001675243
##
           0.447763989 -0.8135786116 -0.945008403
                                                    0.8164422001
    [846,]
##
    [847,] -0.781278494 -0.2534129562 -0.440159875
                                                    0.7613802311
##
    [848,]
           0.717720934 -2.0325640466 -0.210410308
                                                    1.0005715489
##
    [849,] -0.871038738 0.0704113809 -0.900483992
                                                    0.0551006157
                                      0.341625590 -0.5105233862
##
           0.567265966 -0.0431024958
    [850,]
##
    [851,] -0.333888134 -1.2508617279
                                       0.971035630
                                                    0.6659787699
##
                         2.0904718195 -0.304768754
                                                    0.7019089592
    [852,]
           0.834218301
##
    [853,] -0.803222648
                        1.6751687748 -0.299333222
                                                    1.5974825683
##
    [854,] 0.783761055
                         0.3027687616
                                      0.892460263
                                                    0.6820396276
    [855,] -1.260908613  0.6926879547 -0.390650643  0.2109442321
```

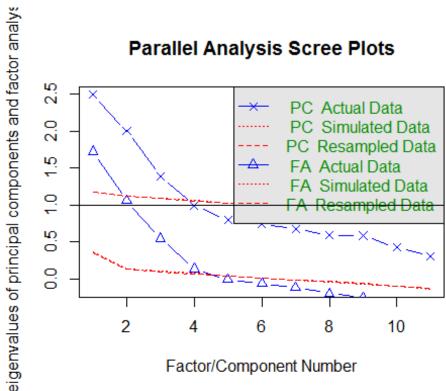
```
0.100801590 1.9159001496 0.451729783 -0.6357786671
##
    [856,]
##
    [857,] -0.035335786
                        0.3119488197 -0.252862172
                                                  1.4188956958
##
    [858,] -0.453207653 -0.3511824166 -0.898151617
                                                   0.7301188658
##
    [859,]
           0.273967833
                        0.3883114899 -1.010334821 -0.3153650016
                        1.1851312712 -1.250289104
##
    [860,] -0.638568155
                                                   0.4802688476
##
    [861,]
           0.691531562
                        1.0928023739 -1.035883623 -0.8153903121
                        0.1398655783 -0.313722607
##
    [862,]
           0.283676294
                                                   1.1524431031
##
    [863,] -0.084926775
                        2.0854983248 -1.035547962
                                                   0.9426109107
##
    [864,] -0.371485457 -0.9085072567 -0.793951996
                                                   0.5529796323
    [865,] -0.495541483
                        0.3111521586 -0.718087584 -0.2150804199
##
##
    [866,] -0.184071688 -0.0757098226 -0.433889903 -0.1788309231
##
    [867,]
          0.373359744 -0.0422627762
                                     0.733547230 -2.0086648602
                        ##
    [868,] -0.583332795
##
    [869,] -0.404497425 -0.0362615821 -0.432455384 0.2320147441
           0.204332879 -0.7634233568
                                     1.027823013
##
    [870,]
                                                   1.1944498471
##
           0.183354250 -0.9848397531 -0.459450119 -0.2262597495
    [871,]
##
    [872,]
           1.195674803
                        2.0990891043
                                     0.769852152 -0.7728400744
                                     2.139507517 -1.0313838266
##
    [873,] -1.180917025
                        0.1719926861
    [874,] -0.617420543
                        0.3716211877 -0.419913853 0.2099594666
##
    [875,] -1.337583454
                        0.2291764254 - 0.367828358
                                                   1.3475606408
##
                        0.7912216128
                                     0.978781591
##
    [876,] -1.777108072
                                                   0.8108628782
##
    [877,] -1.154575898
                        1.8695975449
                                      2.081010082 -0.4718248729
##
    [878,]
           2.475907042
                        0.6989759354 -0.966261488 -0.6119405442
##
    [879,]
           1.109179672
                        1.3954383789
                                     0.904079527 -0.1755366047
##
    [880,] -0.541546902
                        1.5158889977 -0.235659382 -0.6335700700
##
    [881,] -1.037794378
                        0.4110290271 -0.543415883
                                                   1.3651992269
##
    [882,] 0.743548024 -0.7169746923
                                      0.682656724
                                                   0.8175844317
##
    [883,] -0.472397095 -1.4676290619
                                      1.655278037
                                                   0.8467915566
##
    [884,]
           0.398107424 -0.8688849388 -1.266390630
                                                   0.1363223079
                        0.1635760959 -1.096753414
                                                   1.6829708079
##
    [885,]
           0.094682429
##
           0.009957098 -0.3391811792
                                     1.002783846
                                                   1.2335289486
    [886,]
                        1.5808360137 -1.073233133 -2.2023030468
##
    [887,] -0.397041685
##
    [888,]
           0.019692654 -0.4307508709
                                      0.029088122 -0.2581853371
    [889,]
##
           0.482151796
                        0.2572189627
                                      1.425042444
                                                  1.9006539877
##
    [890,]
           1.581577048
                        0.1923325426
                                     0.175921580
                                                   0.8267839106
##
    [891,] -1.564884156
                        2.4155787524 -0.324542370
                                                   0.3548938736
##
    [892,] -0.659521906
                        0.3285291839 -0.109135339
                                                   0.6306697317
##
                        1.0041930712 -0.609978544 -1.3710723219
    [893,] -0.803098306
##
    [894,] -0.293853271 -0.3769153552 -0.184609822 -0.6436547075
                                     0.139853973
##
    [895,] -0.454319031
                        0.5146955517
                                                   1.7742240054
##
    [896,] -1.530072494 -0.6224529786 0.190202159 0.0235334197
##
    [897,]
           0.815835454 -0.2258329867 -1.389374701 -0.6104000559
##
    [898,]
           0.132942265 -0.3538061043 -0.558517963 -0.7754902833
##
    [899,]
           0.380114131 -0.8438322495 -0.090793113 -0.2699127970
           ##
    [900,]
##
    [901,]
           0.403619447 -0.2215443249 -1.463009780 -0.0271026376
##
    [902,] -0.286406821 -1.3696198704 -1.269379043 -0.4979422727
##
    [903,] -0.622658051 -0.0700765740 0.089664330 -0.5630293192
##
    [904,] -0.516552626
                       1.0040919449
                                     1.133982148 -1.1751519606
  [905,] 0.589995378 0.7117440990 -0.717025625 0.5966326612
```

```
0.167450700 1.7114196820 -1.443131359 1.1023567632
   [906,]
##
   [907,] -0.161095299 -0.2208389170 -1.508222437 -0.1488408142
##
   [908,] -0.644909980 -1.1401530711 -1.296987745
                                                  0.1042098234
##
   [909,]
           0.092760449
                        [910,]
##
           1.052574915
                        0.8183792222 -0.130074561
                                                  0.4288700288
##
   [911,]
           1.433927420
                        0.5242987262 -0.985556732
                                                  0.5848219818
                        0.5030656747
                                    0.060572942 -0.7586618572
##
   [912,]
           0.691532982
##
   [913,] -0.441681183 -0.4724297773
                                     0.802746944 -0.5966328754
##
          1.690524140 -1.2728329059
                                    0.092908537 -0.5949376820
   [915,]
           2.300967555 -0.4093466337 0.284789934 0.4450485382
##
##
   [916,] -0.365651477 -0.6920320816 -1.038074643
                                                  0.8764721496
##
   [917,] -0.647500086 -0.2269598519 -1.589492065 -1.3019898007
   [918,] -1.016566113  0.5477780420 -0.923422704 -0.3691931728
##
##
   [919,] 0.427447998 -0.7848418581 -0.009694263 -0.2547588134
          1.796599541 -1.2017041793 -0.080489201
##
   [920,]
                                                  1.0609938299
##
   [921,] -0.557008716 -2.5826127657 -0.810046819 -0.3153350307
##
   [922,] -0.846893868 0.5703764615
                                    0.086671208 -0.2909397810
##
   [923,] 0.249217976 2.4191030357 -0.124779350
                                                  0.2111577789
##
   [924,] 0.198537713 -1.1924232778
                                     0.472232259
                                                  0.5320684617
   [925,] -0.363290997 -0.8850436525
                                     0.268542098
                                                  1.1818209320
##
   [926,] -0.183677834 -1.2746186813
                                     0.192979098
                                                  2.2122698049
##
##
   [927,] -0.925495473  0.7566877907 -1.074314742 -1.2563424898
                                    0.806268894
##
   [928,] -0.350491230 -0.3686576988
                                                  1.2010727344
##
   [929,] -0.529556994 -1.5652781532
                                    1.289824082
                                                  0.8938072449
##
   [930,] 1.151013751 -0.2270570415
                                    0.306312061 -0.4066853827
##
   [931,] -0.542980053
                        0.1778224891 -0.585574309
                                                  0.1924454787
##
                        0.1631349678 -0.642645597 -0.3345159992
   [932,] -0.962611929
##
   [933,] -1.446229166
                        0.5624158141 1.382528356
                                                  1.0288773369
##
   [934,] 0.557177104 -0.2199140508 -0.348205017
                                                  0.9151907537
   [935,] -0.282668700 -0.9647331122 -0.842461996 -0.9364424225
##
##
   [936,] -1.445701137 -1.4374077367 -0.660958895
                                                  1.2693778509
   [937,] -0.844271185 -1.0753847602 -0.042079889
##
                                                  0.2586786829
##
   [938,]
          ##
   [939,] 1.058704109 -0.7249560765
                                    0.444179910 -0.6511968493
##
   [940,]
           ##
   [941.] -0.650177823 -0.2443167966 -0.177959577 -0.9517802351
          1.437485375 -0.6356715130 -0.922227440 0.3499455061
##
   [942,]
   [943,] -0.129356773 -0.1901560182 -0.946816496
                                                  1.3680554185
##
##
   [944,] -0.176705029  0.5647921860 -0.271275626
                                                  0.7875259636
##
   [945,] -0.152618885
                        0.2528170139 0.522956663
                                                  1.0600288375
##
                       1.9881555353 -0.327685211 -1.2261685220
   [946,] -0.891774938
##
   [947,] -0.747120473
                        0.5589840198 -0.568832095 -0.4069912019
##
   [948,] -0.819215992 -1.4779022732 -0.145141108
                                                  0.7478662708
##
   [949,] -0.259130230
                        0.0650778501 2.576654961
                                                  0.3033871154
   [950,] -1.489255769 -0.8584417212 -0.210503611 -0.2355125171
##
                        0.6953591970 -0.468967284 -0.7668966814
##
   [951,] -0.977755688
##
   [952,] -1.808154093
                        1.9267999101 -0.422271192 -1.2789505186
##
   [953,] -0.128097985  0.3104801506 -0.155124594 -1.6698712140
##
   [954,] 0.101474849 -0.3307048221
                                    1.646127126 0.6285821308
  [955,] 0.817445489 -0.4183655842 0.119193135 1.1785911226
```

```
[956,] -0.161891762  0.3787032370  1.514757728 -0.4081523257
##
   [957,] -1.262432212 -1.3799795294 -0.633515777 -1.3055173379
##
   [958,] -1.756883433 -0.6963061297 -1.018721698 -1.4641026006
   [959,] -0.004466022 -1.1648495652 1.730298475
##
                                              2.0268527381
##
   [960,] -0.902432884 -0.6728746275 -0.415076608 -0.5033132979
##
   [961,]
          0.826858029 -0.1398680838 -0.594624524 -0.6464417353
##
          0.328952006 2.3173175115
                                 1.681731742 0.2242278839
   [962,]
##
   [963,]
          0.684281851 -1.6671768849 -0.337908208 -1.2402988444
   [964,] -0.468265316
                     1.5742963678 -0.501768368 -1.0107949347
          ##
   [965,]
          0.781810001 -0.3594440655 -0.445402489 1.1803276604
##
   [966,]
##
   [967,]
          2.461577886 -1.0595087155 -0.152468903 2.0165763119
          0.528624365 0.8057373615
                                  1.270545273 -1.2902179523
##
   [968,]
##
   [969,] -1.931175531
                     1.3812334509 0.360949087 -0.5805593263
   [970,] -0.647123796 -0.2693596870 -1.242696476 -0.1502711774
##
##
   [971,] 0.269675520 0.5088579955 -1.174013986 -0.9506883907
##
   ##
   [973,] 0.749243332 -0.2103832590
                                  1.855949512 0.1049770055
##
   [974,] -0.177496995 -1.0234897874 0.022798094 -0.4716419345
##
   [975,] 0.114533950 0.1948597662 0.444770923 -0.7592264683
##
          1.979763461 -0.3504580226 0.410083613 0.4903816772
   [976,]
##
   [977,]
          0.1747288569
   [978,] -0.881456634 -0.2596090322 -1.173033264 0.3201045990
##
##
          0.494150974 -0.3112696869 -0.859413376
                                             0.1017367634
   [979,]
   [980,]
          0.944494859 0.8206103014 -1.138990309 -0.0779093340
##
##
   [981,]
          1.142460000 -1.5099510803 -1.312208382 -1.2231446795
##
   [982,]
         1.008466095 -1.8641617131 -0.725975213 -0.8626947646
##
   [983,] -0.865889229  0.6597010328 -0.341752438 -0.0669748953
   [984,] -0.481995935 -0.5427662828 -0.783753552 1.6809898641
##
##
   [985,] -0.153880782 -1.0015160528 -1.316075804 -0.4710829660
##
   [986,] 0.465129845 -1.4895264671 -0.947912202 -0.3174259258
          1.694297281 -0.5390831497 -0.507549319 -2.0575169254
##
   [987,]
##
   [988,]
          0.632630707 -0.4901047360 -0.661159251 -1.4558335760
   [989,] 2.427050888 1.8079321446 1.702176925 -0.4424693992
##
##
   [990,]
          ##
   [992,] -1.611391634 -0.8826797822 -1.106739457 -1.1372814990
##
##
   [993,] -0.820109859 -0.2514967980 0.457353787 -2.8985041326
   [994,] 0.628294886 -0.6234968105 -1.976959104 0.7358637828
##
          0.358716948 -1.2236223580 0.089701922 0.0078966457
##
   [995,]
##
   [996,] -0.048766237 1.0929392074 -1.334796717 -0.4139528307
##
   [997,] -1.168297597 -1.1441959683 -0.685151131 -1.0306590105
##
   [998,] 0.471818559 0.3456823559 -0.073062235 1.1562020103
   [999,]
          1.5612373637 0.718071975 -1.2431756705
## [1000,]
         1.744102191
## [1001,] -1.116141486 -0.4023475284
                                  1.796745606
                                              1.9574460151
## [1002,] -0.830047788 -0.3012755628 -1.084560660
                                               1.1503056306
## [1003,] -1.111560895 -0.4724648749 -0.996801880 -1.7517230388
## [1004,] 0.001262349 -1.2436659511 -0.206117339 0.2604245601
## [1005,] -0.487159304  0.2940337244  0.175441993 -0.0970928106
```

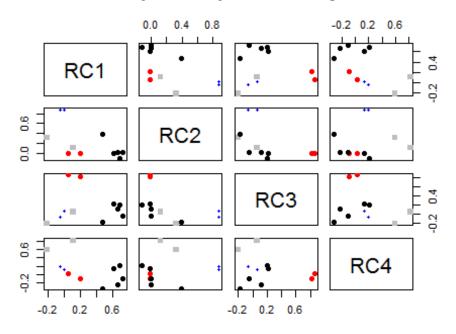
```
## [1006,] 0.940923679 -0.7004614808 -0.332859940 1.1593730846
## [1007,] -1.049311064 1.1890934459 0.956772684 -0.9997233640
## [1008,] -0.750923700 -1.6190153305 -1.053104632 -1.5164567797
## [1009,] 1.134152886 -0.0963284274 0.069800430 0.9284038148
## [1010,] -1.456714583 0.0384581747 1.956798118 0.9061885496
# Play with FA utilities

fa.parallel(movie_transformed[-1]) # See factor recommendation
```



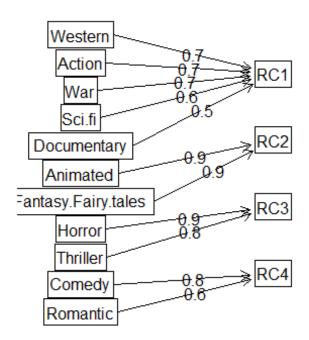
Parallel analysis suggests that the number of factors = 4 and the number
of components = 3
fa.plot(fit.pc.movies) # See Correlations within Factors

Principal Component Analysis

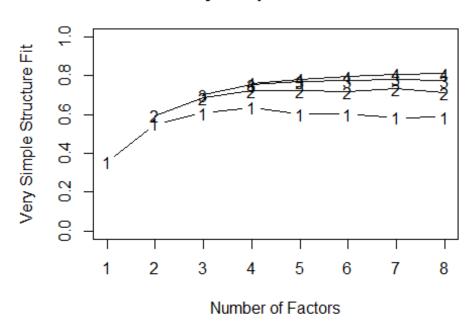


fa.diagram(fit.pc.movies) # Visualize the relationship

Components Analysis



Very Simple Structure



```
## Very Simple Structure
## Call: vss(x = movie_transformed[-1])
## VSS complexity 1 achieves a maximimum of 0.64 with
## VSS complexity 2 achieves a maximimum of 0.73
                                                          factors
                                                 with
                                                       7
##
## The Velicer MAP achieves a minimum of 0.04 with 2 factors
## BIC achieves a minimum of NA with 5 factors
## Sample Size adjusted BIC achieves a minimum of NA with 5 factors
## Statistics by number of factors
    vss1 vss2
                map dof
                          chisq
                                    prob sqresid fit RMSEA
                                                               BIC SABIC com
##
plex
## 1 0.36 0.00 0.039 44 1.3e+03 2.3e-243
                                            10.1 0.36 0.168 994.3 1134.0
1.0
## 2 0.55 0.59 0.037
                     34 4.7e+02 2.3e-77
                                             6.4 0.59 0.112 230.9
                                                                   338.9
1.1
## 3 0.61 0.69 0.048
                     25 1.8e+02
                                7.5e-25
                                             4.7 0.70 0.078
                                                                    83.5
1.3
## 4 0.64 0.72 0.064 17 7.4e+01
                                             3.7 0.76 0.057 -43.9
                                 4.9e-09
                                                                    10.1
1.4
## 5 0.60 0.72 0.090 10 2.1e+01
                                 2.4e-02
                                             3.3 0.79 0.032 -48.6
                                                                    -16.8
1.4
## 6 0.60 0.72 0.134
                      4 6.0e+00 2.0e-01
                                             3.1 0.81 0.022 -21.6
                                                                     -8.9
```

```
1.7
## 7 0.58 0.73 0.227 -1 1.9e-01
                                        NA
                                               2.7 0.83
                                                            NA
                                                                         NA
                                                                  NA
                                               2.6 0.84
## 8 0.59 0.71 0.366 -5 5.3e-06
                                        NA
                                                            NA
                                                                  NA
                                                                         NA
1.6
##
                SRMR eCRMS
      eChisq
                              eBIC
## 1 2.2e+03 1.4e-01 0.157 1886.8
## 2 6.1e+02 7.4e-02 0.094
                            375.3
## 3 1.7e+02 3.9e-02 0.058
                              -2.4
## 4 5.4e+01 2.2e-02 0.040
                            -63.3
## 5 1.2e+01 1.1e-02 0.025
                            -56.9
## 6 3.2e+00 5.4e-03 0.020
                            -24.5
## 7 1.3e-01 1.1e-03
                                NA
                        NA
## 8 2.3e-06 4.5e-06
                        NA
                               NA
```

@Conclusion: The proportion of the total variance for RC2 is about 85% which restores maximum of the total variance. Also the components for RC2 contribute to Animated and Fantasy Fairy tales movies.

```
#music pca
eigvec.music<- music_pca$rotation</pre>
pcafactors.music<- eigvec.music[,1:4]</pre>
pcafactors.music
                                    PC1
                                                PC2
                                                             PC3
##
                                                                         PC4
## Music
                            -0.07348587 -0.06637258
                                                     0.20393520 -0.27285334
## Slow.songs.or.fast.songs
                             0.07909389 -0.03715789
                                                     0.33673187 -0.38692865
## Dance
                             0.10593604 -0.40686613
                                                     0.25266992 -0.18809943
## Folk
                            -0.23536427 -0.20395715 -0.17735902 -0.15261096
## Country
                            -0.22165587 -0.16378995 -0.08826069 -0.07278389
## Classical.music
                            -0.33427216 -0.11363745 -0.22530674 -0.19648989
## Musical
                            -0.21306339 -0.27761360 -0.19176926 -0.04813964
## Pop
                             0.07948200 -0.36864939
                                                     0.10610310 -0.08628967
## Rock
                            -0.31408320 0.16381242
                                                     0.24497619 -0.13760973
## Metal.or.Hardrock
                            -0.26788754
                                         0.27493723
                                                     0.20888397 -0.20728971
## Punk
                            -0.25877936
                                         0.22880832
                                                     0.32746991 -0.01776324
## Hiphop..Rap
                             0.14668504 -0.28399372
                                                     0.32226482 0.21487767
## Reggae..Ska
                            -0.17063495 -0.13437788
                                                     0.33404941 0.51149310
## Swing..Jazz
                            -0.32246691 -0.16834386
                                                      0.02878952 0.30067030
                            -0.35567777 -0.02784195
## Rock.n.roll
                                                      0.15705958
                                                                  0.11136720
## Alternative
                            -0.29273952 0.12627082
                                                     0.16107910
                                                                  0.04377580
## Latino
                            -0.11432176 -0.39837369 -0.03575959 0.17249177
## Techno..Trance
                             0.09648161 -0.23597716 0.27927306 -0.33307335
## Opera
                            -0.28734109 -0.14638664 -0.29342147 -0.21923779
unrot.fact.music<- sweep(pcafactors.music, MARGIN=2, music_pca$sdev[1:4], `*`)</pre>
unrot.fact.music
##
                                   PC1
                                               PC2
                                                            PC3
                                                                        PC4
## Music
                            -0.1433502 -0.10832106 0.28518790 -0.29013933
```

```
## Slow.songs.or.fast.songs
                             0.1542899 -0.06064224 0.47089398 -0.41144162
## Dance
                             0.2066513 -0.66401175
                                                    0.35333971 -0.20001603
## Folk
                            -0.4591293 -0.33286119 -0.24802313 -0.16227928
                            -0.4323881 -0.26730770 -0.12342589 -0.07739495
## Country
## Classical.music
                            -0.6520707 -0.18545805 -0.31507439 -0.20893805
## Musical
                            -0.4156266 -0.45306965 -0.26817476 -0.05118942
## Pop
                             0.1550470 -0.60164144 0.14837714 -0.09175636
## Rock
                            -0.6126878
                                        0.26734437
                                                    0.34258062 -0.14632767
## Metal.or.Hardrock
                            -0.5225731
                                        0.44870175 0.29210838 -0.22042207
## Punk
                            -0.5048056
                                        ## Hiphop..Rap
                             0.2861411 -0.46348209
                                                    0.45066292 0.22849075
## Reggae..Ska
                            -0.3328607 -0.21930675 0.46714277
                                                                 0.54389757
## Swing..Jazz
                            -0.6290420 -0.27473976 0.04025996
                                                                 0.31971858
## Rock.n.roll
                            -0.6938270 -0.04543849 0.21963591
                                                                0.11842262
## Alternative
                                        0.20607591
                            -0.5710523
                                                    0.22525691
                                                                0.04654911
## Latino
                            -0.2230095 -0.65015195 -0.05000708 0.18341958
## Techno..Trance
                             0.1882084 -0.38511833
                                                    0.39054219 -0.35417445
## Opera
                            -0.5605214 -0.23890524 -0.41032767 -0.23312709
communalities.music<- rowSums(unrot.fact.music^2)</pre>
communalities.music # 1 - this would be your unique variance
##
                      Music Slow.songs.or.fast.songs
                                                                         Dance
##
                                                                     0.6484717
                  0.1977957
                                           0.4185082
##
                       Folk
                                                               Classical.music
                                             Country
##
                  0.4094463
                                           0.2796368
                                                                     0.6025179
##
                    Musical
                                                 Pop
                                                                          Rock
##
                                           0.4164470
                                                                     0.5856326
                  0.4525556
##
          Metal.or.Hardrock
                                                Punk
                                                                   Hiphop..Rap
##
                                           0.6043377
                  0.6083291
                                                                     0.5519975
                Reggae..Ska
##
                                         Swing..Jazz
                                                                   Rock.n.roll
##
                  0.6729386
                                           0.5750166
                                                                     0.5457245
##
                Alternative
                                                                Techno..Trance
                                              Latino
##
                  0.4214755
                                           0.5085743
                                                                     0.4617013
##
                      Opera
##
                  0.5939770
rot.fact.music<- varimax(unrot.fact.music)</pre>
View(unrot.fact.music)
rot.fact.music
## $loadings
##
## Loadings:
                            PC1
                                   PC2
                                          PC3
                                                 PC4
##
## Music
                            -0.234
                                                  -0.367
## Slow.songs.or.fast.songs -0.167 0.139
                                           0.201 -0.575
## Dance
                             0.259 - 0.239
                                                  -0.719
## Folk
                                           -0.637
## Country
                                           -0.506
                            -0.113
## Classical.music
                            -0.225
                                           -0.734
```

```
## Musical
                                   -0.141 -0.653
                             0.314 -0.225 -0.157 -0.492
## Pop
## Rock
                            -0.750
                                          -0.148
## Metal.or.Hardrock
                            -0.763 0.154
## Punk
                            -0.769
                             0.228 -0.505 0.221 -0.443
## Hiphop..Rap
## Reggae..Ska
                            -0.279 -0.771
                            -0.269 -0.513 -0.474 0.124
## Swing..Jazz
                            -0.548 -0.337 -0.361
## Rock.n.roll
## Alternative
                            -0.602 -0.146 -0.162 0.106
## Latino
                             0.222 -0.459 -0.467 -0.175
## Techno..Trance
                                                 -0.675
                                    0.124 -0.750
## Opera
##
##
                    PC1
                          PC2
                                PC3
## SS loadings
                 2.981 1.671 2.944 1.959
## Proportion Var 0.157 0.088 0.155 0.103
## Cumulative Var 0.157 0.245 0.400 0.503
##
## $rotmat
##
              [,1]
                         [,2]
                                   [,3]
                                              [,4]
## [1,] 0.6858691 0.1990255 0.6756205 -0.1830555
## [2,] -0.4947428   0.4482655   0.5156896   0.5369840
## [3,] -0.5126594 -0.3915478 0.4732294 -0.5999372
## [4,] 0.1483017 -0.7785482 0.2316358 0.5641048
fact.load.music<- rot.fact.music$loadings[1:9,1:4]</pre>
fact.load.music
##
                                    PC1
                                                PC2
                                                            PC3
                                                                        PC4
## Music
                            ## Slow.songs.or.fast.songs -0.16660075 0.13947341 0.20050508 -0.57541052
## Dance
                             0.25944517 -0.23915194 -0.08192621 -0.71920400
## Folk
                            -0.04713682 -0.01713348 -0.63681176 -0.03743921
                            -0.11251543 -0.09729824 -0.50631426 -0.03400002
## Country
## Classical.music
                            -0.22494114 0.07312188 -0.73369114 0.09093902
## Musical
                             0.06897835 -0.14095911 -0.65321463 -0.03519661
## Pop
                             0.31432516 -0.22549679 -0.15654495 -0.49223121
                            -0.74981815 -0.02231278 -0.14785324 -0.03235545
## Rock
scale.music<- scale(music_transformed[-1])</pre>
scale.music
##
          Slow.songs.or.fast.songs
                                         Dance
                                                     Folk
                                                             Country
##
      [1,]
                         -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
                          0.8054452 -0.9535242 -1.1320495 -1.0446413
      [2,]
##
      [3,]
                          2.0052972 -0.9535242 -0.2552320 0.8047675
##
      [4,]
                         -0.3944068 -0.9535242 -1.1320495 -1.0446413
                         -0.3944068 0.7540280 0.6215855 -0.1199369
##
      [5,]
##
                         -0.3944068 -0.9535242   0.6215855 -0.1199369
      [6,]
                         2.0052972 1.6078041 0.6215855 -1.0446413
##
      [7,]
```

```
##
      [8,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
                         -0.3944068 -0.0997481 -1.1320495 -1.0446413
      [9,]
##
     [10,]
                         -0.3944068 -0.9535242 2.3752204 -0.1199369
##
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
     [11,]
##
     [12,]
                         -0.3944068 -1.8073003 -1.1320495 -1.0446413
                         -0.3944068 -1.8073003 -0.2552320 -1.0446413
##
     [13,]
##
                         -0.3944068
                                     1.6078041 0.6215855 -0.1199369
     [14,]
##
     [15,]
                         -0.3944068 -0.9535242 -1.1320495 -1.0446413
##
                         -0.3944068 -0.9535242 -0.2552320
     [16,]
                                                            0.8047675
##
     [17,]
                         -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
     [18,]
                         -0.3944068 -0.0997481 0.6215855
                                                            0.8047675
                                                1.4984029
##
     [19,]
                         -0.3944068
                                     1.6078041
                                                            0.8047675
##
                         0.8054452 -0.0997481
                                                0.6215855 -0.1199369
     [20,]
##
     [21,]
                         -0.3944068 -0.0997481 -0.2552320
                                                            0.8047675
##
                         2.0052972 -1.8073003 -1.1320495
     [22,]
                                                            0.8047675
##
     [23,]
                         -0.3944068 -0.0997481 -0.2552320
                                                            0.8047675
##
     [24,]
                         -0.3944068
                                     0.7540280 -0.2552320 -0.1199369
##
                         -1.5942588 -0.0997481 -1.1320495 -1.0446413
     [25,]
##
     [26,]
                         -0.3944068
                                     0.7540280 -0.2552320 -1.0446413
##
                         2.0052972
                                     1.6078041
                                                2.3752204
                                                            1.7294720
     [27,]
##
                         2.0052972 -0.0997481
                                                1.4984029 -1.0446413
     [28,]
##
     [29,]
                         -0.3944068
                                     1.6078041 -1.1320495 -1.0446413
##
                         0.8054452 -0.0997481
                                                1.4984029 -0.1199369
     [30,]
##
     [31,]
                         -0.3944068
                                     0.7540280 0.6215855
                                                            0.8047675
##
     [32,]
                         -0.3944068
                                    0.7540280 -1.1320495
                                                            0.8047675
##
     [33,]
                          2.0052972 -0.0997481 -1.1320495
                                                            0.8047675
##
                         0.8054452 -0.9535242 -0.2552320
                                                            0.8047675
     [34,]
##
     [35,]
                         0.8054452 -0.0997481 -0.2552320 -1.0446413
##
                         -0.3944068 -0.0997481 0.6215855 -1.0446413
     [36,]
##
                         -0.3944068 -1.8073003 0.6215855 -0.1199369
     [37,]
                         2.0052972 -1.8073003 -1.1320495 -1.0446413
##
     [38,]
##
                         2.0052972 1.6078041 0.6215855 -1.0446413
     [39,]
##
     [40,]
                         -0.3944068 -0.0997481 0.6215855 -0.1199369
##
     [41,]
                         -0.3944068
                                     0.7540280 -1.1320495 -1.0446413
##
     [42,]
                          0.8054452
                                     1.6078041
                                                2.3752204
                                                           2.6541764
                          2.0052972 -0.9535242 -0.2552320 -0.1199369
##
     [43,]
                          0.8054452 -0.0997481 -1.1320495 -1.0446413
##
     [44,]
##
                          0.8054452
                                     0.7540280 -0.2552320 -1.0446413
     [45,]
                                     1.6078041 -0.2552320 -0.1199369
##
     [46,]
                         0.8054452
##
                                     0.7540280 0.6215855
     [47,]
                         -0.3944068
                                                            1.7294720
##
     [48,]
                         -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
     [49,]
                          0.8054452 -0.0997481 -1.1320495 -1.0446413
##
     [50,]
                         0.8054452 -0.9535242 -1.1320495 -0.1199369
##
     [51,]
                         -0.3944068 -0.9535242
                                                1.4984029 -0.1199369
##
                         -0.3944068 -0.0997481
                                                 0.6215855 -1.0446413
     [52,]
##
     [53,]
                         -0.3944068
                                      1.6078041
                                                 2.3752204
                                                            2.6541764
##
     [54,]
                         -0.3944068
                                      0.7540280
                                                 1.4984029
                                                            0.8047675
##
                                      1.6078041
                                                2.3752204
     [55,]
                         -0.3944068
                                                            0.8047675
##
     [56,]
                         -0.3944068
                                      0.7540280 -0.2552320 -0.1199369
##
     [57,]
                         -0.3944068 -1.8073003 -0.2552320 0.8047675
```

```
##
     [58,]
                         -0.3944068 -0.0997481 0.6215855 -0.1199369
##
     [59,]
                          2.0052972 1.6078041 0.6215855 -0.1199369
##
     [60,]
                          0.8054452 -0.9535242 -1.1320495 -0.1199369
##
                         -1.5942588 -0.9535242 -0.2552320 -0.1199369
     [61,]
##
     [62,]
                         -0.3944068
                                    1.6078041 -1.1320495 -0.1199369
##
     [63,]
                         -0.3944068
                                    1.6078041 1.4984029
                                                          2.6541764
##
                         0.8054452
                                    1.6078041 -1.1320495
     [64,]
                                                          0.8047675
                         -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
     [65,]
##
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
     [66,]
##
     [67,]
                         ##
     [68,]
                         0.8054452 0.7540280 0.6215855 -0.1199369
                         2.0052972 -0.0997481 -0.2552320 -1.0446413
##
     [69,]
##
                         0.8054452 -1.8073003 -1.1320495 -1.0446413
     [70,]
##
     [71,]
                        -0.3944068 1.6078041 -0.2552320 -0.1199369
##
                        -0.3944068 -0.9535242   0.6215855 -1.0446413
     [72,]
##
                        -0.3944068 -0.9535242 -0.2552320 -0.1199369
     [73,]
##
     [74,]
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
                        -0.3944068 -0.9535242 -1.1320495
     [75,]
                                                          1.7294720
                        -0.3944068 -0.0997481 1.4984029
##
     [76,]
                                                          1.7294720
##
                         0.8054452
                                    0.7540280 -1.1320495 -1.0446413
     [77,]
##
                        -0.3944068
                                    1.6078041 -1.1320495 -0.1199369
     [78,]
                                    0.7540280 -0.2552320
##
     [79,]
                         0.8054452
                                                          1.7294720
##
                                    0.7540280 1.4984029
     [80,]
                        -0.3944068
                                                          1.7294720
##
     [81,]
                        -0.3944068
                                    0.7540280 -0.2552320 -0.1199369
                                    0.7540280 -1.1320495 -0.1199369
##
     [82,]
                         0.8054452
                         2.0052972 -1.8073003 0.6215855 -1.0446413
##
     [83,]
##
     [84,]
                        -0.3944068
                                    1.6078041 -1.1320495 -0.1199369
                        -0.3944068 -1.8073003 -1.1320495
##
     [85,]
                                                          1.7294720
##
                        -1.5942588 -0.0997481 0.6215855
     [86,]
                                                           2.6541764
     [87,]
##
                        -0.3944068 0.7540280 0.6215855
                                                          0.8047675
                         0.8054452 0.7540280 -1.1320495 -0.1199369
##
     [88]
##
     [89,]
                         2.0052972 1.6078041 -1.1320495 -1.0446413
##
     [90,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
                        -1.5942588 -0.0997481 -0.2552320 -1.0446413
##
     [91,]
                                               2.3752204 -1.0446413
##
     [92,]
                         2.0052972 -1.8073003
##
                        -1.5942588 -1.8073003
                                               0.6215855
                                                          1.7294720
     [93,]
                         0.8054452 -1.8073003 2.3752204 2.6541764
##
     [94,]
##
     [95,]
                         2.0052972 1.6078041 -1.1320495 -1.0446413
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
     [96,]
##
                        -0.3944068 -1.8073003 -1.1320495 -1.0446413
     [97,]
##
     [98,]
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
                         2.0052972
##
     [99,]
                                    1.6078041 -1.1320495 -1.0446413
##
    [100,]
                        -0.3944068
                                    0.7540280 -1.1320495 -1.0446413
##
    [101,]
                         0.8054452
                                    0.7540280 0.6215855 -0.1199369
                                               0.6215855 -0.1199369
##
                        -0.3944068 -1.8073003
    [102,]
##
    [103,]
                        -0.3944068 -1.8073003 -0.2552320 0.8047675
##
    [104,]
                         2.0052972 1.6078041 -0.2552320 -0.1199369
                         0.8054452 -0.0997481 0.6215855 -0.1199369
##
    [105,]
##
    [106,]
                          2.0052972 -1.8073003
                                               0.6215855 -1.0446413
##
                         -0.3944068 0.7540280 1.4984029 2.6541764
   [107,]
```

```
-0.3944068 -1.8073003 -1.1320495 -1.0446413
##
    [108,]
##
    [109,]
                         -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [110,]
                         -1.5942588 -0.9535242 -0.2552320 1.7294720
##
                         0.8054452
                                    0.7540280
                                               2.3752204 -0.1199369
    [111,]
##
    [112,]
                         -0.3944068
                                    0.7540280 0.6215855 -0.1199369
##
    [113,]
                         -0.3944068
                                     0.7540280 -0.2552320 -0.1199369
                                    0.7540280 -0.2552320 0.8047675
##
    [114,]
                         0.8054452
    [115,]
##
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
##
    [116,]
                         0.8054452 1.6078041 -0.2552320 -0.1199369
##
    [117,]
                        -0.3944068 -0.9535242 -0.2552320 -0.1199369
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [118,]
##
    [119,]
                        -0.3944068 -1.8073003 -0.2552320 -0.1199369
                        -1.5942588 0.7540280 -0.2552320 -1.0446413
##
    [120,]
##
    [121,]
                         2.0052972 0.7540280 -1.1320495 -0.1199369
                        -0.3944068 -0.9535242 0.6215855
##
    [122,]
                                                           1.7294720
##
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [123,]
##
    [124,]
                        -0.3944068 -0.0997481 0.6215855
                                                           0.8047675
##
                         0.8054452 -1.8073003
                                               1.4984029
    [125,]
                                                          2.6541764
##
    [126,]
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
##
                         2.0052972 0.7540280 -1.1320495 -1.0446413
    [127,]
                        -0.3944068 -0.0997481 0.6215855
##
    [128,]
                                                           1.7294720
##
    [129,]
                         2.0052972 1.6078041 -1.1320495
                                                           2.6541764
##
    [130,]
                         0.8054452 1.6078041 0.6215855 -1.0446413
##
                        -1.5942588 -0.9535242 -1.1320495 -1.0446413
    [131,]
##
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
    [132,]
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
##
    [133,]
##
                        -0.3944068 -0.9535242 1.4984029 -1.0446413
    [134,]
##
    [135,]
                        -0.3944068 0.7540280 0.6215855
                                                           0.8047675
##
                        -0.3944068 -0.9535242 -1.1320495
                                                           0.8047675
    [136,]
                                    0.7540280
                                               0.6215855 -0.1199369
##
    [137,]
                        -0.3944068
##
    [138,]
                        -0.3944068
                                    0.7540280
                                               0.6215855
                                                           0.8047675
                        -0.3944068 -0.9535242 0.6215855
##
    [139,]
                                                          0.8047675
##
    [140,]
                         0.8054452
                                    1.6078041 0.6215855 -0.1199369
##
    [141,]
                         0.8054452 -0.0997481 -0.2552320 -1.0446413
##
    [142,]
                         0.8054452 -1.8073003 0.6215855 -1.0446413
##
                         0.8054452 0.7540280 -1.1320495
                                                          0.8047675
    [143,]
                         0.8054452 0.7540280 -0.2552320 -1.0446413
##
    [144,]
##
                        -1.5942588 -0.0997481 -1.1320495 -0.1199369
    [145,]
##
    [146,]
                         0.8054452 0.7540280 -1.1320495 -1.0446413
##
    [147,]
                        -0.3944068
                                    1.6078041 -0.2552320 -1.0446413
##
                         0.8054452 -0.0997481 -0.2552320
                                                           0.8047675
    [148,]
##
    [149,]
                        -0.3944068
                                    0.7540280 1.4984029
                                                           1.7294720
##
    [150,]
                        -0.3944068 -1.8073003 0.6215855 -1.0446413
##
    [151,]
                        -1.5942588 -0.9535242 -0.2552320
                                                           0.8047675
##
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
    [152,]
##
    [153,]
                        -0.3944068
                                    1.6078041 -0.2552320 -0.1199369
##
                         2.0052972
                                    1.6078041 -0.2552320 -0.1199369
    [154,]
##
    [155,]
                         -0.3944068 -1.8073003 -0.2552320
                                                           1.7294720
##
    [156,]
                          0.8054452 0.7540280 0.6215855
                                                           0.8047675
##
                       0.8054452 -0.9535242 1.4984029 0.8047675
   [157,]
```

```
2.0052972 0.7540280 1.4984029 1.7294720
##
    [158,]
##
   [159,]
                        -0.3944068
                                  0.7540280 -0.2552320 -1.0446413
##
   [160,]
                        -0.3944068
                                  0.7540280 1.4984029 0.8047675
##
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
   [161,]
##
   [162,]
                        -0.3944068 -0.9535242 -0.2552320 -0.1199369
                        -1.5942588 -0.0997481 2.3752204 1.7294720
##
    [163,]
                        2.0052972 -0.0997481 -1.1320495 -1.0446413
##
    [164,]
##
    [165,]
                        0.8054452 0.7540280 -0.2552320 -1.0446413
                        0.8054452 1.6078041 -0.2552320 1.7294720
##
    [166,]
##
    [167,]
                        2.0052972 -1.8073003 -0.2552320 -1.0446413
##
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [168,]
##
   [169,]
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
   [170,]
##
                       -0.3944068 -0.9535242 0.6215855 -0.1199369
   [171,]
                        0.8054452 -0.0997481 -1.1320495 -0.1199369
##
    [172,]
##
                       -0.3944068 -0.9535242 0.6215855 0.8047675
   [173,]
##
    [174,]
                       -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
                       -1.5942588 -1.8073003 2.3752204
   [175,]
                                                        0.8047675
                       -0.3944068 -1.8073003 -1.1320495 -1.0446413
##
   [176,]
##
                       -0.3944068 -0.0997481 2.3752204 -1.0446413
   [177,]
##
                       -0.3944068 -1.8073003 1.4984029 -0.1199369
   [178,]
##
   [179,]
                       -0.3944068 -1.8073003 0.6215855 0.8047675
                       -0.3944068 -1.8073003 -0.2552320 -0.1199369
##
   [180,]
##
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
    [181,]
##
                       -0.3944068 0.7540280 0.6215855 0.8047675
   [182,]
##
   [183,]
                       -0.3944068 0.7540280 0.6215855 -0.1199369
##
                       -0.3944068 -0.0997481 -0.2552320 -1.0446413
   [184,]
##
   [185,]
                        0.8054452 -0.9535242 -0.2552320 -0.1199369
                       -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
   [186,]
##
                       -1.5942588 -0.9535242 1.4984029 -0.1199369
   [187,]
##
   [188,]
                       -0.3944068 -1.8073003 -0.2552320 -0.1199369
##
                       -0.3944068 -0.0997481 0.6215855 -0.1199369
   [189,]
##
    [190,]
                       -0.3944068 -1.8073003 0.6215855 -0.1199369
##
   [191,]
                        0.8054452 -0.9535242 -0.2552320 -0.1199369
                       -0.3944068 -0.9535242 2.3752204 -0.1199369
##
   [192,]
##
                       -2.7941108 0.7540280 -1.1320495 -0.1199369
   [193,]
                       -0.3944068 -1.8073003 1.4984029 0.8047675
##
   [194,]
##
                        0.8054452 -1.8073003 -0.2552320 -1.0446413
   [195,]
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
   [196,]
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
    [197,]
##
                       -0.3944068 -0.0997481 -0.2552320 0.8047675
   [198,]
                       -0.3944068 -0.0997481 1.4984029 -0.1199369
##
    [199,]
##
   [200,]
                        0.8054452 0.7540280 -1.1320495 -1.0446413
##
   [201,]
                       -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
                       -0.3944068 -0.9535242 1.4984029 0.8047675
   [202,]
##
   [203,]
                       -0.3944068
                                  1.6078041 -1.1320495 -1.0446413
##
    [204,]
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
##
   [205,]
##
    [206,]
                        -2.7941108 -0.9535242 1.4984029 0.8047675
## [207,]
                      -0.3944068 1.6078041 -0.2552320 -0.1199369
```

```
-0.3944068 -0.9535242 0.6215855 0.8047675
##
    [208,]
##
    [209,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [210,]
                         -1.5942588
                                    0.7540280
                                               0.6215855
                                                           0.8047675
##
                         0.8054452
                                    1.6078041
                                               2.3752204
                                                           2.6541764
    [211,]
##
    [212,]
                         0.8054452
                                    1.6078041 -1.1320495 -0.1199369
    [213,]
##
                         -0.3944068 -1.8073003
                                              0.6215855
                                                           0.8047675
                         0.8054452 0.7540280 -0.2552320
##
    [214,]
                                                           0.8047675
    [215,]
##
                        -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
    [216,]
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [217,]
                         0.8054452 -1.8073003 -1.1320495 -1.0446413
##
                        -0.3944068 0.7540280 -1.1320495
                                                           0.8047675
    [218,]
##
    [219,]
                        0.8054452 -0.9535242 -1.1320495
                                                           0.8047675
                                    1.6078041 -1.1320495 -1.0446413
##
                         2.0052972
    [220,]
##
                        -0.3944068
                                    0.7540280 0.6215855
                                                          0.8047675
    [221,]
                                    0.7540280
                                               2.3752204 -1.0446413
##
    [222,]
                        -0.3944068
##
                        -0.3944068 -0.0997481 -0.2552320
                                                          1.7294720
    [223,]
##
    [224,]
                        -0.3944068 -0.0997481
                                               0.6215855 -0.1199369
##
                        -0.3944068 -0.9535242 -0.2552320
    [225,]
                                                          0.8047675
##
    [226,]
                         0.8054452 -0.9535242 0.6215855 -0.1199369
                         2.0052972 1.6078041
                                               2.3752204
                                                           1.7294720
##
    [227,]
                        -1.5942588 -0.9535242
                                               1.4984029
##
    [228,]
                                                           0.8047675
##
    [229,]
                        -0.3944068 -0.0997481
                                               2.3752204
                                                          0.8047675
    [230,]
##
                        -0.3944068 0.7540280 -0.2552320
                                                           1.7294720
##
                        -1.5942588 -0.9535242
                                              2.3752204
                                                           1.7294720
    [231,]
##
                        -2.7941108 -0.0997481 -0.2552320
                                                           0.8047675
    [232,]
##
    [233,]
                        -0.3944068 -1.8073003 -0.2552320
                                                          1.7294720
##
                        0.8054452 0.7540280 -0.2552320 -0.1199369
    [234,]
##
    [235,]
                        0.8054452 0.7540280 1.4984029 0.8047675
##
                        -0.3944068 -1.8073003 -1.1320495 -1.0446413
    [236,]
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
##
    [237,]
##
                         0.8054452 0.7540280 -0.2552320 -1.0446413
    [238,]
                       -1.5942588 -0.9535242 -1.1320495 -0.1199369
##
    [239,]
##
    [240,]
                        ##
    [241,]
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [242,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [243,]
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [244,]
##
                        -0.3944068 1.6078041 -0.2552320
                                                          1.7294720
    [245,]
##
   [246,]
                        -0.3944068 -0.9535242 0.6215855
                                                           0.8047675
##
    [247,]
                        -0.3944068 -0.0997481 -0.2552320
                                                           0.8047675
##
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
    [248,]
##
    [249,]
                        -0.3944068 0.7540280 -1.1320495 -1.0446413
##
    [250,]
                        -0.3944068 -0.0997481 1.4984029
                                                          1.7294720
##
    [251,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
                         2.0052972 1.6078041 -0.2552320 -0.1199369
    [252,]
##
    [253,]
                        -1.5942588 -0.9535242 -0.2552320 0.8047675
##
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
    [254,]
##
    [255,]
                         -0.3944068
                                   1.6078041 0.6215855 -0.1199369
##
    [256,]
                         -0.3944068 -0.9535242
                                               2.3752204
                                                          1.7294720
##
                         -0.3944068 -0.0997481 1.4984029 -0.1199369
   [257,]
```

```
-0.3944068 1.6078041 0.6215855 -0.1199369
##
    [258,]
##
    [259,]
                         0.8054452 -1.8073003 -0.2552320 -1.0446413
##
    [260,]
                         -0.3944068 -0.0997481 0.6215855
                                                          0.8047675
                         -0.3944068 -0.0997481
##
                                               0.6215855
                                                          0.8047675
    [261,]
##
    [262,]
                         -0.3944068 0.7540280 -0.2552320
                                                          0.8047675
##
                         0.8054452 -0.0997481
                                               1.4984029 -0.1199369
    [263,]
                         2.0052972 1.6078041 -0.2552320 -0.1199369
##
    [264,]
##
    [265,]
                        -0.3944068 -0.0997481
                                               0.6215855 -1.0446413
##
    [266,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [267,]
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
##
                        -0.3944068 0.7540280 0.6215855 1.7294720
    [268,]
##
    [269,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
    [270,]
##
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
    [271,]
                                    0.7540280 0.6215855 -1.0446413
##
    [272,]
                        -0.3944068
##
                        -0.3944068 -0.9535242
                                              1.4984029 0.8047675
    [273,]
##
    [274,]
                        -0.3944068
                                    0.7540280 -0.2552320 -0.1199369
##
    [275,]
                        0.8054452
                                    1.6078041 0.6215855
                                                          0.8047675
##
    [276,]
                        -0.3944068 -0.0997481 0.6215855
                                                          1.7294720
##
                                    1.6078041 0.6215855
    [277,]
                        0.8054452
                                                          2.6541764
                        -0.3944068 -0.9535242 -1.1320495
##
    [278,]
                                                          0.8047675
##
                         0.8054452 -0.0997481
                                              2.3752204 -0.1199369
    [279,]
##
    [280,]
                        ##
                        -0.3944068
                                    0.7540280 -0.2552320 -1.0446413
    [281,]
##
                        -0.3944068 0.7540280 -0.2552320
                                                          0.8047675
    [282,]
##
    [283,]
                        -0.3944068 -1.8073003 -1.1320495 -0.1199369
##
                        -0.3944068 0.7540280 -0.2552320
    [284,]
                                                         0.8047675
##
    [285,]
                        -1.5942588 -1.8073003 -1.1320495 -1.0446413
##
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
    [286,]
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
    [287,]
##
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
    [288,]
                                    1.6078041 0.6215855 2.6541764
##
    [289,]
                        -0.3944068
##
    [290,]
                        -0.3944068
                                    0.7540280 -0.2552320 -0.1199369
##
    [291,]
                        -0.3944068 0.7540280 -1.1320495 -1.0446413
##
    [292,]
                        -0.3944068 -0.0997481 0.6215855
                                                          0.8047675
##
                        0.8054452 1.6078041 -0.2552320
                                                          0.8047675
    [293,]
                        -2.7941108 -0.9535242 -0.2552320 -0.1199369
##
    [294,]
##
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
    [295,]
##
   [296,]
                        -0.3944068 -0.0997481 -0.2552320 2.6541764
##
    [297,]
                         0.8054452
                                    1.6078041 -1.1320495 -1.0446413
##
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
    [298,]
##
    [299,]
                        -0.3944068
                                    1.6078041 -0.2552320 0.8047675
##
    [300,]
                        -0.3944068
                                    0.7540280 -1.1320495 -1.0446413
##
    [301,]
                         -1.5942588 -1.8073003 2.3752204 -0.1199369
                        -1.5942588 -1.8073003 -0.2552320 -1.0446413
##
    [302,]
##
    [303,]
                         0.8054452 1.6078041 1.4984029 -1.0446413
##
                         2.0052972 -0.9535242 -0.2552320
                                                          1.7294720
    [304,]
##
    [305,]
                         -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [306,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
                       2.0052972 1.6078041 0.6215855 0.8047675
  [307,]
```

```
-0.3944068 -1.8073003 1.4984029 0.8047675
##
    [308,]
##
   [309,]
                        2.0052972
                                  1.6078041 -0.2552320 0.8047675
##
   [310,]
                        -0.3944068
                                  0.7540280 -0.2552320 -1.0446413
##
                        2.0052972
                                  0.7540280 -1.1320495 -1.0446413
   [311,]
##
   [312,]
                        0.8054452
                                  1.6078041 2.3752204 -0.1199369
##
    [313,]
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
                        0.8054452 -0.0997481 -0.2552320 -0.1199369
##
   [314,]
   [315,]
                                  1.6078041 1.4984029
##
                        0.8054452
                                                       2.6541764
##
   [316,]
                       -0.3944068 -1.8073003 -1.1320495 -1.0446413
##
    [317,]
                       -0.3944068
                                  0.7540280 -1.1320495 -1.0446413
##
                       -0.3944068
                                  1.6078041 -0.2552320 -0.1199369
   [318,]
##
   [319,]
                       -0.3944068 -0.9535242 0.6215855
                                                       1.7294720
##
                       -0.3944068 0.7540280 0.6215855 -0.1199369
   [320,]
##
   [321,]
                       0.8054452 -0.0997481 -0.2552320 -0.1199369
                       -0.3944068 -0.0997481 -0.2552320
##
    [322,]
                                                        1.7294720
##
                       -0.3944068 -0.9535242 -0.2552320 -1.0446413
   [323,]
##
   [324,]
                       -1.5942588 -0.9535242 -1.1320495
                                                        1.7294720
##
                       [325,]
                       -0.3944068 0.7540280 1.4984029
##
   [326,]
                                                       0.8047675
##
                       0.8054452 -0.0997481 -0.2552320 -0.1199369
   [327,]
##
                       -0.3944068 -0.0997481 -0.2552320 -1.0446413
   [328,]
                                                       1.7294720
##
                       2.0052972 -0.0997481 0.6215855
   [329,]
##
   [330,]
                       -0.3944068 0.7540280 -0.2552320
                                                       0.8047675
##
                       -0.3944068   0.7540280   -0.2552320   -1.0446413
    [331,]
##
                       2.0052972 -0.0997481 -0.2552320
                                                       0.8047675
   [332,]
##
   [333,]
                       -0.3944068 -0.0997481 -0.2552320
                                                        0.8047675
##
                       -1.5942588 -0.0997481 -0.2552320
   [334,]
                                                        0.8047675
##
   [335,]
                       -1.5942588 -0.9535242 0.6215855
                                                        0.8047675
##
                        2.0052972 0.7540280 0.6215855 -0.1199369
   [336,]
##
                       0.8054452 -0.0997481 -1.1320495 -0.1199369
   [337,]
##
                       -0.3944068 1.6078041 -1.1320495 -0.1199369
   [338,]
                       -0.3944068 -0.0997481 0.6215855 -0.1199369
##
   [339,]
##
    [340,]
                       -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
   [341,]
                       -2.7941108 -1.8073003 0.6215855 -0.1199369
##
   [342,]
                        0.8054452 -1.8073003 -1.1320495 -1.0446413
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
   [343,]
                        0.8054452 -0.0997481 2.3752204 -0.1199369
##
   [344,]
##
                       -0.3944068 -0.9535242 1.4984029 1.7294720
   [345,]
##
   [346,]
                       ##
    [347,]
                        0.8054452 -1.8073003 -1.1320495 -1.0446413
##
                        0.8054452 -0.0997481 -0.2552320 -0.1199369
   [348,]
                        0.8054452 -0.0997481 2.3752204 -0.1199369
##
    [349,]
##
   [350,]
                       0.8054452 1.6078041 -0.2552320 -1.0446413
##
   [351,]
                       ##
                       -0.3944068 -0.0997481 -0.2552320
                                                       1.7294720
   [352,]
##
   [353,]
                        2.0052972 -0.9535242 -1.1320495 0.8047675
##
                       -0.3944068 -0.0997481 -1.1320495 -0.1199369
    [354,]
                       -0.3944068 -0.0997481 0.6215855 -0.1199369
##
   [355,]
##
    [356,]
                        0.8054452 -0.9535242 -1.1320495
                                                        0.8047675
##
                      0.8054452 -0.0997481 0.6215855 1.7294720
  [357,]
```

```
0.8054452 -0.0997481 -1.1320495 -1.0446413
##
    [358,]
##
    [359,]
                         -0.3944068
                                    1.6078041 0.6215855
                                                           0.8047675
##
    [360,]
                         -0.3944068
                                     0.7540280 -0.2552320
                                                           1.7294720
##
                         -0.3944068
                                     0.7540280 -1.1320495 -0.1199369
    [361,]
##
    [362,]
                         -2.7941108 -0.0997481
                                               2.3752204
                                                           2.6541764
##
                         [363,]
                         -0.3944068 -1.8073003 0.6215855 -0.1199369
##
    [364,]
##
    [365,]
                         0.8054452 0.7540280 -0.2552320
                                                           0.8047675
##
                         -0.3944068 -0.9535242 -0.2552320
                                                           0.8047675
    [366,]
    [367,]
                         -1.5942588 -0.9535242 -1.1320495 -0.1199369
##
##
                        -0.3944068 -0.0997481 -1.1320495
                                                           0.8047675
    [368,]
##
    [369,]
                         0.8054452
                                    1.6078041 -0.2552320 -0.1199369
##
                        -0.3944068
                                    1.6078041
                                               0.6215855 -0.1199369
    [370,]
##
                         0.8054452 -0.0997481 0.6215855 -0.1199369
    [371,]
                                    1.6078041
                                               2.3752204
##
    [372,]
                         -0.3944068
                                                           2.6541764
##
                         0.8054452 -0.9535242 -0.2552320 -0.1199369
    [373,]
##
    [374,]
                         0.8054452 -0.9535242 -1.1320495 -1.0446413
##
                                    1.6078041 -0.2552320 -0.1199369
    [375,]
                        -0.3944068
##
    [376,]
                         -0.3944068
                                    0.7540280 -0.2552320 -1.0446413
                         2.0052972 -0.0997481 -1.1320495 -1.0446413
##
    [377,]
                        -0.3944068 -0.9535242 0.6215855 0.8047675
##
    [378,]
##
                         2.0052972
                                    1.6078041 -0.2552320 -0.1199369
    [379,]
##
    [380,]
                        -0.3944068
                                    1.6078041
                                               1.4984029
                                                          0.8047675
##
                         0.8054452
                                    0.7540280 0.6215855 -0.1199369
    [381,]
##
                         0.8054452 -0.9535242 -0.2552320
                                                           0.8047675
    [382,]
##
    [383,]
                         -0.3944068
                                    0.7540280 0.6215855
                                                           1.7294720
##
                        -0.3944068 -0.9535242 -0.2552320 -0.1199369
    [384,]
##
    [385,]
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
                                                           1.7294720
##
                        -0.3944068
                                    1.6078041 1.4984029
    [386,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [387,]
##
                        -0.3944068
                                    1.6078041 -0.2552320 -0.1199369
    [388,]
                        -0.3944068 -0.0997481 1.4984029 -0.1199369
##
    [389,]
##
    [390,]
                         0.8054452 -0.0997481 -0.2552320 -0.1199369
##
    [391,]
                        -0.3944068 -1.8073003 -1.1320495 -0.1199369
##
    [392,]
                         0.8054452 -0.0997481 0.6215855
                                                           0.8047675
##
                         0.8054452 0.7540280
                                               0.6215855 -1.0446413
    [393,]
##
    [394,]
                         0.8054452 -1.8073003 -1.1320495
                                                           0.8047675
##
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
    [395,]
##
    [396,]
                         0.8054452 -0.0997481 -1.1320495 0.8047675
                                               1.4984029 -0.1199369
##
    [397,]
                        -0.3944068 -0.0997481
##
                        -0.3944068 -0.0997481
                                               2.3752204 -0.1199369
    [398,]
##
    [399,]
                         0.8054452 -0.0997481
                                                0.6215855 -0.1199369
##
    [400,]
                         0.8054452 -0.9535242
                                               1.4984029 -1.0446413
##
    [401,]
                         -0.3944068
                                    0.7540280 -1.1320495 -0.1199369
##
                        -0.3944068 -0.9535242 -1.1320495
                                                           0.8047675
    [402,]
##
    [403,]
                         -0.3944068
                                    1.6078041
                                               2.3752204 -1.0446413
##
                         -0.3944068 -0.9535242
                                                0.6215855
                                                           0.8047675
    [404,]
##
    [405,]
                         -0.3944068
                                    0.7540280
                                                2.3752204
                                                           2.6541764
##
    [406,]
                         -0.3944068 -0.0997481
                                                0.6215855
                                                           0.8047675
##
                         -0.3944068   0.7540280   2.3752204   -1.0446413
   [407,]
```

```
-0.3944068 0.7540280 -0.2552320 0.8047675
##
   [408,]
##
   [409,]
                        2.0052972 -0.0997481 1.4984029
                                                       0.8047675
##
   [410,]
                        0.8054452
                                 1.6078041 -1.1320495
                                                       2.6541764
                        2.0052972 0.7540280 -0.2552320 -1.0446413
##
   [411,]
##
   [412,]
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
                       2.0052972 -0.0997481 -1.1320495 -1.0446413
##
   [413,]
                       -0.3944068 0.7540280 0.6215855 -1.0446413
##
   [414,]
##
   [415,]
                       -0.3944068
                                 0.7540280 0.6215855 -0.1199369
##
   [416,]
                      -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
   [417,]
                       -1.5942588
                                 1.6078041 -1.1320495 -1.0446413
                       2.0052972 -1.8073003 -0.2552320 -1.0446413
##
   [418,]
##
   [419,]
                       -2.7941108 0.7540280 1.4984029 -0.1199369
                      -0.3944068
                                 1.6078041 -0.2552320 2.6541764
##
   [420,]
##
   [421,]
                       0.8054452 -1.8073003 -1.1320495 -1.0446413
                      -1.5942588 -0.9535242 0.6215855 -0.1199369
##
   [422,]
##
                       2.0052972 0.7540280 -1.1320495 -1.0446413
   [423,]
##
   [424,]
                      -1.5942588 -0.0997481 -0.2552320 -1.0446413
##
                       2.0052972 1.6078041 0.6215855 0.8047675
   [425,]
                      -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
   [426,]
##
                      -1.5942588 -1.8073003 -1.1320495 -1.0446413
   [427,]
##
                      -0.3944068 -0.0997481 0.6215855 -1.0446413
   [428,]
##
   [429,]
                      -0.3944068 1.6078041 0.6215855 -0.1199369
##
   [430,]
                       0.8054452 -0.9535242 -1.1320495 -0.1199369
                       2.0052972 -0.0997481 0.6215855
##
   [431,]
                                                      0.8047675
##
   [432,]
                      -0.3944068 0.7540280 -1.1320495
                                                       0.8047675
##
   [433,]
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
                      -0.3944068 0.7540280 1.4984029
   [434,]
                                                      1.7294720
##
   [435,]
                       0.8054452 0.7540280 -1.1320495 -0.1199369
##
                      -0.3944068 -1.8073003 -1.1320495 -1.0446413
   [436,]
##
                      -0.3944068 -0.9535242 -0.2552320 -0.1199369
   [437,]
   [438,]
##
                      -0.3944068 -0.9535242 -1.1320495 -1.0446413
                      -0.3944068 -1.8073003 -1.1320495 -1.0446413
##
   [439,]
                       2.0052972 1.6078041 -0.2552320 -0.1199369
##
   [440,]
##
   [441,]
                      ##
   [442,]
                       -2.7941108 -0.0997481 -0.2552320 -1.0446413
##
   [443,]
                      -0.3944068 0.7540280 -0.2552320 1.7294720
##
                      -0.3944068 -0.9535242 -0.2552320 -0.1199369
   [444,]
##
                       0.8054452 -0.0997481 -0.2552320 1.7294720
   [445,]
##
   [446,]
                      -0.3944068 0.7540280 -1.1320495 -0.1199369
##
   [447,]
##
                      -1.5942588 -1.8073003 0.6215855 0.8047675
   [448,]
##
   [449,]
                       -0.3944068
                                 0.7540280 -0.2552320 -0.1199369
##
   [450,]
                      -0.3944068 -0.0997481 0.6215855 -1.0446413
##
   [451,]
                       0.8054452 0.7540280 0.6215855 -1.0446413
##
                      -0.3944068 -0.0997481 -0.2552320 -0.1199369
   [452,]
##
   [453,]
                      ##
                       0.8054452 -0.9535242 -0.2552320 -1.0446413
   [454,]
                       0.8054452 -0.9535242 -1.1320495 -1.0446413
##
   [455,]
##
   [456,]
                       2.0052972 -0.0997481 -1.1320495 -1.0446413
  [457,]
```

```
0.8054452 0.7540280 -0.2552320 -1.0446413
##
    [458,]
##
   [459,]
                         0.8054452 1.6078041 2.3752204 2.6541764
##
   [460,]
                        -1.5942588 -0.9535242 -0.2552320
                                                         0.8047675
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
##
    [461,]
##
    [462,]
                        -0.3944068 -0.9535242 1.4984029
                                                         0.8047675
##
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
    [463,]
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
    [464,]
##
    [465,]
                        0.8054452 0.7540280 0.6215855
                                                        0.8047675
   [466,]
##
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
                        -0.3944068 -0.0997481 -1.1320495
##
    [467,]
                                                        0.8047675
##
                       -1.5942588 0.7540280 0.6215855 -0.1199369
    [468,]
                                                        1.7294720
##
    [469,]
                        -0.3944068 -0.0997481 -0.2552320
                                   1.6078041 -1.1320495 -1.0446413
##
    [470,]
                        2.0052972
##
                       -0.3944068 0.7540280 0.6215855 -1.0446413
   [471,]
                        ##
    [472,]
##
                       -0.3944068 -0.9535242 -0.2552320 1.7294720
   [473,]
##
    [474,]
                        -1.5942588 -1.8073003 -1.1320495 -1.0446413
##
                       -0.3944068 1.6078041 -1.1320495 -1.0446413
    [475,]
##
    [476,]
                       -0.3944068 -0.0997481 -0.2552320 2.6541764
##
                       -0.3944068 -0.9535242 -1.1320495 -1.0446413
   [477,]
##
                       -0.3944068 -0.9535242 -1.1320495 -1.0446413
   [478,]
##
    [479,]
                        0.8054452 1.6078041 -0.2552320
                                                         0.8047675
##
    [480,]
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
                        0.8054452
                                   1.6078041 0.6215855
                                                         2.6541764
    [481,]
##
                        0.8054452 0.7540280 1.4984029 -1.0446413
   [482,]
##
    [483,]
                        0.8054452 -0.9535242 -1.1320495
                                                        0.8047675
##
                        0.8054452 -0.0997481 -0.2552320 -1.0446413
   [484,]
##
    [485,]
                       -0.3944068 -0.0997481 -1.1320495 -0.1199369
                       ##
    [486,]
##
                       -0.3944068 0.7540280 -0.2552320 -0.1199369
   [487,]
##
    [488,]
                        2.0052972 1.6078041 -0.2552320 -1.0446413
                       -0.3944068 -0.9535242 1.4984029 0.8047675
##
   [489,]
##
    [490,]
                        2.0052972 -0.9535242 -0.2552320 -0.1199369
##
   [491,]
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
   [492,]
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
                        2.0052972 -0.0997481 0.6215855 -1.0446413
##
   [493,]
                       -0.3944068 0.7540280 -1.1320495 -0.1199369
##
   [494,]
##
                       -0.3944068 -0.9535242 -0.2552320 -1.0446413
   [495,]
                       -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
   [496,]
                       -1.5942588 -0.0997481 -0.2552320
##
    [497,]
                                                        1.7294720
##
                        0.8054452 -0.0997481 0.6215855 0.8047675
   [498,]
##
    [499,]
                       -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
   [500,]
                        0.8054452 -0.9535242 1.4984029 -0.1199369
##
   [501,]
                       -0.3944068 -0.0997481
                                             2.3752204 -0.1199369
##
                       -0.3944068
                                   0.7540280
                                              2.3752204 0.8047675
   [502,]
##
   [503,]
                        0.8054452
                                   0.7540280 0.6215855 -0.1199369
##
    [504,]
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
                        -0.3944068 1.6078041 -1.1320495 -1.0446413
##
   [505,]
##
    [506,]
                         0.8054452 -0.0997481 1.4984029 -0.1199369
##
                      0.8054452 -0.9535242 -1.1320495 -1.0446413
  [507,]
```

```
0.8054452 -0.0997481 1.4984029 0.8047675
##
    [508,]
##
    [509,]
                        -0.3944068 -1.8073003 0.6215855
                                                          2.6541764
##
    [510,]
                         2.0052972 0.7540280
                                               2.3752204 -0.1199369
##
                        -0.3944068
                                    1.6078041
                                               0.6215855
                                                          0.8047675
    [511,]
##
    [512,]
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
    [513,]
                        -2.7941108 -0.9535242
                                               1.4984029 -1.0446413
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
##
    [514,]
    [515,]
##
                        -0.3944068 -1.8073003
                                              2.3752204
                                                          2.6541764
##
    [516,]
                        0.8054452 0.7540280
                                               0.6215855
                                                          0.8047675
##
    [517,]
                         2.0052972
                                    1.6078041 0.6215855 -1.0446413
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
    [518,]
##
    [519,]
                        0.8054452
                                   0.7540280 -0.2552320 -0.1199369
                        0.8054452 0.7540280 0.6215855 -1.0446413
##
    [520,]
##
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
    [521,]
                                    1.6078041 2.3752204 -1.0446413
##
    [522,]
                        -0.3944068
##
                        -0.3944068
                                    0.7540280 -0.2552320 -0.1199369
    [523,]
##
    [524,]
                        -0.3944068
                                    1.6078041 -0.2552320 -1.0446413
##
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
    [525,]
                         0.8054452 -0.0997481 0.6215855 0.8047675
##
    [526,]
##
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
    [527,]
                        2.0052972 -0.0997481 -1.1320495 0.8047675
##
    [528,]
##
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
    [529,]
##
    [530,]
                       -1.5942588 -1.8073003 -0.2552320 -0.1199369
##
                       -0.3944068 -0.0997481 2.3752204 -0.1199369
    [531,]
##
                        0.8054452 -0.9535242 2.3752204 1.7294720
    [532,]
##
    [533,]
                        ##
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
    [534,]
##
    [535,]
                        -0.3944068 -0.0997481 0.6215855 -1.0446413
##
                        -2.7941108 -0.0997481 0.6215855 1.7294720
    [536,]
                        2.0052972 -0.9535242 -1.1320495 -1.0446413
##
    [537,]
##
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
    [538,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [539,]
##
    [540,]
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
    [541,]
                        -0.3944068 -0.0997481 2.3752204 -1.0446413
##
    [542,]
                         0.8054452 -0.0997481 -0.2552320 -0.1199369
                                   1.6078041 -0.2552320 -1.0446413
##
                       -0.3944068
    [543,]
                        0.8054452 0.7540280 -1.1320495 -1.0446413
##
    [544,]
##
                        0.8054452 -0.9535242 0.6215855 -1.0446413
    [545,]
##
   [546,]
                        -0.3944068 -0.0997481 0.6215855 0.8047675
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
    [547,]
##
                        0.8054452 -1.8073003 1.4984029 -0.1199369
    [548,]
##
    [549,]
                        -0.3944068 -1.8073003 0.6215855
                                                         0.8047675
##
    [550,]
                        0.8054452 1.6078041 -1.1320495 -0.1199369
##
    [551,]
                        -0.3944068 -0.9535242
                                              2.3752204
                                                          1.7294720
##
                        0.8054452 -0.0997481
                                               0.6215855
                                                          0.8047675
    [552,]
##
    [553,]
                        -0.3944068 -0.9535242
                                               0.6215855 -1.0446413
##
                        -0.3944068
                                   0.7540280
                                               1.4984029 -0.1199369
    [554,]
##
    [555,]
                        -0.3944068 -0.0997481
                                               1.4984029 -0.1199369
##
    [556,]
                         2.0052972
                                   1.6078041
                                              0.6215855 -1.0446413
##
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
  [557,]
```

```
-0.3944068 -0.9535242 0.6215855 0.8047675
##
    [558,]
##
    [559,]
                         -1.5942588 -0.0997481 -1.1320495 -0.1199369
##
    [560,]
                         -0.3944068
                                    1.6078041 -0.2552320 -0.1199369
##
                         2.0052972
                                    0.7540280
                                               0.6215855
                                                          0.8047675
    [561,]
##
    [562,]
                         -0.3944068
                                     0.7540280
                                               0.6215855
                                                          0.8047675
##
                         2.0052972
                                    1.6078041 0.6215855 -0.1199369
    [563,]
                                     0.7540280 -1.1320495
##
    [564,]
                         0.8054452
                                                          0.8047675
##
    [565,]
                         2.0052972
                                    1.6078041 -1.1320495 -1.0446413
##
                        -0.3944068
                                    1.6078041 -0.2552320 -0.1199369
    [566,]
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
    [567,]
##
                         0.8054452
                                    0.7540280 -0.2552320 -0.1199369
    [568,]
##
    [569,]
                         0.8054452
                                    1.6078041 -0.2552320 -1.0446413
                                    0.7540280 1.4984029 -0.1199369
##
                        -0.3944068
    [570,]
##
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
    [571,]
                         2.0052972 0.7540280 -0.2552320 -1.0446413
##
    [572,]
##
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
    [573,]
##
    [574,]
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
                        2.0052972 1.6078041 0.6215855 -1.0446413
    [575,]
##
    [576,]
                        0.8054452 -0.0997481 1.4984029 0.8047675
                        -0.3944068 -0.0997481 -0.2552320
                                                          1.7294720
##
    [577,]
                        0.8054452 0.7540280 -0.2552320 -1.0446413
##
    [578,]
##
                        -0.3944068 -0.0997481 -0.2552320
                                                         0.8047675
    [579,]
                        -0.3944068 0.7540280 0.6215855 -0.1199369
##
    [580,]
##
                        -0.3944068 -1.8073003 -1.1320495 -1.0446413
    [581,]
                        0.8054452 -0.9535242 -0.2552320 -1.0446413
##
    [582,]
##
    [583,]
                        -0.3944068 0.7540280 0.6215855 -1.0446413
##
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
    [584,]
##
    [585,]
                        -0.3944068 0.7540280 0.6215855
                                                          0.8047675
##
                        -0.3944068 -0.0997481 0.6215855
                                                           0.8047675
    [586,]
                         2.0052972 1.6078041 0.6215855
                                                          1.7294720
##
    [587,]
##
    [588,]
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
                        -0.3944068 0.7540280 -1.1320495 -1.0446413
##
    [589,]
##
    [590,]
                         0.8054452 -1.8073003 -1.1320495 -1.0446413
                        -0.3944068 -0.0997481 -0.2552320 0.8047675
##
    [591,]
##
    [592,]
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
                                               0.6215855 -1.0446413
##
                        -0.3944068 -0.0997481
    [593,]
                        -0.3944068 -0.9535242 0.6215855 -1.0446413
##
    [594,]
##
                        [595,]
##
   [596,]
                        2.0052972 -1.8073003 -1.1320495 -1.0446413
##
    [597,]
                        -0.3944068
                                    0.7540280 -1.1320495 -1.0446413
##
                        0.8054452
                                    0.7540280 -0.2552320 -0.1199369
    [598,]
##
    [599,]
                        -0.3944068
                                    0.7540280 -0.2552320
                                                          0.8047675
##
    [600,]
                        0.8054452
                                    1.6078041 0.6215855
                                                          1.7294720
##
    [601,]
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
                        -0.3944068 -1.8073003 1.4984029
##
                                                          0.8047675
    [602,]
##
    [603,]
                        0.8054452 0.7540280 -0.2552320
                                                          0.8047675
##
                         0.8054452 -0.0997481 -0.2552320 -0.1199369
    [604,]
##
    [605,]
                         -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
    [606,]
                         -0.3944068 -1.8073003 2.3752204
                                                          2.6541764
##
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
   [607,]
```

```
-0.3944068 -0.0997481 -1.1320495 0.8047675
##
    [608,]
##
    [609,]
                          0.8054452 -0.9535242 1.4984029 -0.1199369
##
    [610,]
                         -0.3944068 -0.0997481 -0.2552320 -0.1199369
                         0.8054452 -0.0997481 -0.2552320 -0.1199369
##
    [611,]
##
    [612,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [613,]
                         -0.3944068
                                    1.6078041 -1.1320495 -1.0446413
                         -1.5942588 -0.0997481 -0.2552320 -0.1199369
##
    [614,]
    [615,]
##
                         -0.3944068
                                    0.7540280 -1.1320495 -1.0446413
##
    [616,]
                         -0.3944068 -0.0997481 0.6215855 -1.0446413
    [617,]
                         -0.3944068
                                    0.7540280 -1.1320495
                                                           2.6541764
##
                         -0.3944068 -0.0997481 -0.2552320
##
                                                           1.7294720
    [618,]
##
    [619,]
                         2.0052972
                                    1.6078041
                                               1.4984029 -0.1199369
                         -2.7941108 -0.0997481 0.6215855 -1.0446413
##
    [620,]
##
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
    [621,]
                                    0.7540280 -1.1320495 -0.1199369
##
    [622,]
                         -2.7941108
##
                        -0.3944068
                                    1.6078041 1.4984029
                                                          1.7294720
    [623,]
##
    [624,]
                         0.8054452 -0.9535242 0.6215855
                                                           0.8047675
##
                        -1.5942588 -0.0997481 -1.1320495 -0.1199369
    [625,]
##
    [626,]
                         0.8054452
                                    1.6078041 0.6215855 -0.1199369
                                     0.7540280 -0.2552320 -0.1199369
##
    [627,]
                         -0.3944068
                                    0.7540280 1.4984029 0.8047675
##
    [628,]
                         2.0052972
##
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
    [629,]
##
    [630,]
                         -0.3944068
                                     1.6078041 0.6215855 -0.1199369
##
                         2.0052972
                                     0.7540280 -1.1320495
    [631,]
                                                           0.8047675
##
                        -0.3944068
                                     1.6078041 -0.2552320 -1.0446413
    [632,]
##
    [633,]
                         0.8054452
                                    0.7540280
                                                0.6215855 -0.1199369
##
                         0.8054452 -0.0997481
                                                2.3752204 0.8047675
    [634,]
                         -0.3944068 -0.0997481
##
    [635,]
                                                1.4984029 -0.1199369
##
                        -1.5942588 0.7540280
                                                1.4984029 -0.1199369
    [636,]
                         -0.3944068 -0.0997481
                                                2.3752204 1.7294720
##
    [637,]
##
    [638,]
                         -1.5942588 -0.9535242
                                                0.6215855 -0.1199369
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
##
    [639,]
##
    [640,]
                         -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [641,]
                         0.8054452
                                    1.6078041 -0.2552320 -0.1199369
##
    [642,]
                         -0.3944068 -0.0997481
                                               0.6215855 0.8047675
##
                         -0.3944068
                                     0.7540280
                                                1.4984029 -0.1199369
    [643,]
                                    0.7540280 -0.2552320 -1.0446413
##
    [644,]
                         -0.3944068
##
                         2.0052972 -0.0997481 0.6215855 -0.1199369
    [645,]
##
    [646,]
                         0.8054452 0.7540280 -0.2552320 -1.0446413
##
    [647,]
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
                        -0.3944068 -0.0997481 -1.1320495 0.8047675
    [648,]
                                     1.6078041 2.3752204 -0.1199369
##
    [649,]
                         0.8054452
##
    [650,]
                         -0.3944068
                                     1.6078041 -0.2552320 -0.1199369
##
    [651,]
                         -0.3944068
                                     0.7540280 -1.1320495 -1.0446413
                                     0.7540280 -0.2552320 -0.1199369
##
                         0.8054452
    [652,]
##
    [653,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
                         -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [654,]
##
    [655,]
                         -0.3944068 0.7540280 0.6215855 -0.1199369
##
    [656,]
                         -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
                         -0.3944068 -0.9535242 -0.2552320 -0.1199369
    [657,]
```

```
##
    [658,]
##
    [659,]
                        -0.3944068
                                   1.6078041 -0.2552320 -0.1199369
##
    [660,]
                        -1.5942588 -0.9535242 -1.1320495 -1.0446413
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [661,]
##
    [662,]
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
##
                        0.8054452 -0.0997481 -0.2552320 -0.1199369
    [663,]
                        -0.3944068 -0.0997481 0.6215855 -0.1199369
##
    [664,]
##
    [665,]
                        -1.5942588 -0.0997481
                                              1.4984029
                                                        1.7294720
##
                        -0.3944068 -1.8073003 -0.2552320 -1.0446413
    [666,]
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [667,]
##
                       -0.3944068 -0.9535242 -1.1320495 -1.0446413
    [668,]
##
    [669,]
                        -0.3944068 -1.8073003 -0.2552320
                                                         0.8047675
                       -0.3944068 0.7540280 -0.2552320
##
                                                         0.8047675
    [670,]
##
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [671,]
                        -0.3944068 -0.0997481 0.6215855
##
    [672,]
                                                         0.8047675
##
                       -2.7941108 -0.9535242 1.4984029 -0.1199369
    [673,]
##
    [674,]
                       -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
                        0.8054452 -0.0997481 0.6215855 -1.0446413
    [675,]
##
    [676,]
                       -0.3944068 -0.0997481 0.6215855 0.8047675
                        0.8054452 -0.9535242 -0.2552320 -1.0446413
##
    [677,]
                       -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [678,]
##
                       -0.3944068 -0.9535242 0.6215855
                                                         0.8047675
    [679,]
    [680,]
##
                       -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
                                   0.7540280 0.6215855
    [681,]
                        0.8054452
                                                         1.7294720
##
                        2.0052972
                                   0.7540280 0.6215855 -0.1199369
    [682,]
##
    [683,]
                        0.8054452
                                   0.7540280 -0.2552320
                                                         0.8047675
##
                       -0.3944068 -0.9535242 2.3752204
                                                         2.6541764
    [684,]
##
    [685,]
                        2.0052972
                                   1.6078041 -1.1320495 -1.0446413
##
                       -0.3944068 -0.0997481 -0.2552320
                                                         0.8047675
    [686,]
                        0.8054452 0.7540280 1.4984029
##
    [687,]
                                                         1.7294720
##
    [688,]
                       -0.3944068 -0.0997481 -1.1320495 -0.1199369
                        0.8054452 0.7540280 0.6215855 -1.0446413
##
    [689,]
##
    [690,]
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
    [691,]
                        0.8054452 0.7540280 -1.1320495 -0.1199369
##
    [692,]
                        -0.3944068
                                   0.7540280 -0.2552320 -0.1199369
##
                       -0.3944068 -0.9535242 0.6215855
                                                         0.8047675
    [693,]
##
    [694,]
                       -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
                        -0.3944068 -0.0997481 0.6215855
    [695,]
                                                         1.7294720
##
   [696,]
                        ##
    [697,]
                       -0.3944068 -0.0997481
                                              2.3752204
                                                         0.8047675
##
                       -0.3944068 -0.0997481 -1.1320495 -1.0446413
    [698,]
##
    [699,]
                        2.0052972
                                   1.6078041
                                             1.4984029 -1.0446413
##
   [700,]
                        -0.3944068
                                   0.7540280
                                              0.6215855 -1.0446413
##
    [701,]
                        -0.3944068 -0.0997481
                                              0.6215855 -0.1199369
##
    [702,]
                        2.0052972
                                   1.6078041
                                              1.4984029
                                                         0.8047675
##
    [703,]
                        -1.5942588 -1.8073003
                                              0.6215855
                                                         0.8047675
##
                        -0.3944068 -0.0997481
                                              0.6215855
                                                         0.8047675
    [704,]
##
   [705,]
                        -0.3944068
                                   0.7540280 -0.2552320 -1.0446413
##
    [706,]
                         0.8054452
                                   1.6078041 -1.1320495 -0.1199369
##
                        [707,]
```

```
-0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [708,]
##
    [709,]
                          0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [710,]
                         -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
                          0.8054452 0.7540280
                                                0.6215855
                                                            0.8047675
    [711,]
##
    [712,]
                         -0.3944068 -0.0997481
                                                0.6215855
                                                            1.7294720
##
    [713,]
                         -0.3944068 -0.9535242 -0.2552320 -0.1199369
                         -0.3944068 -0.0997481
                                                1.4984029
##
    [714,]
                                                            1.7294720
    [715,]
##
                         -0.3944068
                                     1.6078041
                                                 0.6215855
                                                            0.8047675
##
    [716,]
                         -0.3944068 -0.9535242
                                                0.6215855
                                                            0.8047675
    [717,]
                         -0.3944068 -0.9535242 1.4984029
                                                            2.6541764
##
##
                         -0.3944068 -1.8073003 -1.1320495 -1.0446413
    [718,]
##
    [719,]
                         0.8054452 -0.0997481 -0.2552320 -0.1199369
                         -0.3944068 -0.0997481 -1.1320495
##
                                                            0.8047675
    [720,]
##
                        -0.3944068 0.7540280 -0.2552320 -1.0446413
    [721,]
                         -0.3944068 -0.0997481 2.3752204 -1.0446413
##
    [722,]
##
                         -0.3944068 -0.0997481 0.6215855 -0.1199369
    [723,]
##
    [724,]
                         -0.3944068
                                     0.7540280 -0.2552320
                                                            0.8047675
##
                                     1.6078041 0.6215855
    [725,]
                         -0.3944068
                                                            0.8047675
##
    [726,]
                         0.8054452
                                    0.7540280 -0.2552320 -0.1199369
##
                         -0.3944068 -0.9535242 1.4984029 -0.1199369
    [727,]
                         -1.5942588 -0.9535242 -1.1320495
##
    [728,]
                                                           0.8047675
##
    [729,]
                         0.8054452 1.6078041 -1.1320495
                                                            0.8047675
    [730,]
                        -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
##
                         0.8054452 -1.8073003 -0.2552320 -1.0446413
    [731,]
##
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [732,]
##
    [733,]
                         0.8054452 -0.9535242 -1.1320495 -1.0446413
##
                        -0.3944068 -0.0997481 2.3752204
                                                           2.6541764
    [734,]
##
    [735,]
                         -0.3944068 -0.0997481 1.4984029
                                                           2.6541764
##
                         -2.7941108 -1.8073003 0.6215855 -0.1199369
    [736,]
                         -0.3944068 1.6078041 -0.2552320
##
    [737,]
                                                           1.7294720
##
                        -2.7941108 -0.0997481 -0.2552320 -1.0446413
    [738,]
                         2.0052972 0.7540280 -1.1320495 -1.0446413
##
    [739,]
##
    [740,]
                         2.0052972 -0.0997481 0.6215855
                                                           1.7294720
##
    [741,]
                         -0.3944068 1.6078041 -0.2552320 -0.1199369
##
    [742,]
                         -0.3944068 -0.0997481
                                                 2.3752204 -1.0446413
                         -0.3944068 -1.8073003
##
                                                 0.6215855
                                                           1.7294720
    [743,]
                         -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
    [744,]
##
                         0.8054452 -0.9535242 0.6215855 -0.1199369
    [745,]
##
    [746,]
                         -0.3944068 -0.0997481 1.4984029 0.8047675
##
    [747,]
                         -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
                         -0.3944068 0.7540280 0.6215855 -1.0446413
    [748,]
##
    [749,]
                         -0.3944068 -0.0997481
                                                 0.6215855
                                                            0.8047675
##
    [750,]
                         -0.3944068 -0.9535242
                                                1.4984029
                                                            1.7294720
##
    [751,]
                         -0.3944068
                                     1.6078041
                                                 2.3752204 -0.1199369
##
                         -0.3944068 -0.9535242
                                                1.4984029 -1.0446413
    [752,]
##
    [753,]
                         0.8054452
                                    1.6078041 -0.2552320 -1.0446413
##
                         -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [754,]
                         0.8054452 -0.9535242 -1.1320495
##
    [755,]
                                                            0.8047675
##
    [756,]
                         -0.3944068 -0.9535242 -0.2552320
                                                            0.8047675
##
                        0.8054452 -0.0997481 0.6215855 1.7294720
   [757,]
```

```
-0.3944068 1.6078041 0.6215855 0.8047675
##
    [758,]
##
    [759,]
                         2.0052972
                                    0.7540280 -1.1320495 -1.0446413
##
    [760,]
                         -0.3944068
                                    1.6078041 1.4984029 0.8047675
##
                         -0.3944068
                                    1.6078041 -0.2552320 -0.1199369
    [761,]
##
    [762,]
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
##
                         -0.3944068
                                    0.7540280 -1.1320495 -1.0446413
    [763,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [764,]
    [765,]
##
                        -1.5942588 -0.0997481 -1.1320495 -0.1199369
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [766,]
                         2.0052972 1.6078041 2.3752204 2.6541764
##
    [767,]
##
                        -2.7941108 -0.9535242 0.6215855
                                                          1.7294720
    [768,]
##
    [769,]
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
                        -0.3944068 -0.0997481 0.6215855
##
                                                          0.8047675
    [770,]
##
                        -2.7941108 -1.8073003 -1.1320495 -1.0446413
    [771,]
                        -1.5942588 -0.9535242 1.4984029
##
    [772,]
                                                          1.7294720
##
                        0.8054452 -0.0997481 -1.1320495 -0.1199369
    [773,]
##
    [774,]
                         0.8054452 0.7540280 -0.2552320 -0.1199369
##
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
    [775,]
##
    [776,]
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
##
                        -0.3944068 1.6078041 2.3752204 -1.0446413
    [777,]
##
                         2.0052972 -0.0997481 -1.1320495 -0.1199369
    [778,]
##
    [779,]
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
                        -0.3944068 -0.0997481 0.6215855 1.7294720
##
    [780,]
##
    [781,]
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
                        -1.5942588 0.7540280 -1.1320495 -0.1199369
    [782,]
##
    [783,]
                        -0.3944068 -0.9535242 0.6215855 1.7294720
##
                        -0.3944068 -0.9535242
                                              2.3752204 -0.1199369
    [784,]
##
    [785,]
                        -0.3944068 0.7540280 0.6215855 -1.0446413
##
                        0.8054452 -0.0997481 0.6215855 0.8047675
    [786,]
##
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
    [787,]
##
    [788,]
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [789,]
##
    [790,]
                         2.0052972 0.7540280 0.6215855 0.8047675
##
    [791,]
                        2.0052972 -0.0997481 -0.2552320 -0.1199369
##
    [792,]
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
                        0.8054452 -0.0997481 -0.2552320 -0.1199369
##
    [793,]
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
    [794,]
##
                         2.0052972 -0.0997481 -1.1320495 -1.0446413
    [795,]
##
   [796,]
                        -2.7941108 1.6078041 -1.1320495 2.6541764
                         2.0052972 -0.0997481 -0.2552320 -0.1199369
##
    [797,]
##
                        -2.7941108 1.6078041 -1.1320495 -0.1199369
    [798,]
##
    [799,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [800,]
                        -0.3944068 -1.8073003 -0.2552320 0.8047675
##
    [801,]
                        1.6078041 -1.1320495 -1.0446413
##
                         2.0052972
    [802,]
##
    [803,]
                         2.0052972
                                    1.6078041 0.6215855 -0.1199369
##
                         2.0052972 -0.9535242 -1.1320495 -1.0446413
    [804,]
                         -2.7941108 0.7540280 -1.1320495 -1.0446413
##
    [805,]
##
    [806,]
                         0.8054452 0.7540280 0.6215855 -1.0446413
                         -2.7941108 -1.8073003 -1.1320495 -1.0446413
  [807,]
```

```
-0.3944068 -1.8073003 0.6215855 0.8047675
##
    [808,]
##
    [809,]
                         0.8054452 -0.0997481 -1.1320495 -0.1199369
##
    [810,]
                        -0.3944068   0.7540280   -1.1320495   -1.0446413
##
                        -0.3944068 -0.9535242 0.6215855
                                                          1.7294720
    [811,]
##
    [812,]
                        -0.3944068 -0.9535242 0.6215855
                                                          0.8047675
##
    [813,]
                         0.8054452 -1.8073003 -1.1320495 -1.0446413
                         0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [814,]
    [815,]
##
                         0.8054452 0.7540280 0.6215855 -1.0446413
##
    [816,]
                         2.0052972 -0.9535242 0.6215855 1.7294720
##
    [817,]
                         0.8054452 -0.0997481 0.6215855 -1.0446413
##
                         0.8054452 -1.8073003 -1.1320495 -1.0446413
    [818,]
##
    [819,]
                        0.8054452 -0.0997481 0.6215855 -1.0446413
                        2.0052972 -0.0997481 -1.1320495 -0.1199369
##
    [820,]
##
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
    [821,]
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
##
    [822,]
##
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
    [823,]
##
    [824,]
                        -1.5942588 -0.0997481 -0.2552320 -0.1199369
##
                       -0.3944068 -1.8073003 -1.1320495 -0.1199369
    [825,]
##
    [826,]
                        -0.3944068 -1.8073003 0.6215855 -1.0446413
##
                        -0.3944068 -0.0997481 0.6215855 -1.0446413
    [827,]
##
                        -0.3944068 -0.0997481 1.4984029 0.8047675
    [828,]
##
    [829,]
                        -0.3944068 0.7540280 -1.1320495 -0.1199369
##
    [830,]
                        -0.3944068 -1.8073003 -0.2552320 -0.1199369
##
                        -0.3944068   0.7540280   -0.2552320   -1.0446413
    [831,]
##
                        -0.3944068 0.7540280 -0.2552320 1.7294720
    [832,]
##
    [833,]
                        -0.3944068 -0.0997481 1.4984029 2.6541764
##
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
    [834,]
##
    [835,]
                        -0.3944068 0.7540280 0.6215855 -0.1199369
                        -0.3944068 -0.0997481 -0.2552320 -0.1199369
##
    [836,]
##
                        -0.3944068 -0.9535242 -1.1320495 -1.0446413
    [837,]
##
    [838,]
                        -0.3944068 0.7540280 0.6215855 -0.1199369
                        2.0052972 0.7540280 -1.1320495 -1.0446413
##
    [839,]
##
    [840,]
                        -0.3944068   0.7540280   -0.2552320   -1.0446413
##
    [841,]
                        0.8054452 -0.9535242 0.6215855
                                                         0.8047675
                         2.0052972
##
    [842,]
                                    0.7540280 0.6215855
                                                          0.8047675
##
                         2.0052972 0.7540280 -0.2552320 -1.0446413
    [843,]
                         0.8054452 0.7540280 -0.2552320
##
    [844,]
                                                          0.8047675
##
                        0.8054452 -0.9535242 2.3752204 1.7294720
    [845,]
##
    [846,]
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
##
    [847,]
                        -0.3944068
                                    1.6078041 -0.2552320 -0.1199369
##
                       -1.5942588 -0.0997481 1.4984029 -0.1199369
    [848,]
##
    [849,]
                        -1.5942588 -0.9535242 -1.1320495 -1.0446413
##
    [850,]
                        -1.5942588 -1.8073003 1.4984029 1.7294720
##
    [851,]
                       ##
                        2.0052972 -0.0997481 -1.1320495 -1.0446413
    [852,]
##
    [853,]
                        0.8054452 -0.9535242 -1.1320495 -0.1199369
##
                        -0.3944068
                                    0.7540280 1.4984029 -0.1199369
    [854,]
                                    0.7540280 -0.2552320 -1.0446413
##
    [855,]
                        -1.5942588
##
    [856,]
                         0.8054452
                                    1.6078041 0.6215855 0.8047675
##
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
  [857,]
```

```
0.8054452 0.7540280 -0.2552320 0.8047675
##
    [858,]
##
    [859,]
                         -2.7941108 -0.0997481 0.6215855 -0.1199369
##
    [860,]
                         -0.3944068
                                    0.7540280
                                               1.4984029 -0.1199369
##
                         -0.3944068
                                     0.7540280
                                               0.6215855
                                                           0.8047675
    [861,]
##
    [862,]
                         -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
                         0.8054452 0.7540280 -0.2552320 -0.1199369
    [863,]
                         2.0052972 -0.0997481 -0.2552320 -0.1199369
##
    [864,]
    [865,]
##
                         -0.3944068 -0.0997481 -0.2552320
                                                           0.8047675
##
    [866,]
                        -1.5942588 0.7540280 0.6215855 -0.1199369
##
    [867,]
                         -0.3944068 -0.9535242 0.6215855
                                                           0.8047675
##
                        -0.3944068 0.7540280 -0.2552320
                                                           1.7294720
    [868,]
##
    [869,]
                         0.8054452 -0.0997481 1.4984029
                                                           0.8047675
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [870,]
##
                         0.8054452 0.7540280 -0.2552320 -1.0446413
    [871,]
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [872,]
##
                        -0.3944068 -0.9535242 0.6215855 -1.0446413
    [873,]
##
    [874,]
                         0.8054452 0.7540280 -0.2552320 -0.1199369
##
                                    1.6078041 -1.1320495 -1.0446413
    [875,]
                        -0.3944068
##
    [876,]
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
                        -0.3944068 -0.0997481 -1.1320495 -0.1199369
    [877,]
##
                        -0.3944068 -1.8073003 0.6215855 2.6541764
    [878,]
##
                        -1.5942588 -0.9535242 -0.2552320 -0.1199369
    [879,]
                         2.0052972 1.6078041 -1.1320495
##
    [880,]
                                                           1.7294720
##
                        -0.3944068
                                    1.6078041 -1.1320495 -0.1199369
    [881,]
##
                        -0.3944068 -1.8073003 -1.1320495 0.8047675
    [882,]
##
    [883,]
                         0.8054452 0.7540280 -1.1320495 -1.0446413
##
                        -0.3944068 -0.0997481 -1.1320495 -1.0446413
    [884,]
##
    [885,]
                        -0.3944068   0.7540280   -0.2552320   -1.0446413
##
                         0.8054452 -0.0997481 -0.2552320 -0.1199369
    [886,]
                         2.0052972 -0.0997481 -0.2552320 -1.0446413
##
    [887,]
##
    [888]
                        -0.3944068 -0.0997481 -0.2552320 1.7294720
                        -0.3944068 -0.0997481 -0.2552320 -1.0446413
##
    [889,]
##
    [890,]
                        -0.3944068 -0.0997481 0.6215855
                                                          1.7294720
##
    [891,]
                        -0.3944068
                                    1.6078041 -1.1320495 -0.1199369
##
    [892,]
                         -0.3944068 0.7540280 0.6215855 -0.1199369
##
                        -0.3944068 -0.0997481
                                               0.6215855 -0.1199369
    [893,]
##
    [894,]
                        -0.3944068 -0.9535242 0.6215855
                                                          1.7294720
##
                         0.8054452 -0.0997481 -1.1320495 -1.0446413
    [895,]
##
    [896,]
                         0.8054452 0.7540280 -0.2552320
                                                          0.8047675
##
    [897,]
                        -0.3944068 -0.9535242 0.6215855
                                                           1.7294720
##
                        -0.3944068 -0.9535242 -0.2552320
                                                           0.8047675
    [898,]
##
    [899,]
                        -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
    [900,]
                        -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [901,]
                         -1.5942588 -0.9535242 -1.1320495 -0.1199369
                        -0.3944068 -1.8073003 -0.2552320 -0.1199369
##
    [902,]
##
    [903,]
                        -0.3944068 -1.8073003 -0.2552320 -0.1199369
##
    [904,]
                         2.0052972 -0.9535242 1.4984029
                                                           0.8047675
                         -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [905,]
##
    [906,]
                         -0.3944068 0.7540280 0.6215855
                                                           0.8047675
                         -0.3944068 1.6078041 0.6215855 -1.0446413
  [907,]
```

```
0.8054452 0.7540280 0.6215855 -0.1199369
##
   [908,]
##
   [909,]
                       -1.5942588 -0.0997481 -0.2552320 0.8047675
##
   [910,]
                       -0.3944068 0.7540280 0.6215855 -0.1199369
##
                       0.8054452 -0.9535242 -1.1320495 -1.0446413
   [911,]
##
   [912,]
                       -0.3944068 -0.9535242 -0.2552320 -1.0446413
   [913,]
##
                       0.8054452 0.7540280 -0.2552320 -1.0446413
                       -0.3944068 0.7540280 1.4984029 -0.1199369
##
   [914,]
##
   [915,]
                       0.8054452 -0.9535242 0.6215855 -1.0446413
##
   [916,]
                       0.8054452 1.6078041 -0.2552320 0.8047675
##
   [917,]
                      -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
                       0.8054452 -0.9535242 -0.2552320 -0.1199369
   [918,]
##
   [919,]
                      -0.3944068 -0.9535242 -0.2552320 -1.0446413
##
                      -2.7941108 -0.0997481 -0.2552320 -1.0446413
   [920,]
##
   [921,]
                       0.8054452 -0.0997481 0.6215855 0.8047675
                      ##
   [922,]
##
                      -0.3944068 1.6078041 -1.1320495 -1.0446413
   [923,]
##
   [924,]
                       0.8054452 -0.9535242 -0.2552320 -1.0446413
##
                      -0.3944068 -0.0997481 -1.1320495 -1.0446413
   [925,]
##
   [926,]
                      -0.3944068 0.7540280 0.6215855 0.8047675
##
                      -0.3944068 -0.0997481 -0.2552320 -0.1199369
   [927,]
##
                      -0.3944068
                                 1.6078041 -1.1320495 -1.0446413
   [928,]
##
   [929,]
                      -1.5942588 -0.0997481 2.3752204 -1.0446413
##
   [930,]
##
                      -0.3944068 -0.0997481 -0.2552320 -1.0446413
   [931,]
##
   [932,]
                      -0.3944068 0.7540280 -0.2552320 -0.1199369
##
   [933,]
                       ##
                      -0.3944068 -0.9535242 -0.2552320 0.8047675
   [934,]
##
   [935,]
                      -0.3944068 -0.0997481 -0.2552320 -0.1199369
                      -0.3944068 -0.0997481 -1.1320495 -1.0446413
##
   [936,]
##
                      -0.3944068 -0.9535242 0.6215855 -0.1199369
   [937,]
   [938,]
##
                      -0.3944068 -0.9535242 2.3752204 -1.0446413
##
   [939,]
##
   [940,]
                      -0.3944068 0.7540280 -1.1320495 1.7294720
##
   [941,]
                      -0.3944068 -0.9535242 -1.1320495 -1.0446413
##
   [942,]
                       -0.3944068 -0.0997481 -0.2552320 -1.0446413
                      -1.5942588 1.6078041 0.6215855 -0.1199369
##
   [943,]
##
                      -0.3944068 -0.0997481 -0.2552320 -1.0446413
   [944,]
##
                       0.8054452 -0.0997481 0.6215855 -0.1199369
   [945,]
##
   [946,]
                      -1.5942588 1.6078041 -0.2552320 0.8047675
                       2.0052972 -0.9535242 -1.1320495 -0.1199369
##
   [947,]
##
                      -0.3944068 -0.0997481 -1.1320495 -1.0446413
   [948,]
##
   [949,]
                      -0.3944068 0.7540280 0.6215855 -0.1199369
##
   [950,]
                      -0.3944068 -0.0997481 -0.2552320
                                                      0.8047675
##
   [951,]
                       -0.3944068 -0.9535242 0.6215855
                                                      0.8047675
##
                      [952,]
##
   [953,]
                      -1.5942588 -0.0997481 0.6215855
                                                      0.8047675
##
   [954,]
                       -0.3944068 -0.0997481 -1.1320495
                                                      0.8047675
                       -0.3944068 1.6078041 0.6215855 -0.1199369
##
   [955,]
##
   [956,]
                       -0.3944068 -0.9535242 -1.1320495 -0.1199369
                     0.8054452 -0.0997481 -1.1320495 1.7294720
  [957,]
```

```
0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [958,]
##
    [959,]
                         2.0052972 1.6078041 0.6215855 -1.0446413
##
    [960,]
                        -0.3944068 -0.0997481 -0.2552320 0.8047675
                                              1.4984029 -1.0446413
##
                        -0.3944068
                                   0.7540280
    [961,]
##
    [962,]
                        -0.3944068
                                   0.7540280
                                              1.4984029 -1.0446413
                                                         1.7294720
##
                        -1.5942588 -0.0997481
                                               1.4984029
    [963,]
                                                         0.8047675
                        0.8054452 0.7540280 0.6215855
##
    [964,]
##
    [965,]
                         0.8054452 -0.0997481 -0.2552320
                                                         0.8047675
##
    [966,]
                        2.0052972 1.6078041 0.6215855
                                                         0.8047675
                        2.0052972 -1.8073003 -1.1320495 -1.0446413
##
    [967,]
##
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
    [968,]
##
    [969,]
                        0.8054452 -0.0997481 -0.2552320 -0.1199369
                       -0.3944068 -0.9535242 -1.1320495 -0.1199369
##
    [970,]
##
                       -0.3944068 1.6078041 -1.1320495
                                                         1.7294720
    [971,]
                        0.8054452 -0.9535242 1.4984029
##
    [972,]
                                                         0.8047675
##
                       -0.3944068 -0.0997481 0.6215855
                                                         0.8047675
    [973,]
##
    [974,]
                        -0.3944068 -0.9535242
                                              2.3752204
                                                         2.6541764
##
    [975,]
                       -0.3944068 -1.8073003 -0.2552320 -0.1199369
##
    [976,]
                        -0.3944068
                                   1.6078041 2.3752204
                                                         2.6541764
##
                                   0.7540280 -0.2552320
    [977,]
                        -0.3944068
                                                         0.8047675
##
                        [978,]
##
    [979,]
                        -1.5942588 -0.9535242 -1.1320495 -0.1199369
##
    [980,]
                       ##
                       -0.3944068 -0.9535242 -0.2552320 -0.1199369
    [981,]
##
                        0.8054452 -1.8073003 -0.2552320 1.7294720
    [982,]
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [983,]
##
                        0.8054452 -0.0997481 -1.1320495 -1.0446413
    [984,]
##
    [985,]
                       -1.5942588 -1.8073003 0.6215855 -0.1199369
##
                       -1.5942588 -1.8073003 0.6215855 -0.1199369
    [986,]
##
                        -0.3944068 -0.9535242 2.3752204
    [987,]
                                                         0.8047675
##
    [988,]
                        -0.3944068 -0.9535242 -0.2552320
                                                         0.8047675
                       -1.5942588 -0.0997481 -0.2552320 -0.1199369
##
    [989,]
##
    [990,]
                        2.0052972 -0.0997481 -0.2552320 -0.1199369
##
    [991,]
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [992,]
                        2.0052972 -0.9535242 -1.1320495 -1.0446413
##
                        0.8054452 0.7540280 -1.1320495
                                                        1.7294720
    [993,]
                       -0.3944068 -0.0997481 -1.1320495 -0.1199369
##
    [994,]
##
                        0.8054452 -0.0997481 -0.2552320 -0.1199369
    [995,]
##
   [996,]
                        0.8054452 -0.9535242 -1.1320495 -1.0446413
##
    [997,]
                       -0.3944068 -1.8073003 -1.1320495 -1.0446413
##
                        0.8054452 -0.0997481 0.6215855 0.8047675
   [998,]
##
   [999,]
                        0.8054452
                                   0.7540280
                                              0.6215855 -1.0446413
## [1000,]
                        2.0052972
                                    1.6078041
                                              0.6215855 1.7294720
## [1001,]
                       -0.3944068 -0.0997481
                                              0.6215855 -0.1199369
## [1002,]
                        2.0052972
                                   1.6078041 -1.1320495 -0.1199369
## [1003,]
                        2.0052972 -0.0997481 -1.1320495 0.8047675
## [1004,]
                        -0.3944068
                                    0.7540280 0.6215855 -0.1199369
## [1005,]
                        -0.3944068
                                    0.7540280 -1.1320495 -0.1199369
## [1006,]
                        -1.5942588
                                   1.6078041 -0.2552320 -0.1199369
## [1007,]
                       0.8054452 1.6078041 -1.1320495 0.8047675
```

```
-0.3944068 -1.8073003 -1.1320495 -0.1199369
   [1008,]
                                                    0.6215855 -1.0446413
##
   [1009,]
                           -0.3944068 -0.0997481
##
   [1010,]
                            2.0052972 0.7540280
                                                    0.6215855 -0.1199369
##
            Classical.music
                                Musical
                                                 Pop
                                                           Rock Metal.or.Hardrock
##
      [1,]
                -0.76420873 -1.3991123
                                          1.3169072
                                                      1.0478732
                                                                         -0.9910267
##
      [2,]
                -1.56488384 -0.6052340 -0.4059895
                                                      1.0478732
                                                                          1.1960170
##
                              1.7764010 -0.4059895
                                                      1.0478732
                                                                         0.4670024
      [3,]
                 0.83714151
##
      [4,]
                -1.56488384 -1.3991123
                                         -1.2674379
                                                     -1.4881139
                                                                         -0.9910267
##
      [5,]
                 0.83714151
                              0.1886444
                                          1.3169072
                                                     -0.6427849
                                                                         -0.9910267
##
      [6,]
                 0.03646639
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                          1.9250315
##
      [7,]
                -0.76420873 -0.6052340
                                          1.3169072
                                                     -0.6427849
                                                                         -0.9910267
##
      [8,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         -0.9910267
                              0.9825227 -0.4059895
##
      [9,]
                -0.76420873
                                                      1.0478732
                                                                          1.9250315
##
     [10,]
                -0.76420873
                              1.7764010 -0.4059895
                                                      1.0478732
                                                                         -0.2620122
                -0.76420873
                              0.1886444
                                          0.4554588
                                                     -0.6427849
##
     [11,]
                                                                         -0.2620122
##
                 0.83714151 -1.3991123 -1.2674379
                                                      1.0478732
                                                                         -0.9910267
     [12,]
##
     [13,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                          1.1960170
##
                              1.7764010
                                          1.3169072
                                                     -1.4881139
                                                                         -0.9910267
     [14,]
                -1.56488384
##
     [15,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         -0.2620122
##
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
     [16,]
                                                                          1.9250315
     [17,]
##
                -1.56488384 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         -0.9910267
##
     [18,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         -0.2620122
                              1.7764010
##
     [19,]
                 0.83714151
                                          1.3169072
                                                      0.2025442
                                                                         1.1960170
##
     [20,]
                 0.83714151 -0.6052340 -1.2674379
                                                      0.2025442
                                                                          1.9250315
##
     [21,]
                 0.83714151
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                          1.9250315
##
     [22,]
                -0.76420873
                             -0.6052340
                                         -1.2674379
                                                      1.0478732
                                                                          1.9250315
##
                 0.03646639
                              0.1886444
                                          0.4554588
                                                     -0.6427849
                                                                         -0.9910267
     [23,]
##
     [24,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         -0.2620122
##
     [25,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                          1.9250315
##
                -0.76420873
                              0.1886444
                                          1.3169072
                                                    -2.3334430
                                                                         -0.9910267
     [26,]
##
     [27,]
                 1.63781663
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
##
                 0.03646639 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         -0.2620122
     [28,]
##
     [29,]
                -1.56488384 -1.3991123 -0.4059895
                                                      0.2025442
                                                                         -0.9910267
##
     [30,]
                 0.03646639
                              0.1886444 -0.4059895
                                                      0.2025442
                                                                         -0.9910267
##
     [31,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         -0.2620122
                -0.76420873
##
     [32,]
                              0.1886444
                                          1.3169072
                                                     -0.6427849
                                                                         -0.9910267
##
     [33,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                         0.4670024
##
                 0.83714151
                              1.7764010
                                          0.4554588
                                                     -0.6427849
                                                                         -0.9910267
     [34,]
##
     [35,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
                              1.7764010
                                          1.3169072
                                                     -0.6427849
                                                                         -0.9910267
     [36,]
                 0.83714151
##
     [37,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         -0.9910267
##
     [38,]
                 1.63781663 -1.3991123
                                         -1.2674379
                                                     -0.6427849
                                                                          1.9250315
##
     [39,]
                 1.63781663 -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                         -0.9910267
##
     [40,]
                -0.76420873
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                         1.1960170
##
                -1.56488384 -1.3991123
     [41,]
                                          1.3169072
                                                     -2.3334430
                                                                         -0.9910267
##
     [42,]
                 1.63781663 -1.3991123 -2.1288863
                                                      0.2025442
                                                                          1.9250315
##
     [43,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                         1.1960170
##
     [44,]
                -0.76420873 -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                         -0.9910267
##
     [45,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         -0.9910267
##
                 0.83714151
                             0.1886444
                                          1.3169072
                                                      0.2025442
                                                                         -0.9910267
     [46,]
```

```
[47,]
                                                     1.0478732
                                                                         0.4670024
##
                -1.56488384
                              1.7764010
                                         1.3169072
     [48,]
##
                -0.76420873
                              0.1886444
                                          0.4554588
                                                     0.2025442
                                                                        -0.2620122
##
     [49,]
                -1.56488384
                              0.9825227 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
##
     [50,]
                -0.76420873 -0.6052340
                                        -0.4059895
                                                     1.0478732
                                                                        0.4670024
##
     [51,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                     1.0478732
                                                                        -0.2620122
##
     [52,]
                 0.83714151
                              0.1886444
                                         1.3169072
                                                     0.2025442
                                                                        0.4670024
                 1.63781663
                              1.7764010
                                         1.3169072
##
     [53,]
                                                     1.0478732
                                                                        1.1960170
##
     [54,]
                 0.83714151
                              1.7764010
                                         0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
     [55,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                     1.0478732
                                                                        1.1960170
##
     [56,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                         0.4670024
##
     [57,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                     1.0478732
                                                                        -0.9910267
##
     [58,]
                 0.03646639 -0.6052340
                                        -1.2674379
                                                     1.0478732
                                                                        -0.2620122
                                                                        -0.9910267
##
     [59,]
                 0.03646639 -0.6052340
                                         1.3169072 -2.3334430
##
     [60,]
                 0.03646639 -1.3991123 -0.4059895
                                                     0.2025442
                                                                        0.4670024
                 0.83714151
                              0.9825227
                                         0.4554588
                                                                        -0.9910267
##
     [61,]
                                                     0.2025442
##
                 0.83714151
                              0.1886444
                                         0.4554588
                                                     0.2025442
                                                                        -0.9910267
     [62,]
##
     [63,]
                 0.83714151
                              0.9825227
                                         1.3169072
                                                     0.2025442
                                                                        1.9250315
##
                -0.76420873 -1.3991123 -1.2674379
     [64,]
                                                    -0.6427849
                                                                        -0.9910267
##
     [65,]
                -1.56488384
                              0.9825227
                                          0.4554588
                                                     1.0478732
                                                                        -0.9910267
                -0.76420873 -1.3991123 -0.4059895 -0.6427849
##
     [66,]
                                                                         0.4670024
##
                              0.9825227
                                          1.3169072 -0.6427849
                                                                         1.1960170
     [67,]
                -0.76420873
##
     [68,]
                -0.76420873
                              0.9825227
                                         1.3169072 -2.3334430
                                                                        -0.9910267
##
     [69,]
                -0.76420873
                              0.9825227 -0.4059895
                                                     1.0478732
                                                                         1.9250315
##
                -1.56488384
                              0.9825227
                                          1.3169072
                                                     0.2025442
                                                                        -0.9910267
     [70,]
##
                -0.76420873
                              0.1886444
                                         1.3169072 -0.6427849
                                                                        -0.9910267
     [71,]
##
     [72,]
                 0.83714151
                            -1.3991123
                                          0.4554588
                                                    -2.3334430
                                                                        -0.9910267
##
                -0.76420873
                              1.7764010
                                          1.3169072
                                                     1.0478732
                                                                        -0.2620122
     [73,]
##
     [74,]
                -0.76420873 -1.3991123
                                          1.3169072 -1.4881139
                                                                        -0.9910267
                              0.1886444 -1.2674379
##
                 1.63781663
                                                    -2.3334430
                                                                        -0.9910267
     [75,]
                 0.03646639 -1.3991123 -2.1288863
                                                                         1.1960170
##
     [76,]
                                                     1.0478732
##
     [77,]
                -0.76420873 -0.6052340
                                        -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
##
                -0.76420873 -0.6052340
                                                     0.2025442
                                                                        -0.2620122
     [78,]
                                         1.3169072
##
     [79,]
                -1.56488384
                              1.7764010
                                         1.3169072 -0.6427849
                                                                        -0.9910267
##
     [80,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                     1.0478732
                                                                        -0.2620122
##
     [81,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                     1.0478732
                                                                        -0.2620122
##
     [82,]
                 0.03646639
                              0.1886444
                                          1.3169072
                                                     0.2025442
                                                                        -0.2620122
##
     [83,]
                 0.03646639 -0.6052340 -2.1288863
                                                     1.0478732
                                                                         1.9250315
##
                 0.83714151
                              0.9825227
                                          1.3169072
                                                     1.0478732
     [84,]
                                                                        0.4670024
##
     [85,]
                 1.63781663
                              1.7764010 -2.1288863
                                                     1.0478732
                                                                         1.9250315
                              0.1886444 - 0.4059895
##
     [86,]
                 1.63781663
                                                     0.2025442
                                                                         1.1960170
##
     [87,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                     1.0478732
                                                                         0.4670024
##
     [88,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                     1.0478732
                                                                        -0.2620122
##
     [89,]
                 1.63781663 -0.6052340
                                         1.3169072
                                                     1.0478732
                                                                        -0.9910267
##
     [90,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                     1.0478732
                                                                        0.4670024
##
     [91,]
                 0.03646639
                              0.9825227 -0.4059895
                                                     0.2025442
                                                                        -0.9910267
##
     [92,]
                -0.76420873
                              1.7764010 -0.4059895
                                                     1.0478732
                                                                         1.9250315
##
     [93,]
                 0.83714151
                              0.9825227 -1.2674379
                                                    -0.6427849
                                                                        -0.9910267
##
     [94,]
                 0.83714151
                              0.9825227
                                         0.4554588 -0.6427849
                                                                         0.4670024
##
     [95,]
                -1.56488384 -0.6052340
                                         0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
                 -0.9910267
     [96,]
```

```
[97,]
                -1.56488384 -1.3991123 -1.2674379
##
                                                     0.2025442
                                                                         1.9250315
##
     [98,]
                -1.56488384 -1.3991123 -1.2674379 -2.3334430
                                                                        -0.9910267
##
     [99,]
                -1.56488384 -1.3991123 -0.4059895
                                                      1.0478732
                                                                        -0.2620122
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [100,]
##
    [101,]
                 0.83714151
                              1.7764010
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
                 0.03646639 -1.3991123 -1.2674379
                                                      0.2025442
                                                                         1.9250315
    [102,]
                              0.9825227 -2.1288863
##
    [103,]
                 1.63781663
                                                      1.0478732
                                                                        -0.2620122
##
    [104,]
                -0.76420873
                              0.9825227
                                          1.3169072
                                                     -2.3334430
                                                                        -0.9910267
##
    [105,]
                 0.83714151 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         1.1960170
    [106,]
                 0.03646639 -0.6052340 -1.2674379
                                                      0.2025442
##
                                                                         1.9250315
##
                              0.1886444
                                          0.4554588
                                                      1.0478732
    [107,]
                 1.63781663
                                                                        -0.9910267
##
    [108,]
                -0.76420873 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         1.1960170
                 0.83714151 -1.3991123 -1.2674379
##
    [109,]
                                                      0.2025442
                                                                         1.1960170
##
    [110,]
                 0.83714151 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.9250315
                 0.03646639 -1.3991123
##
    [111,]
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
                 1.63781663
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                        -0.2620122
    [112,]
##
    [113,]
                 0.83714151
                              0.1886444 -0.4059895
                                                     -0.6427849
                                                                        -0.2620122
##
    [114,]
                -1.56488384 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [115,]
                              0.9825227
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
                 0.03646639
                                          1.3169072
                                                                        -0.2620122
##
    [116,]
                 1.63781663
                              0.9825227
                                                      1.0478732
                -0.76420873 -1.3991123 -0.4059895
                                                                        -0.9910267
##
    [117,]
                                                      1.0478732
##
    [118,]
                -1.56488384
                              0.1886444
                                          1.3169072
                                                    -0.6427849
                                                                        -0.2620122
##
    [119,]
                 0.83714151 -1.3991123 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
##
                 0.03646639 -0.6052340
                                          0.4554588
                                                    -1.4881139
                                                                        -0.2620122
    [120,]
##
                 0.83714151
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                         1.9250315
    [121,]
##
    [122,]
                -0.76420873 -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
                              0.1886444 -2.1288863
                                                      1.0478732
                                                                        -0.2620122
    [123,]
                 1.63781663
##
    [124,]
                 0.03646639
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         0.4670024
##
                 1.63781663
                              1.7764010 -0.4059895
                                                      1.0478732
                                                                         0.4670024
    [125,]
                                                     0.2025442
                 0.03646639 -0.6052340 -1.2674379
                                                                         0.4670024
##
    [126,]
##
    [127,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
                                          0.4554588
                                                      0.2025442
##
    [128,]
                 0.83714151
                              0.1886444
                                                                         0.4670024
##
    [129,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                         1.9250315
##
    [130,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                        -0.2620122
##
    [131,]
                 0.83714151 -0.6052340
                                        -1.2674379
                                                      1.0478732
                                                                         0.4670024
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [132,]
    [133,]
##
                -1.56488384 -1.3991123
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
                 0.83714151 -0.6052340 -2.1288863
                                                    -0.6427849
                                                                        -0.9910267
##
    [134,]
##
    [135,]
                 0.03646639
                              0.1886444 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [136,]
                 1.63781663 -1.3991123
                                        -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
                 0.03646639 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
    [137,]
##
    [138,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                     0.2025442
                                                                        -0.2620122
##
    [139,]
                 0.83714151
                              1.7764010 -1.2674379
                                                    -2.3334430
                                                                        -0.9910267
##
    [140,]
                 0.03646639
                              0.1886444
                                          1.3169072
                                                     0.2025442
                                                                        -0.9910267
##
                -0.76420873
                              0.1886444
                                          0.4554588
                                                     0.2025442
                                                                        -0.2620122
    [141,]
##
    [142,]
                 0.03646639 -1.3991123 -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
    [143,]
##
    [144,]
                -1.56488384 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [145,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                        -0.9910267
##
                -0.76420873 -0.6052340 -1.2674379
                                                     0.2025442
                                                                        -0.9910267
    [146,]
```

```
0.2025442
##
    [147,]
                 0.83714151 -1.3991123 1.3169072
                                                                         0.4670024
##
    [148,]
                -0.76420873 -0.6052340 -0.4059895
                                                     1.0478732
                                                                         1.1960170
##
    [149,]
                 0.03646639
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.2620122
##
    [150,]
                 0.03646639
                              0.9825227 -2.1288863
                                                    -1.4881139
                                                                        -0.2620122
##
    [151,]
                 0.83714151
                              0.9825227 -0.4059895
                                                     1.0478732
                                                                         1.9250315
##
                 0.03646639 -0.6052340 -1.2674379
                                                     0.2025442
                                                                         1.1960170
    [152,]
                              0.1886444
##
    [153,]
                 0.03646639
                                          0.4554588
                                                     0.2025442
                                                                        -0.2620122
##
    [154,]
                 0.03646639 -0.6052340
                                         0.4554588
                                                    -1.4881139
                                                                        -0.9910267
##
    [155,]
                 1.63781663 -1.3991123 -2.1288863
                                                     1.0478732
                                                                         1.1960170
    [156,]
                 1.63781663 -0.6052340 -0.4059895
                                                    -0.6427849
##
                                                                        -0.2620122
##
                 0.83714151 -0.6052340 -0.4059895
                                                     1.0478732
                                                                        -0.2620122
    [157,]
##
    [158,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                     0.2025442
                                                                         1.1960170
##
                 0.03646639 -0.6052340
                                         1.3169072
                                                     0.2025442
                                                                        -0.9910267
    [159,]
##
    [160,]
                 1.63781663
                              0.9825227
                                          0.4554588
                                                     1.0478732
                                                                         0.4670024
                -0.76420873 -1.3991123 -2.1288863
##
    [161,]
                                                     1.0478732
                                                                         1.1960170
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                     1.0478732
                                                                         0.4670024
    [162,]
##
                 1.63781663 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
    [163,]
##
                                          0.4554588
    [164,]
                -0.76420873 -1.3991123
                                                    -0.6427849
                                                                        -0.2620122
##
    [165,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
                 0.03646639 -1.3991123
                                          0.4554588
##
    [166,]
                                                    -2.3334430
                                                                        -0.9910267
                 0.03646639 -1.3991123 -2.1288863
##
    [167,]
                                                    -0.6427849
                                                                         1.9250315
##
    [168,]
                 0.03646639 -0.6052340 -0.4059895
                                                     0.2025442
                                                                         0.4670024
    [169,]
##
                 0.83714151
                              0.1886444
                                         0.4554588
                                                     0.2025442
                                                                        -0.9910267
##
                 0.83714151
                              0.9825227 -0.4059895
                                                     1.0478732
                                                                         1.1960170
    [170,]
##
                -0.76420873 -1.3991123 -0.4059895
                                                     0.2025442
                                                                        -0.2620122
    [171,]
##
    [172,]
                 0.83714151
                              0.1886444
                                         0.4554588
                                                     0.2025442
                                                                        -0.9910267
##
                 0.83714151
                              0.9825227 -1.2674379
                                                     1.0478732
    [173,]
                                                                         1.9250315
##
    [174,]
                 0.83714151
                              0.9825227 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
##
                 0.03646639
                              0.1886444 -2.1288863
                                                    -2.3334430
                                                                        -0.9910267
    [175,]
                              0.1886444 - 0.4059895
##
    [176,]
                 1.63781663
                                                     1.0478732
                                                                         1.9250315
##
    [177,]
                -1.56488384 -1.3991123 -0.4059895
                                                     1.0478732
                                                                         1.9250315
                              0.1886444 -2.1288863
##
    [178,]
                 0.83714151
                                                     1.0478732
                                                                         1.9250315
##
    [179,]
                 1.63781663 -0.6052340 -1.2674379
                                                     0.2025442
                                                                         1.1960170
##
    [180,]
                 1.63781663 -0.6052340 -2.1288863
                                                    -2.3334430
                                                                        -0.2620122
##
    [181,]
                 0.03646639
                              0.1886444 -1.2674379
                                                     1.0478732
                                                                         1.1960170
##
                 0.83714151
                              0.1886444 - 0.4059895
                                                     0.2025442
                                                                         0.4670024
    [182,]
    [183,]
                                                                         1.1960170
##
                 0.83714151
                              0.9825227
                                         0.4554588
                                                     1.0478732
##
                                         0.4554588
                                                    -0.6427849
                                                                        -0.9910267
    [184,]
                -0.76420873
                              1.7764010
##
    [185,]
                 0.03646639
                              0.9825227 -1.2674379
                                                     1.0478732
                                                                        -0.9910267
##
    [186,]
                -0.76420873
                              1.7764010 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
##
                              0.1886444
                                         0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [187,]
                 0.03646639
##
    [188,]
                -0.76420873 -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
    [189,]
                 1.63781663
                              0.9825227 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [190,]
                 1.63781663
                              0.1886444 -2.1288863
                                                     0.2025442
                                                                         1.9250315
##
                 0.83714151 -0.6052340 -1.2674379
                                                     0.2025442
                                                                         1.9250315
    [191,]
##
    [192,]
                              1.7764010
                                         1.3169072 -1.4881139
                                                                        -0.9910267
                 0.83714151
##
    [193,]
                 0.03646639
                              0.1886444
                                         1.3169072
                                                     0.2025442
                                                                        -0.9910267
##
    [194,]
                 1.63781663
                              0.1886444 -2.1288863
                                                     1.0478732
                                                                         1.9250315
##
    [195,]
                 0.03646639 -0.6052340 -1.2674379
                                                     0.2025442
                                                                        -0.2620122
##
                 0.03646639 -0.6052340 -1.2674379 -0.6427849
                                                                        -0.9910267
    [196,]
```

```
0.2025442
##
    [197,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                                         0.4670024
                                                    -1.4881139
##
    [198,]
                -1.56488384
                              0.9825227 -1.2674379
                                                                        -0.9910267
##
    [199,]
                -0.76420873 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         0.4670024
##
    [200,]
                -1.56488384 -1.3991123 -1.2674379
                                                    -0.6427849
                                                                        -0.9910267
##
    [201,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
##
                 0.03646639
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
    [202,]
                -1.56488384 -1.3991123 -0.4059895
##
    [203,]
                                                    -1.4881139
                                                                        -0.9910267
##
    [204,]
                 0.03646639
                            -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [205,]
                 0.03646639
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         1.1960170
    [206,]
                                          0.4554588
                                                      0.2025442
##
                 1.63781663
                              1.7764010
                                                                         0.4670024
##
                 1.63781663
                              1.7764010 -0.4059895
                                                      0.2025442
                                                                         1.1960170
    [207,]
##
    [208,]
                 0.83714151
                              1.7764010
                                        -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [209,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
    [210,]
                 0.83714151
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         1.1960170
##
    [211,]
                 1.63781663 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
                -0.76420873
##
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
    [212,]
##
    [213,]
                 1.63781663 -1.3991123 -1.2674379
                                                      0.2025442
                                                                        -0.2620122
##
    [214,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
##
    [215,]
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         1.1960170
                 0.03646639
                -1.56488384 -1.3991123 -0.4059895
                                                    -2.3334430
##
    [216,]
                                                                        -0.9910267
                -1.56488384 -1.3991123 -2.1288863
##
    [217,]
                                                      0.2025442
                                                                         1.9250315
##
    [218,]
                -0.76420873
                              1.7764010
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [219,]
                -0.76420873
                              0.1886444
                                          0.4554588 -0.6427849
                                                                        -0.9910267
##
                -1.56488384 -0.6052340 -0.4059895
                                                    -2.3334430
                                                                        -0.9910267
    [220,]
##
                 0.83714151 -0.6052340 -2.1288863
                                                    -0.6427849
                                                                        -0.9910267
    [221,]
##
    [222,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         1.9250315
##
                                                                         0.4670024
    [223,]
                 0.83714151
                              0.1886444
                                          1.3169072
                                                      1.0478732
##
    [224,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                    -1.4881139
                                                                        -0.2620122
##
                 1.63781663
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [225,]
                              0.9825227 -1.2674379
                                                                        -0.2620122
##
    [226,]
                 0.83714151
                                                      1.0478732
##
    [227,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [228,]
                 1.63781663
                              0.1886444 -1.2674379
                                                      0.2025442
                                                                         0.4670024
##
    [229,]
                 0.83714151 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [230,]
                -1.56488384
                            -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [231,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                    -0.6427849
                                                                        -0.9910267
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [232,]
    [233,]
##
                 0.83714151 -1.3991123 -1.2674379
                                                    -0.6427849
                                                                        -0.2620122
##
                              0.1886444
                                          0.4554588
    [234,]
                 0.83714151
                                                      0.2025442
                                                                         1.1960170
##
    [235,]
                -0.76420873 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
    [236,]
                 0.03646639
                              0.1886444 -0.4059895
                                                      1.0478732
                                                                         1.1960170
                                                                         0.4670024
##
                 0.03646639
                              1.7764010
                                          0.4554588
                                                      0.2025442
    [237,]
##
    [238,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [239,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
##
    [240,]
                 1.63781663
                             -0.6052340
                                        -1.2674379
                                                      0.2025442
                                                                        -0.9910267
##
                -1.56488384
                             -1.3991123 -1.2674379
                                                    -0.6427849
                                                                        -0.2620122
    [241,]
##
    [242,]
                              1.7764010 -0.4059895 -0.6427849
                                                                        -0.9910267
                 0.03646639
##
                -0.76420873
                              1.7764010
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
    [243,]
##
    [244,]
                 0.83714151
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
##
    [245,]
                 0.03646639
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
##
                -0.76420873 -0.6052340 -0.4059895
                                                      0.2025442
                                                                         0.4670024
    [246,]
```

```
-0.2620122
##
    [247,]
                 0.83714151 -1.3991123
                                          0.4554588
                                                      1.0478732
##
    [248,]
                 0.83714151
                              1.7764010 -0.4059895
                                                      1.0478732
                                                                         -0.2620122
##
    [249,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
    [250,]
                 0.83714151
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                         1.1960170
##
    [251,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                         -0.2620122
##
                 0.03646639
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                         -0.2620122
    [252,]
                                          0.4554588
##
    [253,]
                 0.03646639
                              0.1886444
                                                      1.0478732
                                                                         -0.9910267
##
    [254,]
                -1.56488384 -1.3991123
                                        -0.4059895
                                                    -2.3334430
                                                                         -0.9910267
##
    [255,]
                -0.76420873
                              1.7764010
                                          1.3169072
                                                    -0.6427849
                                                                         -0.9910267
    [256,]
                              1.7764010
                                        -0.4059895
##
                 1.63781663
                                                      1.0478732
                                                                          1.1960170
##
                -1.56488384
                            -0.6052340
                                          1.3169072
                                                    -1.4881139
                                                                         -0.9910267
    [257,]
##
    [258,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                          0.4670024
    [259,]
##
                 1.63781663 -1.3991123 -2.1288863
                                                      1.0478732
                                                                         1.9250315
##
    [260,]
                -0.76420873 -0.6052340 -0.4059895
                                                      0.2025442
                                                                         -0.2620122
##
    [261,]
                 0.03646639
                              0.1886444 -0.4059895
                                                     -0.6427849
                                                                          0.4670024
##
                -0.76420873 -0.6052340
                                          1.3169072
                                                    -1.4881139
                                                                         -0.9910267
    [262,]
##
    [263,]
                 1.63781663
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                         -0.2620122
##
    [264,]
                -0.76420873
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                         -0.2620122
##
    [265,]
                              0.1886444
                                          1.3169072
                                                      0.2025442
                                                                         0.4670024
                 0.03646639
                -0.76420873
                              0.1886444
##
    [266,]
                                          1.3169072
                                                    -1.4881139
                                                                         -0.9910267
                              0.1886444
                                                                         -0.9910267
##
    [267,]
                 0.03646639
                                          0.4554588
                                                      0.2025442
##
    [268,]
                 0.83714151
                              0.1886444 -1.2674379
                                                      0.2025442
                                                                         1.1960170
##
    [269,]
                -0.76420873 -0.6052340
                                          1.3169072
                                                    -1.4881139
                                                                         -0.9910267
##
                              0.9825227 -0.4059895
                                                      1.0478732
    [270,]
                 0.83714151
                                                                         0.4670024
##
                -1.56488384
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
    [271,]
##
    [272,]
                -1.56488384
                            -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
##
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                          1.9250315
    [273,]
                 1.63781663
##
    [274,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         -0.2620122
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                     -0.6427849
                                                                         -0.9910267
    [275,]
                              1.7764010 -0.4059895
##
    [276,]
                 0.83714151
                                                      0.2025442
                                                                         1.1960170
##
    [277,]
                -0.76420873 -0.6052340
                                          1.3169072
                                                      1.0478732
                                                                         1.1960170
##
    [278,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [279,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                         -0.2620122
##
    [280,]
                -0.76420873 -1.3991123
                                          0.4554588
                                                     -0.6427849
                                                                         -0.9910267
##
    [281,]
                 0.03646639
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                          1.9250315
##
                 0.83714151 -1.3991123 -1.2674379
                                                      0.2025442
                                                                          1.1960170
    [282,]
    [283,]
##
                -1.56488384 -0.6052340 -0.4059895
                                                    -1.4881139
                                                                         -0.9910267
##
                                          0.4554588
    [284,]
                 0.03646639 -0.6052340
                                                      0.2025442
                                                                         -0.2620122
##
    [285,]
                -1.56488384 -1.3991123 -2.1288863
                                                    -2.3334430
                                                                         -0.9910267
##
    [286,]
                 0.03646639
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                         -0.9910267
##
                 0.83714151
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         -0.9910267
    [287,]
##
    [288]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         -0.2620122
##
    [289,]
                 0.03646639 -1.3991123 -1.2674379
                                                     -0.6427849
                                                                         -0.2620122
##
    [290,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         -0.2620122
##
                -0.76420873
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         -0.9910267
    [291,]
##
    [292,]
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                          1.1960170
                 0.03646639
##
                -0.76420873
                              1.7764010
                                          1.3169072
                                                      0.2025442
                                                                         -0.9910267
    [293,]
##
    [294,]
                 0.83714151
                              0.9825227 -2.1288863
                                                      1.0478732
                                                                         1.1960170
##
    [295,]
                 0.83714151
                             -0.6052340 -0.4059895
                                                      0.2025442
                                                                         -0.9910267
##
                              0.1886444 0.4554588
                                                      1.0478732
                                                                         0.4670024
    [296,]
                 0.03646639
```

```
##
    [297,]
                -1.56488384 -1.3991123
                                         1.3169072 -0.6427849
                                                                        -0.2620122
##
    [298,]
                 0.03646639 -0.6052340 -1.2674379 -0.6427849
                                                                        -0.2620122
##
    [299,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [300,]
                 0.03646639
                              0.9825227 -1.2674379
                                                      0.2025442
                                                                        -0.9910267
##
    [301,]
                 1.63781663 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         1.9250315
##
                 1.63781663 -0.6052340 -2.1288863
                                                      1.0478732
                                                                         1.9250315
    [302,]
##
    [303,]
                -0.76420873
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
##
    [304,]
                -0.76420873
                              1.7764010
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
    [305,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
    [306,]
                -0.76420873 -0.6052340 -1.2674379
##
                                                      1.0478732
                                                                        -0.2620122
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                        -0.2620122
##
    [307,]
                 0.03646639
##
    [308,]
                -0.76420873
                              1.7764010 -1.2674379
                                                      1.0478732
                                                                         1.1960170
##
    [309,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [310,]
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                        -0.9910267
                 0.03646639
##
    [311,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
                 1.63781663
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
    [312,]
##
    [313,]
                -0.76420873 -0.6052340 -0.4059895
                                                      0.2025442
                                                                         0.4670024
##
    [314,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [315,]
                 0.83714151
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                         1.9250315
##
##
    [316,]
                 0.03646639
                              0.1886444
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [317,]
                -1.56488384
                              0.1886444 - 0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [318,]
                -0.76420873 -1.3991123 -0.4059895
                                                      1.0478732
                                                                        -0.9910267
##
    [319,]
                 0.03646639
                              0.1886444 -0.4059895 -2.3334430
                                                                        -0.9910267
##
                              1.7764010
                                          1.3169072
                                                                        -0.9910267
    [320,]
                 0.83714151
                                                      0.2025442
##
                -0.76420873 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.1960170
    [321,]
##
    [322,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                        -0.2620122
##
                              0.1886444 -1.2674379
                                                                         1.9250315
    [323,]
                 0.83714151
                                                      1.0478732
##
    [324,]
                 1.63781663
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
                -0.76420873 -0.6052340
                                          1.3169072
                                                    -0.6427849
                                                                        -0.2620122
    [325,]
                              0.1886444
                                                                         1.1960170
##
    [326,]
                 0.03646639
                                          0.4554588
                                                      0.2025442
##
    [327,]
                 0.03646639 -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                        -0.2620122
##
    [328,]
                 0.83714151
                              0.9825227
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
    [329,]
                -0.76420873 -1.3991123 -1.2674379
                                                      1.0478732
                                                                         1.1960170
##
    [330,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
    [331,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         0.4670024
##
                 0.03646639
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                        -0.2620122
    [332,]
    [333,]
##
                 0.03646639
                              1.7764010 -0.4059895 -1.4881139
                                                                        -0.9910267
                              0.9825227
                                          1.3169072
##
    [334,]
                 0.03646639
                                                      0.2025442
                                                                        -0.2620122
##
    [335,]
                -0.76420873
                              0.1886444 -1.2674379
                                                    -0.6427849
                                                                        -0.2620122
##
    [336,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
                 0.03646639 -0.6052340
                                          1.3169072 -0.6427849
                                                                        -0.9910267
    [337,]
##
    [338,]
                 0.03646639 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [339,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                        -0.2620122
##
    [340,]
                 1.63781663
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
                              0.1886444 -1.2674379
                                                    -0.6427849
                                                                        -0.9910267
    [341,]
                 1.63781663
##
    [342,]
                -1.56488384 -1.3991123 -1.2674379 -1.4881139
                                                                        -0.2620122
##
                              0.9825227 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [343,]
                -0.76420873
##
    [344,]
                -0.76420873
                              1.7764010
                                          1.3169072
                                                      0.2025442
                                                                        -0.2620122
##
    [345,]
                -1.56488384 -0.6052340
                                          1.3169072 -0.6427849
                                                                        -0.9910267
                -1.56488384 -0.6052340 0.4554588 0.2025442
                                                                         0.4670024
##
    [346,]
```

```
##
    [347,]
                -1.56488384 -1.3991123 -0.4059895 -0.6427849
                                                                        -0.9910267
                -0.76420873 -0.6052340
                                          0.4554588
##
    [348,]
                                                     0.2025442
                                                                         1.1960170
##
    [349,]
                 1.63781663
                              1.7764010
                                          0.4554588 -1.4881139
                                                                        -0.9910267
##
    [350,]
                -0.76420873
                              0.1886444
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [351,]
                -1.56488384 -1.3991123
                                          0.4554588
                                                     0.2025442
                                                                         0.4670024
##
                 1.63781663
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
    [352,]
                -0.76420873 -1.3991123 -1.2674379
##
    [353,]
                                                      1.0478732
                                                                         1.9250315
##
    [354,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
##
    [355,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                     0.2025442
                                                                        -0.2620122
    [356,]
##
                -1.56488384 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
                              0.9825227
                                          1.3169072
                                                                         0.4670024
##
    [357,]
                 0.83714151
                                                      1.0478732
##
    [358,]
                -0.76420873 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         1.1960170
##
    [359,]
                -0.76420873 -1.3991123 -0.4059895
                                                      1.0478732
                                                                        -0.2620122
##
    [360,]
                 0.03646639 -0.6052340
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [361,]
                -1.56488384
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
##
                 1.63781663 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         1.1960170
    [362,]
##
                 0.83714151
                              1.7764010 -0.4059895
                                                      1.0478732
                                                                         1.1960170
    [363,]
##
    [364,]
                 0.83714151
                              1.7764010
                                        -0.4059895
                                                      1.0478732
                                                                         0.4670024
    [365,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
                 0.83714151 -0.6052340 -2.1288863
##
    [366,]
                                                      1.0478732
                                                                         1.1960170
                                          0.4554588
##
    [367,]
                -0.76420873 -0.6052340
                                                      0.2025442
                                                                        -0.2620122
##
                 0.83714151 -1.3991123
                                          1.3169072
                                                      1.0478732
                                                                         1.1960170
    [368,]
##
    [369,]
                 0.03646639
                              0.1886444
                                          1.3169072
                                                    -0.6427849
                                                                        -0.9910267
                -1.56488384 -1.3991123
                                        -1.2674379
                                                    -1.4881139
                                                                         1.1960170
##
    [370,]
##
                 0.83714151
                              0.1886444
                                          1.3169072
                                                     1.0478732
                                                                         0.4670024
    [371,]
##
    [372,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                         0.4670024
##
                -0.76420873 -0.6052340
                                                      0.2025442
                                                                        -0.2620122
    [373,]
                                        -1.2674379
##
    [374,]
                -1.56488384 -1.3991123
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
                -1.56488384 -0.6052340
                                          1.3169072 -0.6427849
                                                                        -0.9910267
    [375,]
                                          1.3169072
##
    [376,]
                -1.56488384
                              0.1886444
                                                     0.2025442
                                                                        -0.2620122
##
    [377,]
                -1.56488384 -1.3991123
                                          0.4554588
                                                    -2.3334430
                                                                        -0.9910267
##
    [378,]
                 0.83714151 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
    [379,]
                -0.76420873
                              0.9825227
                                          1.3169072
                                                     0.2025442
                                                                        -0.9910267
##
    [380,]
                 0.83714151
                              1.7764010
                                          0.4554588
                                                     0.2025442
                                                                        -0.2620122
##
    [381,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
                 0.83714151
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         0.4670024
    [382,]
    [383,]
##
                -0.76420873 -0.6052340
                                          1.3169072 -2.3334430
                                                                        -0.9910267
                              0.9825227 -0.4059895
##
    [384,]
                 0.03646639
                                                      1.0478732
                                                                         0.4670024
##
    [385,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         1.9250315
##
    [386,]
                 1.63781663
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [387,]
                -0.76420873
##
    [388,]
                -0.76420873
                              0.9825227
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [389,]
                 0.83714151
                              0.9825227
                                          1.3169072
                                                     0.2025442
                                                                        -0.9910267
##
    [390,]
                 0.03646639
                              0.1886444 - 0.4059895
                                                    -1.4881139
                                                                        -0.9910267
##
                 0.03646639 -0.6052340 -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
    [391,]
##
    [392,]
                              0.1886444 -0.4059895 -0.6427849
                                                                        -0.2620122
                 0.03646639
##
                 0.03646639 -0.6052340
                                         0.4554588 -0.6427849
                                                                        -0.9910267
    [393,]
##
    [394,]
                -1.56488384 -1.3991123 -2.1288863 -0.6427849
                                                                         1.9250315
##
    [395,]
                -0.76420873 -1.3991123 -0.4059895
                                                     0.2025442
                                                                        -0.2620122
                -1.56488384 -0.6052340 -0.4059895 0.2025442
                                                                         1.9250315
##
    [396,]
```

```
##
    [397,]
                 1.63781663
                             0.9825227 -0.4059895 -0.6427849
                                                                       -0.9910267
##
    [398,]
                -0.76420873
                             0.1886444
                                         0.4554588 -2.3334430
                                                                       -0.9910267
##
    [399,]
                -0.76420873
                            -0.6052340
                                        -1.2674379
                                                    -0.6427849
                                                                        0.4670024
##
    [400,]
                 1.63781663
                             1.7764010
                                         0.4554588
                                                     0.2025442
                                                                        0.4670024
##
    [401,]
                 0.03646639 -1.3991123
                                         0.4554588
                                                    -1.4881139
                                                                       -0.9910267
##
                -1.56488384
                             0.1886444 -1.2674379
                                                     1.0478732
                                                                        1.1960170
    [402,]
                 1.63781663 -0.6052340
                                         0.4554588
##
    [403,]
                                                     1.0478732
                                                                        1.1960170
    [404,]
##
                 0.03646639
                             0.9825227 -0.4059895
                                                     0.2025442
                                                                       -0.2620122
##
    [405,]
                 1.63781663 -0.6052340
                                         0.4554588
                                                     1.0478732
                                                                       -0.9910267
    [406,]
                             0.1886444 -0.4059895
                                                    -1.4881139
##
                 0.03646639
                                                                       -0.9910267
##
                 0.83714151
                             1.7764010
                                         1.3169072
                                                     0.2025442
                                                                       -0.9910267
    [407,]
##
    [408,]
                 0.03646639
                              0.1886444 -0.4059895
                                                    -0.6427849
                                                                       -0.9910267
##
                 1.63781663
                             1.7764010
                                        -0.4059895
                                                    -2.3334430
                                                                       -0.9910267
    [409,]
##
    [410,]
                -1.56488384
                             1.7764010
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
                 0.03646639 -1.3991123
                                         0.4554588
##
    [411,]
                                                     1.0478732
                                                                       -0.9910267
##
                             0.9825227
                                         1.3169072
                                                     1.0478732
                                                                       -0.9910267
    [412,]
                 0.03646639
##
    [413,]
                -1.56488384 -1.3991123
                                        -0.4059895
                                                     1.0478732
                                                                        1.9250315
##
    [414,]
                -0.76420873
                            -0.6052340
                                         0.4554588
                                                     0.2025442
                                                                        1.1960170
    [415,]
                             0.1886444
                                         1.3169072 -0.6427849
                                                                       -0.2620122
##
                 1.63781663
                                         1.3169072
##
    [416,]
                -1.56488384 -1.3991123
                                                     1.0478732
                                                                       -0.9910267
##
    [417,]
                 0.83714151 -0.6052340
                                         0.4554588
                                                   -0.6427849
                                                                       -0.2620122
##
    [418,]
                -0.76420873 -0.6052340 -2.1288863
                                                   -1.4881139
                                                                        1.1960170
##
    [419,]
                -0.76420873
                             0.1886444
                                         1.3169072
                                                   -2.3334430
                                                                       -0.9910267
##
                             1.7764010
                                         1.3169072
                                                     1.0478732
                                                                       -0.9910267
    [420,]
                 1.63781663
##
                 0.03646639 -1.3991123 -1.2674379
                                                     1.0478732
                                                                        0.4670024
    [421,]
##
    [422,]
                 1.63781663
                              1.7764010
                                         1.3169072
                                                     0.2025442
                                                                       -0.9910267
##
                             0.9825227
                                         1.3169072 -2.3334430
                                                                       -0.9910267
    [423,]
                -1.56488384
##
    [424,]
                 0.03646639
                             0.1886444
                                         1.3169072
                                                     0.2025442
                                                                        0.4670024
##
                -0.76420873 -0.6052340 -0.4059895
                                                    -1.4881139
                                                                       -0.9910267
    [425,]
                                         0.4554588
##
    [426,]
                -0.76420873
                             0.1886444
                                                     1.0478732
                                                                        0.4670024
##
    [427,]
                -1.56488384 -1.3991123 -1.2674379
                                                     1.0478732
                                                                        1.1960170
##
    [428,]
                 1.63781663 -1.3991123 -1.2674379 -0.6427849
                                                                       -0.9910267
##
    [429,]
                 0.83714151
                             1.7764010
                                         1.3169072
                                                   -0.6427849
                                                                       -0.2620122
##
    [430,]
                 0.03646639 -0.6052340 -1.2674379
                                                     1.0478732
                                                                        1.1960170
##
    [431,]
                 0.83714151 -0.6052340
                                         0.4554588
                                                     0.2025442
                                                                       -0.2620122
##
                -0.76420873
                             0.1886444 -1.2674379
                                                    -1.4881139
                                                                       -0.9910267
    [432,]
    [433,]
                                                                        1.1960170
##
                 0.03646639 -1.3991123 -2.1288863
                                                     1.0478732
                             0.9825227
                                         1.3169072
                                                     0.2025442
##
    [434,]
                -0.76420873
                                                                        0.4670024
##
    [435,]
                -0.76420873
                             0.1886444
                                         1.3169072
                                                    -0.6427849
                                                                       -0.9910267
##
    [436,]
                -1.56488384 -0.6052340
                                        -0.4059895
                                                     1.0478732
                                                                        1.9250315
##
                -0.76420873 -1.3991123
                                         0.4554588
                                                     0.2025442
                                                                       -0.2620122
    [437,]
##
    [438,]
                -1.56488384 -0.6052340
                                        -0.4059895
                                                    -0.6427849
                                                                       -0.9910267
##
    [439,]
                -0.76420873
                             0.1886444
                                         0.4554588
                                                     1.0478732
                                                                        1.1960170
##
    [440,]
                -1.56488384 -1.3991123
                                         0.4554588
                                                    -1.4881139
                                                                       -0.9910267
##
                 0.83714151
                             0.1886444
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
    [441,]
##
    [442,]
                -0.76420873 -0.6052340
                                         1.3169072
                                                     0.2025442
                                                                       -0.9910267
##
                 0.03646639
                             0.1886444
                                         1.3169072
                                                     0.2025442
                                                                       -0.9910267
    [443,]
##
    [444,]
                 0.83714151
                             0.1886444 -0.4059895 -0.6427849
                                                                       -0.9910267
##
    [445,]
                -0.76420873 -0.6052340 -1.2674379 -0.6427849
                                                                        1.1960170
##
                -0.9910267
    [446,]
```

```
##
    [447,]
                -0.76420873 -1.3991123 -0.4059895 -0.6427849
                                                                        -0.9910267
##
    [448,]
                 0.03646639
                              0.9825227 -2.1288863 -2.3334430
                                                                        -0.9910267
##
    [449,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
##
    [450,]
                -0.76420873
                              1.7764010
                                        -0.4059895
                                                      0.2025442
                                                                        -0.2620122
##
    [451,]
                 1.63781663
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
    [452,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
                                          1.3169072
##
    [453,]
                -1.56488384 -1.3991123
                                                    -0.6427849
                                                                         0.4670024
                -1.56488384
##
    [454,]
                              1.7764010
                                        -0.4059895
                                                      0.2025442
                                                                        -0.2620122
##
    [455,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [456,]
                                          1.3169072
                                                                        -0.2620122
##
                -0.76420873
                              0.1886444
                                                      1.0478732
##
                -1.56488384 -1.3991123 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
    [457,]
##
    [458,]
                -0.76420873 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                        -0.2620122
##
    [459,]
                 1.63781663
                              1.7764010
                                         1.3169072 -2.3334430
                                                                        -0.9910267
##
    [460,]
                 0.03646639
                              0.1886444 -1.2674379
                                                    -0.6427849
                                                                        -0.2620122
                -1.56488384 -1.3991123 -1.2674379
##
    [461,]
                                                     0.2025442
                                                                        -0.2620122
##
                              0.1886444 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [462,]
                 0.03646639
##
                 0.03646639 -1.3991123 -0.4059895
                                                      1.0478732
                                                                        -0.9910267
    [463,]
##
    [464,]
                 0.03646639
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.9910267
    [465,]
                 0.03646639 -0.6052340 -0.4059895
                                                     0.2025442
                                                                        -0.9910267
##
                              0.9825227 -0.4059895
                                                                        -0.9910267
##
    [466,]
                 0.03646639
                                                    -2.3334430
                              0.1886444
                                         0.4554588 -0.6427849
                                                                        -0.9910267
##
    [467,]
                 0.03646639
##
    [468,]
                 0.03646639 -0.6052340 -0.4059895
                                                    -1.4881139
                                                                        -0.2620122
##
    [469,]
                 0.83714151 -0.6052340
                                          0.4554588
                                                     1.0478732
                                                                        -0.2620122
                -1.56488384 -1.3991123
                                          0.4554588 -0.6427849
                                                                        -0.9910267
##
    [470,]
##
                -0.76420873
                              0.1886444
                                         1.3169072 -1.4881139
                                                                        -0.9910267
    [471,]
##
    [472,]
                -0.76420873 -0.6052340
                                         -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
                                          0.4554588
    [473,]
                 0.03646639 -0.6052340
                                                    -0.6427849
                                                                        -0.9910267
##
    [474,]
                -1.56488384 -1.3991123 -1.2674379
                                                      0.2025442
                                                                         1.1960170
##
                 0.03646639 -1.3991123
                                          1.3169072 -0.6427849
                                                                        -0.9910267
    [475,]
                              1.7764010 -0.4059895
##
    [476,]
                 0.83714151
                                                      1.0478732
                                                                         1.1960170
##
    [477,]
                 0.83714151
                              0.1886444
                                         0.4554588
                                                      1.0478732
                                                                         1.1960170
##
    [478,]
                -0.76420873
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                         0.4670024
##
    [479,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [480,]
                 0.03646639
                              0.1886444 -0.4059895
                                                      0.2025442
                                                                         0.4670024
##
    [481,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                        -0.2620122
##
                 1.63781663 -1.3991123 -2.1288863
                                                    -1.4881139
                                                                         1.1960170
    [482,]
    [483,]
##
                -1.56488384 -1.3991123 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
                              0.1886444
                                          0.4554588
##
    [484,]
                 1.63781663
                                                      1.0478732
                                                                         0.4670024
##
    [485,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
    [486,]
##
                -0.76420873 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                        -0.9910267
##
                -0.76420873 -1.3991123
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [487,]
##
    [488,]
                -1.56488384 -1.3991123 -2.1288863
                                                     -2.3334430
                                                                        -0.2620122
##
    [489,]
                 1.63781663
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         0.4670024
##
    [490,]
                -1.56488384 -1.3991123 -1.2674379
                                                      1.0478732
                                                                        -0.9910267
##
                -0.76420873
                              0.1886444 - 0.4059895
                                                    -1.4881139
                                                                        -0.9910267
    [491,]
##
    [492,]
                -0.76420873 -0.6052340
                                         0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                        -0.2620122
    [493,]
                 0.83714151
##
    [494,]
                -0.76420873 -1.3991123
                                         1.3169072
                                                    -0.6427849
                                                                        -0.9910267
##
    [495,]
                -0.76420873
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                        -0.2620122
##
                -0.76420873 -0.6052340 -0.4059895
                                                     1.0478732
                                                                        -0.2620122
    [496,]
```

```
##
    [497,]
                 1.63781663
                              0.9825227 -0.4059895 -0.6427849
                                                                        -0.9910267
##
    [498,]
                 0.83714151
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
##
    [499,]
                 0.03646639 -0.6052340
                                        -1.2674379
                                                      0.2025442
                                                                        -0.9910267
##
    [500,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [501,]
                 0.83714151 -0.6052340 -1.2674379
                                                      0.2025442
                                                                        -0.2620122
##
                 0.83714151 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
    [502,]
##
    [503,]
                 0.83714151 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         0.4670024
##
    [504,]
                 1.63781663
                              1.7764010
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
    [505,]
                -0.76420873 -0.6052340
                                          1.3169072
                                                    -2.3334430
                                                                        -0.9910267
    [506,]
                -0.76420873 -0.6052340 -0.4059895
##
                                                      1.0478732
                                                                         0.4670024
                -1.56488384 -1.3991123 -1.2674379
                                                    -1.4881139
                                                                         0.4670024
##
    [507,]
##
    [508,]
                 0.03646639
                              0.9825227 -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
##
                 0.83714151 -1.3991123 -0.4059895
                                                      1.0478732
                                                                        -0.2620122
    [509,]
##
    [510,]
                              0.9825227
                                          0.4554588
                                                    -2.3334430
                                                                        -0.9910267
                 0.03646639
                                          0.4554588
##
    [511,]
                 0.83714151
                              0.9825227
                                                      0.2025442
                                                                         0.4670024
##
                 0.03646639 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [512,]
##
    [513,]
                -0.76420873 -1.3991123 -2.1288863
                                                    -2.3334430
                                                                        -0.9910267
##
    [514,]
                -0.76420873
                              0.1886444 -0.4059895
                                                      0.2025442
                                                                         1.9250315
##
    [515,]
                -0.76420873 -0.6052340 -0.4059895
                                                      1.0478732
                                                                        -0.9910267
                              0.9825227
                                          0.4554588
##
                 0.03646639
                                                      1.0478732
                                                                         1.9250315
    [516,]
                              0.1886444
##
    [517,]
                -0.76420873
                                          1.3169072
                                                      0.2025442
                                                                         1.1960170
##
    [518,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
##
    [519,]
                 0.03646639 -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
                -0.76420873 -1.3991123 -2.1288863
                                                    -1.4881139
                                                                        -0.2620122
    [520,]
##
                -0.76420873 -0.6052340
                                          0.4554588 -1.4881139
                                                                        -0.9910267
    [521,]
##
    [522,]
                 1.63781663
                              0.9825227
                                          1.3169072
                                                    -0.6427849
                                                                        -0.2620122
##
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
    [523,]
                 0.03646639
##
    [524,]
                -0.76420873 -1.3991123 -2.1288863
                                                    -0.6427849
                                                                        -0.9910267
##
                 0.83714151 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         1.9250315
    [525,]
                              0.1886444 - 0.4059895
##
    [526,]
                 0.03646639
                                                      1.0478732
                                                                        -0.9910267
##
    [527,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
                                          0.4554588
                                                      0.2025442
##
    [528,]
                -0.76420873
                              0.1886444
                                                                        -0.9910267
##
    [529,]
                 1.63781663
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
##
    [530,]
                -0.76420873 -1.3991123 -0.4059895
                                                      1.0478732
                                                                         0.4670024
##
    [531,]
                 0.03646639
                              0.1886444
                                          1.3169072
                                                    -1.4881139
                                                                        -0.9910267
##
                 1.63781663
                            -0.6052340
                                        -1.2674379
                                                      1.0478732
                                                                         1.1960170
    [532,]
    [533,]
##
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
                -0.76420873 -0.6052340 -0.4059895
    [534,]
                                                      1.0478732
                                                                        -0.2620122
##
    [535,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [536,]
                 0.83714151
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                         0.4670024
##
                -1.56488384 -0.6052340
                                          0.4554588
                                                    -1.4881139
                                                                        -0.2620122
    [537,]
##
    [538,]
                 0.83714151
                              0.1886444 -0.4059895
                                                      0.2025442
                                                                        -0.9910267
##
    [539,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
##
    [540,]
                 1.63781663
                             -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
                 1.63781663
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
    [541,]
##
    [542,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                    -1.4881139
                                                                        -0.2620122
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
    [543,]
##
    [544,]
                 0.83714151 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
##
    [545,]
                 0.83714151
                              1.7764010 -1.2674379
                                                      1.0478732
                                                                         1.1960170
                 0.03646639 -1.3991123 -0.4059895 -0.6427849
                                                                         0.4670024
##
    [546,]
```

```
##
    [547,]
                 1.63781663
                              1.7764010
                                        0.4554588
                                                     1.0478732
                                                                        0.4670024
##
    [548,]
                 1.63781663
                              0.1886444 -2.1288863
                                                     0.2025442
                                                                        1.9250315
##
    [549,]
                 0.03646639 -1.3991123 -1.2674379
                                                     1.0478732
                                                                        -0.9910267
##
    [550,]
                -0.76420873
                              0.1886444
                                         1.3169072 -0.6427849
                                                                        -0.9910267
##
    [551,]
                 0.03646639
                              0.1886444 - 0.4059895
                                                     1.0478732
                                                                        -0.2620122
##
                -0.76420873 -0.6052340
                                         0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [552,]
                              0.1886444 -1.2674379
##
    [553,]
                 0.03646639
                                                     0.2025442
                                                                        -0.2620122
##
    [554,]
                -0.76420873 -0.6052340 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
##
    [555,]
                 0.03646639
                              0.9825227 -0.4059895 -0.6427849
                                                                        -0.2620122
    [556,]
                -1.56488384 -0.6052340
                                         1.3169072 -2.3334430
                                                                        -0.9910267
##
##
                              0.1886444
                                         0.4554588
                                                    -2.3334430
                                                                        -0.9910267
    [557,]
                 0.03646639
##
    [558,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                    0.2025442
                                                                        -0.2620122
##
                -0.76420873
                              0.9825227
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [559,]
##
    [560,]
                -1.56488384 -0.6052340 -1.2674379
                                                     0.2025442
                                                                        -0.2620122
                                         0.4554588
##
    [561,]
                 0.83714151
                              0.1886444
                                                    -0.6427849
                                                                        1.1960170
##
                 0.83714151 -0.6052340
                                         0.4554588
                                                     0.2025442
                                                                        -0.9910267
    [562,]
##
                -0.76420873 -0.6052340
                                         0.4554588
                                                    -0.6427849
                                                                        0.4670024
    [563,]
##
    [564,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                     1.0478732
                                                                        -0.2620122
##
    [565,]
                -1.56488384 -1.3991123 -2.1288863
                                                     1.0478732
                                                                        -0.9910267
                                         0.4554588 -1.4881139
                                                                        -0.9910267
##
                -0.76420873
                              0.1886444
    [566,]
                              0.1886444 -1.2674379 -1.4881139
                                                                        -0.9910267
##
    [567,]
                -0.76420873
##
    [568,]
                -1.56488384 -1.3991123 -0.4059895 -0.6427849
                                                                        -0.2620122
##
    [569,]
                -0.76420873 -1.3991123
                                         1.3169072 -0.6427849
                                                                        -0.9910267
##
                 0.03646639 -0.6052340 -0.4059895 -0.6427849
                                                                        -0.2620122
    [570,]
##
                -0.76420873 -1.3991123 -0.4059895 -0.6427849
                                                                        -0.9910267
    [571,]
##
    [572,]
                -0.76420873
                              0.1886444
                                         0.4554588 -2.3334430
                                                                        0.4670024
##
                              0.1886444 -0.4059895 -0.6427849
                                                                        0.4670024
    [573,]
                 0.83714151
##
    [574,]
                -1.56488384 -1.3991123 -1.2674379
                                                     0.2025442
                                                                        0.4670024
##
                -1.56488384
                              0.1886444 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [575,]
                              0.9825227 -1.2674379
                                                                        -0.2620122
##
    [576,]
                 0.83714151
                                                     0.2025442
##
    [577,]
                 0.03646639
                             1.7764010 -0.4059895 -0.6427849
                                                                        -0.9910267
                              1.7764010 -0.4059895 -0.6427849
##
    [578,]
                -0.76420873
                                                                        -0.9910267
##
    [579,]
                -0.76420873
                              0.9825227
                                         1.3169072 -1.4881139
                                                                        -0.9910267
##
    [580,]
                 1.63781663 -0.6052340
                                         1.3169072
                                                     1.0478732
                                                                        1.1960170
##
    [581,]
                -1.56488384
                            -1.3991123 -2.1288863
                                                    -2.3334430
                                                                        -0.9910267
##
                -1.56488384
                             0.9825227 -0.4059895
                                                     0.2025442
                                                                        0.4670024
    [582,]
    [583,]
                              0.1886444 -1.2674379 -0.6427849
##
                 0.03646639
                                                                        -0.2620122
##
                              0.9825227
                                         1.3169072
                                                                        -0.9910267
    [584,]
                 0.03646639
                                                     0.2025442
##
    [585,]
                -0.76420873 -0.6052340
                                         1.3169072
                                                    -0.6427849
                                                                        -0.9910267
##
    [586,]
                 0.03646639
                            -0.6052340 -0.4059895
                                                     0.2025442
                                                                        0.4670024
##
                              0.1886444 -1.2674379
                                                    -0.6427849
                                                                        1.1960170
    [587,]
                 0.83714151
##
    [588,]
                -1.56488384 -1.3991123 -1.2674379
                                                     0.2025442
                                                                        1.1960170
##
    [589,]
                -0.76420873
                              1.7764010 -1.2674379
                                                    -2.3334430
                                                                        -0.9910267
##
    [590,]
                 0.03646639
                              0.9825227 -2.1288863
                                                     1.0478732
                                                                        1.9250315
##
                 0.03646639
                              0.9825227 -0.4059895
                                                     1.0478732
                                                                         1.1960170
    [591,]
##
    [592,]
                -1.56488384
                              1.7764010
                                         0.4554588
                                                    -2.3334430
                                                                        -0.9910267
##
                 0.03646639
                              0.1886444
                                         0.4554588
                                                    -2.3334430
                                                                        -0.9910267
    [593,]
##
    [594,]
                 0.83714151
                              0.1886444 -1.2674379
                                                     1.0478732
                                                                        0.4670024
##
    [595,]
                 1.63781663 -1.3991123 -0.4059895
                                                     0.2025442
                                                                        -0.9910267
                -1.56488384 0.1886444 -2.1288863 0.2025442
##
    [596,]
                                                                        1.1960170
```

```
##
    [597,]
                -0.76420873 -1.3991123
                                         0.4554588 -0.6427849
                                                                       -0.9910267
                                         1.3169072
                                                     1.0478732
##
    [598,]
                -0.76420873 -0.6052340
                                                                       -0.2620122
##
    [599,]
                -0.76420873 -1.3991123
                                        -0.4059895
                                                     0.2025442
                                                                       -0.2620122
##
    [600,]
                -0.76420873 -0.6052340
                                         1.3169072
                                                     0.2025442
                                                                        0.4670024
##
    [601,]
                 1.63781663
                             0.1886444
                                         0.4554588
                                                     0.2025442
                                                                        1.1960170
##
                 0.83714151
                             0.1886444 -1.2674379
                                                     0.2025442
                                                                       -0.9910267
    [602,]
                -0.76420873 -0.6052340
                                         1.3169072
                                                     0.2025442
##
    [603,]
                                                                        1.1960170
##
    [604,]
                 0.03646639
                             0.9825227
                                         0.4554588
                                                     0.2025442
                                                                       -0.2620122
##
    [605,]
                -1.56488384
                             0.1886444
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
    [606,]
                             0.1886444
                                        -0.4059895
##
                -0.76420873
                                                     1.0478732
                                                                        0.4670024
                -0.76420873 -0.6052340
                                         1.3169072
                                                     0.2025442
                                                                       -0.9910267
##
    [607,]
##
    [608,]
                 0.03646639
                             0.1886444
                                         0.4554588
                                                   -0.6427849
                                                                        0.4670024
    [609,]
##
                 0.83714151 -0.6052340
                                         1.3169072 -2.3334430
                                                                       -0.9910267
##
    [610,]
                 1.63781663 -0.6052340 -0.4059895 -0.6427849
                                                                       -0.2620122
                                         0.4554588
##
    [611,]
                 0.03646639 -0.6052340
                                                     1.0478732
                                                                        1.1960170
##
                -1.56488384 -1.3991123
                                         1.3169072
                                                    -0.6427849
                                                                       -0.9910267
    [612,]
##
    [613,]
                 0.03646639 -0.6052340 -0.4059895
                                                     0.2025442
                                                                        0.4670024
##
    [614,]
                -0.76420873 -1.3991123 -0.4059895
                                                     0.2025442
                                                                        0.4670024
    [615,]
                 0.03646639 -0.6052340
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
##
                             0.9825227
                                         0.4554588
##
    [616,]
                 1.63781663
                                                     1.0478732
                                                                       -0.2620122
##
    [617,]
                 0.83714151 -1.3991123 -0.4059895
                                                     1.0478732
                                                                        0.4670024
##
    [618,]
                 1.63781663
                             1.7764010
                                        -0.4059895
                                                     0.2025442
                                                                       -0.9910267
##
    [619,]
                 1.63781663
                             1.7764010
                                         1.3169072
                                                     1.0478732
                                                                       -0.9910267
##
                             0.9825227 -0.4059895
                                                    -0.6427849
                                                                       -0.2620122
    [620,]
                 1.63781663
##
                 1.63781663 -0.6052340
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
    [621,]
##
    [622,]
                -0.76420873 -0.6052340
                                        -2.1288863
                                                    -0.6427849
                                                                        1.1960170
                                                     0.2025442
##
                                         1.3169072
    [623,]
                 1.63781663
                             1.7764010
                                                                       -0.2620122
##
    [624,]
                -1.56488384 -1.3991123 -2.1288863 -1.4881139
                                                                       -0.2620122
##
                -1.56488384 -0.6052340
                                         1.3169072
                                                     1.0478732
                                                                       -0.2620122
    [625,]
                             0.1886444
                                         1.3169072 -1.4881139
                                                                       -0.9910267
##
    [626,]
                 0.03646639
##
    [627,]
                -1.56488384 -1.3991123 -0.4059895
                                                    -0.6427849
                                                                       -0.2620122
##
    [628,]
                -1.56488384
                             0.9825227 -1.2674379
                                                   -2.3334430
                                                                       -0.9910267
##
    [629,]
                -0.76420873 -0.6052340 -0.4059895
                                                     1.0478732
                                                                        1.9250315
##
    [630,]
                -0.76420873 -0.6052340
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
##
    [631,]
                -0.76420873
                             0.1886444
                                         1.3169072
                                                     0.2025442
                                                                        0.4670024
##
                 0.83714151
                             1.7764010
                                         0.4554588
                                                     1.0478732
                                                                        0.4670024
    [632,]
    [633,]
##
                -0.76420873 -0.6052340
                                         0.4554588 -0.6427849
                                                                        0.4670024
                -1.56488384 -1.3991123
                                         0.4554588 -0.6427849
                                                                       -0.9910267
##
    [634,]
##
    [635,]
                 0.83714151
                             0.9825227
                                         0.4554588
                                                    -0.6427849
                                                                       -0.2620122
##
    [636,]
                 0.03646639
                             0.9825227
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
##
                 0.03646639
                             0.1886444
                                         0.4554588
                                                     0.2025442
                                                                       -0.9910267
    [637,]
##
    [638,]
                 0.83714151
                              0.1886444
                                         1.3169072
                                                     1.0478732
                                                                       -0.2620122
##
    [639,]
                -0.76420873
                              1.7764010
                                         1.3169072
                                                     1.0478732
                                                                        0.4670024
##
    [640,]
                -1.56488384
                            -1.3991123
                                        -2.1288863
                                                     1.0478732
                                                                        1.9250315
##
                 0.83714151
                             0.1886444
                                         1.3169072
                                                     1.0478732
                                                                        1.1960170
    [641,]
##
    [642,]
                 0.03646639
                             0.1886444
                                         0.4554588
                                                    -0.6427849
                                                                       -0.2620122
##
                 1.63781663
                              1.7764010
                                        -0.4059895
                                                    -0.6427849
                                                                       -0.2620122
    [643,]
##
    [644,]
                 0.03646639
                              0.1886444
                                         0.4554588
                                                     1.0478732
                                                                       -0.9910267
##
    [645,]
                -0.76420873 -0.6052340
                                         1.3169072
                                                     0.2025442
                                                                       -0.2620122
##
                 -0.9910267
    [646,]
```

```
##
    [647,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
##
    [648,]
                 1.63781663
                              0.9825227
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
    [649,]
                -0.76420873
                              1.7764010
                                          0.4554588 -0.6427849
                                                                        -0.9910267
##
    [650,]
                -0.76420873 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                         0.4670024
##
    [651,]
                -1.56488384 -0.6052340
                                          0.4554588 -1.4881139
                                                                        -0.9910267
##
                 0.03646639 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.2620122
    [652,]
                 0.03646639 -1.3991123
                                          1.3169072
##
    [653,]
                                                      0.2025442
                                                                        -0.9910267
##
    [654,]
                 0.03646639 -0.6052340
                                        -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
    [655,]
                 0.03646639 -0.6052340
                                          1.3169072
                                                    -0.6427849
                                                                        -0.2620122
    [656,]
                -0.76420873 -0.6052340 -0.4059895
##
                                                      1.0478732
                                                                         0.4670024
##
                 0.83714151 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         0.4670024
    [657,]
##
    [658,]
                -1.56488384
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
                 0.03646639 -0.6052340
                                        -1.2674379
                                                    -1.4881139
                                                                        -0.2620122
    [659,]
##
    [660,]
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
                 0.03646639
                                          0.4554588
##
    [661,]
                 0.03646639 -1.3991123
                                                      1.0478732
                                                                         0.4670024
##
                -0.76420873
                              0.1886444 - 0.4059895
                                                    -2.3334430
                                                                        -0.9910267
    [662,]
##
                -1.56488384
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
    [663,]
##
    [664,]
                 0.83714151
                              0.1886444
                                          0.4554588 -0.6427849
                                                                         1.1960170
    [665,]
                              0.9825227 -2.1288863
                                                    -1.4881139
                                                                        -0.9910267
##
                 0.03646639
                 0.03646639 -1.3991123 -1.2674379
##
    [666,]
                                                      1.0478732
                                                                         1.9250315
                -0.76420873 -0.6052340 -1.2674379
##
    [667,]
                                                      1.0478732
                                                                         0.4670024
##
    [668,]
                 1.63781663
                              0.1886444 -2.1288863
                                                    -1.4881139
                                                                        -0.9910267
##
    [669,]
                 0.83714151 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
                 0.03646639
                              0.9825227 -0.4059895
                                                    -0.6427849
                                                                         0.4670024
    [670,]
##
                -0.76420873
                              0.1886444 - 0.4059895
                                                    -0.6427849
                                                                         0.4670024
    [671,]
##
    [672,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                     -0.6427849
                                                                        -0.9910267
                                                      0.2025442
                                                                        -0.2620122
##
                                          0.4554588
    [673,]
                 1.63781663
                              1.7764010
##
    [674,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                        -0.2620122
##
                 0.03646639 -1.3991123 -0.4059895
                                                      1.0478732
                                                                         0.4670024
    [675,]
                              1.7764010
                                                                        -0.2620122
##
    [676,]
                 0.03646639
                                          1.3169072
                                                      0.2025442
##
    [677,]
                -0.76420873 -0.6052340 -2.1288863
                                                    -1.4881139
                                                                        -0.2620122
##
    [678,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
    [679,]
                 0.03646639
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
    [680,]
                -0.76420873 -0.6052340 -2.1288863
                                                      1.0478732
                                                                        -0.2620122
##
    [681,]
                -0.76420873
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
##
                 0.83714151
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         1.9250315
    [682,]
    [683,]
##
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
##
                              0.1886444
                                          1.3169072
                                                                         1.1960170
    [684,]
                 0.03646639
                                                      1.0478732
##
    [685,]
                -0.76420873
                              0.1886444
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
    [686,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                     -0.6427849
                                                                        -0.2620122
##
                 0.83714151
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
    [687,]
##
    [688,]
                 0.03646639
                              0.1886444 -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
    [689,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                        -0.9910267
##
    [690,]
                -0.76420873
                             -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
                 0.03646639
                             -0.6052340 -1.2674379
                                                      0.2025442
                                                                        -0.9910267
    [691,]
##
    [692,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                         1.1960170
##
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
    [693,]
##
    [694,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
    [695,]
                 1.63781663 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
                 0.03646639 1.7764010 1.3169072 0.2025442
                                                                        -0.2620122
    [696,]
```

```
##
    [697,]
                -1.56488384
                              1.7764010
                                          1.3169072 -0.6427849
                                                                        -0.9910267
                                                      1.0478732
                                                                         0.4670024
##
    [698,]
                 0.03646639
                              0.1886444
                                          0.4554588
##
    [699,]
                 0.03646639
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
    [700,]
                -0.76420873
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
    [701,]
                -1.56488384 -1.3991123 -2.1288863
                                                      0.2025442
                                                                        -0.2620122
##
                 0.83714151 -0.6052340
                                        -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
    [702,]
                                          0.4554588
##
    [703,]
                 1.63781663 -0.6052340
                                                      1.0478732
                                                                         1.9250315
##
    [704,]
                 0.03646639 -0.6052340 -0.4059895
                                                      0.2025442
                                                                         1.1960170
##
    [705,]
                -0.76420873
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
    [706,]
                              0.1886444 - 0.4059895
##
                 0.83714151
                                                      1.0478732
                                                                         0.4670024
##
                 0.03646639
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                        -0.2620122
    [707,]
##
    [708,]
                 0.03646639
                              0.9825227 -0.4059895
                                                      0.2025442
                                                                         1.9250315
##
    [709,]
                -0.76420873
                              0.1886444
                                          1.3169072
                                                    -0.6427849
                                                                        -0.9910267
##
    [710,]
                -0.76420873 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
    [711,]
                -0.76420873 -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
    [712,]
##
    [713,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [714,]
                 0.03646639
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                        -0.9910267
##
    [715,]
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                        -0.9910267
                -1.56488384
                              0.9825227 -1.2674379
                                                                         1.9250315
##
    [716,]
                 0.03646639
                                                      1.0478732
                              0.1886444 -1.2674379
                                                                        -0.2620122
##
    [717,]
                 1.63781663
                                                    -0.6427849
##
    [718,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [719,]
                 0.83714151
                              0.1886444
                                          1.3169072
                                                      1.0478732
                                                                         1.1960170
##
                 0.03646639 -1.3991123
                                          1.3169072 -0.6427849
                                                                         0.4670024
    [720,]
##
                 1.63781663
                              0.1886444 - 0.4059895
                                                    -1.4881139
                                                                         1.1960170
    [721,]
##
    [722,]
                 1.63781663
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
                              0.1886444
                                          1.3169072
    [723,]
                 1.63781663
                                                      1.0478732
                                                                        -0.2620122
##
    [724,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
                -0.76420873
                              1.7764010
                                          1.3169072 -0.6427849
                                                                        -0.2620122
    [725,]
                 0.83714151 -1.3991123
                                                                        -0.9910267
##
    [726,]
                                          0.4554588 -1.4881139
##
    [727,]
                -1.56488384 -1.3991123
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [728,]
                -1.56488384 -1.3991123
                                          1.3169072
                                                      1.0478732
                                                                         0.4670024
##
    [729,]
                -0.76420873
                              1.7764010
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [730,]
                 1.63781663
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
    [731,]
                 0.03646639
                              0.1886444 -2.1288863
                                                      1.0478732
                                                                         1.9250315
##
                 0.03646639 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
    [732,]
##
    [733,]
                 0.83714151 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.2620122
##
                              0.9825227 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
    [734,]
                 1.63781663
##
    [735,]
                 1.63781663
                              1.7764010 -0.4059895
                                                    -1.4881139
                                                                        -0.2620122
##
    [736,]
                 0.83714151 -0.6052340 -2.1288863
                                                     -2.3334430
                                                                        -0.9910267
##
                 1.63781663
                              1.7764010
                                         0.4554588
                                                      1.0478732
                                                                         1.1960170
    [737,]
##
    [738,]
                 0.03646639
                              0.9825227 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
##
    [739,]
                -1.56488384 -1.3991123 -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
    [740,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
##
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
    [741,]
##
    [742,]
                 1.63781663
                              0.1886444 - 0.4059895
                                                     -0.6427849
                                                                        -0.9910267
##
    [743,]
                              0.1886444 -1.2674379
                                                      0.2025442
                                                                        -0.2620122
                 1.63781663
##
    [744,]
                -0.76420873 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         1.1960170
##
    [745,]
                 1.63781663
                              0.9825227 -1.2674379
                                                      1.0478732
                                                                         1.1960170
##
                -0.76420873 -0.6052340 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
    [746,]
```

```
-0.2620122
##
    [747,]
                 0.03646639
                              0.1886444
                                         0.4554588
                                                     1.0478732
                                                                         1.1960170
##
    [748,]
                 1.63781663
                              0.9825227
                                          0.4554588
                                                    -1.4881139
##
    [749,]
                 1.63781663
                              0.9825227 -0.4059895
                                                      0.2025442
                                                                         1.1960170
##
    [750,]
                -1.56488384
                            -1.3991123 -2.1288863
                                                      1.0478732
                                                                         0.4670024
##
    [751,]
                 1.63781663
                              0.1886444 -0.4059895 -0.6427849
                                                                        -0.9910267
##
    [752,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                         0.4670024
                              0.9825227
                                          1.3169072
                                                                        -0.9910267
##
    [753,]
                 0.03646639
                                                    -0.6427849
##
    [754,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                     0.2025442
                                                                        -0.2620122
##
    [755,]
                -0.76420873
                            -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
    [756,]
                              0.1886444 - 0.4059895
                                                                         1.9250315
##
                 0.03646639
                                                      1.0478732
##
                 0.03646639
                              0.1886444
                                          0.4554588
                                                     1.0478732
                                                                         1.9250315
    [757,]
##
    [758,]
                 1.63781663
                              1.7764010 -1.2674379 -0.6427849
                                                                        -0.9910267
    [759,]
##
                -0.76420873
                            -1.3991123 -0.4059895
                                                    -2.3334430
                                                                        -0.9910267
##
    [760,]
                 1.63781663
                              1.7764010
                                         1.3169072
                                                     0.2025442
                                                                         0.4670024
                -0.76420873 -0.6052340
                                         1.3169072
##
    [761,]
                                                     1.0478732
                                                                         1.1960170
##
                -1.56488384 -1.3991123
                                          0.4554588
                                                    -2.3334430
                                                                        -0.9910267
    [762,]
##
    [763,]
                -1.56488384
                            -1.3991123 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
                              0.1886444 - 0.4059895
    [764,]
                 0.03646639
                                                     1.0478732
                                                                         0.4670024
##
    [765,]
                 0.03646639
                              0.9825227
                                          1.3169072 -0.6427849
                                                                        -0.9910267
                 0.83714151
                              0.1886444
                                          0.4554588
##
    [766,]
                                                     1.0478732
                                                                         1.9250315
                              0.9825227
                                          0.4554588
##
    [767,]
                 0.83714151
                                                     0.2025442
                                                                         1.9250315
##
    [768,]
                 0.03646639
                              0.1886444 -1.2674379
                                                    -1.4881139
                                                                         1.9250315
##
    [769,]
                 0.03646639 -1.3991123
                                          0.4554588 -0.6427849
                                                                        -0.2620122
##
                              0.1886444 -0.4059895 -0.6427849
                                                                         0.4670024
    [770,]
                 0.03646639
##
                -1.56488384 -1.3991123 -2.1288863 -2.3334430
                                                                        -0.9910267
    [771,]
##
    [772,]
                 0.83714151 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
                              0.1886444
                                         0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [773,]
                 0.83714151
##
    [774,]
                -0.76420873 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
                 0.83714151
                              0.1886444 -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
    [775,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                                        -0.9910267
##
    [776,]
                                                     0.2025442
##
    [777,]
                 0.03646639
                              0.1886444
                                         0.4554588
                                                     1.0478732
                                                                        -0.9910267
                 0.03646639 -0.6052340
                                          1.3169072 -0.6427849
                                                                        -0.9910267
##
    [778,]
##
    [779,]
                -1.56488384
                              0.1886444
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
    [780,]
                 0.83714151
                              0.9825227 -0.4059895
                                                    -0.6427849
                                                                        -0.2620122
##
    [781,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
##
                 0.03646639 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [782,]
##
    [783,]
                 0.83714151
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
                 0.83714151
                              1.7764010
                                          0.4554588
                                                                         1.1960170
    [784,]
                                                     1.0478732
##
    [785,]
                 0.83714151
                              0.9825227
                                          0.4554588 -0.6427849
                                                                        -0.9910267
##
    [786,]
                 0.03646639
                              0.9825227
                                          1.3169072
                                                    -1.4881139
                                                                         0.4670024
##
                 0.83714151
                              0.1886444
                                          0.4554588
                                                     1.0478732
                                                                         1.1960170
    [787,]
##
    [788,]
                -0.76420873
                              0.9825227
                                          1.3169072 -1.4881139
                                                                        -0.2620122
##
    [789,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
    [790,]
                 1.63781663
                              0.1886444
                                          1.3169072
                                                     0.2025442
                                                                        -0.9910267
##
    [791,]
                 0.83714151 -1.3991123 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
    [792,]
                 0.03646639 -1.3991123 -0.4059895 -1.4881139
                                                                        -0.9910267
##
    [793,]
                 0.03646639 -1.3991123 -0.4059895
                                                      0.2025442
                                                                         0.4670024
##
    [794,]
                 0.03646639
                              0.1886444 -0.4059895 -1.4881139
                                                                         1.1960170
##
    [795,]
                -1.56488384 -1.3991123
                                         1.3169072 -1.4881139
                                                                        -0.9910267
##
                -1.56488384 1.7764010 -2.1288863 1.0478732
                                                                        -0.9910267
    [796,]
```

```
##
    [797,]
                 0.83714151
                              0.1886444
                                          1.3169072 -2.3334430
                                                                          1.1960170
##
    [798,]
                 0.03646639
                              0.9825227 -1.2674379 -1.4881139
                                                                        -0.9910267
##
    [799,]
                 0.83714151
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [800,]
                 0.83714151
                              1.7764010
                                        -1.2674379
                                                      0.2025442
                                                                          1.9250315
##
    [801,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
                -1.56488384 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [802,]
                                          1.3169072
##
    [803,]
                -0.76420873 -0.6052340
                                                      0.2025442
                                                                         1.1960170
##
    [804,]
                -0.76420873
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
    [805,]
                 0.83714151
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                         0.4670024
    [806,]
                              1.7764010
                                                                         1.9250315
##
                 0.03646639
                                          1.3169072
                                                      1.0478732
##
    [807,]
                -1.56488384 -1.3991123 -2.1288863
                                                    -2.3334430
                                                                        -0.9910267
##
    [808,]
                 1.63781663
                              1.7764010 -0.4059895
                                                    -1.4881139
                                                                         -0.2620122
##
    [809,]
                 0.03646639 -0.6052340
                                         1.3169072
                                                      1.0478732
                                                                         0.4670024
##
    [810,]
                -0.76420873 -1.3991123 -1.2674379
                                                    -1.4881139
                                                                        -0.2620122
                              1.7764010 -2.1288863
##
    [811,]
                 1.63781663
                                                      1.0478732
                                                                         1.9250315
##
                 0.83714151 -0.6052340 -0.4059895
                                                      1.0478732
                                                                         1.1960170
    [812,]
##
    [813,]
                -1.56488384 -1.3991123 -2.1288863
                                                    -2.3334430
                                                                        -0.9910267
##
    [814,]
                -1.56488384 -1.3991123 -1.2674379
                                                    -1.4881139
                                                                          0.4670024
##
    [815,]
                              0.9825227
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
                 1.63781663
                 0.03646639 -1.3991123 -1.2674379
##
    [816,]
                                                      1.0478732
                                                                         1.9250315
                              0.1886444
                                          0.4554588
##
    [817,]
                 0.83714151
                                                      1.0478732
                                                                         1.9250315
##
    [818,]
                -1.56488384 -0.6052340
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
##
    [819,]
                 0.83714151 -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
##
                -0.76420873 -1.3991123
                                          0.4554588
                                                     -1.4881139
                                                                        -0.9910267
    [820,]
##
                 0.83714151
                              1.7764010 -0.4059895
                                                      1.0478732
                                                                        -0.2620122
    [821,]
##
    [822,]
                 1.63781663
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
##
                -0.76420873
                              0.1886444
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
    [823,]
##
    [824,]
                 0.03646639 -1.3991123 -0.4059895
                                                     -1.4881139
                                                                        -0.9910267
##
                 1.63781663 -1.3991123 -0.4059895
                                                      1.0478732
                                                                         0.4670024
    [825,]
                 0.83714151 -0.6052340 -1.2674379
##
    [826,]
                                                      1.0478732
                                                                         1.1960170
##
    [827,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [828]
                 0.83714151
                              1.7764010
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [829,]
                -1.56488384 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [830,]
                 1.63781663
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                          1.9250315
##
    [831,]
                 0.03646639 -0.6052340
                                          0.4554588
                                                     -0.6427849
                                                                         -0.9910267
                 0.83714151
##
                              0.9825227
                                          1.3169072
                                                      0.2025442
                                                                         0.4670024
    [832,]
    [833,]
##
                 1.63781663
                              1.7764010 -1.2674379
                                                      1.0478732
                                                                         0.4670024
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                        -0.9910267
##
    [834,]
                 0.83714151
##
    [835,]
                 0.83714151
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         1.1960170
##
    [836,]
                -0.76420873
                              0.1886444
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
                -0.76420873
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
    [837,]
##
    [838,]
                 1.63781663
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
    [839,]
                -1.56488384
                            -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
    [840,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                     -0.6427849
                                                                        -0.9910267
##
                -1.56488384
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
    [841,]
##
    [842,]
                -0.76420873
                             -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
##
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      1.0478732
                                                                        -0.9910267
    [843,]
##
    [844,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [845,]
                 1.63781663
                              1.7764010 -1.2674379 -0.6427849
                                                                        -0.2620122
##
                              0.1886444 1.3169072 -2.3334430
                                                                        -0.9910267
    [846,]
                -1.56488384
```

```
##
    [847,]
                 0.03646639
                              0.1886444
                                          0.4554588 -1.4881139
                                                                        -0.9910267
                                                      1.0478732
##
    [848,]
                 1.63781663
                              1.7764010
                                          1.3169072
                                                                        -0.2620122
##
    [849,]
                 0.03646639 -1.3991123 -0.4059895
                                                      1.0478732
                                                                         0.4670024
##
    [850,]
                 1.63781663
                              0.1886444 -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
##
    [851,]
                 0.03646639
                              0.9825227
                                          0.4554588 -1.4881139
                                                                        -0.9910267
##
                -0.76420873 -0.6052340 -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
    [852,]
                -0.76420873 -1.3991123 -1.2674379 -1.4881139
##
    [853,]
                                                                        -0.9910267
##
    [854,]
                 0.03646639
                              0.9825227 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
##
    [855,]
                -1.56488384 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [856,]
                                          1.3169072
##
                 0.03646639 -0.6052340
                                                      0.2025442
                                                                         0.4670024
##
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [857,]
##
    [858,]
                 0.03646639
                              1.7764010
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
    [859,]
##
                 1.63781663
                              0.1886444 -1.2674379
                                                    -0.6427849
                                                                         0.4670024
##
    [860,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
                              0.1886444 - 0.4059895
##
    [861,]
                 0.03646639
                                                      0.2025442
                                                                         1.1960170
##
                 0.03646639 -1.3991123 -0.4059895
                                                      1.0478732
                                                                        -0.9910267
    [862,]
##
    [863,]
                 0.03646639
                            -0.6052340
                                          1.3169072
                                                      0.2025442
                                                                         0.4670024
##
    [864,]
                 0.83714151
                              0.9825227 -0.4059895
                                                     -1.4881139
                                                                        -0.9910267
##
    [865,]
                 0.03646639
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         1.1960170
                              0.9825227 -0.4059895
                                                      0.2025442
##
    [866,]
                 0.03646639
                                                                        -0.2620122
                                                                         1.1960170
##
    [867,]
                 0.83714151
                              0.9825227 -1.2674379
                                                      1.0478732
##
    [868,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [869,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
##
                              0.9825227
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
    [870,]
                 1.63781663
##
                -0.76420873 -1.3991123
                                          1.3169072
                                                    -0.6427849
                                                                         0.4670024
    [871,]
##
    [872,]
                 0.83714151
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         1.1960170
                 0.03646639
                                                                         0.4670024
##
                              0.1886444 - 0.4059895
                                                      1.0478732
    [873,]
##
    [874,]
                 0.03646639
                              0.1886444 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
##
                -1.56488384 -0.6052340 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
    [875,]
                              0.1886444 - 0.4059895
                                                                        -0.9910267
##
    [876,]
                -1.56488384
                                                    -1.4881139
##
    [877,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                    -2.3334430
                                                                        -0.9910267
##
    [878,]
                 0.03646639 -1.3991123 -2.1288863
                                                      1.0478732
                                                                         0.4670024
##
    [879,]
                 0.83714151
                              1.7764010
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
    [880,]
                -0.76420873 -1.3991123 -1.2674379
                                                      0.2025442
                                                                         1.9250315
##
    [881,]
                -1.56488384 -0.6052340
                                        -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
##
                              1.7764010
                                          0.4554588
                                                      1.0478732
                                                                        -0.2620122
    [882,]
                 1.63781663
    [883,]
##
                -0.76420873 -1.3991123 -1.2674379
                                                      0.2025442
                                                                         0.4670024
##
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
    [884,]
                -0.76420873
##
    [885,]
                 0.83714151 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
    [886,]
                -0.76420873
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
##
                 0.03646639 -1.3991123 -0.4059895
                                                      0.2025442
                                                                         1.9250315
    [887,]
##
    [888,]
                 0.03646639
                              0.1886444 -1.2674379
                                                      1.0478732
                                                                         0.4670024
##
    [889,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
##
    [890,]
                 1.63781663
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                         0.4670024
##
                 0.03646639 -0.6052340
                                          0.4554588
                                                     -0.6427849
                                                                        -0.9910267
    [891,]
##
    [892,]
                -1.56488384
                              0.1886444
                                          0.4554588
                                                      0.2025442
                                                                        -0.2620122
##
                -0.76420873
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         0.4670024
    [893,]
##
    [894,]
                 0.03646639 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         0.4670024
##
    [895,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         0.4670024
##
                -0.76420873 -0.6052340 -0.4059895 -0.6427849
                                                                        -0.9910267
    [896,]
```

```
0.9825227 -1.2674379
##
    [897,]
                 0.03646639
                                                     1.0478732
                                                                         0.4670024
                                                    -0.6427849
##
    [898,]
                -1.56488384 -0.6052340
                                         0.4554588
                                                                        -0.9910267
##
    [899,]
                 0.03646639 -0.6052340 -1.2674379
                                                     1.0478732
                                                                        -0.2620122
##
    [900,]
                -0.76420873 -1.3991123 -0.4059895
                                                    -0.6427849
                                                                        -0.2620122
##
    [901,]
                 0.03646639
                              0.9825227 -0.4059895 -0.6427849
                                                                        -0.9910267
##
    [902,]
                -0.76420873 -0.6052340 -0.4059895
                                                    -0.6427849
                                                                        -0.9910267
                 0.03646639 -1.3991123 -1.2674379
##
    [903,]
                                                    -0.6427849
                                                                        -0.2620122
##
    [904,]
                -0.76420873 -1.3991123 -2.1288863
                                                     1.0478732
                                                                         1.9250315
##
    [905,]
                -0.76420873
                              1.7764010
                                          1.3169072
                                                    -0.6427849
                                                                        -0.9910267
    [906,]
                -0.76420873 -0.6052340
                                         0.4554588
                                                     0.2025442
##
                                                                        -0.9910267
##
    [907,]
                 1.63781663
                              1.7764010 -1.2674379
                                                    -2.3334430
                                                                        -0.9910267
##
    [908,]
                -0.76420873
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.2620122
                -0.76420873 -1.3991123
##
    [909,]
                                          0.4554588
                                                     0.2025442
                                                                         0.4670024
##
    [910,]
                 0.03646639
                              0.9825227
                                         0.4554588 -0.6427849
                                                                        -0.2620122
                                          0.4554588
                                                                        -0.9910267
##
    [911,]
                 0.03646639
                              0.9825227
                                                     1.0478732
##
                 0.83714151
                              1.7764010 -0.4059895
                                                     1.0478732
                                                                         1.9250315
    [912,]
##
    [913,]
                -1.56488384 -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
                              0.1886444 - 0.4059895
    [914,]
                 0.83714151
                                                     0.2025442
                                                                        -0.9910267
##
    [915,]
                 1.63781663
                              0.1886444 - 0.4059895
                                                     1.0478732
                                                                         1.1960170
                -1.56488384
                              0.1886444
                                          0.4554588
                                                     0.2025442
##
    [916,]
                                                                         0.4670024
                 0.03646639 -1.3991123 -0.4059895
##
    [917,]
                                                     1.0478732
                                                                         1.1960170
##
    [918,]
                 0.03646639 -0.6052340 -1.2674379
                                                     1.0478732
                                                                         1.1960170
##
    [919,]
                -0.76420873
                              0.9825227
                                          0.4554588
                                                     1.0478732
                                                                         1.9250315
##
                 0.03646639 -1.3991123 -0.4059895
                                                     0.2025442
                                                                         1.1960170
    [920,]
##
                 0.03646639
                              1.7764010 -0.4059895
                                                     0.2025442
                                                                         0.4670024
    [921,]
##
    [922,]
                -1.56488384 -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
##
                 0.03646639 -0.6052340
                                          1.3169072 -0.6427849
                                                                        -0.9910267
    [923,]
##
    [924,]
                 1.63781663 -0.6052340
                                          0.4554588
                                                     0.2025442
                                                                        -0.2620122
##
                -1.56488384 -1.3991123 -0.4059895
                                                    -1.4881139
                                                                        -0.9910267
    [925,]
                              0.9825227 -0.4059895 -1.4881139
                                                                        -0.9910267
##
    [926,]
                -0.76420873
##
    [927,]
                -0.76420873 -0.6052340
                                        -1.2674379
                                                     0.2025442
                                                                         0.4670024
                -1.56488384 -1.3991123
                                                                        -0.9910267
##
    [928,]
                                          1.3169072 -0.6427849
##
    [929,]
                 1.63781663
                              0.1886444
                                         0.4554588 -0.6427849
                                                                        -0.2620122
##
    [930,]
                 0.83714151 -0.6052340
                                          0.4554588 -1.4881139
                                                                         0.4670024
##
    [931,]
                -0.76420873
                              0.1886444 -0.4059895 -1.4881139
                                                                        -0.2620122
##
                -1.56488384
                              0.1886444
                                          0.4554588 -0.6427849
                                                                         1.1960170
    [932,]
##
    [933,]
                -1.56488384
                              0.1886444
                                          1.3169072 -0.6427849
                                                                        -0.2620122
##
                              0.9825227 -0.4059895
                                                     0.2025442
    [934,]
                 1.63781663
                                                                        -0.2620122
##
    [935,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                     0.2025442
                                                                         1.9250315
##
    [936,]
                -1.56488384 -0.6052340
                                          1.3169072 -1.4881139
                                                                        -0.9910267
##
                 0.03646639 -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                         1.1960170
    [937,]
##
    [938,]
                 1.63781663
                              0.9825227
                                          1.3169072
                                                     1.0478732
                                                                         1.1960170
##
    [939,]
                 1.63781663 -1.3991123
                                          0.4554588
                                                     1.0478732
                                                                        -0.2620122
##
    [940,]
                 1.63781663
                              0.1886444
                                          0.4554588
                                                     0.2025442
                                                                        -0.9910267
##
                 0.03646639
                              0.1886444 - 0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [941,]
##
    [942,]
                -0.76420873 -0.6052340
                                          0.4554588
                                                     0.2025442
                                                                         0.4670024
##
                 0.83714151 -1.3991123
                                          0.4554588
                                                    -1.4881139
                                                                        -0.9910267
    [943,]
##
    [944,]
                 1.63781663 -0.6052340 -0.4059895
                                                     0.2025442
                                                                        -0.9910267
##
    [945,]
                 0.83714151
                              0.1886444
                                          1.3169072
                                                     0.2025442
                                                                        -0.9910267
##
                 0.03646639 0.1886444
                                         0.4554588 0.2025442
    [946,]
                                                                         1.1960170
```

```
##
    [947,]
                 0.83714151
                              0.1886444 -0.4059895
                                                      1.0478732
                                                                         1.9250315
##
    [948,]
                -0.76420873 -1.3991123 -0.4059895 -0.6427849
                                                                         0.4670024
##
    [949,]
                 0.03646639
                              0.9825227
                                          0.4554588
                                                    -0.6427849
                                                                        -0.9910267
##
    [950,]
                -1.56488384 -0.6052340 -0.4059895
                                                      0.2025442
                                                                         0.4670024
##
    [951,]
                 0.83714151 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
##
    [952,]
                -1.56488384 -1.3991123
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
                                          0.4554588
##
    [953,]
                 0.83714151
                              0.1886444
                                                      1.0478732
                                                                         0.4670024
##
    [954,]
                 0.03646639
                              0.1886444
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
##
    [955,]
                -0.76420873
                              0.1886444 - 0.4059895
                                                    -0.6427849
                                                                        -0.9910267
    [956,]
                -1.56488384 -1.3991123 -1.2674379
##
                                                      1.0478732
                                                                         1.9250315
##
                 0.03646639
                              0.9825227
                                          0.4554588
                                                      0.2025442
                                                                         0.4670024
    [957,]
##
    [958,]
                -1.56488384 -0.6052340 -1.2674379
                                                    -1.4881139
                                                                        -0.9910267
##
    [959,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -2.3334430
                                                                        -0.9910267
##
    [960,]
                 0.83714151
                              0.9825227
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
                 1.63781663 -1.3991123 -0.4059895
##
    [961,]
                                                      1.0478732
                                                                         1.9250315
##
                              0.9825227
                                          1.3169072 -0.6427849
                                                                        -0.9910267
    [962,]
                 0.03646639
##
    [963,]
                 1.63781663
                              0.1886444 -1.2674379
                                                     -2.3334430
                                                                        -0.9910267
##
    [964,]
                 1.63781663 -1.3991123
                                          1.3169072
                                                      0.2025442
                                                                        -0.9910267
    [965,]
                              0.1886444 - 0.4059895
                                                      1.0478732
                                                                         1.9250315
##
                 0.03646639
##
    [966,]
                 0.03646639
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
                                                                        -0.9910267
##
    [967,]
                 1.63781663
                              1.7764010 -2.1288863
                                                    -2.3334430
##
    [968,]
                 0.03646639
                            -0.6052340 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
    [969,]
                 0.03646639
                              0.1886444
                                          0.4554588
                                                    -0.6427849
                                                                        -0.2620122
                 0.03646639 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         1.1960170
##
    [970,]
##
                 1.63781663
                              1.7764010 -0.4059895
                                                      0.2025442
                                                                        -0.2620122
    [971,]
##
    [972,]
                 0.83714151 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         1.1960170
##
                              0.9825227 -0.4059895
    [973,]
                 0.03646639
                                                      1.0478732
                                                                        -0.2620122
##
    [974,]
                 0.83714151
                              1.7764010 -1.2674379
                                                      1.0478732
                                                                         1.9250315
##
                -0.76420873 -0.6052340 -1.2674379
                                                      1.0478732
                                                                         1.9250315
    [975,]
                              1.7764010
##
    [976,]
                 1.63781663
                                          1.3169072
                                                      1.0478732
                                                                         1.9250315
##
    [977,]
                 0.03646639
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                        -0.2620122
                -1.56488384 -1.3991123
                                          0.4554588
##
    [978,]
                                                      0.2025442
                                                                         0.4670024
##
    [979,]
                -0.76420873 -1.3991123
                                          0.4554588
                                                      1.0478732
                                                                         1.9250315
##
    [980,]
                 0.83714151
                              0.9825227
                                          1.3169072
                                                      1.0478732
                                                                        -0.9910267
##
    [981,]
                 1.63781663
                             -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                         1.1960170
##
                 1.63781663
                              1.7764010 -0.4059895
                                                      0.2025442
                                                                        -0.9910267
    [982,]
    [983,]
##
                 0.03646639 -0.6052340 -1.2674379
                                                      0.2025442
                                                                         0.4670024
##
                              0.1886444
                                          1.3169072
                                                    -0.6427849
    [984,]
                 0.03646639
                                                                        -0.9910267
##
    [985,]
                 0.03646639
                              0.1886444 - 0.4059895
                                                      0.2025442
                                                                         1.1960170
##
    [986,]
                 0.83714151 -0.6052340
                                          0.4554588
                                                      1.0478732
                                                                         0.4670024
##
                 1.63781663 -0.6052340 -1.2674379
                                                      0.2025442
                                                                        -0.2620122
    [987,]
##
    [988,]
                -0.76420873 -1.3991123 -2.1288863
                                                      1.0478732
                                                                         0.4670024
##
    [989,]
                 1.63781663 -0.6052340 -1.2674379
                                                      1.0478732
                                                                        -0.2620122
##
    [990,]
                 0.83714151
                              1.7764010
                                          1.3169072
                                                      1.0478732
                                                                         1.9250315
##
                -0.76420873 -0.6052340 -0.4059895
                                                      0.2025442
                                                                         1.1960170
    [991,]
##
    [992,]
                -1.56488384 -1.3991123 -2.1288863
                                                      1.0478732
                                                                         1.9250315
##
    [993,]
                 0.83714151 -1.3991123 -0.4059895
                                                      0.2025442
                                                                         1.1960170
##
    [994,]
                 0.03646639 -1.3991123
                                          0.4554588
                                                      0.2025442
                                                                        -0.9910267
##
    [995,]
                 0.03646639
                              0.9825227 -0.4059895
                                                      1.0478732
                                                                         0.4670024
                -1.56488384 -0.6052340 -2.1288863
                                                      0.2025442
                                                                         1.1960170
##
    [996,]
```

```
0.03646639 -0.6052340 -2.1288863 0.2025442
   [997,]
                                                              0.4670024
## [998,]
             -1.56488384 0.1886444 -0.4059895 0.2025442
                                                             -0.2620122
## [999,]
              0.03646639 -0.6052340 -0.4059895
                                             1.0478732
                                                              1.9250315
## [1000,]
              1.63781663 0.9825227 0.4554588 0.2025442
                                                              0.4670024
## [1001,]
              -0.9910267
## [1002,]
             -1.56488384 0.9825227 0.4554588 -0.6427849
                                                             -0.2620122
             -1.56488384 -1.3991123 -1.2674379 1.0478732
## [1003,]
                                                              1.9250315
## [1004,]
             -0.76420873 0.1886444 0.4554588 1.0478732
                                                             -0.2620122
## [1005,]
              0.03646639 -0.6052340 -0.4059895 -0.6427849
                                                              1.1960170
## [1006,]
              1.63781663 0.9825227 0.4554588 0.2025442
                                                              0.4670024
## [1007,]
              -0.9910267
## [1008,]
             -0.76420873 -0.6052340 -0.4059895 0.2025442
                                                             -0.9910267
## [1009,]
              0.03646639 -1.3991123 -0.4059895 0.2025442
                                                             -0.9910267
## [1010,]
              -0.9910267
##
               Punk Hiphop..Rap Reggae..Ska Swing..Jazz Rock.n.roll Alterna
tive
##
     [1,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -0.1137275 -1.354
2194
##
     [2,] 1.1855890 -1.38888755 0.1831449 -1.3974051
                                                      0.6951791
                                                                 0.872
1967
##
     [3,] 1.1855890 -1.38888755 1.0052620
                                           0.1937777 1.5040857
                                                                 1.614
3354
##
     [4,] 1.1855890 -0.66206039 -0.6389722 -1.3974051 -0.9226341
                                                                 1.614
3354
##
     [5,] -0.3495967 1.51842111 0.1831449 -0.6018137 -1.7315407 -0.612
0807
     [6,] 0.4179961 0.79159394 0.1831449
##
                                           0.9893691
                                                      0.6951791
                                                                 1.614
3354
     [7,] -1.1171896 0.06476678 -1.4610893 -1.3974051 -0.9226341
##
                                                                 0.130
0580
     [8,] -0.3495967  0.06476678  -0.6389722  -0.6018137  -0.1137275  -1.354
##
2194
##
     [9,] -1.1171896 -1.38888755 -0.6389722 -0.6018137 -0.9226341 -1.354
2194
##
    [10,] 0.4179961 -0.66206039 1.0052620
                                           0.9893691
                                                      0.6951791
                                                                 0.872
1967
    [11,] -1.1171896 0.06476678 -0.6389722 -0.6018137 -0.1137275
##
                                                                 0.130
0580
    [12,] -1.1171896 -1.38888755 -1.4610893 -0.6018137 -0.9226341
                                                                 1.614
##
3354
##
    [13,] -0.3495967  0.06476678  -1.4610893  -1.3974051  0.6951791
                                                                 0.130
0580
    [14,] -1.1171896 -0.66206039 -1.4610893
##
                                           0.1937777 -0.9226341 -1.354
2194
    [15,] 1.9531818 0.06476678 1.0052620
##
                                           0.9893691
                                                      0.6951791
                                                                 0.872
1967
##
    [16,] 1.9531818 -0.66206039
                                1.0052620 -0.6018137 -0.1137275
                                                                 0.130
0580
##
    [17,] 0.4179961 -0.66206039
                                0.1831449 -0.6018137 -0.1137275 -1.354
2194
```

| ## 2194 | [18,] | 0.4179961 | 0.06476678 | 1.0052620 | 0.1937777 | -0.1137275 | -1.354 |
|------------|-------|------------|-------------|------------|------------|------------|--------|
| ## | [19,] | 0.4179961 | 0.79159394 | 1.0052620 | 0.9893691 | 0.6951791 | 0.872 |
| 1967 ## | [20,] | -0.3495967 | -1.38888755 | 1.0052620 | 1.7849606 | 0.6951791 | 0.130 |
| 0580 ## | [21,] | 1.1855890 | 0.79159394 | 0.1831449 | 1.7849606 | 0.6951791 | 1.614 |
| 3354 ## | [22,] | 1.1855890 | -1.38888755 | -0.6389722 | -1.3974051 | 0.6951791 | 0.130 |
| 0580 ## | [23,] | -0.3495967 | -0.66206039 | -1.4610893 | -1.3974051 | -0.1137275 | -0.612 |
| 0807 ## | [24,] | 0.4179961 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | -1.354 |
| 2194 ## | [25,] | 1.9531818 | -1.38888755 | -1.4610893 | -1.3974051 | -0.9226341 | 0.130 |
| 0580 ## | [26,] | -1.1171896 | 0.06476678 | -1.4610893 | -0.6018137 | -1.7315407 | -1.354 |
| 2194 ## | [27,] | -0.3495967 | -0.66206039 | -1.4610893 | 0.1937777 | 1.5040857 | 0.130 |
| 0580 ## | [28,] | 1.1855890 | -0.66206039 | 1.0052620 | -0.6018137 | -0.1137275 | 0.872 |
| 1967 ## | [29,] | 0.4179961 | 1.51842111 | -0.6389722 | -1.3974051 | 0.6951791 | 0.130 |
| 0580 ## | [30,] | 0.4179961 | 0.06476678 | 1.0052620 | 0.1937777 | 0.6951791 | 0.130 |
| 0580 ## | | -0.3495967 | 0.79159394 | 0.1831449 | 0.9893691 | -0.1137275 | 0.130 |
| 0580 ## | | -1.1171896 | 0.06476678 | 0.1831449 | -0.6018137 | -1.7315407 | -1.354 |
| 2194 ## | [33,] | 1.1855890 | 0.79159394 | -0.6389722 | -0.6018137 | 0.6951791 | 0.872 |
| 1967 | | | | | | | |
| ## 0580 | | | -1.38888755 | 0.1831449 | 0.9893691 | 0.6951791 | 0.130 |
| ## 1967 | | | -0.66206039 | | 0.1937777 | | |
| ## 0580 | | | 0.79159394 | | | | |
| ## 2194 | [37,] | -1.1171896 | -1.38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## 2194 | [38,] | -0.3495967 | -1.38888755 | -0.6389722 | -0.6018137 | -0.9226341 | -1.354 |
| ## 2194 | [39,] | -0.3495967 | 0.79159394 | 1.8273791 | -0.6018137 | -0.9226341 | -1.354 |
| ## 0807 | [40,] | 1.1855890 | -1.38888755 | -0.6389722 | -1.3974051 | 1.5040857 | -0.612 |
| ## 2194 | [41,] | -1.1171896 | 0.06476678 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## 3354 | [42,] | -1.1171896 | 1.51842111 | 1.8273791 | 1.7849606 | 1.5040857 | 1.614 |
| JJJ4 | | | | | | | |

| ## 1967 | [43,] | 1.1855890 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.872 |
|------------|-------|------------|-------------|------------|------------|------------|--------|
| ## 1967 | [44,] | -0.3495967 | 0.06476678 | -0.6389722 | -0.6018137 | -0.9226341 | 0.872 |
| ## 1967 | [45,] | -1.1171896 | 0.06476678 | -1.4610893 | 0.1937777 | -0.1137275 | 0.872 |
| ## 2194 | [46,] | -0.3495967 | 0.06476678 | 0.1831449 | 0.1937777 | 1.5040857 | -1.354 |
| ## 1967 | [47,] | -0.3495967 | 1.51842111 | -0.6389722 | 0.1937777 | 1.5040857 | 0.872 |
| ## 1967 | [48,] | -0.3495967 | -1.38888755 | 0.1831449 | 0.1937777 | -0.1137275 | 0.872 |
| ## 0807 | | -0.3495967 | 1.51842111 | 1.8273791 | -0.6018137 | -0.9226341 | -0.612 |
| ## 0807 | [50,] | 1.9531818 | 0.06476678 | -0.6389722 | -0.6018137 | 0.6951791 | -0.612 |
| ## 1967 | [51,] | 1.1855890 | 0.79159394 | 1.0052620 | 0.1937777 | 0.6951791 | 0.872 |
| ## 0580 | [52,] | -0.3495967 | -0.66206039 | 1.0052620 | 0.9893691 | 0.6951791 | 0.130 |
| ## 0807 | [53,] | -0.3495967 | 1.51842111 | 1.8273791 | 1.7849606 | 1.5040857 | -0.612 |
| ## 0580 | [54,] | -0.3495967 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## 0580 | [55,] | 0.4179961 | 0.06476678 | 0.1831449 | 0.9893691 | 0.6951791 | 0.130 |
| ## 1967 | [56,] | -0.3495967 | 0.79159394 | 0.1831449 | 0.1937777 | 0.6951791 | 0.872 |
| ## 3354 | [57,] | 1.1855890 | -0.66206039 | 0.1831449 | 0.9893691 | 1.5040857 | 1.614 |
| ## 3354 | | | -0.66206039 | -0.6389722 | 0.9893691 | 1.5040857 | 1.614 |
| ## 0807 | . , , | | -0.66206039 | -0.6389722 | -1.3974051 | -0.9226341 | -0.612 |
| ## 3354 | [60,] | 1.9531818 | 0.06476678 | 0.1831449 | 0.9893691 | 1.5040857 | 1.614 |
| ## 1967 | [61,] | 0.4179961 | -0.66206039 | 0.1831449 | 0.1937777 | 0.6951791 | 0.872 |
| ## 0580 | [62,] | -0.3495967 | 0.06476678 | -0.6389722 | 0.1937777 | -0.1137275 | 0.130 |
| ## 3354 | [63,] | 1.1855890 | 1.51842111 | 1.0052620 | 1.7849606 | 1.5040857 | 1.614 |
| ## 2194 | [64,] | -1.1171896 | 1.51842111 | 1.0052620 | 0.1937777 | -0.1137275 | -1.354 |
| ## 2194 | [65,] | 0.4179961 | -0.66206039 | -1.4610893 | -0.6018137 | -0.9226341 | -1.354 |
| ## 2194 | [66,] | -0.3495967 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | -1.354 |
| ## 0807 | [67,] | 0.4179961 | 0.06476678 | 0.1831449 | 0.1937777 | -0.9226341 | -0.612 |

| ## 2194 | [68,] | -1.1171896 | 0.79159394 | 0.1831449 | 0.9893691 | 0.6951791 | -1.354 |
|------------|-------|------------|-------------|------------|------------|------------|--------|
| ## 0580 | [69,] | 1.9531818 | -1.38888755 | 1.8273791 | 0.9893691 | 0.6951791 | 0.130 |
| ## 2194 | [70,] | -1.1171896 | -1.38888755 | -1.4610893 | -1.3974051 | -0.9226341 | -1.354 |
| ## 2194 | [71,] | -1.1171896 | 1.51842111 | -0.6389722 | 0.1937777 | -1.7315407 | -1.354 |
| ## 0580 | [72,] | -1.1171896 | 0.79159394 | 1.0052620 | -1.3974051 | -0.9226341 | 0.130 |
| ## 0580 | [73,] | 1.1855890 | 0.79159394 | -0.6389722 | -0.6018137 | -0.1137275 | 0.130 |
| ## 0807 | [74,] | -0.3495967 | 1.51842111 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
| ## 2194 | [75,] | -1.1171896 | 1.51842111 | 1.0052620 | -1.3974051 | -1.7315407 | -1.354 |
| ## 1967 | [76,] | 1.1855890 | 0.06476678 | 1.8273791 | 0.9893691 | 1.5040857 | 0.872 |
| ## 2194 | [77,] | 0.4179961 | 0.79159394 | -1.4610893 | -1.3974051 | -0.9226341 | -1.354 |
| ## 0807 | . ,, | -1.1171896 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
| ## 0580 | | -1.1171896 | 0.79159394 | 1.8273791 | 1.7849606 | 1.5040857 | 0.130 |
| ## 0580 | | -0.3495967 | 1.51842111 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## 0807 | [81,] | 0.4179961 | 0.79159394 | 1.0052620 | 0.1937777 | 0.6951791 | -0.612 |
| ## 0580 | [82,] | 0.4179961 | 0.79159394 | 1.0052620 | 0.1937777 | 0.6951791 | 0.130 |
| ## 3354 | [83,] | | -1.38888755 | -1.4610893 | -0.6018137 | -0.9226341 | 1.614 |
| ## 2194 | | -1.1171896 | 0.06476678 | -0.6389722 | 0.9893691 | -0.1137275 | -1.354 |
| ## 1967 | | | 0.79159394 | | 1.7849606 | | 0.872 |
| ## 0580 | | | -1.38888755 | | -0.6018137 | | 0.130 |
| ## 0580 | | | 0.79159394 | | 0.1937777 | | 0.130 |
| ## 1967 | | | 0.06476678 | | | | 0.872 |
| ## 1967 | | | -1.38888755 | | | | 0.872 |
| ## 1967 | | | -1.38888755 | | 0.9893691 | | 0.872 |
| ## 0580 | | | -1.38888755 | | -1.3974051 | | 0.130 |
| ## 2194 | [92,] | 1.9531818 | -1.38888755 | 1.8273791 | -1.3974051 | -0.1137275 | -1.354 |

| ## [93,] -0.3495967 0580 | -1.38888755 | 0.1831449 | 1.7849606 | 0.6951791 | 0.130 |
|------------------------------|-------------|------------|------------|------------|--------|
| | -1.38888755 | -1.4610893 | 1.7849606 | 0.6951791 | -1.354 |
| ## [95,] 0.4179961 0580 | 1.51842111 | -0.6389722 | -1.3974051 | -0.1137275 | 0.130 |
| ## [96,] -0.3495967 0807 | 1.51842111 | 1.8273791 | 0.9893691 | 0.6951791 | -0.612 |
| ## [97,] 1.1855890 1967 | 0.06476678 | -1.4610893 | -1.3974051 | -1.7315407 | 0.872 |
| ## [98,] -1.1171896 2194 | 1.51842111 | -0.6389722 | -0.6018137 | -1.7315407 | -1.354 |
| ## [99,] -1.1171896 3354 | -1.38888755 | 0.1831449 | -0.6018137 | -0.9226341 | 1.614 |
| ## [100,] 0.4179961 2194 | -0.66206039 | 1.0052620 | -1.3974051 | -0.9226341 | -1.354 |
| ## [101,] -0.3495967 0807 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | -0.612 |
| ## [102,] 1.1855890 0580 | -1.38888755 | 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |
| ## [103,] 1.9531818 3354 | -1.38888755 | 1.0052620 | 1.7849606 | 1.5040857 | 1.614 |
| ## [104,] -1.1171896 0807 | | 1.8273791 | 0.9893691 | -0.1137275 | -0.612 |
| ## [105,] 0.4179961 1967 | | 0.1831449 | 0.9893691 | 0.6951791 | 0.872 |
| ## [106,] -1.1171896 2194 | | -0.6389722 | 0.1937777 | -1.7315407 | -1.354 |
| ## [107,] -0.3495967 0580 | | 1.0052620 | 0.9893691 | 1.5040857 | 0.130 |
| ## [108,] -1.1171896 1967 | | 0.1831449 | 0.9893691 | -0.9226341 | 0.872 |
| ## [109,] 0.4179961 0580 | | -1.4610893 | | -0.9226341 | 0.130 |
| ## [110,] 0.4179961 2194 | | | | | |
| ## [111,] -1.1171896 1967 | | | | 0.6951791 | |
| ## [112,] -0.3495967 3354 | | | | 0.6951791 | |
| ## [113,] -0.3495967 0580 | | | | | |
| ## [114,] -1.1171896 0807 | | | | | |
| ## [115,] 0.4179961 0580 | | | | | |
| ## [116,] -0.3495967 0580 | | | | | |
| ## [117,] -0.3495967 3354 | -1.38888755 | -1.4610893 | -0.6018137 | 0.6951791 | 1.614 |

| ## [118,] -1.1171896 2194 | -1.38888755 | -1.4610893 | -1.3974051 | -0.9226341 | -1.354 |
|------------------------------|-------------|------------|------------|------------|--------|
| | -0.66206039 | 1.0052620 | 0.9893691 | 0.6951791 | 0.872 |
| ## [120,] -1.1171896 2194 | -0.66206039 | -0.6389722 | -0.6018137 | -0.9226341 | -1.354 |
| ## [121,] -0.3495967 0580 | -1.38888755 | 0.1831449 | 1.7849606 | 1.5040857 | 0.130 |
| ## [122,] -0.3495967 2194 | 0.79159394 | -0.6389722 | -0.6018137 | 0.6951791 | -1.354 |
| | -1.38888755 | 0.1831449 | 0.9893691 | 0.6951791 | 1.614 |
| ## [124,] -1.1171896 0580 | 0.06476678 | -1.4610893 | 1.7849606 | 1.5040857 | 0.130 |
| ## [125,] 0.4179961 0807 | -1.38888755 | -0.6389722 | 0.9893691 | 1.5040857 | -0.612 |
| ## [126,] 0.4179961 1967 | -0.66206039 | 1.0052620 | 1.7849606 | -0.1137275 | 0.872 |
| ## [127,] 1.1855890 0807 | 0.79159394 | -1.4610893 | -1.3974051 | -1.7315407 | -0.612 |
| ## [128,] 0.4179961 1967 | 0.06476678 | 1.0052620 | 0.1937777 | 0.6951791 | 0.872 |
| ## [129,] -1.1171896 3354 | | 0.1831449 | -1.3974051 | 1.5040857 | 1.614 |
| ## [130,] -0.3495967 1967 | | 0.1831449 | 0.9893691 | -0.1137275 | 0.872 |
| 2194 | -1.38888755 | -0.6389722 | -0.6018137 | -0.1137275 | -1.354 |
| ## [132,] -0.3495967 2194 | 1.51842111 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| 0807 | -0.66206039 | 1.0052620 | 0.1937777 | -0.9226341 | -0.612 |
| ## [134,] -1.1171896 2194 | | -0.6389722 | 1.7849606 | -1.7315407 | -1.354 |
| ## [135,] -1.1171896 1967 | | | | 0.6951791 | |
| ## [136,] 1.1855890 3354 | | | | | 1.614 |
| ## [137,] -1.1171896 2194 | 1.51842111 | | | -1.7315407 | -1.354 |
| ## [138,] -0.3495967 0580 | | | | 0.6951791 | 0.130 |
| ## [139,] -1.1171896 0807 | 0.06476678 | 0.1831449 | 0.9893691 | | |
| ## [140,] -0.3495967 2194 | | | | | |
| ## [141,] -0.3495967 0807 | | | | | |
| ## [142,] 1.1855890 3354 | 0.79159394 | 0.1831449 | -1.3974051 | -1.7315407 | 1.614 |

| ## [143,] -1.1171896 0807 | 0.06476678 | -0.6389722 | -1.3974051 | -1.7315407 | -0.612 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [144,] 0.4179961 0580 | 1.51842111 | 1.0052620 | -1.3974051 | -1.7315407 | 0.130 |
| | -0.66206039 | -0.6389722 | -0.6018137 | 0.6951791 | 0.130 |
| ## [146,] -1.1171896 0580 | -1.38888755 | -0.6389722 | -1.3974051 | -1.7315407 | 0.130 |
| ## [147,] 1.1855890 2194 | 1.51842111 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [148,] 0.4179961 1967 | 1.51842111 | -0.6389722 | -0.6018137 | -0.9226341 | 0.872 |
| ## [149,] 0.4179961 0580 | 0.79159394 | 0.1831449 | -0.6018137 | 0.6951791 | 0.130 |
| ## [150,] -0.3495967 2194 | 0.06476678 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [151,] 0.4179961 0580 | -1.38888755 | -0.6389722 | 0.9893691 | 0.6951791 | 0.130 |
| ## [152,] 1.1855890 1967 | -0.66206039 | 1.8273791 | 0.9893691 | 0.6951791 | 0.872 |
| ## [153,] -1.1171896 0580 | 0.79159394 | 0.1831449 | 0.1937777 | 0.6951791 | 0.130 |
| ## [154,] -0.3495967 2194 | 0.79159394 | -1.4610893 | 0.9893691 | -0.9226341 | -1.354 |
| 0580 | -0.66206039 | -0.6389722 | 0.1937777 | -0.1137275 | 0.130 |
| ## [156,] 0.4179961 1967 | 0.06476678 | -0.6389722 | 0.9893691 | -0.1137275 | 0.872 |
| ## [157,] 1.9531818 0580 | 0.06476678 | 1.8273791 | -0.6018137 | -0.1137275 | 0.130 |
| 0807 | -0.66206039 | -0.6389722 | -0.6018137 | -1.7315407 | -0.612 |
| ## [159,] 0.4179961 0580 | 0.79159394 | 1.8273791 | 0.9893691 | -0.1137275 | 0.130 |
| ## [160,] 0.4179961 1967 | | | | -0.1137275 | |
| ## [161,] 1.9531818 3354 | | | | 0.6951791 | |
| ## [162,] 0.4179961 0807 | | | | -0.1137275 | |
| ## [163,] -1.1171896 2194 | | | | | |
| ## [164,] -1.1171896 0580 | | | | -1.7315407 | |
| ## [165,] 0.4179961 3354 | | | | 0.6951791 | |
| ## [166,] -1.1171896 2194 | | | | -0.9226341 | |
| ## [167,] -0.3495967 0807 | -1.38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -0.612 |

| ## [168,] 1.1855890 0.7915 | 59394 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |
|--------------------------------------|------------------|------------|------------|--------|
| ## [169,] 0.4179961 0.0647 0807 | 76678 0.1831449 | 0.1937777 | 0.6951791 | -0.612 |
| ## [170,] 0.4179961 -1.3888 | 88755 -1.4610893 | 0.1937777 | -0.1137275 | 0.872 |
| ## [171,] -0.3495967 -0.6620 3354 | 06039 0.1831449 | 1.7849606 | 0.6951791 | 1.614 |
| ## [172,] -1.1171896 0.7915 0807 | 59394 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [173,] 1.9531818 -0.6620 1967 | 06039 1.0052620 | 0.9893691 | 0.6951791 | 0.872 |
| ## [174,] -1.1171896 -0.6620 0807 | | -0.6018137 | -0.1137275 | -0.612 |
| ## [175,] -1.1171896 -1.3888 2194 | | -1.3974051 | -1.7315407 | -1.354 |
| ## [176,] -0.3495967 0.0647 0807 | | 0.9893691 | 0.6951791 | -0.612 |
| ## [177,] 0.4179961 -0.6620 1967 | | 0.1937777 | 1.5040857 | 0.872 |
| ## [178,] 0.4179961 -1.3888 3354 | | 0.1937777 | -0.1137275 | 1.614 |
| ## [179,] 0.4179961 -1.3888 | | -0.6018137 | 0.6951791 | 0.130 |
| ## [180,] -1.1171896 -1.3888 2194 | | 0.9893691 | -1.7315407 | -1.354 |
| ## [181,] 1.9531818 -0.6620 1967 | | -1.3974051 | 0.6951791 | 0.872 |
| ## [182,] 0.4179961 0.7915 0580 | | 1.7849606 | -0.1137275 | 0.130 |
| ## [183,] 0.4179961 -0.6620 0580 | | 0.1937777 | -0.9226341 | 0.130 |
| ## [184,] -1.1171896 1.5184 1967 | | 0.9893691 | -0.1137275 | 0.872 |
| ## [185,] -0.3495967 -1.3888 3354 | | | | |
| ## [186,] -1.1171896 0.7915 2194 | | | 0.6951791 | |
| ## [187,] -1.1171896 -1.3888 0807 | | | | |
| ## [188,] -0.3495967 -1.3888 3354 | | | -1.7315407 | |
| ## [189,] -1.1171896 0.0647 0807 | | | | |
| ## [190,] 1.1855890 -1.3888 | | | | |
| ## [191,] 0.4179961 -0.6626 0580 | | -0.6018137 | | |
| ## [192,] -1.1171896 -1.3888 1967 | 0.1831449 | v.9893691 | -0.113/2/5 | 0.872 |

| ## [193,] 0.4179961 0807 | 1.51842111 | -0.6389722 | -1.3974051 | -0.1137275 | -0.612 |
|------------------------------|-------------|------------|------------|------------|--------|
| | -1.38888755 | 0.1831449 | 0.1937777 | 1.5040857 | 1.614 |
| | -0.66206039 | 0.1831449 | -1.3974051 | 1.5040857 | 1.614 |
| ## [196,] -1.1171896 0580 | 1.51842111 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [197,] 0.4179961 0580 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |
| ## [198,] -1.1171896 2194 | 0.06476678 | -0.6389722 | -0.6018137 | -1.7315407 | -1.354 |
| ## [199,] 1.9531818 0807 | 1.51842111 | 1.0052620 | -0.6018137 | 1.5040857 | -0.612 |
| ## [200,] -1.1171896 2194 | 0.79159394 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [201,] 0.4179961 0807 | 1.51842111 | 1.0052620 | 0.1937777 | 0.6951791 | -0.612 |
| ## [202,] 0.4179961 3354 | 1.51842111 | 1.8273791 | -1.3974051 | 1.5040857 | 1.614 |
| ## [203,] -1.1171896 2194 | 1.51842111 | 0.1831449 | -1.3974051 | -1.7315407 | -1.354 |
| ## [204,] 0.4179961 0807 | 0.06476678 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| | -0.66206039 | 1.8273791 | 0.9893691 | 1.5040857 | 0.872 |
| ## [206,] -1.1171896 0580 | -1.38888755 | -1.4610893 | 0.9893691 | 1.5040857 | 0.130 |
| | -1.38888755 | -0.6389722 | 0.9893691 | 0.6951791 | 0.130 |
| | -0.66206039 | -0.6389722 | 0.1937777 | 0.6951791 | -0.612 |
| ## [209,] 1.9531818 0580 | 0.79159394 | 1.8273791 | 1.7849606 | 1.5040857 | 0.130 |
| ## [210,] 0.4179961 0807 | 1.51842111 | 1.0052620 | 1.7849606 | 0.6951791 | -0.612 |
| ## [211,] 0.4179961 0580 | 0.79159394 | 1.0052620 | 0.9893691 | 1.5040857 | 0.130 |
| ## [212,] -1.1171896 0807 | 1.51842111 | 1.0052620 | 0.9893691 | 1.5040857 | -0.612 |
| ## [213,] 0.4179961 3354 | 0.06476678 | -0.6389722 | 0.9893691 | 1.5040857 | 1.614 |
| ## [214,] 1.9531818 1967 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | 0.872 |
| ## [215,] 0.4179961 1967 | -0.66206039 | -0.6389722 | 1.7849606 | 1.5040857 | 0.872 |
| ## [216,] -1.1171896 2194 | 1.51842111 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [217,] 0.4179961 2194 | -0.66206039 | -1.4610893 | -1.3974051 | -0.1137275 | -1.354 |

| ## [218,] -0.3495967 1967 | 0.06476678 | -1.4610893 | -0.6018137 | 0.6951791 | 0.872 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [219,] -1.1171896 0807 | 0.79159394 | 0.1831449 | -1.3974051 | -0.9226341 | -0.612 |
| ## [220,] -1.1171896 2194 | 1.51842111 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [221,] -0.3495967 3354 | 1.51842111 | 1.0052620 | 0.9893691 | -0.9226341 | 1.614 |
| ## [222,] 1.1855890 1967 | 1.51842111 | 1.8273791 | 1.7849606 | 0.6951791 | 0.872 |
| ## [223,] 0.4179961 0580 | -0.66206039 | -1.4610893 | 0.9893691 | -0.1137275 | 0.130 |
| ## [224,] -1.1171896 0807 | 0.79159394 | 0.1831449 | 0.9893691 | -0.9226341 | -0.612 |
| ## [225,] 1.1855890 3354 | 0.06476678 | 0.1831449 | -0.6018137 | -0.1137275 | 1.614 |
| ## [226,] 1.1855890 3354 | 0.06476678 | 1.0052620 | 0.9893691 | 1.5040857 | 1.614 |
| ## [227,] 0.4179961 2194 | 1.51842111 | 0.1831449 | -0.6018137 | 1.5040857 | -1.354 |
| 1967 | -0.66206039 | 0.1831449 | 1.7849606 | -0.1137275 | 0.872 |
| ## [229,] -0.3495967 1967 | | -0.6389722 | 1.7849606 | 0.6951791 | 0.872 |
| 0807 | -0.66206039 | 1.8273791 | 0.1937777 | -0.1137275 | -0.612 |
| ## [231,] 0.4179961 0580 | 0.79159394 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| 2194 | -1.38888755 | -0.6389722 | 0.1937777 | 1.5040857 | -1.354 |
| ## [233,] -0.3495967 2194 | 0.06476678 | 1.0052620 | 1.7849606 | -0.1137275 | -1.354 |
| ## [234,] 1.1855890 0580 | 0.79159394 | 1.0052620 | -0.6018137 | 0.6951791 | 0.130 |
| ## [235,] 1.1855890 1967 | | | | | |
| ## [236,] -0.3495967 0807 | | | | 0.6951791 | |
| ## [237,] 0.4179961 0807 | | | | 0.6951791 | |
| ## [238,] -1.1171896 0807 | | | | -0.9226341 | |
| ## [239,] -1.1171896 0807 | | | | -0.1137275 | |
| ## [240,] 0.4179961 1967 | | | | | |
| ## [241,] -1.1171896 0807 | | | | | |
| ## [242,] -0.3495967 0580 | 1.51842111 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |

| ## [243,] -1.1171896 2194 | -1.38888755 | -1.4610893 | -0.6018137 | -0.9226341 | -1.354 |
|------------------------------|-------------|------------|------------|------------|--------|
| | -1.38888755 | -0.6389722 | 0.9893691 | 1.5040857 | 0.872 |
| | -0.66206039 | 0.1831449 | 0.1937777 | 0.6951791 | 0.130 |
| ## [246,] 1.1855890 3354 | 0.79159394 | 1.8273791 | 0.9893691 | 1.5040857 | 1.614 |
| ## [247,] -0.3495967 2194 | 0.06476678 | 1.0052620 | 0.9893691 | 0.6951791 | -1.354 |
| ## [248,] 0.4179961 3354 | 0.06476678 | 1.0052620 | 1.7849606 | -0.1137275 | 1.614 |
| ## [249,] 0.4179961 0807 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
| ## [250,] 1.1855890 1967 | -0.66206039 | -0.6389722 | 0.9893691 | 0.6951791 | 0.872 |
| ## [251,] -0.3495967 0807 | 0.79159394 | 1.0052620 | -0.6018137 | -0.9226341 | -0.612 |
| ## [252,] 1.1855890 0807 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | -0.612 |
| ## [253,] -0.3495967 3354 | | -1.4610893 | 0.1937777 | -0.9226341 | 1.614 |
| ## [254,] -1.1171896 2194 | | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [255,] -1.1171896 0807 | 0.79159394 | -0.6389722 | -1.3974051 | 1.5040857 | -0.612 |
| ## [256,] 0.4179961 1967 | 0.06476678 | 0.1831449 | 0.9893691 | 0.6951791 | 0.872 |
| ## [257,] -1.1171896 2194 | 0.06476678 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [258,] -1.1171896 0580 | 0.79159394 | -0.6389722 | 0.1937777 | -0.1137275 | 0.130 |
| ## [259,] -0.3495967 3354 | | -1.4610893 | 0.9893691 | -0.1137275 | 1.614 |
| ## [260,] -0.3495967 0807 | | | | | |
| ## [261,] 0.4179961 0580 | | | | | |
| ## [262,] -0.3495967 2194 | | | | | |
| ## [263,] -1.1171896 3354 | | | | | |
| ## [264,] -0.3495967 0580 | | | | 0.6951791 | |
| ## [265,] 0.4179961 0580 | | | | -0.1137275 | |
| ## [266,] -1.1171896 2194 | | | | -0.9226341 | |
| ## [267,] -1.1171896 2194 | -0.66206039 | -0.6389722 | 0.9893691 | -0.1137275 | -1.354 |

| ## [268,] 1.185 | 55890 0.06476678 | -0.6389722 | -0.6018137 | -0.1137275 | -0.612 |
|--------------------------|-------------------|------------|------------|------------|--------|
| | 71896 -0.66206039 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| | 55890 -1.38888755 | -1.4610893 | -1.3974051 | -0.1137275 | -0.612 |
| | 31818 1.51842111 | 1.8273791 | 1.7849606 | 1.5040857 | 1.614 |
| | 31818 1.51842111 | 1.8273791 | 0.9893691 | 1.5040857 | 0.872 |
| | 31818 -0.66206039 | 1.8273791 | 0.9893691 | -0.1137275 | 1.614 |
| | 55890 0.79159394 | 1.0052620 | 1.7849606 | 0.6951791 | 0.872 |
| ## [275,] -1.117 2194 | 71896 0.79159394 | 0.1831449 | -0.6018137 | 0.6951791 | -1.354 |
| ## [276,] 0.417 0580 | 79961 -0.66206039 | -0.6389722 | 0.9893691 | -0.1137275 | 0.130 |
| ## [277,] 0.417 0580 | 79961 -1.38888755 | -1.4610893 | -1.3974051 | 0.6951791 | 0.130 |
| ## [278,] -1.117 2194 | 71896 -0.66206039 | -0.6389722 | 0.1937777 | 1.5040857 | -1.354 |
| ## [279,] 0.417 3354 | 79961 1.51842111 | 1.8273791 | -0.6018137 | -0.1137275 | 1.614 |
| ## [280,] 0.417 2194 | 79961 0.06476678 | 0.1831449 | -1.3974051 | -1.7315407 | -1.354 |
| ## [281,] 0.417 1967 | 79961 -0.66206039 | 0.1831449 | -0.6018137 | -0.9226341 | 0.872 |
| ## [282,] 1.953 0807 | 31818 0.79159394 | 1.0052620 | 1.7849606 | 1.5040857 | -0.612 |
| ## [283,] -1.117 0807 | 71896 -1.38888755 | -0.6389722 | -1.3974051 | -0.9226341 | -0.612 |
| ## [284,] 1.185 0807 | 55890 0.79159394 | 1.8273791 | 1.7849606 | -0.1137275 | -0.612 |
| ## [285,] -1.117 2194 | 71896 -1.38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [286,] -1.117 2194 | 71896 0.06476678 | -1.4610893 | -0.6018137 | -1.7315407 | -1.354 |
| ## [287,] 0.417 | 79961 1.51842111 | 1.8273791 | 0.1937777 | -0.1137275 | 0.872 |
| ## [288,] 1.185 | 55890 0.79159394 | -1.4610893 | 0.1937777 | -0.1137275 | 0.872 |
| ## [289,] -1.117 2194 | 71896 0.79159394 | 1.0052620 | -0.6018137 | -0.1137275 | -1.354 |
| | 95967 0.79159394 | -1.4610893 | -0.6018137 | 0.6951791 | -1.354 |
| ## [291,] -1.117 0580 | 71896 0.79159394 | 0.1831449 | 0.9893691 | 0.6951791 | 0.130 |
| | 55890 0.06476678 | 1.0052620 | 0.1937777 | 0.6951791 | 0.130 |

| ## [293,] 0580 | 0.4179961 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
|-------------------|------------|-------------|------------|------------|------------|--------|
| ## [294,] 3354 | 1.9531818 | -1.38888755 | 1.0052620 | 0.1937777 | -0.1137275 | 1.614 |
| ## [295,] 1967 | 1.1855890 | 0.06476678 | 1.0052620 | 0.9893691 | -0.1137275 | 0.872 |
| | -0.3495967 | -0.66206039 | 1.0052620 | 0.1937777 | 1.5040857 | 1.614 |
| | -0.3495967 | -0.66206039 | 1.0052620 | -1.3974051 | -0.1137275 | 0.130 |
| ## [298,] 1967 | 0.4179961 | -1.38888755 | 0.1831449 | 0.1937777 | -0.9226341 | 0.872 |
| | -1.1171896 | 1.51842111 | 1.0052620 | 0.9893691 | 1.5040857 | -1.354 |
| ## [300,] 0807 | 0.4179961 | 1.51842111 | 1.8273791 | 0.1937777 | -0.9226341 | -0.612 |
| ## [301,] 3354 | 0.4179961 | -1.38888755 | -1.4610893 | 0.1937777 | -0.1137275 | 1.614 |
| ## [302,] 0807 | -1.1171896 | -1.38888755 | -1.4610893 | -0.6018137 | -1.7315407 | -0.612 |
| ## [303,] 2194 | -0.3495967 | 1.51842111 | 0.1831449 | -1.3974051 | 0.6951791 | -1.354 |
| ## [304,] 2194 | -0.3495967 | 0.79159394 | -0.6389722 | -0.6018137 | -0.1137275 | -1.354 |
| ## [305,] 2194 | -1.1171896 | -0.66206039 | 0.1831449 | -0.6018137 | -0.9226341 | -1.354 |
| ## [306,] 3354 | 0.4179961 | -0.66206039 | -0.6389722 | 0.1937777 | 0.6951791 | 1.614 |
| ## [307,] 3354 | 1.1855890 | 0.79159394 | 1.8273791 | 1.7849606 | 1.5040857 | 1.614 |
| ## [308,] 0580 | 0.4179961 | -1.38888755 | -1.4610893 | 1.7849606 | 1.5040857 | 0.130 |
| ## [309,] 0807 | -1.1171896 | 0.06476678 | -1.4610893 | -1.3974051 | -1.7315407 | -0.612 |
| ## [310,] 0807 | -1.1171896 | 0.79159394 | -1.4610893 | -1.3974051 | 0.6951791 | -0.612 |
| ## [311,] 2194 | -1.1171896 | -1.38888755 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [312,] 0580 | -0.3495967 | 1.51842111 | 1.8273791 | 1.7849606 | -0.1137275 | 0.130 |
| ## [313,] 0807 | -0.3495967 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [314,] 0807 | -1.1171896 | 0.79159394 | -1.4610893 | 0.1937777 | 0.6951791 | -0.612 |
| ## [315,] 3354 | 1.9531818 | -0.66206039 | 1.8273791 | 1.7849606 | 1.5040857 | 1.614 |
| ## [316,] 0807 | -1.1171896 | -0.66206039 | -1.4610893 | -1.3974051 | -1.7315407 | -0.612 |
| ## [317,] 0807 | -0.3495967 | 0.06476678 | -0.6389722 | -1.3974051 | -1.7315407 | -0.612 |
| | | | | | | |

| ## [318,] -0.3495967 0580 | -0.66206039 | -1.4610893 | -0.6018137 | -0.1137275 | 0.130 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [319,] 0.4179961 0580 | 0.06476678 | -0.6389722 | 0.9893691 | 0.6951791 | 0.130 |
| ## [320,] -0.3495967 1967 | 0.06476678 | 0.1831449 | 0.9893691 | -0.1137275 | 0.872 |
| ## [321,] 0.4179961 3354 | -0.66206039 | 0.1831449 | -0.6018137 | -0.9226341 | 1.614 |
| ## [322,] -0.3495967 0580 | 1.51842111 | -0.6389722 | 0.1937777 | 1.5040857 | 0.130 |
| ## [323,] 1.9531818 3354 | -1.38888755 | 0.1831449 | 0.1937777 | 1.5040857 | 1.614 |
| 2194 | -1.38888755 | -1.4610893 | -1.3974051 | -0.1137275 | -1.354 |
| 0580 | -0.66206039 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [326,] 1.1855890 0580 | 1.51842111 | 1.8273791 | -0.6018137 | 0.6951791 | 0.130 |
| ## [327,] -0.3495967 0580 | | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [328,] -1.1171896 0807 | | 1.0052620 | 0.1937777 | 0.6951791 | -0.612 |
| 3354 | -0.66206039 | 1.0052620 | 0.1937777 | -0.9226341 | 1.614 |
| ## [330,] -0.3495967 0807 | 0.79159394 | -0.6389722 | -0.6018137 | -0.1137275 | -0.612 |
| ## [331,] 0.4179961 1967 | 0.06476678 | -0.6389722 | 0.1937777 | -0.1137275 | 0.872 |
| ## [332,] -0.3495967 2194 | | -1.4610893 | 1.7849606 | 1.5040857 | -1.354 |
| ## [333,] -1.1171896 2194 | | 0.1831449 | -1.3974051 | -1.7315407 | -1.354 |
| ## [334,] -0.3495967 0807 | | -0.6389722 | 0.1937777 | -0.1137275 | -0.612 |
| ## [335,] -0.3495967 1967 | | | | | |
| ## [336,] -0.3495967 0807 | | | | -0.1137275 | |
| ## [337,] -0.3495967 0580 | | | | -0.9226341 | |
| ## [338,] -1.1171896 0807 | | | | | |
| ## [339,] -0.3495967 2194 | | | | | |
| ## [340,] 1.9531818 3354 | | | | | |
| ## [341,] -0.3495967 1967 | | | | | |
| ## [342,] -0.3495967 2194 | 1.51842111 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |

| ## [343,] -0.3495967 0580 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |
|--|-------------|------------|------------|------------|--------|
| ## [344,] -0.3495967 0807 | -1.38888755 | -0.6389722 | -0.6018137 | 1.5040857 | -0.612 |
| ## [345,] -1.1171896 0580 | -0.66206039 | -1.4610893 | -1.3974051 | 0.6951791 | 0.130 |
| | -0.66206039 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| ## [347,] -1.1171896 2194 | 1.51842111 | 1.8273791 | -1.3974051 | -0.1137275 | -1.354 |
| ## [348,] 1.1855890 2194 | -0.66206039 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [349,] -1.1171896 0580 | | -0.6389722 | 1.7849606 | 1.5040857 | 0.130 |
| ## [350,] -1.1171896 2194 | | -0.6389722 | 0.1937777 | -0.1137275 | -1.354 |
| 0580 | -0.66206039 | 0.1831449 | -1.3974051 | -1.7315407 | 0.130 |
| 3354 | -1.38888755 | 1.0052620 | 0.9893691 | 0.6951791 | 1.614 |
| ## [353,] -1.1171896 2194 | | -1.4610893 | -1.3974051 | 1.5040857 | -1.354 |
| ## [354,] -1.1171896 3354 | 0.79159394 | -0.6389722 | -0.6018137 | -0.1137275 | 1.614 |
| ## [355,] 0.4179961 0580 | 0.06476678 | -0.6389722 | -0.6018137 | -0.9226341 | 0.130 |
| ## [356,] -1.1171896 2194 | 1.51842111 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [357,] -0.3495967 0807 | 0.79159394 | 1.0052620 | 0.1937777 | 0.6951791 | -0.612 |
| ## [358,] 0.4179961 2194 | 1.51842111 | -0.6389722 | -0.6018137 | -1.7315407 | -1.354 |
| ## [359,] -1.1171896 2194 | 0.06476678 | 0.1831449 | 0.1937777 | 0.6951791 | -1.354 |
| ## [360,] -0.3495967 2194 ## [361,] -1.1171896 | | | | 0.6951791 | |
| ## [361,] -1.11/1896 0580 ## [362,] -0.3495967 | | | | | |
| 2194 | | | | 0.6951791 | |
| ## [363,] 1.9531818 0580 ## [364,] 1.9531818 | | | -1.3974051 | | |
| 1967 | | | | | |
| ## [365,] 0.4179961 0580 ## [366,] 1.9531818 | | | | 0.6951791 | |
| 3354 | | | | | |
| ## [367,] -0.3495967 2194 | U.U04/00/8 | U.1031449 | -1.33/4031 | -1./31340/ | -1.334 |

| ## [368,] 1.1855890 3354 | -1.38888755 | -0.6389722 | 1.7849606 | 1.5040857 | 1.614 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [369,] -1.1171896 2194 | 0.06476678 | 1.0052620 | 0.1937777 | -0.1137275 | -1.354 |
| ## [370,] -0.3495967 0580 | 0.06476678 | -0.6389722 | -1.3974051 | -0.9226341 | 0.130 |
| ## [371,] 0.4179961 0807 | 0.79159394 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| | -0.66206039 | -0.6389722 | 1.7849606 | 1.5040857 | 0.130 |
| ## [373,] 1.9531818 1967 | -1.38888755 | 1.0052620 | -0.6018137 | -0.1137275 | 0.872 |
| ## [374,] -1.1171896 2194 | -0.66206039 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [375,] -1.1171896 2194 | 0.06476678 | 0.1831449 | -0.6018137 | -0.9226341 | -1.354 |
| ## [376,] -0.3495967 2194 | 1.51842111 | -0.6389722 | -0.6018137 | -1.7315407 | -1.354 |
| ## [377,] -1.1171896 2194 | 1.51842111 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [378,] 0.4179961 3354 | -1.38888755 | 0.1831449 | 0.9893691 | 0.6951791 | 1.614 |
| ## [379,] -1.1171896 0807 | 0.79159394 | 1.8273791 | -1.3974051 | -0.9226341 | -0.612 |
| ## [380,] -0.3495967 0807 | 0.06476678 | 0.1831449 | 0.9893691 | -0.1137275 | -0.612 |
| ## [381,] -1.1171896 0807 | 0.79159394 | -0.6389722 | -0.6018137 | 0.6951791 | -0.612 |
| 0580 | -1.38888755 | -1.4610893 | 0.1937777 | -0.1137275 | 0.130 |
| ## [383,] -1.1171896 0807 | 0.79159394 | -0.6389722 | -1.3974051 | -0.9226341 | -0.612 |
| ## [384,] 1.1855890 3354 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 1.614 |
| ## [385,] 0.4179961 3354 | | | | | |
| ## [386,] 0.4179961 1967 | | | | | 0.872 |
| ## [387,] 0.4179961 0580 | 1.51842111 | 1.0052620 | -0.6018137 | -0.1137275 | 0.130 |
| ## [388,] -1.1171896 0807 | | | | -0.1137275 | -0.612 |
| ## [389,] 0.4179961 0580 | 0.79159394 | 1.8273791 | 1.7849606 | 0.6951791 | 0.130 |
| ## [390,] -1.1171896 0807 | | | 0.9893691 | -0.1137275 | -0.612 |
| ## [391,] -0.3495967 1967 | | | | -0.1137275 | 0.872 |
| ## [392,] -1.1171896 0807 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |

| ## [393,] -1.1171896 0807 | 1.51842111 | 0.1831449 | -1.3974051 | -0.9226341 | -0.612 |
|------------------------------|-------------|------------|------------|------------|--------|
| | -0.66206039 | -1.4610893 | -1.3974051 | -0.9226341 | -0.612 |
| ## [395,] -1.1171896 0807 | -1.38888755 | -0.6389722 | -0.6018137 | -0.1137275 | -0.612 |
| | 0.06476678 | -0.6389722 | -0.6018137 | 0.6951791 | 1.614 |
| ## [397,] -1.1171896 2194 | -0.66206039 | 0.1831449 | 0.9893691 | -0.1137275 | -1.354 |
| ## [398,] -1.1171896 2194 | 0.79159394 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [399,] 0.4179961 0580 | 1.51842111 | 1.8273791 | 0.1937777 | 0.6951791 | 0.130 |
| 1967 | -0.66206039 | 1.0052620 | 0.1937777 | -0.1137275 | 0.872 |
| ## [401,] -1.1171896 0807 | 0.06476678 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| ## [402,] -1.1171896 0807 | | -1.4610893 | -1.3974051 | -0.9226341 | -0.612 |
| ## [403,] -1.1171896 0807 | | -1.4610893 | -1.3974051 | -1.7315407 | -0.612 |
| ## [404,] -0.3495967 0580 | | 1.0052620 | -0.6018137 | 0.6951791 | 0.130 |
| ## [405,] 1.9531818 3354 | 0.06476678 | -0.6389722 | -0.6018137 | 1.5040857 | 1.614 |
| ## [406,] -0.3495967 0580 | 0.79159394 | -0.6389722 | 0.9893691 | -0.1137275 | 0.130 |
| ## [407,] -1.1171896 2194 | 0.06476678 | 0.1831449 | 0.9893691 | 0.6951791 | -1.354 |
| ## [408,] 0.4179961 0807 | 0.06476678 | 0.1831449 | 1.7849606 | -0.1137275 | -0.612 |
| ## [409,] -1.1171896 0580 | | -1.4610893 | 0.9893691 | 1.5040857 | 0.130 |
| ## [410,] 0.4179961 0580 | | | | | |
| ## [411,] 1.9531818 0580 | | | | | |
| ## [412,] -1.1171896 2194 | | | | | |
| ## [413,] -1.1171896 2194 | | | | -1.7315407 | |
| ## [414,] 1.1855890 0807 | | | | 0.6951791 | |
| ## [415,] -1.1171896 1967 | | | | | |
| ## [416,] -0.3495967 0580 | | | | | |
| ## [417,] -0.3495967 2194 | 0.06476678 | -0.6389722 | -0.6018137 | -0.9226341 | -1.354 |

| ## [418,] 1.9531818 -1 1967 | 38888755 | 1.8273791 | -1.3974051 | 0.6951791 | 0.872 |
|---------------------------------|------------|------------|------------|------------|--------|
| ## [419,] -1.1171896 -1 0807 | 38888755 | -0.6389722 | -1.3974051 | -0.9226341 | -0.612 |
| ## [420,] -1.1171896 0 | .06476678 | 0.1831449 | 0.9893691 | 1.5040857 | 1.614 |
| ## [421,] 1.9531818 -1 2194 | 38888755 | 0.1831449 | -0.6018137 | -1.7315407 | -1.354 |
| ## [422,] -1.1171896 -0 0807 | .66206039 | -0.6389722 | 1.7849606 | -0.1137275 | -0.612 |
| ## [423,] -1.1171896 0 2194 | .79159394 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [424,] 0.4179961 -1 0580 | | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [425,] -1.1171896 1 2194 | .51842111 | 1.0052620 | 0.9893691 | -1.7315407 | -1.354 |
| 3354 | 0.06476678 | 1.0052620 | 0.1937777 | 0.6951791 | 1.614 |
| ## [427,] -1.1171896 -1 1967 | | 0.1831449 | 0.9893691 | 0.6951791 | 0.872 |
| ## [428,] -0.3495967 -0 3354 | | 0.1831449 | 1.7849606 | -0.1137275 | 1.614 |
| ## [429,] 1.1855890 0 2194 | | -0.6389722 | -0.6018137 | -0.9226341 | -1.354 |
| ## [430,] 1.1855890 -0 3354 | | -1.4610893 | -0.6018137 | -0.1137275 | 1.614 |
| ## [431,] -0.3495967 -0 0580 | | 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |
| ## [432,] -1.1171896 0 0807 | | 0.1831449 | 0.1937777 | -0.9226341 | -0.612 |
| 3354 | 0.06476678 | 0.1831449 | 0.1937777 | 0.6951791 | 1.614 |
| ## [434,] 1.1855890 -0 3354 | | -0.6389722 | -0.6018137 | | 1.614 |
| ## [435,] -1.1171896 0 2194 | | | | | |
| ## [436,] 0.4179961 -0 0580 | | | | | 0.130 |
| ## [437,] -0.3495967 -0 0807 | | | | -0.1137275 | |
| ## [438,] -0.3495967 0 2194 | | | | | |
| ## [439,] 1.1855890 0 2194 | .79159394 | 0.1831449 | -1.3974051 | -0.9226341 | -1.354 |
| ## [440,] -1.1171896 0 0580 | | | | | |
| ## [441,] -1.1171896 0 0580 | | | | | |
| ## [442,] 0.4179961 -1 2194 | 38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |

| ## [443,] 1.1855890 (| 0.06476678 | 1.0052620 | 0.9893691 | 0.6951791 | -0.612 |
|--|------------|------------|------------|------------|----------------|
| | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [445,] 1.1855890 -0 | 0.66206039 | 1.8273791 | 0.9893691 | 1.5040857 | 1.614 |
| | 0.79159394 | -0.6389722 | 0.1937777 | -0.9226341 | -0.612 |
| ## [447,] -1.1171896 (| 0.79159394 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [448,] -1.1171896 -1 2194 | 1.38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [449,] -1.1171896 (0580 | | -1.4610893 | -0.6018137 | 0.6951791 | 0.130 |
| ## [450,] -0.3495967 -0 | | 0.1831449 | 0.1937777 | 1.5040857 | -0.612 |
| ## [451,] -1.1171896 -0 2194 | | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| 0807 | 0.06476678 | -0.6389722 | 0.1937777 | -0.9226341 | -0.612 |
| 0580 | 0.06476678 | 0.1831449 | -0.6018137 | 0.6951791 | 0.130 |
| ## [454,] -0.3495967 -0 | | 0.1831449 | 0.1937777 | 1.5040857 | -0.612 |
| 1967 | 0.06476678 | 1.8273791 | 0.9893691 | 0.6951791 | 0.872 |
| 0807 | 0.06476678 | 0.1831449 | -0.6018137 | -0.1137275 | -0.612 |
| 0580 | 1.51842111 | 1.8273791 | -1.3974051 | -0.9226341 | 0.130 |
| ## [458,] 0.4179961 -0 | | -0.6389722 | -0.6018137 | -0.1137275 | 0.130 |
| 3354 | 1.51842111 | -1.4610893 | -1.3974051 | 1.5040857 | 1.614 |
| ## [460,] 0.4179961 -3 3354 ## [461,] 1.1855890 | | | | | 1.614 0.130 |
| ## [461,] 1.1853890 . 0580 ## [462,] -1.1171896 -: | | | | -0.1137275 | |
| ## [402,] -1.1171890 -1 0580 ## [463,] 1.1855890 (| | 0.1831449 | | -0.1137275 | |
| 1967 ## [464,] -1.1171896 (| | | | -1.7315407 | |
| 3354 ## [465,] 1.1855890 -0 | | | | 0.6951791 | |
| 0807 ## [466,] -0.3495967 -0 | | | | -0.9226341 | |
| 0580 ## [467,] -1.1171896 (| | | | -0.1137275 | |
| 2194 | <u>_</u> | 010000 | | 0.113,2,3 | _,,, |

| 0887 ## [469,] -0.3495967 1.51842111 1.0052620 0.9893691 1.5040857 -0.612 0807 ## [470,] 0.4179961 0.79159394 1.0052620 -0.6018137 1.5040857 0.872 1967 ## [471,] -1.1171896 0.06476678 0.1831449 -0.6018137 -0.1137275 -1.354 2194 ## [472,] 1.9531818 -0.66206039 1.8273791 0.1937777 0.6951791 1.614 3354 ## [473,] -0.3495967 -1.38888755 -1.4610893 -1.3974051 -0.9226341 -1.354 2194 ## [474,] 0.4179961 -1.38888755 -1.4610893 -1.3974051 -1.7315407 0.872 1967 ## [476,] 1.1855890 0.06476678 1.0052620 0.1937777 1.5040857 0.130 0580 ## [477,] 0.4179961 0.06476678 0.1831449 1.7849606 1.5040857 1.614 3354 ## [477,] 0.4179961 -1.38888755 -0.6389722 0.1937777 1.5040857 1.614 3354 ## [479,] -0.3495967 -0.66206039 -0.6389722 0.1937777 1.5040857 1.614 3354 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 0.872 1967 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 0.1831449 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 0.1831449 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 0.1831449 0.9893691 0.6951791 0.872 1967 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.1137275 -1.354 2194 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 -0.612 0.0807 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 -0.612 0.0807 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 0.6012 0.0807 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 0.612 0.807 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 0.612 0.807 ## [488,] -1.1855890 1.51842111 0.0052620 0.06018137 0.09226341 0.130 0.580 ## [488,] -1.03495967 0.06476678 0.1831449 0.06018137 0.09226341 0.130 0.580 ## [489,] -0.33495967 0.06476678 0.1831449 0.06018137 0.09226341 0.130 0.580 |
|--|
| ## [470,] 0.4179961 0.79159394 1.0052620 -0.6018137 1.5040857 0.872 1967 ## [471,] -1.1171896 0.06476678 0.1831449 -0.6018137 -0.1137275 -1.354 2194 ## [472,] 1.9531818 -0.66206039 1.8273791 0.1937777 0.6951791 1.614 3354 ## [473,] -0.3495967 -1.38888755 -1.4610893 -1.3974051 -0.9226341 -1.354 2194 ## [474,] 0.4179961 -1.38888755 -1.4610893 -1.3974051 -1.7315407 0.872 1967 ## [475,] -1.1171896 1.51842111 -0.6389722 -1.3974051 -1.7315407 0.130 0580 ## [476,] 1.1855890 0.06476678 1.0052620 0.1937777 1.5040857 0.130 0580 ## [477,] 0.4179961 0.06476678 0.1831449 1.7849606 1.5040857 1.614 3354 ## [479,] -0.3495967 -0.66206039 -0.6389722 0.1937777 1.5040857 1.614 3354 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 0.872 1967 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 0.1831449 0.9893691 0.6951791 0.872 1967 ## [482,] -1.1171896 -1.38888755 0.1831449 0.9893691 0.6951791 0.872 1967 ## [483,] 0.4179961 0.06476678 0.1831449 0.9893691 0.6951791 0.872 1967 ## [484,] 1.9531818 0.06476678 0.1831449 0.9893691 0.09226341 0.0612 0.0807 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 0.09226341 0.0612 0.0807 ## [487,] -1.1171896 0.06476678 0.1831449 0.9893691 0.09226341 0.0612 0.0807 ## [486,] -1.1171896 0.06476678 0.1831449 0.9893691 0.09226341 0.0612 0.0807 ## [487,] -1.1171896 0.06476678 0.1831449 0.9893691 0.09226341 0.0612 0.0807 ## [487,] -1.1171896 0.06476678 0.1831449 0.9893691 0.09226341 0.0612 0.0807 ## [487,] -1.1171896 0.06476678 0.06389722 0.193777 0.1137275 0.136 0.080888 0.0808 0. |
| ## [471,] -1.1171896 0.06476678 0.1831449 -0.6018137 -0.1137275 -1.354 |
| ## [472,] 1.9531818 -0.66206039 |
| ## [473,] -0.3495967 -1.38888755 |
| ## [475,] -1.1171896 |
| ## [476,] 1.1855890 0.06476678 1.0052620 0.1937777 1.5040857 0.130 0580 ## [477,] 0.4179961 0.06476678 0.1831449 1.7849606 1.5040857 1.614 3354 ## [478,] 0.4179961 -1.38888755 -0.6389722 0.1937777 1.5040857 1.614 3354 ## [479,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 0.6951791 0.872 1967 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 -1.354 2194 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 1.5040857 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 0.872 1967 ## [487,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 0.6912 0.9807 ## [488,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 0.612 0.9807 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| ## [477,] 0.4179961 0.06476678 0.1831449 1.7849606 1.5040857 1.614 3354 ## [478,] 0.4179961 -1.38888755 -0.6389722 0.193777 1.5040857 1.614 3354 ## [479,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 0.6951791 0.872 1967 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 -1.354 2194 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 1.5040857 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [487,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| ## [478,] 0.4179961 -1.38888755 -0.6389722 0.1937777 1.5040857 1.614 3354 ## [479,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 0.6951791 0.872 1967 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 -1.354 2194 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 1.5040857 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| ## [479,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 0.6951791 0.872 1967 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 -1.354 2194 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 1.5040857 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0880 ## [487,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 1967 ## [480,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 -1.354 2194 ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 1.5040857 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| ## [481,] 0.4179961 0.79159394 0.1831449 0.9893691 1.5040857 0.872 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 1967 ## [482,] -1.1171896 -1.38888755 -1.4610893 0.9893691 0.6951791 0.872 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 1967 ## [483,] 1.1855890 0.79159394 1.0052620 0.1937777 -1.7315407 -1.354 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 2194 ## [484,] 1.9531818 0.06476678 -0.6389722 0.9893691 -0.1137275 -1.354 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 2194 ## [485,] 0.4179961 0.06476678 0.1831449 0.9893691 -0.9226341 -0.612 0807 ## [486,] -1.1171896 -1.38888755 0.1831449 1.7849606 0.6951791 0.872 1967 ## [487,] -1.1171896 0.06476678 -0.6389722 0.1937777 -0.1137275 0.130 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 0807 ## [486,] -1.1171896 -1.38888755 |
| 1967 ## [487,] -1.1171896 |
| 0580 ## [488,] 1.1855890 1.51842111 1.0052620 -0.6018137 -0.9226341 0.130 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| 0580 ## [489,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 0.872 |
| |
| 1707 |
| ## [490,] 1.9531818 0.06476678 1.8273791 -0.6018137 1.5040857 1.614 3354 |
| ## [491,] -1.1171896 1.51842111 -1.4610893 -1.3974051 -0.9226341 -1.354 2194 |
| ## [492,] 0.4179961 0.06476678 -0.6389722 -0.6018137 -0.1137275 -1.354 2194 |

| ## [493,] -0.3495967 -1.38888755 3354 | -0.6389722 | 0.1937777 | 0.6951791 | 1.614 |
|--|------------|------------|------------|--------|
| ## [494,] -1.1171896 1.51842111 0580 | -0.6389722 | -0.6018137 | -0.1137275 | 0.130 |
| ## [495,] -0.3495967 -1.38888755 3354 | 1.0052620 | 1.7849606 | 0.6951791 | 1.614 |
| ## [496,] 1.1855890 -0.66206039 3354 | -0.6389722 | -1.3974051 | 1.5040857 | 1.614 |
| ## [497,] -1.1171896 -0.66206039 0580 | -0.6389722 | -0.6018137 | 0.6951791 | 0.130 |
| ## [498,] 0.4179961 -1.38888755 2194 | 0.1831449 | 1.7849606 | 1.5040857 | -1.354 |
| ## [499,] -1.1171896 -1.38888755 3354 | | -0.6018137 | -0.1137275 | 1.614 |
| ## [500,] 1.1855890 -1.38888755 0580 | | -1.3974051 | -0.1137275 | 0.130 |
| ## [501,] -1.1171896 -1.38888755 3354 | | -0.6018137 | 0.6951791 | 1.614 |
| ## [502,] -0.3495967 -0.66206039 0807 | | 0.9893691 | 0.6951791 | -0.612 |
| ## [503,] 1.1855890 0.06476678 0580 | | 0.9893691 | 1.5040857 | 0.130 |
| ## [504,] -1.1171896 -1.38888755 2194 | | -1.3974051 | -0.9226341 | -1.354 |
| ## [505,] -1.1171896 1.51842111 0807 | | -1.3974051 | -0.9226341 | -0.612 |
| ## [506,] 1.1855890 0.06476678 1967 | | -0.6018137 | 0.6951791 | 0.872 |
| ## [507,] 0.4179961 1.51842111 0807 | | -1.3974051 | -1.7315407 | -0.612 |
| ## [508,] -1.1171896 -0.66206039 1967 | | 0.9893691 | 0.6951791 | 0.872 |
| ## [509,] 0.4179961 -1.38888755 3354 | | 0.1937777 | 1.5040857 | 1.614 |
| ## [510,] -1.1171896 0.79159394 0807 | | | | |
| ## [511,] -0.3495967 0.79159394 0580 | | | -0.1137275 | |
| ## [512,] -1.1171896 0.79159394 0580 | | | | |
| ## [513,] -1.1171896 -1.38888755 0580 | | | -1.7315407 | |
| ## [514,] 1.9531818 0.06476678 0580 | | | -0.1137275 | |
| ## [515,] -1.1171896 -1.38888755 0580 | | | | |
| ## [516,] 0.4179961 -1.38888755 1967 | | | | |
| ## [517,] 0.4179961 1.51842111 0580 | 0.1831449 | -0.6018137 | -0.1137275 | 0.130 |

| ## [518,] 0.4179961 0580 | 0.79159394 | 0.1831449 | -1.3974051 | -1.7315407 | 0.130 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [519,] -0.3495967 0807 | 0.79159394 | 0.1831449 | 0.1937777 | -0.9226341 | -0.612 |
| ## [520,] -1.1171896 0807 | 0.79159394 | 1.0052620 | -0.6018137 | -0.9226341 | -0.612 |
| ## [521,] -1.1171896 0807 | 0.79159394 | 1.0052620 | -0.6018137 | -0.9226341 | -0.612 |
| ## [522,] -0.3495967 0807 | 0.06476678 | 0.1831449 | 0.9893691 | 0.6951791 | -0.612 |
| ## [523,] -0.3495967 0580 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [524,] -1.1171896 0807 | -0.66206039 | 0.1831449 | 0.1937777 | 0.6951791 | -0.612 |
| ## [525,] 1.9531818 3354 | -0.66206039 | 1.8273791 | -0.6018137 | -0.1137275 | 1.614 |
| ## [526,] 0.4179961 0580 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [527,] 1.1855890 0580 | 1.51842111 | 1.8273791 | 0.1937777 | 0.6951791 | 0.130 |
| 1967 | -0.66206039 | 1.0052620 | 0.9893691 | 0.6951791 | 0.872 |
| ## [529,] -0.3495967 2194 | | -1.4610893 | 0.1937777 | 1.5040857 | -1.354 |
| ## [530,] -0.3495967 1967 | | -1.4610893 | -0.6018137 | -0.1137275 | 0.872 |
| ## [531,] -1.1171896 1967 | | -1.4610893 | -1.3974051 | -1.7315407 | 0.872 |
| 3354 | -1.38888755 | -0.6389722 | 0.1937777 | 1.5040857 | 1.614 |
| ## [533,] -1.1171896 0580 | | 1.0052620 | 1.7849606 | -0.1137275 | 0.130 |
| 3354 | -0.66206039 | -0.6389722 | 0.1937777 | 1.5040857 | 1.614 |
| ## [535,] -1.1171896 0807 | | | | | |
| ## [536,] 1.1855890 2194 | | | | | |
| ## [537,] -1.1171896 2194 | | | | -1.7315407 | |
| ## [538,] 0.4179961 3354 | | | | | |
| ## [539,] 1.1855890 0580 | 0.79159394 | -0.6389722 | -1.3974051 | -0.1137275 | 0.130 |
| ## [540,] -1.1171896 1967 | | | | | |
| ## [541,] -0.3495967 0580 | | | | | |
| ## [542,] -0.3495967 0807 | 0.79159394 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |

| ## [543,] 3354 | 1.9531818 | 1.51842111 | 1.8273791 | 0.9893691 | -0.1137275 | 1.614 |
|-------------------|------------|-------------|------------|------------|------------|--------|
| ## [544,] 1967 | 0.4179961 | 0.06476678 | -0.6389722 | 1.7849606 | 0.6951791 | 0.872 |
| ## [545,] 3354 | 0.4179961 | -0.66206039 | -0.6389722 | -0.6018137 | 0.6951791 | 1.614 |
| ## [546,] 0580 | 0.4179961 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [547,] 1967 | 0.4179961 | -0.66206039 | 1.8273791 | 1.7849606 | 1.5040857 | 0.872 |
| ## [548,] 0580 | -0.3495967 | -0.66206039 | -0.6389722 | -1.3974051 | 0.6951791 | 0.130 |
| ## [549,] 1967 | -0.3495967 | -1.38888755 | -0.6389722 | -1.3974051 | 0.6951791 | 0.872 |
| ## [550,] 0807 | -1.1171896 | 1.51842111 | 0.1831449 | 0.1937777 | -1.7315407 | -0.612 |
| ## [551,] 1967 | -0.3495967 | -1.38888755 | 0.1831449 | 0.1937777 | 1.5040857 | 0.872 |
| ## [552,] 2194 | -1.1171896 | -1.38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [553,] 3354 | -1.1171896 | -1.38888755 | 1.0052620 | 1.7849606 | -0.1137275 | 1.614 |
| ## [554,] 0580 | -1.1171896 | 0.06476678 | -1.4610893 | -1.3974051 | -1.7315407 | 0.130 |
| 0807 | -0.3495967 | 0.06476678 | -1.4610893 | -0.6018137 | -0.1137275 | -0.612 |
| 0807 | -0.3495967 | 0.79159394 | 1.8273791 | 0.1937777 | -1.7315407 | -0.612 |
| 2194 | -1.1171896 | 0.79159394 | -1.4610893 | -1.3974051 | -0.9226341 | -1.354 |
| 0580 | | -0.66206039 | 1.0052620 | 0.9893691 | 0.6951791 | 0.130 |
| 0807 | | -1.38888755 | -0.6389722 | -0.6018137 | | -0.612 |
| 2194 | | 1.51842111 | | | | |
| ## [561,] 0580 | | 0.79159394 | | 0.1937777 | | 0.130 |
| ## [562,] 0807 | 0.4179961 | 1.51842111 | 0.1831449 | 0.9893691 | 0.6951791 | -0.612 |
| ## [563,] 0807 | 0.4179961 | 1.51842111 | | | -0.9226341 | -0.612 |
| ## [564,] 0580 | 0.4179961 | 1.51842111 | 0.1831449 | -1.3974051 | -0.1137275 | 0.130 |
| 2194 | | 0.06476678 | | | -0.9226341 | |
| 0807 | | -0.66206039 | | | -0.9226341 | |
| ## [567,] 2194 | -1.1171896 | 0.79159394 | 0.1831449 | -1.3974051 | -0.9226341 | -1.354 |

| ## [569,] -1.1171896 |
|--|
| ## [570,] -0.3495967 -0.66206039 |
| ## [571,] -0.3495967 -0.66206039 -1.4610893 -1.3974051 -0.1137275 -0.612 0807 ## [572,] -0.3495967 1.51842111 0.1831449 -0.6018137 -1.7315407 -1.354 2194 ## [573,] -1.1171896 -0.66206039 -0.6389722 -1.3974051 -0.9226341 -1.354 2194 ## [574,] 0.4179961 0.06476678 -1.4610893 -1.3974051 -0.1137275 0.872 1967 ## [575,] -1.1171896 0.06476678 -0.6389722 -1.3974051 -1.7315407 -0.612 0807 ## [577,] -0.3495967 1.51842111 1.8273791 -0.6018137 -0.9226341 -0.612 0807 ## [577,] -0.3495967 1.51842111 1.8273791 -0.6018137 -0.9226341 -0.612 0807 ## [579,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -1.7315407 -1.354 2194 ## [579,] -1.1171896 0.79159394 0.1831449 -0.6018137 0.6951791 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [583,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [584,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [584,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 0.130 0580 ## [584,] -1.1171896 -0.66206039 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [586,] -1.1171896 -0.66206039 0.1831449 0.9893691 0.6951791 0.130 0580 |
| ## [573,] -1.1171896 -0.66206039 -0.6389722 -1.3974051 -0.9226341 -1.354 2194 ## [574,] 0.4179961 0.06476678 -1.4610893 -1.3974051 -0.1137275 0.872 1967 |
| ## [574,] 0.4179961 0.06476678 -1.4610893 -1.3974051 -0.1137275 0.872 1967 ## [575,] -1.1171896 0.06476678 -0.6389722 -1.3974051 -1.7315407 -0.612 0807 ## [576,] 0.4179961 -0.66206039 -0.6389722 0.1937777 -0.1137275 0.872 1967 ## [577,] -0.3495967 1.51842111 1.8273791 -0.6018137 -0.9226341 -0.612 0807 ## [578,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -1.7315407 -1.354 2194 ## [579,] -1.1171896 0.79159394 0.1831449 -0.6018137 0.6951791 0.130 0580 ## [580,] 0.4179961 0.06476678 -0.6389722 1.7849606 1.5040857 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 |
| ## [575,] -1.1171896 |
| ## [576,] 0.4179961 -0.66206039 -0.6389722 0.1937777 -0.1137275 0.872 1967 ## [577,] -0.3495967 1.51842111 1.8273791 -0.6018137 -0.9226341 -0.612 0807 ## [578,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -1.7315407 -1.354 2194 ## [579,] -1.1171896 0.79159394 0.1831449 -0.6018137 0.6951791 0.130 0580 ## [580,] 0.4179961 0.06476678 -0.6389722 1.7849606 1.5040857 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| ## [577,] -0.3495967 1.51842111 1.8273791 -0.6018137 -0.9226341 -0.612 0807 ## [578,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -1.7315407 -1.354 2194 ## [579,] -1.1171896 0.79159394 0.1831449 -0.6018137 0.6951791 0.130 0580 ## [580,] 0.4179961 0.06476678 -0.6389722 1.7849606 1.5040857 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| ## [578,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -1.7315407 -1.354 2194 ## [579,] -1.1171896 0.79159394 0.1831449 -0.6018137 0.6951791 0.130 0580 ## [580,] 0.4179961 0.06476678 -0.6389722 1.7849606 1.5040857 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| 2194 ## [579,] -1.1171896 0.79159394 0.1831449 -0.6018137 0.6951791 0.130 0580 ## [580,] 0.4179961 0.06476678 -0.6389722 1.7849606 1.5040857 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| ## [580,] 0.4179961 0.06476678 -0.6389722 1.7849606 1.5040857 0.130 0580 ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| ## [581,] -1.1171896 1.51842111 0.1831449 -0.6018137 -0.9226341 -0.612 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| 0807 ## [582,] 1.1855890 0.79159394 1.8273791 0.1937777 -0.9226341 1.614 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| 3354 ## [583,] -1.1171896 0.79159394 1.0052620 0.9893691 -0.1137275 0.130 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| 0580 ## [584,] -1.1171896 1.51842111 0.1831449 0.9893691 0.6951791 -0.612 0807 ## [585,] -1.1171896 -0.66206039 0.1831449 0.1937777 -0.1137275 -1.354 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| 0807 ## [585,] -1.1171896 -0.66206039 |
| 2194 ## [586,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 0.130 0580 |
| 0580 |
| |
| ## [587,] -0.3495967 -1.38888755 0.1831449 -0.6018137 -1.7315407 1.614 3354 |
| ## [588,] 1.9531818 0.06476678 1.0052620 -1.3974051 -0.1137275 -0.612 0807 |
| ## [589,] -1.1171896 0.79159394 -1.4610893 -1.3974051 -0.9226341 -1.354 2194 |
| ## [590,] 1.9531818 -1.38888755 -0.6389722 -1.3974051 1.5040857 0.130 0580 |
| ## [591,] 0.4179961 -1.38888755 1.0052620 0.9893691 1.5040857 0.130 0580 |
| ## [592,] -1.1171896 0.79159394 -0.6389722 0.9893691 -0.9226341 -0.612 0807 |

| ## [593,] -1.1171896 0807 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [594,] -0.3495967 1967 | -0.66206039 | 1.0052620 | 0.1937777 | -0.1137275 | 0.872 |
| | -0.66206039 | -0.6389722 | 0.9893691 | -1.7315407 | 1.614 |
| | -1.38888755 | 1.0052620 | -1.3974051 | -0.9226341 | -1.354 |
| ## [597,] -1.1171896 0807 | 0.79159394 | 1.0052620 | -0.6018137 | -0.9226341 | -0.612 |
| ## [598,] 0.4179961 0580 | 0.79159394 | -0.6389722 | -0.6018137 | 0.6951791 | 0.130 |
| ## [599,] 1.1855890 0807 | 0.79159394 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [600,] 0.4179961 1967 | 0.79159394 | 1.0052620 | -0.6018137 | 0.6951791 | 0.872 |
| ## [601,] 0.4179961 1967 | 1.51842111 | 1.8273791 | -0.6018137 | -0.9226341 | 0.872 |
| ## [602,] -0.3495967 3354 | -1.38888755 | -1.4610893 | 0.9893691 | 1.5040857 | 1.614 |
| ## [603,] -0.3495967 0580 | 0.06476678 | -1.4610893 | 0.9893691 | 0.6951791 | 0.130 |
| ## [604,] -0.3495967 1967 | 1.51842111 | 0.1831449 | 0.9893691 | -0.9226341 | 0.872 |
| ## [605,] 1.9531818 3354 | 0.79159394 | 1.0052620 | -0.6018137 | -0.9226341 | 1.614 |
| 2194 | -1.38888755 | 0.1831449 | 0.1937777 | 0.6951791 | -1.354 |
| 0807 | -0.66206039 | -1.4610893 | -0.6018137 | -0.1137275 | -0.612 |
| ## [608,] 0.4179961 2194 | -1.38888755 | 0.1831449 | 0.1937777 | 0.6951791 | -1.354 |
| ## [609,] 1.1855890 1967 | 0.79159394 | 1.0052620 | 0.9893691 | 0.6951791 | 0.872 |
| ## [610,] -0.3495967 0580 | 1.51842111 | -0.6389722 | 0.1937777 | -0.9226341 | |
| ## [611,] -0.3495967 1967 | | | | | |
| ## [612,] -1.1171896 2194 | | | -1.3974051 | -0.9226341 | -1.354 |
| ## [613,] 0.4179961 0580 | 0.79159394 | 1.0052620 | 0.1937777 | -0.9226341 | 0.130 |
| ## [614,] -1.1171896 1967 | 1.51842111 | -0.6389722 | 0.9893691 | -0.1137275 | 0.872 |
| ## [615,] -1.1171896 2194 | | | | -0.1137275 | -1.354 |
| ## [616,] 0.4179961 3354 | | | | -0.1137275 | 1.614 |
| ## [617,] -0.3495967 2194 | -1.38888755 | 1.0052620 | 0.1937777 | 1.5040857 | -1.354 |

| ## [618,] -1.1171896 2194 | -1.38888755 | -0.6389722 | -0.6018137 | -1.7315407 | -1.354 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [619,] -1.1171896 0580 | 1.51842111 | 1.8273791 | 1.7849606 | -1.7315407 | 0.130 |
| ## [620,] -0.3495967 0807 | 0.06476678 | -0.6389722 | 0.1937777 | -0.1137275 | -0.612 |
| ## [621,] 0.4179961 0580 | 0.79159394 | -1.4610893 | -1.3974051 | -0.1137275 | 0.130 |
| ## [622,] -1.1171896 3354 | -1.38888755 | -1.4610893 | -1.3974051 | -0.9226341 | 1.614 |
| ## [623,] 1.1855890 0580 | 0.06476678 | 1.0052620 | 0.9893691 | 1.5040857 | 0.130 |
| ## [624,] 0.4179961 2194 | 1.51842111 | 1.0052620 | 0.1937777 | -0.9226341 | -1.354 |
| ## [625,] -1.1171896 2194 | 0.79159394 | -0.6389722 | -0.6018137 | 0.6951791 | -1.354 |
| ## [626,] 0.4179961 0580 | 0.79159394 | -1.4610893 | -0.6018137 | 0.6951791 | 0.130 |
| ## [627,] -1.1171896 0807 | 0.79159394 | 1.0052620 | 0.9893691 | -0.9226341 | -0.612 |
| ## [628,] -1.1171896 1967 | -1.38888755 | -0.6389722 | 0.1937777 | -0.1137275 | 0.872 |
| ## [629,] 1.9531818 0580 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |
| ## [630,] -1.1171896 0807 | 1.51842111 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| ## [631,] -0.3495967 0807 | 0.79159394 | 1.8273791 | 0.9893691 | 0.6951791 | -0.612 |
| ## [632,] -0.3495967 0580 | -0.66206039 | -0.6389722 | 0.1937777 | -0.9226341 | 0.130 |
| ## [633,] -0.3495967 0580 | 1.51842111 | -0.6389722 | -0.6018137 | -0.1137275 | 0.130 |
| ## [634,] -1.1171896 2194 | -0.66206039 | 0.1831449 | 0.1937777 | -0.9226341 | -1.354 |
| ## [635,] -0.3495967 1967 | 0.79159394 | 0.1831449 | 0.9893691 | -0.1137275 | 0.872 |
| ## [636,] -1.1171896 2194 | -0.66206039 | 1.0052620 | 0.9893691 | 0.6951791 | -1.354 |
| ## [637,] 1.1855890 3354 | 1.51842111 | 1.8273791 | 0.1937777 | 1.5040857 | 1.614 |
| ## [638,] 1.9531818 2194 | -0.66206039 | -1.4610893 | -0.6018137 | -0.9226341 | -1.354 |
| ## [639,] 1.9531818 0580 | 0.79159394 | 1.0052620 | 0.1937777 | 0.6951791 | 0.130 |
| ## [640,] 0.4179961 3354 | -1.38888755 | -0.6389722 | 1.7849606 | 1.5040857 | 1.614 |
| ## [641,] 1.9531818 2194 | 1.51842111 | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [642,] -0.3495967 0580 | 1.51842111 | 1.0052620 | 0.1937777 | -0.1137275 | 0.130 |

| L / 2 | 1.354 |
|--|-------|
| 2194 | |
| | 1.354 |
| | 0.872 |
| | 1.354 |
| | 0.130 |
| | 1.354 |
| | 0.130 |
| ## [651,] -1.1171896 0.79159394 -0.6389722 -1.3974051 -0.9226341 -2 | 1.354 |
| ## [652,] -0.3495967 0.79159394 0.1831449 0.1937777 -0.1137275 0580 | 0.130 |
| ## [653,] -1.1171896 -1.38888755 -1.4610893 -1.3974051 -0.9226341 -2194 | 1.354 |
| ## [654,] -0.3495967 -1.38888755 0.1831449 0.9893691 1.5040857 -0.0807 | 0.612 |
| ## [655,] -1.1171896 0.06476678 -0.6389722 -0.6018137 -0.9226341 -0.0807 | 0.612 |
| ## [656,] 1.1855890 0.06476678 1.0052620 -0.6018137 -0.1137275 0580 | 0.130 |
| ## [657,] 0.4179961 -0.66206039 -1.4610893 0.9893691 0.6951791 0 | 0.130 |
| | 0.612 |
| ## [659,] -1.1171896 1.51842111 -0.6389722 0.1937777 -0.9226341 0580 | 0.130 |
| ## [660,] 1.1855890 -0.66206039 -1.4610893 0.1937777 -0.1137275 3354 | 1.614 |
| | 0.130 |
| | 1.354 |
| ## [663,] -1.1171896 0.06476678 1.0052620 -1.3974051 -0.1137275 -3 | 1.354 |
| | ð.872 |
| | 0.130 |
| | 1.614 |
| | 1.614 |

| ## [668,] 0807 | 0.4179961 | 1.51842111 | 1.0052620 | 0.9893691 | -1.7315407 | -0.612 |
|-------------------|------------|-------------|------------|------------|------------|--------|
| | -1.1171896 | -0.66206039 | -0.6389722 | 0.9893691 | 1.5040857 | 1.614 |
| ## [670,] 1967 | 1.1855890 | 0.79159394 | 0.1831449 | 0.1937777 | -0.1137275 | 0.872 |
| | -1.1171896 | -0.66206039 | 0.1831449 | 0.1937777 | -0.9226341 | -0.612 |
| ## [672,] | -1.1171896 | 0.79159394 | 1.0052620 | 0.9893691 | 0.6951791 | 0.872 |
| | -0.3495967 | -1.38888755 | -1.4610893 | 0.1937777 | -0.9226341 | 0.130 |
| | -1.1171896 | 0.06476678 | -0.6389722 | 0.9893691 | 0.6951791 | 0.130 |
| 0580 ## [675,] | 0.4179961 | 0.79159394 | -1.4610893 | -1.3974051 | -0.1137275 | -1.354 |
| | -1.1171896 | -0.66206039 | -0.6389722 | -0.6018137 | -0.1137275 | -1.354 |
| | -1.1171896 | -0.66206039 | -1.4610893 | -0.6018137 | -1.7315407 | 1.614 |
| 3354 ## [678,] | 0.4179961 | 0.06476678 | 0.1831449 | -0.6018137 | -0.1137275 | -1.354 |
| 2194 ## [679,] | 1.1855890 | -1.38888755 | 1.8273791 | 0.1937777 | 0.6951791 | 0.872 |
| 1967 ## [680,] | 1.9531818 | 0.06476678 | 1.8273791 | 0.9893691 | 1.5040857 | 1.614 |
| 3354 ## [681,] | 0.4179961 | 1.51842111 | 1.8273791 | -0.6018137 | 1.5040857 | -0.612 |
| 0807 ## [682,] | 1.1855890 | 0.79159394 | 1.8273791 | 0.9893691 | -0.1137275 | 0.872 |
| 1967 ## [683,] | 1.1855890 | 0.06476678 | 1.0052620 | 0.1937777 | 0.6951791 | 0.130 |
| 0580 ## [684,] | 0.4179961 | 0.06476678 | 0.1831449 | 0.1937777 | 1.5040857 | -1.354 |
| 2194 | | 0.79159394 | -0.6389722 | -0.6018137 | -0.1137275 | -0.612 |
| 0807 | | 0.79159394 | | | 0.6951791 | -1.354 |
| 2194 | | | | 0.1937777 | | |
| 0580 | | 0.06476678 | | | | |
| 0580 | | 1.51842111 | | | | |
| 2194 | 1.9531818 | | | -1.3974051 | -0.9226341 | -1.354 |
| ## [690,] 0807 | -0.3495967 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
| ## [691,] 1967 | 0.4179961 | 0.06476678 | 0.1831449 | 0.1937777 | 0.6951791 | 0.872 |
| | -0.3495967 | 0.79159394 | -0.6389722 | 0.9893691 | 1.5040857 | 1.614 |
| | | | | | | |

| 1967 ## [694,] -1.1171896 0.79159394 0.1831449 0.1937777 -0.1137275 0.130 0580 ## [695,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 -1.354 2194 ## [696,] -0.3495967 1.51842111 0.1831449 0.9893691 0.6951791 0.872 1967 1967 1968 ## [697,] -1.1171896 0.06476678 -1.4610893 0.1937777 -0.1137275 -1.354 2194 ## [698,] 1.9531818 0.06476678 -1.4610893 -1.3974051 -0.9226341 -0.612 08807 ## [699,] -1.1171896 1.51842111 1.8273791 0.1937777 -0.9226341 -0.612 08807 ## [700,] -0.3495967 0.06476678 0.1831449 -0.6018137 -0.9226341 -1.354 2194 ## [701,] -1.1171896 0.79159394 -0.6389722 -1.3974051 -0.9226341 -1.354 2194 ## [701,] -0.3495967 -1.38888755 -1.4610893 -0.6018137 -0.1137275 -0.612 08807 ## [704,] -1.3455890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -0.1137275 0.130 0580 ## [707,] -1.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.130 0580 ## [707,] -1.3495967 0.79159394 0.1831449 -0.6018137 -0.1137275 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] 0.4179961 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [713,] -1.1171896 -1.3888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849660 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.3974051 -1.33755 0.130 0580 ## [715,] 1.1855890 -1.3888755 1.0052620 0.1937777 -0.1137275 0.612 | ## [693,] 1.1855890 | 0.79159394 | 0.1831449 | 0.9893691 | 0.6951791 | 0.872 |
|--|-------------------------------|-------------|------------|------------|------------|--------|
| ## [695,] -0.3495967 0.06476678 0.1831449 1.7849606 1.5040857 -1.354 2194 ## [696,] -0.3495967 1.51842111 0.1831449 0.9893691 0.6951791 0.872 1967 ## [697,] -1.1171896 0.06476678 -1.4610893 0.1937777 -0.1137275 -1.354 2194 ## [698,] 1.9531818 0.06476678 -1.4610893 -1.3974051 -0.9226341 -0.612 0807 ## [699,] -1.1171896 1.51842111 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [700,] -0.3495967 0.06476678 0.1831449 -0.6618137 -0.9226341 -1.354 2194 ## [701,] -1.1171896 0.79159394 -0.6389722 -1.3974051 -0.9226341 -1.354 2194 ## [702,] -1.1171896 -0.66206039 -0.6389722 0.1937777 -0.1137275 -0.612 0807 ## [703,] -0.3495967 -1.38888755 -1.4610893 -0.6018137 -0.1137275 -0.612 0807 ## [704,] 1.1855890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [707,] -1.1171896 0.79159394 1.8273791 0.9893691 0.6951791 0.130 0580 ## [707,] -1.1171896 0.79159394 0.1831449 0.6018137 0.6951791 0.130 0580 ## [709,] -1.1171896 0.79159394 0.1831449 0.6018137 0.6951791 0.130 0580 ## [709,] -1.1171896 0.79159394 0.1831449 0.6018137 0.137275 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 0.130 0580 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 0.1614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 0.1614 3354 ## [711,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 0.1614 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 0.1614 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 0.1614 0.4179961 0.66206039 0.0652620 0.6018137 0.6951791 0.1544 0.6000 ## [711,] 0.4179961 0.66206039 0.0652620 0.6018137 0.6951791 0.1364 0.6000 ## [711,] 0.4179961 0.66206039 0.0652620 0.6018137 0.6951791 0.1354 0.6000 ## [711,] 0.4179961 0.79159394 0.18273791 0.1937777 0.99226341 0.612 0.6000 ## [711,] 0.4179961 0.66206039 0.0652620 0.6018137 0.6951791 0.1364 0.6000 ## [711,] 0.4179961 0.79159394 0.8273791 0.1937777 0.99226341 0.6124 0.6000 ## [711,] 0.4179961 0.79159394 0.8273791 0.1937777 0.9126341 0.6124 0.6000 ## [711 | ## [694,] -1.1171896 | 0.79159394 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [696,] -0.3495967 | ## [695,] -0.3495967 | 0.06476678 | 0.1831449 | 1.7849606 | 1.5040857 | -1.354 |
| ## [697,] -1.1171896 | ## [696,] -0.3495967 | 1.51842111 | 0.1831449 | 0.9893691 | 0.6951791 | 0.872 |
| ## [698,] 1.9531818 0.06476678 -1.4610893 -1.3974051 -0.9226341 -0.612 0807 ## [699,] -1.1171896 1.51842111 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [700,] -0.3495967 0.06476678 0.1831449 -0.6018137 -0.9226341 -1.354 2194 ## [701,] -1.1171896 0.79159394 -0.6389722 -1.3974051 -0.9226341 -1.354 2194 ## [702,] -1.1171896 -0.66206039 -0.6389722 0.1937777 -0.1137275 -0.612 0807 ## [703,] -0.3495967 -1.38888755 -1.4610893 -0.6018137 -0.1137275 0.130 0580 ## [704,] 1.1855890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.18273791 0.1937777 -0.9226341 -0.612 0.00000000000000000000000000000000000 | ## [697 ,] -1.1171896 | 0.06476678 | -1.4610893 | 0.1937777 | -0.1137275 | -1.354 |
| ## [699,] -1.1171896 | ## [698,] 1.9531818 | 0.06476678 | -1.4610893 | -1.3974051 | -0.9226341 | -0.612 |
| ## [701,] -1.1171896 0.79159394 -0.6389722 -1.3974051 -0.9226341 -1.354 2194 ## [702,] -1.1171896 -0.66206039 -0.6389722 0.1937777 -0.1137275 -0.612 0807 ## [704,] 1.1855890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 0.130 0580 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3374051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 0.130 0580 | ## [699,] -1.1171896 | 1.51842111 | 1.8273791 | 0.1937777 | -0.9226341 | -0.612 |
| 2194 ## [702,] -1.1171896 -0.66206039 -0.6389722 0.1937777 -0.1137275 -0.612 0807 ## [703,] -0.3495967 -1.38888755 -1.4610893 -0.6018137 -0.1137275 0.130 0580 ## [704,] 1.1855890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [705,] -0.3495967 0.79159394 1.8273791 -0.6018137 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 1.614 3354 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.91137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 0.612 0807 | <u> </u> | 0.06476678 | 0.1831449 | -0.6018137 | -0.9226341 | -1.354 |
| 0807 ## [703,] -0.3495967 -1.38888755 -1.4610893 -0.6018137 -0.1137275 0.130 0580 ## [704,] 1.1855890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [705,] -0.3495967 0.79159394 1.8273791 -0.6018137 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 1.614 3354 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.872 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 <td><u> </u></td> <td>0.79159394</td> <td>-0.6389722</td> <td>-1.3974051</td> <td>-0.9226341</td> <td>-1.354</td> | <u> </u> | 0.79159394 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [704,] 1.1855890 0.06476678 1.8273791 0.1937777 -0.1137275 0.130 0580 ## [705,] -0.3495967 0.79159394 1.8273791 -0.6018137 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 1.614 3354 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | <u> </u> | -0.66206039 | -0.6389722 | 0.1937777 | -0.1137275 | -0.612 |
| ## [705,] -0.3495967 0.79159394 1.8273791 -0.6018137 0.6951791 0.130 0580 ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 1.614 3354 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 -0.9226341 -0.612 0807 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 | <u> </u> | -1.38888755 | -1.4610893 | -0.6018137 | -0.1137275 | 0.130 |
| ## [706,] 1.1855890 0.06476678 1.8273791 0.9893691 0.6951791 1.614 3354 ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | | 0.06476678 | 1.8273791 | 0.1937777 | -0.1137275 | 0.130 |
| ## [707,] -1.1171896 0.79159394 0.1831449 -0.6018137 -1.7315407 0.130 0580 ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.9226341 -0.612 0807 ## [716,] 1.9531818 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | <u> </u> | 0.79159394 | 1.8273791 | -0.6018137 | | 0.130 |
| ## [708,] -0.3495967 -0.66206039 -0.6389722 -0.6018137 -0.1137275 0.872 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | 3354 | 0.06476678 | 1.8273791 | 0.9893691 | 0.6951791 | 1.614 |
| 1967 ## [709,] -1.1171896 1.51842111 1.0052620 -1.3974051 -1.7315407 0.872 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | | 0.79159394 | 0.1831449 | -0.6018137 | -1.7315407 | 0.130 |
| 1967 ## [710,] 0.4179961 0.79159394 0.1831449 0.9893691 0.6951791 1.614 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | | -0.66206039 | -0.6389722 | -0.6018137 | -0.1137275 | 0.872 |
| 3354 ## [711,] -0.3495967 0.79159394 1.8273791 0.1937777 -0.9226341 -0.612 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | 1967 | | | | | |
| 0807 ## [712,] 0.4179961 -0.66206039 1.0052620 -0.6018137 0.6951791 -1.354 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | | 0.79159394 | 0.1831449 | 0.9893691 | 0.6951791 | 1.614 |
| 2194 ## [713,] -1.1171896 -1.38888755 -1.4610893 0.1937777 -0.9226341 -0.612 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | 0807 | | | | -0.9226341 | -0.612 |
| 0807 ## [714,] 1.9531818 0.79159394 1.8273791 1.7849606 1.5040857 1.614 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | | -0.66206039 | 1.0052620 | -0.6018137 | 0.6951791 | -1.354 |
| 3354 ## [715,] -1.1171896 0.79159394 1.8273791 -1.3974051 -0.1137275 0.130 0580 ## [716,] 1.1855890 -1.38888755 1.0052620 0.1937777 -0.1137275 -0.612 0807 | | -1.38888755 | -1.4610893 | 0.1937777 | -0.9226341 | -0.612 |
| 0580 | | 0.79159394 | 1.8273791 | 1.7849606 | 1.5040857 | 1.614 |
| 0807 | <u> </u> | 0.79159394 | 1.8273791 | -1.3974051 | -0.1137275 | 0.130 |
| ## [717] 1 1171006 0 701E0204 1 0272701 0 1027777 0 112727F 0 612 | 0807 | | | | -0.1137275 | -0.612 |
| ## [717,] -1.1171896 0.79159394 1.8273791 0.1937777 -0.1137275 -0.612 0807 | | 0.79159394 | 1.8273791 | 0.1937777 | -0.1137275 | -0.612 |

| ## [718,] -1.1171896 0580 | -1.38888755 | -1.4610893 | 0.1937777 | -0.1137275 | 0.130 |
|------------------------------|-------------|------------|------------|------------|--------|
| | -0.66206039 | 0.1831449 | 1.7849606 | -0.1137275 | 0.130 |
| ## [720,] -0.3495967 0807 | -0.66206039 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| ## [721,] -0.3495967 3354 | 0.79159394 | 1.0052620 | 1.7849606 | -0.1137275 | 1.614 |
| ## [722,] -1.1171896 1967 | -1.38888755 | -1.4610893 | 0.1937777 | -0.1137275 | 0.872 |
| ## [723,] -0.3495967 3354 | 0.79159394 | 0.1831449 | 1.7849606 | 0.6951791 | 1.614 |
| ## [724,] -1.1171896 0807 | -0.66206039 | -1.4610893 | 0.9893691 | -0.1137275 | -0.612 |
| ## [725,] -0.3495967 0807 | 0.06476678 | 0.1831449 | 0.1937777 | 0.6951791 | -0.612 |
| ## [726,] -1.1171896 1967 | 0.79159394 | -1.4610893 | 0.9893691 | -0.9226341 | 0.872 |
| ## [727,] -1.1171896 2194 | 1.51842111 | 1.8273791 | 0.1937777 | -0.9226341 | -1.354 |
| ## [728,] 0.4179961 2194 | -0.66206039 | -0.6389722 | 0.1937777 | -0.1137275 | -1.354 |
| ## [729,] -1.1171896 0580 | 1.51842111 | -0.6389722 | -0.6018137 | -0.1137275 | 0.130 |
| ## [730,] 0.4179961 1967 | 0.79159394 | 1.0052620 | 0.1937777 | 1.5040857 | 0.872 |
| ## [731,] 1.9531818 1967 | 0.06476678 | 0.1831449 | 0.9893691 | -0.9226341 | 0.872 |
| ## [732,] -0.3495967 3354 | 0.79159394 | 0.1831449 | 0.9893691 | 0.6951791 | 1.614 |
| ## [733,] -0.3495967 0807 | 0.79159394 | 0.1831449 | 0.9893691 | -0.1137275 | -0.612 |
| ## [734,] -1.1171896 0580 | -1.38888755 | 1.0052620 | 0.9893691 | 0.6951791 | 0.130 |
| ## [735,] -1.1171896 0807 | -1.38888755 | -0.6389722 | 0.1937777 | -0.1137275 | -0.612 |
| ## [736,] -1.1171896 2194 | -1.38888755 | -1.4610893 | -1.3974051 | -0.9226341 | -1.354 |
| ## [737,] 0.4179961 0807 | -0.66206039 | -0.6389722 | 0.9893691 | 1.5040857 | -0.612 |
| ## [738,] -1.1171896 1967 | -1.38888755 | -1.4610893 | 0.9893691 | 1.5040857 | 0.872 |
| ## [739,] -0.3495967 2194 | 1.51842111 | -1.4610893 | -1.3974051 | 0.6951791 | -1.354 |
| ## [740,] 0.4179961 0807 | -1.38888755 | -0.6389722 | -0.6018137 | 1.5040857 | -0.612 |
| ## [741,] -1.1171896 0580 | 1.51842111 | -0.6389722 | 0.1937777 | -0.1137275 | 0.130 |
| ## [742,] -1.1171896 1967 | -1.38888755 | -0.6389722 | 1.7849606 | 0.6951791 | 0.872 |

| ## [743,] -1.1171896 | 0.06476678 | 1.0052620 | -0.6018137 | -0.1137275 | 0.872 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [744,] 1.1855890 1967 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.872 |
| | -1.38888755 | 0.1831449 | 0.1937777 | 1.5040857 | 1.614 |
| | -1.38888755 | 0.1831449 | -0.6018137 | -0.1137275 | -0.612 |
| | -1.38888755 | -0.6389722 | 0.1937777 | 0.6951791 | 0.872 |
| ## [748,] 0.4179961 3354 | 1.51842111 | 1.0052620 | 1.7849606 | -0.9226341 | 1.614 |
| ## [749,] 1.9531818 0580 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [750,] 0.4179961 3354 | -1.38888755 | -1.4610893 | 0.1937777 | 1.5040857 | 1.614 |
| ## [751,] -1.1171896 3354 | 1.51842111 | -1.4610893 | 1.7849606 | 0.6951791 | 1.614 |
| ## [752,] 1.1855890 0580 | -1.38888755 | -0.6389722 | 0.1937777 | -0.1137275 | 0.130 |
| ## [753,] 0.4179961 0807 | 0.79159394 | -0.6389722 | 0.9893691 | -0.9226341 | -0.612 |
| ## [754,] -0.3495967 3354 | -1.38888755 | 0.1831449 | -0.6018137 | 1.5040857 | 1.614 |
| ## [755,] 0.4179961 0807 | 0.79159394 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [756,] 1.1855890 0807 | -1.38888755 | 1.0052620 | 0.9893691 | 1.5040857 | -0.612 |
| 1967 | -0.66206039 | 1.8273791 | 0.1937777 | 0.6951791 | 0.872 |
| ## [758,] -0.3495967 0807 | 1.51842111 | 1.8273791 | 1.7849606 | -0.1137275 | -0.612 |
| ## [759,] -1.1171896 0807 | 0.06476678 | -1.4610893 | -1.3974051 | -0.9226341 | -0.612 |
| ## [760,] 0.4179961 1967 | | | 0.9893691 | 1.5040857 | 0.872 |
| ## [761,] 1.1855890 1967 | -0.66206039 | 0.1831449 | -0.6018137 | 0.6951791 | 0.872 |
| ## [762,] -0.3495967 0580 | 1.51842111 | 1.8273791 | -1.3974051 | -1.7315407 | 0.130 |
| ## [763,] 0.4179961 3354 | 0.79159394 | 1.8273791 | -1.3974051 | -0.1137275 | 1.614 |
| ## [764,] 1.9531818 1967 | -1.38888755 | -1.4610893 | 0.1937777 | -0.1137275 | 0.872 |
| ## [765,] -0.3495967 0807 | | | | -0.1137275 | -0.612 |
| ## [766,] 1.9531818 1967 | | | 0.1937777 | 1.5040857 | 0.872 |
| ## [767,] 1.1855890 0580 | 0.79159394 | 1.0052620 | 0.9893691 | 1.5040857 | 0.130 |

| ## [768,] -0.3495967 1967 | -0.66206039 | -0.6389722 | 0.1937777 | 0.6951791 | 0.872 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [769,] -0.3495967 0580 | 1.51842111 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [770,] 0.4179961 0580 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [771,] -1.1171896 2194 | -1.38888755 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [772,] 1.1855890 0807 | -0.66206039 | 0.1831449 | -0.6018137 | -0.1137275 | -0.612 |
| ## [773,] -1.1171896 0807 | 0.79159394 | -1.4610893 | -1.3974051 | 0.6951791 | -0.612 |
| ## [774,] 0.4179961 1967 | 0.79159394 | 0.1831449 | 1.7849606 | 0.6951791 | 0.872 |
| ## [775,] -1.1171896 0807 | -0.66206039 | -0.6389722 | 0.1937777 | -0.1137275 | -0.612 |
| ## [776,] -0.3495967 1967 | 0.79159394 | -0.6389722 | -0.6018137 | -0.1137275 | 0.872 |
| ## [777,] -1.1171896 0807 | 0.06476678 | -1.4610893 | 0.1937777 | 1.5040857 | -0.612 |
| ## [778,] -1.1171896 0580 | 1.51842111 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [779,] -1.1171896 2194 | 0.06476678 | -0.6389722 | -1.3974051 | -0.9226341 | -1.354 |
| ## [780,] -0.3495967 1967 | 0.79159394 | -0.6389722 | 1.7849606 | -0.1137275 | 0.872 |
| ## [781,] -0.3495967 0807 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [782,] -1.1171896 2194 | | -1.4610893 | 0.9893691 | 0.6951791 | -1.354 |
| 3354 | -0.66206039 | 1.8273791 | 1.7849606 | 1.5040857 | 1.614 |
| ## [784,] -1.1171896 0807 | | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [785,] -1.1171896 0807 | | | | | |
| ## [786,] 0.4179961 0580 | | | | -0.9226341 | |
| ## [787,] -1.1171896 1967 | | | | 1.5040857 | 0.872 |
| ## [788,] -1.1171896 0580 | | | | -0.1137275 | |
| ## [789,] 0.4179961 1967 | 0.79159394 | 1.0052620 | -0.6018137 | -0.9226341 | 0.872 |
| ## [790,] -0.3495967 0580 | | | | | |
| ## [791,] 1.1855890 3354 | | | | | |
| ## [792,] -1.1171896 1967 | 0.79159394 | 0.1831449 | 1.7849606 | -0.1137275 | 0.872 |

| ## [793,] -0.3495967 2194 | 0.79159394 | 0.1831449 | 0.1937777 | -1.7315407 | -1.354 |
|--------------------------------|-------------|------------|------------|------------|--------|
| ## [794,] -0.3495967 0580 | 1.51842111 | 0.1831449 | 0.9893691 | -0.1137275 | 0.130 |
| ## [795,] -1.1171896 2194 | 1.51842111 | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| | -1.38888755 | 1.8273791 | -1.3974051 | 1.5040857 | -1.354 |
| ## [797,] 0.4179961 0580 | 0.79159394 | 1.0052620 | -0.6018137 | 0.6951791 | 0.130 |
| ## [798,] -1.1171896 0807 | 1.51842111 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
| ## [799,] 0.4179961 0580 | 0.06476678 | 0.1831449 | -0.6018137 | -0.9226341 | 0.130 |
| ## [800,] 1.1855890 - 1967 | -1.38888755 | -1.4610893 | -0.6018137 | 0.6951791 | 0.872 |
| ## [801,] 1.1855890 2194 | 0.79159394 | -1.4610893 | -1.3974051 | -0.1137275 | -1.354 |
| ## [802,] -0.3495967 - 0580 | -1.38888755 | -1.4610893 | -1.3974051 | 1.5040857 | 0.130 |
| ## [803,] 0.4179961 0580 | 1.51842111 | 0.1831449 | -1.3974051 | -0.1137275 | 0.130 |
| 0807 | -1.38888755 | -1.4610893 | -0.6018137 | -0.1137275 | -0.612 |
| ## [805,] 1.1855890 0807 | 0.79159394 | 1.0052620 | 0.9893691 | 0.6951791 | -0.612 |
| ## [806,] 1.9531818 1967 | 0.06476678 | 1.0052620 | -0.6018137 | 1.5040857 | 0.872 |
| ## [807,] -1.1171896 - 2194 | | -1.4610893 | -1.3974051 | -1.7315407 | -1.354 |
| ## [808,] -0.3495967 - 2194 | | -1.4610893 | -1.3974051 | -0.1137275 | -1.354 |
| 0807 | 0.06476678 | -0.6389722 | -1.3974051 | -0.9226341 | -0.612 |
| ## [810,] -1.1171896 2194 | | | | | |
| ## [811,] 0.4179961 - | | | | | 0.872 |
| ## [812,] 1.1855890 1967 | | -0.6389722 | | 0.6951791 | |
| ## [813,] -1.1171896 - 2194 | | | | | |
| ## [814,] -1.1171896 - 2194 | | -1.4610893 | | | |
| ## [815,] 0.4179961 2194 | | 1.0052620 | | -0.9226341 | |
| ## [816,] 0.4179961 0807 | | 1.0052620 | 0.9893691 | | |
| ## [817,] 1.9531818 3354 | 0.79159394 | 1.0052620 | 1.7849606 | 1.5040857 | 1.614 |

| ## [818,] -0.3495967 1.51842111 1.0052 2194 | 2620 0.9893691 1.5040857 -1.354 |
|--|-----------------------------------|
| ## [819,] 0.4179961 -0.66206039 -1.4610 0580 | 0893 -1.3974051 -0.1137275 0.130 |
| ## [820,] -0.3495967 0.06476678 -0.6389 0807 | 9722 -1.3974051 -1.7315407 -0.612 |
| ## [821,] -0.3495967 0.79159394 1.0052 | 2620 0.9893691 0.6951791 1.614 |
| ## [822,] 1.9531818 -1.38888755 0.1831 3354 | 1449 0.9893691 1.5040857 1.614 |
| ## [823,] 0.4179961 1.51842111 1.0052 0580 | 2620 0.1937777 -0.1137275 0.130 |
| ## [824,] -1.1171896 1.51842111 -0.6389 0580 | 9722 -0.6018137 -1.7315407 0.130 |
| ## [825,] -0.3495967 -1.38888755 0.1831 0580 | 1449 -0.6018137 1.5040857 0.130 |
| ## [826,] -0.3495967 -1.38888755 -0.6389 1967 | 9722 -0.6018137 -0.9226341 0.872 |
| ## [827,] 0.4179961 0.06476678 0.1831 0580 | 1449 1.7849606 1.5040857 0.130 |
| ## [828,] 0.4179961 -0.66206039 1.0052 3354 | 2620 0.1937777 1.5040857 1.614 |
| ## [829,] 1.1855890 1.51842111 -0.6389 0580 | 9722 -1.3974051 -0.1137275 0.130 |
| ## [830,] 1.1855890 0.06476678 -0.6389 1967 | 9722 0.9893691 0.6951791 0.872 |
| ## [831,] -1.1171896 1.51842111 1.0052 0580 | 2620 0.9893691 -0.1137275 0.130 |
| ## [832,] 1.1855890 1.51842111 1.0052 0580 | 2620 0.9893691 1.5040857 0.130 |
| ## [833,] 1.1855890 -1.38888755 1.0052 0580 | 2620 0.9893691 1.5040857 0.130 |
| ## [834,] -1.1171896 -1.38888755 -1.4610 3354 | |
| ## [835,] -0.3495967 -0.66206039 -0.6389 0807 | 9722 -0.6018137 -0.1137275 -0.612 |
| ## [836,] -1.1171896 -1.38888755 1.0052 0580 | 2620 0.1937777 -0.1137275 0.130 |
| ## [837,] 1.9531818 0.79159394 0.1831 0580 | 1449 1.7849606 0.6951791 0.130 |
| ## [838,] 1.1855890 -0.66206039 1.0052 1967 | 2620 1.7849606 1.5040857 0.872 |
| ## [839,] -1.1171896 0.79159394 1.8273 1967 | 3791 0.1937777 0.6951791 0.872 |
| ## [840,] -0.3495967 0.06476678 0.1831 1967 | 1449 0.1937777 0.6951791 0.872 |
| ## [841,] -1.1171896 0.79159394 0.1831 0807 | 1449 0.1937777 -0.9226341 -0.612 |
| ## [842,] 1.1855890 1.51842111 -0.6389 0580 | 9722 -0.6018137 -0.9226341 0.130 |

| ## [843,] 1.1855890 -3 | 1.38888755 | 0.1831449 | -0.6018137 | -0.9226341 | 1.614 |
|---------------------------------|------------|------------|------------|------------|--------|
| | 1.51842111 | 0.1831449 | -0.6018137 | -0.9226341 | -1.354 |
| ## [845,] 0.4179961 -6 | 0.66206039 | 0.1831449 | 1.7849606 | 0.6951791 | 0.872 |
| ## [846,] -1.1171896 6 | 0.79159394 | -0.6389722 | -0.6018137 | -1.7315407 | -1.354 |
| ## [847,] -1.1171896 0 | 0.79159394 | -0.6389722 | 0.9893691 | -0.9226341 | -0.612 |
| ## [848,] -0.3495967 -1 3354 | 1.38888755 | 1.0052620 | 0.9893691 | 1.5040857 | 1.614 |
| ## [849,] 1.1855890 -3 3354 | 1.38888755 | 1.0052620 | -0.6018137 | -0.1137275 | 1.614 |
| ## [850,] -1.1171896 -2 2194 | | -0.6389722 | 0.9893691 | -0.9226341 | -1.354 |
| 2194 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | -1.354 |
| 0807 | 1.51842111 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| 0807 | 1.51842111 | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| ## [854,] -1.1171896 -6 | | 0.1831449 | -0.6018137 | -0.9226341 | -0.612 |
| 0807 | 1.51842111 | 0.1831449 | 0.1937777 | -0.9226341 | -0.612 |
| 0807 | 1.51842111 | 1.0052620 | -0.6018137 | -0.1137275 | -0.612 |
| 0807 | 0.06476678 | 0.1831449 | 1.7849606 | -0.1137275 | -0.612 |
| ## [858,] -0.3495967 -6 | | 0.1831449 | 0.1937777 | -0.1137275 | 0.872 |
| ## [859,] -1.1171896 -3 | | 1.8273791 | 1.7849606 | 1.5040857 | 0.130 |
| ## [860,] -0.3495967 3 | | | | | |
| ## [861,] 0.4179961 6 0580 | | | | -1.7315407 | 0.130 |
| ## [862,] -0.3495967 -3 | | | | -0.1137275 | 0.872 |
| ## [863,] -1.1171896 @ 0580 | | | 0.9893691 | | 0.130 |
| ## [864,] -1.1171896 -6 | | | | -0.1137275 | |
| ## [865,] 1.1855890 6 | | | | 0.6951791 | 0.872 |
| ## [866,] 0.4179961 6 | | | | | |
| ## [867,] 1.1855890 6 1967 | 0.064/66/8 | 1.0052620 | -0.601813/ | 0.6951/91 | 0.872 |

| ## [868,] -1.1171896 0580 | -1.38888755 | 0.1831449 | -1.3974051 | -0.1137275 | 0.130 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [869,] -0.3495967 2194 | 1.51842111 | -0.6389722 | -0.6018137 | -0.1137275 | -1.354 |
| | -0.66206039 | -1.4610893 | 0.1937777 | 1.5040857 | 1.614 |
| ## [871,] -0.3495967 0807 | 0.06476678 | -1.4610893 | -1.3974051 | -1.7315407 | -0.612 |
| ## [872,] -0.3495967 1967 | -0.66206039 | 0.1831449 | 0.9893691 | 1.5040857 | 0.872 |
| ## [873,] -0.3495967 3354 | -0.66206039 | -0.6389722 | 0.1937777 | -0.9226341 | 1.614 |
| ## [874,] -1.1171896 0580 | 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 0.130 |
| ## [875,] -0.3495967 0807 | 0.06476678 | -0.6389722 | -0.6018137 | -0.9226341 | -0.612 |
| ## [876,] -1.1171896 0580 | 0.79159394 | -1.4610893 | -1.3974051 | -1.7315407 | 0.130 |
| ## [877,] -1.1171896 2194 | 1.51842111 | 1.8273791 | 0.9893691 | 0.6951791 | -1.354 |
| ## [878,] 1.1855890 3354 | 0.06476678 | 0.1831449 | 0.9893691 | 1.5040857 | 1.614 |
| ## [879,] -0.3495967 0580 | 1.51842111 | 1.0052620 | 0.9893691 | 0.6951791 | 0.130 |
| 1967 | -0.66206039 | -1.4610893 | -0.6018137 | 0.6951791 | 0.872 |
| ## [881,] 0.4179961 2194 | 0.79159394 | -0.6389722 | -0.6018137 | -0.9226341 | -1.354 |
| 3354 | -1.38888755 | -1.4610893 | 0.9893691 | 1.5040857 | 1.614 |
| ## [883,] 1.9531818 0807 | 0.06476678 | -0.6389722 | -0.6018137 | -0.1137275 | -0.612 |
| ## [884,] -1.1171896 0580 | | 0.1831449 | 0.9893691 | -0.1137275 | 0.130 |
| ## [885,] 1.1855890 3354 | | | | | |
| ## [886,] -1.1171896 2194 | | | | | |
| ## [887,] 1.1855890 1967 | | | | | |
| ## [888,] -0.3495967 0807 | | | | | |
| ## [889,] -0.3495967 0807 | | | | | |
| ## [890,] -0.3495967 1967 | | | | | |
| ## [891,] -1.1171896 2194 | | | | | |
| ## [892,] -0.3495967 0807 | -0.66206039 | 1.0052620 | -1.3974051 | -0.1137275 | -0.612 |

| ## [893,] -0.3495967 2194 | 0.06476678 | -0.6389722 | -0.6018137 | -0.1137275 | -1.354 |
|------------------------------|-------------|------------|------------|------------|--------|
| ## [894,] -0.3495967 0807 | 0.79159394 | 0.1831449 | -0.6018137 | -0.1137275 | -0.612 |
| ## [895,] -0.3495967 0807 | -0.66206039 | 1.0052620 | 0.1937777 | 0.6951791 | -0.612 |
| ## [896,] -1.1171896 2194 | 0.79159394 | 0.1831449 | 0.1937777 | -0.9226341 | -1.354 |
| ## [897,] 0.4179961 1967 | -1.38888755 | -0.6389722 | 0.9893691 | 0.6951791 | 0.872 |
| ## [898,] -0.3495967 1967 | 0.06476678 | -0.6389722 | 0.1937777 | -0.9226341 | 0.872 |
| | -1.38888755 | 0.1831449 | 1.7849606 | 1.5040857 | 1.614 |
| ## [900,] -0.3495967 0580 | 1.51842111 | 0.1831449 | 0.1937777 | -1.7315407 | 0.130 |
| ## [901,] -1.1171896 2194 | -0.66206039 | 1.0052620 | 0.9893691 | -0.9226341 | -1.354 |
| ## [902,] -0.3495967 0807 | -1.38888755 | -0.6389722 | 0.1937777 | -0.1137275 | -0.612 |
| ## [903,] 0.4179961 0807 | 1.51842111 | 1.0052620 | 0.1937777 | -0.1137275 | -0.612 |
| ## [904,] 1.1855890 1967 | -0.66206039 | 0.1831449 | 1.7849606 | 0.6951791 | 0.872 |
| ## [905,] -1.1171896 2194 | -0.66206039 | -0.6389722 | -0.6018137 | -0.1137275 | -1.354 |
| ## [906,] 0.4179961 0807 | 1.51842111 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| ## [907,] -1.1171896 3354 | -0.66206039 | 0.1831449 | 0.9893691 | -0.1137275 | 1.614 |
| ## [908,] 0.4179961 2194 | 0.06476678 | 0.1831449 | -0.6018137 | -0.9226341 | -1.354 |
| ## [909,] 0.4179961 0807 | | -0.6389722 | 0.1937777 | -0.9226341 | -0.612 |
| ## [910,] 0.4179961 0580 | 0.79159394 | 1.0052620 | -0.6018137 | 1.5040857 | 0.130 |
| ## [911,] -1.1171896 3354 | 0.79159394 | 1.0052620 | 1.7849606 | 1.5040857 | 1.614 |
| ## [912,] 1.1855890 3354 | -1.38888755 | -1.4610893 | 0.1937777 | 0.6951791 | 1.614 |
| ## [913,] 1.1855890 0807 | 0.06476678 | 0.1831449 | -0.6018137 | 0.6951791 | -0.612 |
| ## [914,] 0.4179961 1967 | -1.38888755 | -0.6389722 | 0.9893691 | 0.6951791 | 0.872 |
| ## [915,] 1.1855890 3354 | -0.66206039 | 0.1831449 | 0.9893691 | 1.5040857 | 1.614 |
| ## [916,] -1.1171896 0580 | | | | | 0.130 |
| ## [917,] 1.1855890 1967 | -1.38888755 | 0.1831449 | 0.1937777 | 1.5040857 | 0.872 |

| ## [918,] 1.185589 1967 | 0 -0.66206039 | -0.6389722 | -0.6018137 | 0.6951791 | 0.872 |
|-----------------------------|---------------|------------|------------|------------|--------|
| ## [919,] 1.953181 0807 | 8 0.06476678 | 1.0052620 | -0.6018137 | 0.6951791 | -0.612 |
| ## [920,] 0.417996 3354 | 1 0.06476678 | 0.1831449 | 0.1937777 | -0.1137275 | 1.614 |
| | 1 -0.66206039 | 0.1831449 | 0.1937777 | 1.5040857 | -1.354 |
| ## [922,] 0.417996 0580 | 1 0.79159394 | -0.6389722 | 0.1937777 | -0.9226341 | 0.130 |
| ## [923,] -1.117189 2194 | 6 0.79159394 | 0.1831449 | -0.6018137 | -1.7315407 | -1.354 |
| ## [924,] 1.953181 3354 | | -1.4610893 | 0.9893691 | 1.5040857 | 1.614 |
| ## [925,] -1.117189 2194 | | -0.6389722 | -1.3974051 | -1.7315407 | -1.354 |
| ## [926,] -1.117189 0807 | | 1.8273791 | 0.9893691 | -0.1137275 | -0.612 |
| 3354 | 1 -1.38888755 | -0.6389722 | -0.6018137 | -0.9226341 | 1.614 |
| ## [928,] -0.349596 0580 | | 1.0052620 | -1.3974051 | -0.9226341 | 0.130 |
| ## [929,] -0.349596 0580 | | 1.0052620 | -0.6018137 | 0.6951791 | 0.130 |
| 3354 | 0 -0.66206039 | 1.8273791 | -0.6018137 | -0.1137275 | 1.614 |
| ## [931,] 0.417996 2194 | | 0.1831449 | -1.3974051 | -1.7315407 | -1.354 |
| 2194 | 1 -0.66206039 | 0.1831449 | -0.6018137 | -0.1137275 | -1.354 |
| ## [933,] -1.117189 2194 | | 0.1831449 | -0.6018137 | -0.9226341 | -1.354 |
| 1967 | 1 -1.38888755 | 1.0052620 | 1.7849606 | 1.5040857 | 0.872 |
| ## [935,] 1.185589 0580 | | | | | |
| ## [936,] -1.117189 2194 | | | | | |
| ## [937,] 1.185589 0807 | | | | | |
| ## [938,] 1.953181 3354 | | | | | |
| ## [939,] 1.185589 3354 | | | | | |
| ## [940,] -0.349596 0580 | | | | 0.6951791 | |
| ## [941,] -1.117189 0807 | | | | -0.9226341 | |
| ## [942,] 0.417996 1967 | 1 0./9159394 | 1.82/3/91 | 0.9893691 | 0.6951791 | 0.872 |

| ## [943,] - 0580 | 0.3495967 | -1.38888755 | 0.1831449 | 1.7849606 | -0.1137275 | 0.130 |
|---------------------|-----------|-------------|------------|------------|------------|--------|
| | 1.1855890 | 0.79159394 | 1.0052620 | 0.9893691 | -0.1137275 | 0.130 |
| | 1.1171896 | -0.66206039 | -1.4610893 | 0.1937777 | -0.1137275 | -0.612 |
| ## [946,] | 1.1855890 | 1.51842111 | 1.0052620 | -0.6018137 | 0.6951791 | 0.130 |
| L / J | 1.9531818 | -0.66206039 | -1.4610893 | 0.9893691 | 1.5040857 | 0.872 |
| | 0.3495967 | 0.79159394 | 0.1831449 | -0.6018137 | -1.7315407 | -0.612 |
| 0807 ## [949,] - | 1.1171896 | -0.66206039 | 0.1831449 | -0.6018137 | -0.1137275 | -0.612 |
| 0807 ## [950,] | 0.4179961 | -0.66206039 | 0.1831449 | 0.1937777 | -0.1137275 | -0.612 |
| 0807 ## [951,] | 1.9531818 | 0.79159394 | 1.0052620 | 0.1937777 | 0.6951791 | -0.612 |
| 0807 | 0.3495967 | 0.79159394 | 1.8273791 | 0.1937777 | 1.5040857 | 0.872 |
| 1967 | | -1.38888755 | 0.1831449 | 0.1937777 | -0.1137275 | 0.872 |
| 1967 | | | | | | |
| 0580 | 1.1855890 | 0.79159394 | 1.0052620 | 0.9893691 | 0.6951791 | 0.130 |
| ## [955,] - 0807 | 0.3495967 | 0.79159394 | 1.0052620 | 0.1937777 | -0.1137275 | -0.612 |
| ## [956,] 2194 | 1.9531818 | -1.38888755 | 0.1831449 | -1.3974051 | -0.1137275 | -1.354 |
| ## [957,] 2194 | 0.4179961 | 0.06476678 | 0.1831449 | 0.9893691 | 0.6951791 | -1.354 |
| | 1.1171896 | 1.51842111 | -1.4610893 | -0.6018137 | -1.7315407 | -1.354 |
| ## [959,] - | 1.1171896 | 0.06476678 | -0.6389722 | -0.6018137 | -0.9226341 | 0.130 |
| | 1.1855890 | -0.66206039 | 1.8273791 | 0.9893691 | 1.5040857 | 0.872 |
| | 1.9531818 | 0.06476678 | 0.1831449 | 1.7849606 | -0.9226341 | 1.614 |
| 3354 ## [962,] - | 1.1171896 | 1.51842111 | 1.0052620 | 0.1937777 | -0.9226341 | 0.130 |
| 0580 ## [963,] - | 1.1171896 | -1.38888755 | -1.4610893 | 0.9893691 | -1.7315407 | -1.354 |
| 2194 ## [964,] - | 1.1171896 | 0.06476678 | -1.4610893 | 0.9893691 | -1.7315407 | -1.354 |
| 2194 | | 0.06476678 | | | 0.6951791 | |
| 3354 | | -1.38888755 | | | | |
| 0807 | | | | | | |
| ## [967,] - 3354 | 1.11/1896 | -1.38888755 | 0.1831449 | 0.9893691 | -1.7315407 | 1.614 |
| | | | | | | |

| ## [969,] -1.1171896 |
|--|
| ## [970,] 0.4179961 -0.66206039 -0.6389722 0.1937777 0.6951791 0.130 0580 ## [971,] -1.1171896 0.79159394 -0.6389722 1.7849606 0.6951791 0.872 1967 ## [972,] 1.1855890 -1.38888755 1.0052620 0.1937777 0.6951791 0.130 0580 ## [973,] 1.1855890 -1.38888755 0.1831449 0.1937777 1.5040857 1.614 3354 ## [974,] 1.9531818 -1.38888755 1.0052620 1.7849606 -0.9226341 0.130 0580 ## [975,] 1.9531818 -1.38888755 1.8273791 0.1937777 0.6951791 0.872 1967 ## [976,] 3.9531818 1.51842111 1.8273791 1.7849606 1.5040857 1.614 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| ## [971,] -1.1171896 0.79159394 -0.6389722 1.7849606 0.6951791 0.872 1967 ## [972,] 1.1855890 -1.38888755 1.0052620 0.1937777 0.6951791 0.130 0580 ## [973,] 1.1855890 -1.38888755 0.1831449 0.1937777 1.5040857 1.614 3354 ## [974,] 1.9531818 -1.38888755 1.0052620 1.7849606 -0.9226341 0.130 0580 ## [975,] 1.9531818 -1.38888755 1.8273791 0.1937777 0.6951791 0.872 1967 ## [976,] 1.9531818 1.51842111 1.8273791 1.7849606 1.5040857 1.614 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| ## [972,] 1.1855890 -1.38888755 1.0052620 0.1937777 0.6951791 0.130 0580 ## [973,] 1.1855890 -1.38888755 0.1831449 0.1937777 1.5040857 1.614 3354 ## [974,] 1.9531818 -1.38888755 1.0052620 1.7849606 -0.9226341 0.130 0580 ## [975,] 1.9531818 -1.38888755 1.8273791 0.1937777 0.6951791 0.872 1967 ## [976,] 1.9531818 1.51842111 1.8273791 1.7849606 1.5040857 1.614 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| ## [973,] 1.1855890 -1.38888755 0.1831449 0.1937777 1.5040857 1.614 3354 ## [974,] 1.9531818 -1.38888755 1.0052620 1.7849606 -0.9226341 0.130 0580 ## [975,] 1.9531818 -1.38888755 1.8273791 0.1937777 0.6951791 0.872 1967 ## [976,] 1.9531818 1.51842111 1.8273791 1.7849606 1.5040857 1.614 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| ## [974,] 1.9531818 -1.38888755 1.0052620 1.7849606 -0.9226341 0.130 0580 ## [975,] 1.9531818 -1.38888755 1.8273791 0.1937777 0.6951791 0.872 1967 ## [976,] 1.9531818 1.51842111 1.8273791 1.7849606 1.5040857 1.614 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| 1967 ## [976,] 1.9531818 1.51842111 1.8273791 1.7849606 1.5040857 1.614 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| 3354 ## [977,] -0.3495967 0.06476678 1.0052620 0.9893691 0.6951791 -0.612 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| 0807 ## [978,] -0.3495967 0.79159394 -0.6389722 -1.3974051 -0.9226341 0.130 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| 0580 ## [979,] 0.4179961 -0.66206039 0.1831449 1.7849606 1.5040857 0.130 |
| |
| |
| ## [980,] -1.1171896 0.06476678 -0.6389722 0.9893691 0.6951791 -1.354 2194 |
| ## [981,] -0.3495967 -1.38888755 0.1831449 1.7849606 0.6951791 -1.354 2194 |
| ## [982,] -1.1171896 -1.38888755 -0.6389722 0.1937777 0.6951791 1.614 3354 |
| ## [983,] -0.3495967 -0.66206039 1.0052620 0.1937777 0.6951791 1.614 3354 |
| ## [984,] -1.1171896 0.79159394 1.0052620 -0.6018137 -0.1137275 0.130 0580 |
| ## [985,] 0.4179961 -1.38888755 -0.6389722 -1.3974051 0.6951791 0.130 0580 |
| ## [986,] 0.4179961 -1.38888755 1.0052620 -0.6018137 -0.1137275 1.614 3354 |
| ## [987,] 1.1855890 0.06476678 0.1831449 0.9893691 0.6951791 0.872 1967 |
| ## [988,] -0.3495967 -1.38888755 0.1831449 0.1937777 -0.1137275 0.872 1967 |
| ## [989,] 1.1855890 0.06476678 1.8273791 1.7849606 1.5040857 1.614 3354 |
| ## [990,] -1.1171896 1.51842111 -0.6389722 0.1937777 -0.1137275 0.130 0580 |
| ## [991,] -1.1171896 -1.38888755 -1.4610893 -0.6018137 -0.1137275 -1.354 2194 |
| ## [992,] 1.1855890 1.51842111 -0.6389722 -1.3974051 0.6951791 -0.612 0807 |

```
## [993,] 0.4179961 -0.66206039 0.1831449 -0.6018137 -1.7315407 -1.354
2194
## [994,] -1.1171896 0.79159394 -1.4610893 -1.3974051 -1.7315407
                                                                  0.872
1967
                                            0.1937777 1.5040857
## [995,] 1.1855890 -0.66206039 1.0052620
                                                                  0.130
0580
## [996,] 0.4179961 0.06476678 -0.6389722 -1.3974051 -1.7315407 -0.612
0807
## [997,] -1.1171896 0.79159394 1.0052620 -0.6018137 -0.1137275
                                                                  0.130
0580
## [998,] 1.1855890 -0.66206039 1.0052620 -1.3974051 -1.7315407 -0.612
0807
## [999,] 1.1855890 0.06476678 -0.6389722 -1.3974051 1.5040857
                                                                  0.130
0580
## [1000,] -1.1171896 1.51842111
                                1.8273791
                                           1.7849606
                                                      1.5040857
                                                                  1.614
## [1001,] -1.1171896    1.51842111    0.1831449    -0.6018137    -0.1137275
                                                                  0.130
0580
## [1002,] 1.1855890 0.79159394
                                0.1831449 -1.3974051
                                                       0.6951791 -1.354
2194
## [1003,] 0.4179961 -1.38888755 1.0052620 -0.6018137 -0.9226341
                                                                  0.872
1967
## [1004,] 0.4179961 -0.66206039 1.0052620 0.9893691
                                                      0.6951791 -0.612
0807
## [1005,] 0.4179961 1.51842111 1.0052620 -0.6018137 -0.1137275 -0.612
0807
## [1006,] -0.3495967 0.79159394 -1.4610893 1.7849606
                                                      0.6951791
                                                                  0.872
1967
## [1007,] 1.1855890 -1.38888755 -1.4610893 -0.6018137 -0.1137275 -1.354
2194
## [1008,] -0.3495967  0.06476678  0.1831449  -0.6018137  -0.9226341
                                                                  1.614
3354
## [1009,] -1.1171896 -0.66206039 -0.6389722 0.1937777 -0.9226341
                                                                  1.614
0807
##
             Latino Techno..Trance
                                      Opera
##
     [1,] -1.3844812
                       -1.0139085 -0.9616259
##
     [2,] -0.6322886
                       -1.0139085 -0.9616259
##
     [3,] 1.6242891
                       -1.0139085 0.7274909
##
     [4,] -1.3844812
                       -0.2592677 -0.9616259
##
     [5,] 0.8720965
                       -0.2592677 -0.1170675
##
     [6,] 0.1199040
                       -1.0139085 0.7274909
##
     [7,] 0.1199040
                        2.0046548 -0.1170675
##
                        0.4953731 -0.1170675
     [8,] -0.6322886
##
     [9,] -1.3844812
                       -1.0139085 -0.9616259
##
    [10,] 1.6242891
                       -1.0139085 -0.1170675
##
    [11,] 0.1199040
                        1.2500140 -0.1170675
##
    [12,] -0.6322886
                       -1.0139085 -0.1170675
    [13,] -0.6322886
                       -1.0139085 -0.1170675
```

```
[14,] 0.1199040
                           -1.0139085 -0.9616259
##
##
     [15,] -1.3844812
                           -1.0139085 -0.9616259
##
     [16,] -0.6322886
                           -1.0139085 -0.1170675
##
     [17,] -1.3844812
                            1.2500140 -0.9616259
##
     [18,] -0.6322886
                           -1.0139085
                                       0.7274909
##
     [19,]
            0.8720965
                            1.2500140
                                        0.7274909
##
     [20,]
            0.8720965
                            0.4953731 -0.1170675
##
     [21,]
            0.1199040
                            0.4953731
                                       1.5720492
##
     [22,] -0.6322886
                           -1.0139085 -0.1170675
##
     [23,]
                            0.4953731 -0.1170675
            0.1199040
##
     [24,]
                           -1.0139085 -0.9616259
            0.8720965
##
     [25,] -0.6322886
                            0.4953731 1.5720492
##
                           -0.2592677 -0.9616259
     [26,]
            0.8720965
##
     [27,]
            1.6242891
                           -0.2592677 -0.1170675
##
                            1.2500140 -0.1170675
     [28,]
            0.1199040
##
     [29,] -0.6322886
                            0.4953731 -0.9616259
##
     [30,]
            0.8720965
                            0.4953731 -0.1170675
##
     [31,]
            0.1199040
                            0.4953731 0.7274909
##
     [32,]
            1.6242891
                           -1.0139085 -0.1170675
##
                            0.4953731 -0.9616259
     [33,] -0.6322886
##
     [34,] -0.6322886
                           -1.0139085 2.4166076
##
     [35,] -0.6322886
                           -1.0139085 -0.9616259
##
     [36,] 1.6242891
                           -1.0139085 -0.9616259
##
     [37,] -1.3844812
                           -1.0139085
                                       1.5720492
##
     [38,] -1.3844812
                           -1.0139085 -0.9616259
##
     [39,]
           0.1199040
                            1.2500140
                                        1.5720492
                           -0.2592677 -0.1170675
##
     [40,] -1.3844812
##
     [41,] -0.6322886
                            0.4953731 -0.9616259
##
     [42,]
            1.6242891
                            2.0046548 -0.9616259
##
            0.1199040
                            0.4953731 -0.9616259
     [43,]
##
     [44,]
            0.1199040
                            0.4953731 -0.9616259
##
                            1.2500140 0.7274909
     [45,]
            1.6242891
##
     [46,]
            0.8720965
                            0.4953731
                                        1.5720492
##
     [47,]
            1.6242891
                           -0.2592677 -0.1170675
##
     [48,]
            0.1199040
                           -0.2592677 0.7274909
##
     [49,]
                           -0.2592677 -0.9616259
            0.8720965
                           -0.2592677 -0.9616259
##
     [50,] -1.3844812
##
                           -1.0139085 -0.1170675
     [51,]
            1.6242891
##
     [52,]
            1.6242891
                            0.4953731 -0.1170675
##
     [53,]
            1.6242891
                           -0.2592677
                                        2.4166076
##
     [54,]
            1.6242891
                           -0.2592677
                                        2.4166076
##
     [55,]
            1.6242891
                            1.2500140
                                        2.4166076
##
     [56,]
            0.8720965
                            2.0046548
                                        0.7274909
##
     [57,] -1.3844812
                           -1.0139085
                                        1.5720492
##
     [58,] -1.3844812
                           -1.0139085 -0.1170675
##
     [59,]
            0.1199040
                            0.4953731 -0.9616259
##
     [60,] -1.3844812
                            1.2500140
                                        0.7274909
##
     [61,] -0.6322886
                           -1.0139085
                                        0.7274909
##
     [62,]
            0.8720965
                            1.2500140
                                        0.7274909
##
     [63,] 0.8720965
                            2.0046548 2.4166076
```

```
[64,]
##
            0.1199040
                             2.0046548 -0.9616259
##
     [65,]
            0.1199040
                           -0.2592677 -0.1170675
##
     [66,] -0.6322886
                             1.2500140 -0.1170675
##
     [67,]
                            2.0046548 -0.9616259
            0.8720965
##
     [68,]
            1.6242891
                           -1.0139085 -0.9616259
##
     [69,] -0.6322886
                            1.2500140 -0.1170675
##
     [70,]
            0.8720965
                           -1.0139085 -0.1170675
##
     [71,] -0.6322886
                            0.4953731 -0.9616259
##
     [72,] -1.3844812
                            0.4953731 -0.9616259
##
     [73,]
                           -1.0139085 -0.9616259
            1.6242891
##
     [74,]
                            0.4953731 -0.9616259
            0.8720965
##
     [75,] -1.3844812
                           -0.2592677
                                       1.5720492
##
     [76,]
                           -1.0139085 -0.1170675
            0.8720965
##
     [77,] -1.3844812
                           -1.0139085 -0.9616259
##
     [78,]
            1.6242891
                            2.0046548 -0.9616259
##
     [79,]
            1.6242891
                            1.2500140 -0.1170675
##
     [80,]
            0.8720965
                            1.2500140
                                        1.5720492
##
     [81,]
            1.6242891
                            0.4953731 -0.1170675
##
     [82,]
            1.6242891
                            0.4953731
                                        0.7274909
##
     [83,] -1.3844812
                           -1.0139085
                                        0.7274909
##
     [84,]
            1.6242891
                            2.0046548
                                        0.7274909
##
     [85,]
            0.1199040
                           -1.0139085
                                        2.4166076
##
     [86,] -0.6322886
                            1.2500140
                                        0.7274909
##
     [87,] -0.6322886
                            0.4953731
                                        0.7274909
##
     [88,]
            1.6242891
                           -0.2592677 -0.9616259
##
     [89,]
            1.6242891
                            2.0046548 -0.9616259
##
     [90,] -0.6322886
                           -1.0139085
                                       0.7274909
##
     [91,] -1.3844812
                           -1.0139085 -0.9616259
##
     [92,] -1.3844812
                           -1.0139085 -0.9616259
##
           0.1199040
     [93,]
                           -1.0139085
                                        1.5720492
##
     [94,] -1.3844812
                           -1.0139085
                                        1.5720492
##
     [95,] -1.3844812
                            1.2500140 -0.9616259
##
     [96,]
            0.1199040
                           -0.2592677 -0.1170675
##
     [97,] -1.3844812
                            1.2500140 -0.9616259
##
     [98,] -1.3844812
                           -0.2592677 -0.9616259
##
     [99,]
                            0.4953731 -0.9616259
            1.6242891
##
    [100,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [101,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [102,] -1.3844812
                           -1.0139085 -0.1170675
##
    [103,] -0.6322886
                           -1.0139085
                                        1.5720492
##
    [104,]
                            1.2500140
                                       1.5720492
            1.6242891
##
    [105.]
            0.1199040
                            0.4953731 -0.1170675
##
    [106,] -1.3844812
                           -1.0139085 -0.1170675
##
    [107,]
            1.6242891
                            0.4953731
                                       1.5720492
##
    [108,] -0.6322886
                           -1.0139085 -0.9616259
##
    [109,] -0.6322886
                           -0.2592677
                                       0.7274909
##
    [110,]
            0.1199040
                           -1.0139085
                                        1.5720492
##
    \lceil 111, \rceil
            0.8720965
                            1.2500140 -0.9616259
##
    [112,] -0.6322886
                            1.2500140
                                        1.5720492
   [113,] 1.6242891
                            1.2500140 -0.9616259
```

```
##
    [114,] -0.6322886
                            2.0046548 -0.9616259
##
    [115,] -1.3844812
                           -1.0139085 1.5720492
##
                            0.4953731 -0.1170675
    [116,]
            1.6242891
##
    [117,] -0.6322886
                           -1.0139085 -0.9616259
##
    [118,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [119,] -0.6322886
                           -1.0139085 -0.9616259
##
    [120,] -0.6322886
                            0.4953731 -0.1170675
##
    [121,]
            0.8720965
                            0.4953731 -0.1170675
##
    [122,] -1.3844812
                            0.4953731 -0.9616259
    [123,]
##
            0.1199040
                           -1.0139085
                                       0.7274909
##
    [124,]
            0.1199040
                           -1.0139085
                                       0.7274909
##
    [125,]
            0.1199040
                           -1.0139085
                                       0.7274909
##
            0.1199040
                           -0.2592677 -0.1170675
    [126,]
##
    [127,] -1.3844812
                           -1.0139085 -0.9616259
##
    [128,] -0.6322886
                            0.4953731 0.7274909
##
                            2.0046548 -0.1170675
    [129,]
            1.6242891
##
    [130,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [131,]
            0.1199040
                            0.4953731 -0.1170675
    [132,] -1.3844812
                            0.4953731 -0.9616259
##
##
    [133,] -0.6322886
                           -1.0139085 -0.9616259
##
    [134,]
            0.1199040
                           -1.0139085 0.7274909
                            1.2500140 -0.1170675
##
    [135,]
            0.8720965
##
    [136,] -1.3844812
                           -1.0139085
                                      0.7274909
                                       0.7274909
##
    [137,] -1.3844812
                           -1.0139085
##
            0.8720965
                           -0.2592677 -0.1170675
    [138,]
##
    [139,]
            0.1199040
                           -1.0139085 -0.1170675
##
    [140,] -0.6322886
                            0.4953731 -0.1170675
##
    [141,]
            0.8720965
                            0.4953731 -0.1170675
##
    [142,]
            1.6242891
                           -0.2592677 -0.9616259
                           -0.2592677 -0.9616259
##
    [143,]
            0.1199040
##
    [144,]
            0.1199040
                            0.4953731 -0.9616259
##
    [145,]
            0.8720965
                            1.2500140 -0.1170675
##
    [146,] -0.6322886
                            0.4953731 -0.1170675
##
    [147,] -0.6322886
                            2.0046548 -0.9616259
##
    [148,] -0.6322886
                           -1.0139085 -0.9616259
##
    [149,] 0.1199040
                            0.4953731 -0.1170675
##
    [150,] -1.3844812
                           -1.0139085 -0.1170675
##
    [151,] -1.3844812
                           -1.0139085
                                      1.5720492
##
    [152,] -0.6322886
                           -0.2592677 -0.9616259
##
    [153,] -0.6322886
                           -0.2592677 -0.1170675
##
                            0.4953731
                                       0.7274909
    [154,] 0.1199040
##
    [155,] -0.6322886
                           -1.0139085
                                        0.7274909
##
    [156,] -0.6322886
                           -0.2592677
                                       0.7274909
##
    [157,] -0.6322886
                           -1.0139085 -0.1170675
##
                           -1.0139085 -0.1170675
    [158,] -1.3844812
##
    [159,] -0.6322886
                            2.0046548 -0.9616259
##
    [160,]
           0.1199040
                            0.4953731 0.7274909
##
    [161,] -1.3844812
                            0.4953731 -0.9616259
##
    [162,] -0.6322886
                            0.4953731 -0.1170675
                           -1.0139085 0.7274909
    [163,] 1.6242891
```

```
##
    [164,] -1.3844812
                            2.0046548 -0.9616259
##
    [165,] -0.6322886
                            0.4953731 -0.1170675
##
            1.6242891
                           -0.2592677 -0.9616259
    [166,]
##
    [167,] -0.6322886
                                       2.4166076
                           -1.0139085
##
    [168,]
            0.1199040
                            0.4953731 -0.1170675
##
    [169,] -1.3844812
                           -1.0139085 -0.9616259
##
    [170,] -1.3844812
                           -1.0139085 -0.9616259
##
    [171,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [172,] -1.3844812
                           -1.0139085 -0.9616259
    [173,] -0.6322886
##
                           -1.0139085
                                        0.7274909
##
    [174,] -1.3844812
                            2.0046548
                                        1.5720492
##
    [175,]
            0.1199040
                           -1.0139085
                                        2.4166076
##
    [176,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [177,] -1.3844812
                           -0.2592677 -0.9616259
##
    [178,] -0.6322886
                           -1.0139085
                                        0.7274909
##
                           -1.0139085
                                        1.5720492
    [179,] -0.6322886
##
    [180,] -1.3844812
                            1.2500140
                                        2.4166076
##
    [181,] -1.3844812
                           -1.0139085 -0.9616259
    [182,]
            1.6242891
                                        0.7274909
##
                            0.4953731
##
    [183,]
            0.8720965
                           -1.0139085
                                        2.4166076
##
    [184,]
            0.1199040
                            1.2500140
                                        0.7274909
##
                           -1.0139085 -0.1170675
    [185,] -1.3844812
##
    [186,]
            1.6242891
                            0.4953731 -0.9616259
##
    [187,]
            0.1199040
                           -0.2592677
                                        1.5720492
##
                            2.0046548 -0.9616259
    [188,] -1.3844812
##
    [189,] -0.6322886
                           -1.0139085
                                        1.5720492
##
    [190,] -1.3844812
                           -1.0139085
                                        1.5720492
##
    [191,] -0.6322886
                           -0.2592677
                                        0.7274909
##
                                        1.5720492
    [192,]
            0.1199040
                           -1.0139085
##
    [193,] 0.1199040
                            1.2500140 -0.9616259
##
    [194,] -1.3844812
                           -1.0139085
                                       0.7274909
##
    [195,] -1.3844812
                           -1.0139085 -0.9616259
##
    [196,] -0.6322886
                           -1.0139085 -0.1170675
##
    [197,]
            0.1199040
                            0.4953731 0.7274909
##
    [198,]
            0.1199040
                           -1.0139085 -0.9616259
##
                           -0.2592677 -0.1170675
    [199,] -0.6322886
##
    [200,] -0.6322886
                            1.2500140 -0.9616259
##
    [201,] -0.6322886
                           -0.2592677 -0.9616259
    [202,]
##
            0.1199040
                           -0.2592677 -0.9616259
##
    [203,] -1.3844812
                            1.2500140 -0.9616259
                            0.4953731 0.7274909
##
    [204,]
            0.8720965
##
    [205,]
                           -1.0139085 -0.1170675
            0.1199040
##
    [206,]
            0.8720965
                           -1.0139085
                                        2.4166076
##
    [207,] -1.3844812
                           -1.0139085
                                        2.4166076
##
                                        1.5720492
    [208,]
            0.8720965
                           -1.0139085
##
    [209,]
            0.1199040
                           -1.0139085 -0.1170675
##
                           -0.2592677 -0.1170675
    [210,]
            0.8720965
##
    [211,]
            0.8720965
                            2.0046548 -0.9616259
##
    [212,]
            1.6242891
                            1.2500140 -0.9616259
                           -0.2592677 2.4166076
   [213,] -1.3844812
```

```
##
    [214,]
            0.1199040
                            2.0046548 -0.1170675
##
    [215,]
            0.1199040
                           -1.0139085 -0.1170675
##
            1.6242891
                           -1.0139085 -0.9616259
    [216,]
##
    [217,] -1.3844812
                           -0.2592677 -0.9616259
##
    [218,]
            0.1199040
                           -0.2592677 0.7274909
##
    [219,] -1.3844812
                            0.4953731 -0.1170675
##
    [220,] -0.6322886
                            2.0046548 -0.9616259
##
    [221,]
            0.1199040
                           -1.0139085
                                       0.7274909
##
    [222,]
            0.1199040
                            1.2500140
                                       0.7274909
    [223,]
##
            0.1199040
                           -1.0139085 -0.9616259
                           -0.2592677 -0.1170675
##
    [224,]
            1.6242891
##
    [225,] -0.6322886
                           -1.0139085 -0.1170675
##
                           -0.2592677 -0.1170675
    [226,]
            0.1199040
##
    [227,]
                            0.4953731 -0.9616259
            0.8720965
##
    [228,]
            0.8720965
                           -1.0139085
                                        0.7274909
##
            0.1199040
                           -0.2592677
                                        0.7274909
    [229,]
##
    [230,] -0.6322886
                            0.4953731
                                        0.7274909
##
    [231,]
            1.6242891
                           -0.2592677
                                        0.7274909
    [232,]
                           -1.0139085 -0.9616259
##
            1.6242891
    [233,]
##
            0.8720965
                            0.4953731 -0.9616259
##
    [234,]
            0.8720965
                            1.2500140 -0.9616259
##
            1.6242891
                           -1.0139085 -0.9616259
    [235,]
##
    [236,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [237,]
            0.8720965
                           -1.0139085 -0.9616259
##
            1.6242891
                            0.4953731 -0.1170675
    [238,]
##
    [239,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [240,] -0.6322886
                           -0.2592677
                                       1.5720492
##
    [241,] -1.3844812
                           -0.2592677 -0.9616259
##
    [242,] -0.6322886
                           -1.0139085
                                        1.5720492
##
    [243,]
            0.8720965
                           -1.0139085
                                       0.7274909
    [244,]
##
            0.1199040
                           -1.0139085 -0.1170675
                           -0.2592677 -0.9616259
##
    [245,]
            1.6242891
##
                           -1.0139085 -0.9616259
    [246,]
            0.1199040
    [247,]
##
            1.6242891
                           -1.0139085
                                       1.5720492
##
    [248,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [249,] -0.6322886
                            0.4953731
                                       0.7274909
##
    [250,]
            1.6242891
                           -0.2592677
                                       1.5720492
##
    [251,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [252,]
            0.8720965
                            2.0046548 -0.1170675
##
    [253,]
            0.8720965
                           -0.2592677 1.5720492
                           -1.0139085 -0.9616259
##
    [254,] -1.3844812
##
    [255,]
                            0.4953731 -0.1170675
            1.6242891
##
    [256,]
            1.6242891
                           -1.0139085
                                       1.5720492
##
    [257,]
            1.6242891
                           -1.0139085 -0.9616259
##
                            2.0046548 -0.1170675
    [258,] -0.6322886
##
    [259,] -0.6322886
                           -1.0139085 -0.9616259
##
    [260,]
                                        2.4166076
            1.6242891
                           -1.0139085
##
    [261,]
            0.1199040
                            0.4953731
                                       0.7274909
##
    [262,]
            0.1199040
                           -1.0139085 -0.9616259
                            0.4953731 1.5720492
    [263,] -0.6322886
```

```
##
    [264,]
            1.6242891
                            0.4953731 -0.1170675
##
    [265,]
            0.1199040
                            0.4953731 0.7274909
##
    [266,] -1.3844812
                           -1.0139085 -0.9616259
##
    [267,]
                           -1.0139085 -0.1170675
            0.8720965
    [268,]
                           -0.2592677
##
            0.1199040
                                       0.7274909
##
    [269,]
                           -1.0139085 -0.1170675
            1.6242891
##
    [270,]
            0.8720965
                           -0.2592677
                                        1.5720492
##
    [271,]
            0.1199040
                           -0.2592677 -0.9616259
##
    [272,] -0.6322886
                           -1.0139085 -0.9616259
    [273,] -0.6322886
                                        2.4166076
##
                           -1.0139085
##
    [274,]
            0.8720965
                            1.2500140
                                        0.7274909
##
    [275,]
            0.1199040
                           -0.2592677 -0.9616259
                            1.2500140
##
                                       0.7274909
    [276,]
            1.6242891
##
    [277,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [278,] -0.6322886
                           -0.2592677 -0.1170675
##
                            0.4953731 0.7274909
    [279,]
            0.8720965
##
    [280,] -0.6322886
                           -0.2592677 -0.9616259
##
    [281,]
            1.6242891
                            2.0046548 -0.1170675
    [282,]
                            0.4953731 -0.1170675
##
            1.6242891
##
    [283,]
            0.1199040
                           -1.0139085 -0.9616259
                            0.4953731 -0.1170675
##
    [284,]
            0.1199040
##
                           -1.0139085 -0.9616259
    [285,] -1.3844812
##
    [286,] -1.3844812
                           -1.0139085
                                       1.5720492
##
                           -1.0139085 -0.9616259
    [287,]
            0.8720965
##
    [288,] -0.6322886
                            0.4953731
                                       0.7274909
##
    [289,]
            0.8720965
                            2.0046548 -0.9616259
##
    [290,] -0.6322886
                           -0.2592677
                                       0.7274909
##
    [291,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [292,]
            0.1199040
                           -0.2592677
                                       0.7274909
##
    [293,]
            1.6242891
                           -0.2592677 -0.9616259
##
    [294,] -0.6322886
                           -1.0139085 -0.1170675
##
    [295,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [296,]
                           -1.0139085
                                        1.5720492
            0.1199040
##
    [297,] -1.3844812
                            2.0046548 -0.9616259
##
    [298,] -0.6322886
                            1.2500140 -0.1170675
                           -0.2592677 -0.9616259
##
    [299,]
            1.6242891
##
    [300,]
            0.1199040
                           -1.0139085 -0.1170675
                                        2.4166076
##
    [301,] -1.3844812
                           -1.0139085
##
    [302,] -1.3844812
                           -1.0139085
                                       1.5720492
##
    [303,]
            1.6242891
                           -1.0139085 -0.1170675
                           -1.0139085 -0.9616259
##
    [304,]
            1.6242891
##
    [305,] -0.6322886
                           -1.0139085
                                       0.7274909
##
    [306,] -1.3844812
                           -1.0139085 -0.1170675
##
    [307,]
            1.6242891
                            1.2500140 -0.9616259
##
                           -1.0139085 -0.9616259
    [308,]
            0.1199040
##
    [309,]
                            1.2500140 -0.9616259
            0.1199040
##
    [310,] -0.6322886
                           -0.2592677 -0.9616259
##
    [311,]
            0.1199040
                            2.0046548
                                       0.7274909
##
    [312,]
            1.6242891
                           -0.2592677
                                        2.4166076
                           -0.2592677 -0.9616259
   [313,] -1.3844812
```

```
##
    [314,]
            0.8720965
                           -0.2592677 -0.1170675
##
    [315,]
            1.6242891
                            2.0046548 1.5720492
##
    [316,] -0.6322886
                           -1.0139085 -0.1170675
##
    [317,] -0.6322886
                            1.2500140 -0.1170675
##
    [318,]
            0.8720965
                            1.2500140 -0.9616259
##
    [319,]
            0.1199040
                           -0.2592677 -0.9616259
##
    [320,]
            0.8720965
                            0.4953731 -0.1170675
##
    [321,] -0.6322886
                            1.2500140 -0.9616259
##
    [322,]
            0.8720965
                            0.4953731 -0.9616259
    [323,]
                           -1.0139085 -0.1170675
##
            0.1199040
                           -1.0139085 2.4166076
##
    [324,]
            0.1199040
##
    [325,]
            0.1199040
                           -0.2592677 -0.1170675
##
            0.1199040
                            1.2500140 -0.1170675
    [326,]
##
    [327,]
            0.1199040
                            0.4953731 -0.9616259
##
    [328,]
            0.1199040
                           -1.0139085 -0.1170675
##
            0.1199040
                           -1.0139085 -0.9616259
    [329,]
##
    [330,] -0.6322886
                            0.4953731 -0.9616259
##
    [331,] -1.3844812
                            0.4953731 -0.1170675
    [332,] -0.6322886
                            1.2500140 -0.9616259
##
##
    [333,]
            1.6242891
                           -1.0139085 -0.9616259
                           -0.2592677 -0.1170675
##
    [334,]
            0.1199040
##
                           -1.0139085 -0.9616259
    [335,]
            0.8720965
##
    [336,] -0.6322886
                            1.2500140 -0.1170675
##
    [337,] -1.3844812
                            1.2500140 -0.1170675
##
                            2.0046548 0.7274909
    [338,] -1.3844812
##
    [339,] -1.3844812
                           -0.2592677 -0.1170675
##
    [340,] -0.6322886
                           -1.0139085
                                       0.7274909
##
    [341,] -0.6322886
                           -1.0139085 0.7274909
##
                            2.0046548 -0.9616259
    [342,] -1.3844812
##
    [343,]
            0.8720965
                            0.4953731 -0.1170675
    [344,]
##
            1.6242891
                           -1.0139085 -0.1170675
##
    [345,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [346,] -0.6322886
                            0.4953731 -0.9616259
##
    [347,] -0.6322886
                            1.2500140 -0.9616259
##
    [348,] -1.3844812
                           -0.2592677 -0.9616259
##
                                       2.4166076
    [349,] 0.1199040
                           -0.2592677
##
    [350,] -0.6322886
                            1.2500140 -0.9616259
##
    [351,] -1.3844812
                           -0.2592677 -0.9616259
           0.1199040
##
    [352,]
                           -1.0139085 0.7274909
##
    [353,] -0.6322886
                           -1.0139085 -0.1170675
##
                                       0.7274909
    [354,] -0.6322886
                           -1.0139085
##
    [355,] -0.6322886
                            0.4953731
                                       1.5720492
##
    [356,]
            0.1199040
                           -0.2592677 -0.9616259
##
    [357,]
            0.1199040
                           -0.2592677
                                       0.7274909
##
                            0.4953731 -0.1170675
    [358,]
            0.8720965
##
    [359,] -0.6322886
                           -0.2592677
                                       0.7274909
##
                                       0.7274909
    [360,]
            0.1199040
                           -0.2592677
##
    [361,]
            0.1199040
                           -1.0139085 -0.1170675
##
    [362,] -1.3844812
                           -1.0139085 -0.9616259
                           -0.2592677 1.5720492
   [363,] 0.8720965
```

```
##
    [364,]
            0.8720965
                           -1.0139085 2.4166076
##
    [365,] -1.3844812
                           -0.2592677 -0.9616259
##
    [366,] -1.3844812
                           -0.2592677
                                       1.5720492
##
                            0.4953731 -0.9616259
    [367,] -1.3844812
##
    [368,] -1.3844812
                            0.4953731 -0.9616259
                                       0.7274909
##
    [369,]
                           -0.2592677
            1.6242891
##
    [370,] -1.3844812
                            2.0046548 -0.9616259
                           -1.0139085 -0.1170675
##
    [371,]
            0.8720965
##
    [372,]
            1.6242891
                           -0.2592677
                                      2.4166076
    [373,] -0.6322886
##
                            1.2500140 -0.1170675
##
    [374,] -1.3844812
                           -1.0139085 -0.9616259
##
    [375,] -0.6322886
                            0.4953731 -0.9616259
##
                            0.4953731 -0.9616259
    [376,]
            0.1199040
##
    [377,] -0.6322886
                           -1.0139085 -0.9616259
##
    [378,]
            0.1199040
                           -1.0139085 -0.9616259
    [379,]
                            0.4953731 -0.9616259
##
            0.1199040
##
    [380,]
            0.8720965
                           -0.2592677
                                       1.5720492
##
    [381,]
            1.6242891
                            2.0046548 -0.9616259
    [382,] -0.6322886
                                       1.5720492
##
                           -1.0139085
    [383,]
##
                            1.2500140 -0.9616259
            1.6242891
##
    [384,] -1.3844812
                           -0.2592677
                                       0.7274909
    [385,] -0.6322886
##
                           -1.0139085 -0.9616259
##
    [386,]
            1.6242891
                            0.4953731 0.7274909
    [387,] -0.6322886
                            1.2500140 -0.9616259
##
##
                           -0.2592677 -0.9616259
    [388,]
            1.6242891
##
    [389,]
            1.6242891
                            0.4953731 0.7274909
##
    [390,]
            1.6242891
                           -1.0139085 -0.1170675
##
    [391,]
            0.1199040
                            0.4953731 0.7274909
##
                           -1.0139085 -0.1170675
    [392,] -0.6322886
                           -0.2592677 -0.9616259
##
    [393,]
           1.6242891
##
    [394,] -1.3844812
                           -1.0139085 -0.9616259
##
    [395,] -0.6322886
                           -1.0139085 -0.9616259
##
                            2.0046548 -0.9616259
    [396,] -1.3844812
##
    [397,] -0.6322886
                           -0.2592677
                                       2.4166076
##
    [398,]
            0.8720965
                           -1.0139085 -0.9616259
                            2.0046548 -0.1170675
##
    [399,]
            0.8720965
                                       2.4166076
##
    [400,] -0.6322886
                           -1.0139085
##
    [401,] -1.3844812
                            1.2500140
                                       0.7274909
##
    [402,]
           0.1199040
                           -1.0139085 -0.1170675
##
    [403,] -1.3844812
                            0.4953731
                                       0.7274909
##
    [404,]
           0.1199040
                           -1.0139085
                                        0.7274909
##
    [405,] -1.3844812
                            2.0046548
                                        0.7274909
##
    [406,]
            0.1199040
                           -0.2592677
                                        0.7274909
##
    [407,]
            1.6242891
                            1.2500140
                                        1.5720492
##
                           -0.2592677 -0.1170675
    [408,] -0.6322886
##
    [409,]
            1.6242891
                           -1.0139085
                                       2.4166076
##
    [410,] -0.6322886
                            1.2500140 -0.9616259
##
    [411,] -1.3844812
                           -1.0139085 -0.9616259
##
    [412,] 1.6242891
                           -0.2592677 -0.1170675
                           2.0046548 -0.9616259
   [413,] -1.3844812
```

```
##
    [414,] -0.6322886
                            0.4953731 -0.1170675
##
    [415,] -0.6322886
                           -0.2592677 -0.1170675
##
    [416,]
            0.1199040
                            0.4953731 -0.9616259
##
    [417,]
            0.1199040
                            1.2500140 -0.9616259
##
    [418,] -1.3844812
                           -1.0139085 -0.1170675
##
    [419,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [420,]
            0.1199040
                            0.4953731
                                        2.4166076
##
    [421,] -1.3844812
                           -1.0139085
                                        0.7274909
##
    [422,]
            0.1199040
                           -0.2592677
                                        0.7274909
    [423,]
                            2.0046548
##
            1.6242891
                                        0.7274909
                           -0.2592677
##
    [424,]
            0.1199040
                                        0.7274909
##
    [425,] -0.6322886
                            2.0046548 -0.9616259
                           -0.2592677
##
    [426,] -1.3844812
                                        0.7274909
##
    [427,] -0.6322886
                           -1.0139085 -0.9616259
##
    [428,]
            0.1199040
                           -0.2592677
                                        1.5720492
##
    [429,] -0.6322886
                            0.4953731
                                       0.7274909
##
    [430,] -1.3844812
                           -1.0139085 -0.1170675
##
    [431,]
            0.8720965
                            0.4953731 -0.1170675
##
    [432,]
                            2.0046548
                                       1.5720492
            0.8720965
                           -1.0139085 -0.9616259
##
    [433,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [434,]
            0.1199040
##
                            1.2500140 -0.9616259
    [435,]
            1.6242891
##
    [436,] -1.3844812
                           -1.0139085 -0.9616259
                            0.4953731 -0.1170675
##
    [437,]
            0.8720965
##
    [438,] -1.3844812
                            1.2500140 -0.9616259
##
    [439,] -0.6322886
                           -1.0139085 -0.1170675
##
    [440,] -0.6322886
                            1.2500140 -0.9616259
##
    [441,]
            0.1199040
                            1.2500140 -0.9616259
##
                           -1.0139085 -0.9616259
    [442,]
            1.6242891
                           -0.2592677 -0.9616259
##
    [443,] -0.6322886
    [444,]
            0.1199040
##
                            0.4953731 0.7274909
##
    [445,] -0.6322886
                            1.2500140 -0.1170675
##
                           -1.0139085 -0.9616259
    [446,]
            1.6242891
##
    [447,] -1.3844812
                            1.2500140 -0.9616259
##
    [448,] -1.3844812
                           -1.0139085 -0.1170675
##
    [449,] -0.6322886
                            0.4953731 -0.1170675
##
    [450,]
            1.6242891
                           -1.0139085 -0.9616259
##
    [451,]
            0.1199040
                           -1.0139085
                                       1.5720492
##
    [452,]
            0.1199040
                            0.4953731 -0.9616259
##
    [453,] -1.3844812
                            0.4953731 -0.9616259
##
                           -1.0139085 -0.9616259
    [454,]
           1.6242891
##
    [455,] -0.6322886
                           -1.0139085 -0.9616259
##
    [456,] -0.6322886
                            1.2500140 -0.1170675
##
    [457,] -1.3844812
                           -1.0139085 -0.9616259
##
                            1.2500140 -0.9616259
    [458,] -0.6322886
##
    [459,]
            1.6242891
                            2.0046548
                                       2.4166076
##
    [460,] -0.6322886
                            0.4953731
                                       0.7274909
##
    [461,] -1.3844812
                           -1.0139085 -0.9616259
##
    [462,]
           0.8720965
                           -0.2592677
                                        1.5720492
                            0.4953731 -0.9616259
    [463,] -0.6322886
```

```
##
    [464,]
            1.6242891
                           -1.0139085 -0.9616259
##
    [465,]
            1.6242891
                            0.4953731 -0.1170675
##
            1.6242891
                           -0.2592677 -0.1170675
    [466,]
##
                            2.0046548 -0.9616259
    [467,]
            0.1199040
##
    [468,] -0.6322886
                           -0.2592677 -0.9616259
##
    [469,] -0.6322886
                           -0.2592677 -0.1170675
##
    [470,] -1.3844812
                            1.2500140 -0.9616259
##
    [471,]
           0.1199040
                           -1.0139085 0.7274909
##
    [472,] -0.6322886
                           -0.2592677 -0.9616259
    [473,] -1.3844812
                           -1.0139085 -0.1170675
##
##
    [474,] -1.3844812
                           -1.0139085 -0.9616259
##
    [475,] -1.3844812
                            2.0046548 -0.9616259
##
                           -1.0139085 -0.1170675
    [476,]
           0.8720965
##
    [477,]
            1.6242891
                           -1.0139085 -0.1170675
##
    [478,] -0.6322886
                           -1.0139085 -0.9616259
##
    [479,] -0.6322886
                            0.4953731 -0.1170675
##
    [480,]
            0.8720965
                           -0.2592677 -0.1170675
##
    [481,]
            1.6242891
                            1.2500140
                                      1.5720492
    [482,] -1.3844812
                            2.0046548
                                       1.5720492
##
##
    [483,] -1.3844812
                           -1.0139085 -0.9616259
##
    [484,]
           1.6242891
                           -1.0139085 -0.9616259
    [485,] -0.6322886
##
                           -0.2592677 -0.1170675
##
    [486,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [487,]
            0.1199040
                           -0.2592677 -0.9616259
##
    [488,] -1.3844812
                           -1.0139085 -0.9616259
##
    [489,]
            0.1199040
                           -1.0139085
                                      1.5720492
##
    [490,] -1.3844812
                           -1.0139085 -0.9616259
##
    [491,]
            1.6242891
                            1.2500140 -0.1170675
##
                           -1.0139085 -0.1170675
    [492,]
            1.6242891
                           -0.2592677 -0.1170675
##
    [493,]
            0.1199040
##
    [494,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [495,] -0.6322886
                           -1.0139085 -0.1170675
##
    [496,] -0.6322886
                           -0.2592677 -0.9616259
##
    [497,]
            0.8720965
                           -0.2592677
                                       1.5720492
##
    [498,]
            0.8720965
                           -1.0139085
                                       2.4166076
##
    [499,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [500,] -1.3844812
                            0.4953731 -0.1170675
##
    [501,]
            0.8720965
                            1.2500140
                                       1.5720492
##
    [502,]
                           -0.2592677 -0.1170675
            1.6242891
##
    [503,] -1.3844812
                            0.4953731
                                      0.7274909
##
                            2.0046548
    [504,]
           0.8720965
                                      1.5720492
##
    [505,] -0.6322886
                           -1.0139085 -0.9616259
##
    [506,] -0.6322886
                           -1.0139085 -0.9616259
##
    [507,] -1.3844812
                           -0.2592677 -0.9616259
##
                           -1.0139085 -0.1170675
    [508,]
            0.8720965
##
    [509,] -1.3844812
                           -1.0139085 -0.9616259
##
            0.1199040
    [510,]
                            1.2500140 -0.9616259
##
    [511,]
            0.1199040
                           -0.2592677 1.5720492
##
    [512,] -0.6322886
                           -1.0139085 -0.9616259
                           1.2500140 -0.1170675
   [513,] 0.8720965
```

```
##
    [514,] 0.1199040
                            0.4953731 -0.9616259
##
    [515,] -0.6322886
                           -1.0139085 -0.1170675
##
    [516,] -0.6322886
                           -1.0139085 -0.1170675
##
    [517,] -0.6322886
                            1.2500140
                                       0.7274909
##
    [518,]
            0.8720965
                            1.2500140
                                        1.5720492
##
    [519,]
            1.6242891
                            1.2500140
                                        1.5720492
##
    [520,] -0.6322886
                            1.2500140 -0.9616259
##
    [521,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [522,]
                            0.4953731 0.7274909
            1.6242891
    [523,]
##
            0.8720965
                            1.2500140
                                       0.7274909
##
    [524,] -0.6322886
                            0.4953731 -0.9616259
##
    [525,] -0.6322886
                           -1.0139085
                                       0.7274909
##
                                       0.7274909
    [526,]
            0.1199040
                           -1.0139085
##
    [527,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [528,]
            0.8720965
                           -0.2592677 -0.9616259
##
                            0.4953731 -0.1170675
    [529,] -1.3844812
##
    [530,]
            0.1199040
                           -1.0139085 -0.1170675
##
    [531,]
            0.1199040
                           -1.0139085 -0.9616259
    [532,] -0.6322886
                           -1.0139085 -0.9616259
##
    [533,]
##
            0.8720965
                            1.2500140 -0.1170675
##
    [534,]
            0.1199040
                            0.4953731 -0.1170675
##
                           -0.2592677 -0.1170675
    [535,]
            0.8720965
##
    [536,]
            0.8720965
                            1.2500140 -0.9616259
##
    [537,]
            0.1199040
                            2.0046548 -0.9616259
##
    [538,] -1.3844812
                           -0.2592677 0.7274909
##
    [539,]
            0.1199040
                            0.4953731 -0.1170675
##
    [540,] -1.3844812
                           -1.0139085
                                       1.5720492
##
    [541,]
            0.1199040
                            0.4953731 2.4166076
##
                           -1.0139085 -0.9616259
    [542,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [543,]
            0.8720965
##
            0.8720965
                            1.2500140 -0.1170675
    [544,]
                           -1.0139085 0.7274909
##
    [545,]
            0.1199040
    [546,] -1.3844812
                            0.4953731 -0.9616259
##
    [547,]
##
           1.6242891
                           -1.0139085
                                       2.4166076
##
    [548,] -1.3844812
                           -1.0139085
                                        2.4166076
##
    [549,] -1.3844812
                           -1.0139085 -0.9616259
##
    [550,]
           0.8720965
                            1.2500140 -0.1170675
##
    [551,] -0.6322886
                           -1.0139085 -0.1170675
##
    [552,] -0.6322886
                           -1.0139085 -0.1170675
##
    [553,]
            1.6242891
                           -0.2592677 -0.1170675
                            0.4953731 -0.1170675
##
    [554,] -0.6322886
##
    [555,]
            0.1199040
                            0.4953731 -0.9616259
##
    [556,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [557,] -1.3844812
                           -0.2592677 -0.9616259
##
                           -1.0139085 -0.1170675
    [558,]
            0.1199040
##
    [559,]
            1.6242891
                           -0.2592677 -0.1170675
##
    [560,] -1.3844812
                           -1.0139085 -0.9616259
##
    [561,]
            0.8720965
                           -0.2592677
                                       0.7274909
##
    [562,]
            0.8720965
                            1.2500140
                                       0.7274909
                           -1.0139085 -0.9616259
    [563,] -1.3844812
```

```
-0.2592677 -0.9616259
##
    [564,] -1.3844812
##
    [565,] -1.3844812
                           -0.2592677 -0.9616259
##
    [566,] -0.6322886
                            0.4953731 0.7274909
##
    [567,]
           0.1199040
                           -0.2592677 -0.9616259
##
    [568,] -0.6322886
                           -0.2592677 -0.9616259
##
    [569,]
            0.1199040
                            0.4953731 -0.9616259
##
    [570,]
            0.1199040
                           -0.2592677 -0.9616259
    [571,] -0.6322886
##
                           -1.0139085 -0.9616259
    [572,] -1.3844812
##
                            1.2500140 -0.9616259
    [573,] -1.3844812
                           -1.0139085 -0.1170675
##
##
    [574,] -1.3844812
                            1.2500140 -0.9616259
##
    [575,] -0.6322886
                            2.0046548 -0.9616259
##
                           -0.2592677 -0.1170675
    [576,] 1.6242891
##
    [577,] -0.6322886
                            0.4953731 -0.1170675
##
    [578,] -0.6322886
                           -0.2592677 -0.9616259
                           -1.0139085 -0.1170675
##
    [579,] 0.8720965
##
    [580,] -0.6322886
                            2.0046548 -0.9616259
##
    [581,] -1.3844812
                            0.4953731 -0.9616259
    [582,] -0.6322886
                            2.0046548 -0.9616259
##
    [583,]
##
                            1.2500140 -0.1170675
            0.1199040
##
    [584,]
            0.1199040
                           -1.0139085 -0.9616259
##
                            1.2500140 -0.1170675
    [585,]
            0.8720965
##
    [586,]
            0.8720965
                            1.2500140 -0.1170675
##
    [587,]
            0.1199040
                            2.0046548 -0.9616259
##
    [588,] -1.3844812
                           -0.2592677 -0.9616259
##
    [589,]
            1.6242891
                           -1.0139085 -0.1170675
##
    [590,] -0.6322886
                           -0.2592677 -0.1170675
##
    [591,]
            0.8720965
                           -1.0139085 -0.1170675
##
                           -1.0139085 -0.1170675
    [592,]
            1.6242891
##
    [593,]
            1.6242891
                            1.2500140 -0.9616259
##
    [594,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [595,] -1.3844812
                           -1.0139085 0.7274909
##
    [596,] -1.3844812
                           -1.0139085 -0.9616259
##
    [597,] -0.6322886
                            2.0046548 -0.9616259
##
    [598,]
            0.1199040
                            0.4953731 -0.1170675
##
    [599,]
            1.6242891
                            0.4953731 -0.1170675
##
    [600,] -0.6322886
                            0.4953731 -0.9616259
##
    [601,] -1.3844812
                            1.2500140 -0.9616259
##
    [602,]
            0.8720965
                           -1.0139085 -0.1170675
            0.1199040
##
    [603,]
                            0.4953731 -0.9616259
##
                            1.2500140 -0.1170675
    [604,]
            0.8720965
##
    [605,] -0.6322886
                           -1.0139085 -0.9616259
##
    [606,] -1.3844812
                           -1.0139085 -0.1170675
##
    [607,] -0.6322886
                           -1.0139085 -0.1170675
##
                           -1.0139085 -0.1170675
    [608,]
            0.8720965
##
    [609,]
                           -1.0139085
                                       2.4166076
            0.8720965
##
    [610,] -0.6322886
                            1.2500140
                                      0.7274909
    [611,] -0.6322886
##
                            0.4953731 -0.1170675
##
    [612,] -1.3844812
                            0.4953731 -0.9616259
                            2.0046548 0.7274909
    [613,] 1.6242891
```

```
##
    [614,]
            0.8720965
                            0.4953731 -0.9616259
##
    [615,] -0.6322886
                            2.0046548 -0.9616259
##
    [616,]
            0.1199040
                            0.4953731 -0.1170675
##
                            1.2500140 -0.9616259
    [617,]
            0.8720965
##
    [618,]
            1.6242891
                           -1.0139085
                                        2.4166076
##
    [619,]
            1.6242891
                           -1.0139085
                                        2.4166076
##
    [620,]
            0.1199040
                           -0.2592677
                                        2.4166076
##
    [621,] -0.6322886
                           -0.2592677 -0.9616259
##
    [622,] -0.6322886
                            2.0046548 -0.9616259
    [623,]
                            1.2500140 0.7274909
##
            0.1199040
                           -1.0139085 -0.9616259
##
    [624,] -1.3844812
##
    [625,] -0.6322886
                           -1.0139085 -0.9616259
##
                           -0.2592677 -0.9616259
    [626,]
            1.6242891
##
    [627,]
            0.1199040
                            1.2500140 -0.1170675
##
    [628,]
            0.1199040
                           -0.2592677 -0.9616259
##
            0.1199040
                           -0.2592677 -0.9616259
    [629,]
##
    [630,]
                            0.4953731 -0.1170675
            1.6242891
##
    [631,]
            1.6242891
                            2.0046548 -0.9616259
    [632,]
                            0.4953731 0.7274909
##
            1.6242891
##
    [633,] -0.6322886
                            1.2500140 -0.1170675
##
    [634,]
            0.1199040
                           -1.0139085 -0.9616259
##
            0.1199040
                           -0.2592677
                                       0.7274909
    [635,]
##
    [636,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [637,]
            1.6242891
                            0.4953731
                                        1.5720492
##
                           -0.2592677
                                        0.7274909
    [638,] -1.3844812
##
    [639,]
            0.1199040
                           -1.0139085
                                        0.7274909
##
    [640,] -1.3844812
                           -1.0139085 -0.9616259
##
    [641,] -1.3844812
                           -1.0139085 -0.9616259
##
    [642,]
            0.1199040
                            0.4953731
                                        0.7274909
##
    [643,]
            0.1199040
                            0.4953731
                                        2.4166076
##
            1.6242891
                           -0.2592677
                                        1.5720492
    [644,]
##
    [645,]
            0.1199040
                           -1.0139085 -0.1170675
##
                            2.0046548
                                       0.7274909
    [646,]
            0.8720965
    [647,]
##
            0.1199040
                           -0.2592677 -0.1170675
##
    [648,]
            1.6242891
                           -1.0139085 -0.9616259
##
                           -0.2592677 -0.1170675
    [649,]
            1.6242891
##
    [650,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [651,] -0.6322886
                            0.4953731 -0.9616259
##
            0.8720965
                            1.2500140 0.7274909
    [652,]
##
    [653,] -0.6322886
                           -1.0139085 -0.9616259
##
    [654,]
            0.8720965
                           -1.0139085
                                       1.5720492
##
    [655,]
            0.8720965
                            0.4953731 -0.1170675
##
    [656,] -0.6322886
                            1.2500140 -0.9616259
##
    [657,] -1.3844812
                           -1.0139085
                                       1.5720492
##
                           -1.0139085 -0.9616259
    [658,] -0.6322886
##
    [659,] -0.6322886
                            1.2500140 -0.9616259
##
    [660,] -0.6322886
                           -1.0139085 -0.1170675
##
    [661,] -0.6322886
                           -1.0139085 -0.1170675
##
    [662,] -1.3844812
                           -0.2592677 -0.9616259
                           -0.2592677 -0.1170675
    [663,] -1.3844812
```

```
##
    [664,]
            0.1199040
                            -0.2592677 -0.1170675
##
    [665,]
            1.6242891
                           -1.0139085
                                        0.7274909
##
            0.1199040
                            1.2500140
                                        1.5720492
    [666,]
##
    [667,] -1.3844812
                           -1.0139085 -0.9616259
##
    [668,] -0.6322886
                           -1.0139085 -0.1170675
##
    [669,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [670,]
            0.8720965
                            1.2500140 -0.1170675
##
    [671,]
            1.6242891
                           -0.2592677 -0.1170675
##
    [672,]
            0.8720965
                            1.2500140
                                       0.7274909
    [673,]
                                        2.4166076
##
            0.1199040
                           -1.0139085
##
    [674,]
            0.8720965
                           -1.0139085
                                       1.5720492
##
    [675,]
            0.1199040
                           -1.0139085 -0.9616259
##
            0.1199040
                            0.4953731 -0.1170675
    [676,]
##
    [677,] -0.6322886
                           -0.2592677 -0.1170675
##
    [678,]
            0.8720965
                           -1.0139085 -0.9616259
##
                           -1.0139085 2.4166076
    [679,]
            0.8720965
##
    [680,] -0.6322886
                            0.4953731 -0.9616259
##
    [681,]
            1.6242891
                            2.0046548 -0.9616259
    [682,]
                                       1.5720492
##
            0.8720965
                            1.2500140
##
    [683,] -0.6322886
                            2.0046548 -0.1170675
##
    [684,]
            1.6242891
                           -1.0139085 -0.9616259
##
                           -1.0139085 -0.9616259
    [685,]
            0.8720965
##
    [686,]
            0.8720965
                            0.4953731 -0.1170675
                            0.4953731 0.7274909
##
    [687,]
            0.1199040
##
    [688,] -0.6322886
                           -1.0139085 -0.9616259
##
    [689,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [690,]
            0.8720965
                            0.4953731 -0.1170675
##
    [691,]
            0.1199040
                            0.4953731 -0.1170675
##
    [692,]
            0.8720965
                           -0.2592677 -0.1170675
                           -0.2592677 -0.1170675
##
    [693,] -0.6322886
##
    [694,]
                            1.2500140 -0.9616259
            0.8720965
##
    [695,]
            1.6242891
                            1.2500140 0.7274909
##
    [696,]
                            0.4953731
                                       1.5720492
            0.8720965
##
    [697,]
            0.1199040
                            0.4953731 -0.9616259
##
    [698,]
            0.1199040
                           -1.0139085 -0.1170675
##
                           -0.2592677 -0.1170675
    [699,]
            1.6242891
    [700,]
##
            1.6242891
                           -0.2592677 -0.9616259
##
    [701,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [702,]
            0.1199040
                            2.0046548 1.5720492
##
    [703,]
            0.1199040
                           -1.0139085
                                       1.5720492
                           -1.0139085 -0.1170675
##
    [704,]
            0.1199040
##
    [705,]
                           -0.2592677 -0.9616259
            1.6242891
##
    [706,]
            0.1199040
                            0.4953731 -0.1170675
##
    [707,] -0.6322886
                            0.4953731 -0.1170675
##
                           -0.2592677 1.5720492
    [708,] -0.6322886
##
    [709,] -1.3844812
                            1.2500140 -0.9616259
##
                           -0.2592677 -0.1170675
    [710,]
            0.8720965
    [711,] -0.6322886
##
                           -1.0139085 -0.9616259
##
    [712,]
            0.8720965
                           -1.0139085 -0.9616259
                           -1.0139085 0.7274909
    [713,] 0.8720965
```

```
##
    [714,]
            0.8720965
                            -0.2592677 -0.1170675
##
    [715,]
            0.1199040
                            0.4953731 -0.9616259
##
            0.1199040
                           -1.0139085
                                       0.7274909
    [716,]
##
    [717,] -0.6322886
                            0.4953731
                                       0.7274909
##
    [718,] -1.3844812
                           -1.0139085 -0.9616259
##
    [719,] -0.6322886
                           -0.2592677
                                        1.5720492
##
    [720,] -0.6322886
                            0.4953731 -0.9616259
##
    [721,]
            0.8720965
                           -0.2592677
                                        1.5720492
##
    [722,]
            0.1199040
                           -1.0139085 -0.1170675
    [723,]
                           -0.2592677 -0.1170675
##
            1.6242891
    [724,] -0.6322886
##
                           -1.0139085 -0.1170675
##
    [725,]
            1.6242891
                           -0.2592677 0.7274909
##
                            0.4953731 -0.9616259
    [726,]
            0.1199040
##
    [727,] -0.6322886
                            1.2500140 -0.9616259
##
    [728,]
            1.6242891
                            2.0046548 -0.9616259
##
    [729,] -0.6322886
                            0.4953731 -0.9616259
##
    [730,]
            0.1199040
                            0.4953731 0.7274909
##
    [731,] -1.3844812
                           -1.0139085 -0.1170675
##
    [732,]
                           -0.2592677 -0.1170675
            0.1199040
##
    [733,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [734,]
            1.6242891
                           -1.0139085
                                       1.5720492
##
                           -1.0139085
                                        2.4166076
    [735,]
            0.8720965
##
    [736,] -1.3844812
                           -1.0139085
                                        0.7274909
##
                                        1.5720492
    [737,]
            1.6242891
                           -0.2592677
##
            0.8720965
                            0.4953731 -0.1170675
    [738,]
##
    [739,] -1.3844812
                            1.2500140 -0.1170675
                            0.4953731 1.5720492
##
    [740,]
            0.1199040
##
    [741,]
            0.1199040
                            -0.2592677 -0.9616259
##
                                       2.4166076
    [742,]
            0.8720965
                           -1.0139085
##
    [743,]
            1.6242891
                            2.0046548 -0.1170675
##
    [744,] -0.6322886
                           -1.0139085 -0.9616259
##
    [745,]
            0.1199040
                           -1.0139085 0.7274909
##
    [746,]
                            2.0046548 -0.1170675
            1.6242891
    [747,]
##
            0.8720965
                           -0.2592677 -0.1170675
##
    [748,]
            0.1199040
                            0.4953731
                                       2.4166076
##
    [749,]
            0.1199040
                            0.4953731
                                       0.7274909
##
    [750,] -1.3844812
                           -1.0139085 -0.9616259
##
    [751,]
            1.6242891
                           -1.0139085
                                        1.5720492
##
    [752,]
            0.8720965
                           -0.2592677
                                        2.4166076
##
    [753,]
            1.6242891
                            1.2500140 -0.1170675
                           -1.0139085 -0.1170675
##
    [754,]
            0.1199040
##
    [755,]
                            0.4953731 0.7274909
            0.8720965
##
    [756,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [757,]
            0.1199040
                            1.2500140 -0.1170675
##
                            2.0046548
    [758,]
            1.6242891
                                       0.7274909
##
    [759,] -1.3844812
                            2.0046548 -0.9616259
##
    [760,]
                           -0.2592677 2.4166076
            0.8720965
    [761,] -0.6322886
##
                            0.4953731 -0.1170675
##
    [762,] -1.3844812
                           -0.2592677 -0.9616259
                            0.4953731 -0.9616259
    [763,] -1.3844812
```

```
##
    [764,] -1.3844812
                             0.4953731
                                        0.7274909
##
    [765,]
             0.8720965
                           -1.0139085
                                        0.7274909
##
    [766,] -0.6322886
                           -0.2592677 -0.9616259
##
                            1.2500140
                                        1.5720492
    [767,]
            0.8720965
##
    [768,]
            0.1199040
                           -0.2592677
                                        0.7274909
##
    [769,]
            0.1199040
                            0.4953731 -0.9616259
##
    [770,]
            0.1199040
                            0.4953731
                                        0.7274909
##
    [771,] -1.3844812
                           -1.0139085 -0.9616259
##
    [772,] -0.6322886
                           -1.0139085
                                        1.5720492
    [773,]
##
            0.8720965
                           -1.0139085 -0.1170675
##
    [774,]
            0.8720965
                           -0.2592677 -0.1170675
##
    [775,]
            0.1199040
                           -1.0139085
                                        1.5720492
##
                            2.0046548
                                        1.5720492
    [776,]
            0.8720965
                                       0.7274909
##
    [777,]
                            2.0046548
            1.6242891
##
    [778,]
            0.1199040
                            0.4953731 -0.1170675
##
    [779,] -1.3844812
                           -1.0139085 -0.9616259
##
    [780,] -0.6322886
                            0.4953731
                                        0.7274909
##
    [781,]
            0.8720965
                            1.2500140 -0.1170675
##
    [782,]
                                        0.7274909
            0.1199040
                            -0.2592677
##
    [783,]
            0.8720965
                           -0.2592677
                                        0.7274909
##
    [784,]
            0.1199040
                            1.2500140
                                        0.7274909
##
            0.1199040
                            1.2500140
                                        0.7274909
    [785,]
##
    [786,]
            0.1199040
                           -1.0139085
                                        0.7274909
##
                            0.4953731 -0.1170675
    [787,]
            0.8720965
##
            0.1199040
                            0.4953731 -0.9616259
    [788,]
##
    [789,]
            0.1199040
                           -1.0139085 -0.1170675
##
    [790,]
            0.1199040
                            1.2500140
                                       1.5720492
##
    [791,] -1.3844812
                            1.2500140 -0.9616259
##
                            0.4953731 -0.1170675
    [792,]
            0.1199040
                            0.4953731 -0.9616259
##
    [793,]
            0.1199040
##
    [794,]
                            1.2500140 -0.1170675
            0.8720965
##
    [795,] -1.3844812
                           -1.0139085 -0.9616259
##
    [796,]
                           -1.0139085
                                        2.4166076
            1.6242891
##
    [797,]
            0.8720965
                           -0.2592677
                                        0.7274909
##
    [798,] -1.3844812
                            0.4953731 -0.9616259
##
                           -0.2592677 -0.1170675
    [799,] -0.6322886
##
    [800,] -0.6322886
                           -0.2592677
                                       1.5720492
##
    [801,] -1.3844812
                           -1.0139085 -0.9616259
##
    [802,] -1.3844812
                            1.2500140 -0.9616259
##
    [803,] -0.6322886
                            1.2500140 -0.1170675
                           -1.0139085 -0.1170675
##
    [804,] -1.3844812
##
    [805,] -0.6322886
                           -0.2592677 -0.1170675
##
    [806,] 0.1199040
                            0.4953731
                                       0.7274909
##
    [807,] -1.3844812
                           -1.0139085 -0.9616259
##
                           -1.0139085
                                       1.5720492
    [808,] -1.3844812
##
    [809,] -0.6322886
                            0.4953731 -0.9616259
##
    [810,] -1.3844812
                           -1.0139085 -0.9616259
##
    [811,] -0.6322886
                           -1.0139085
                                        2.4166076
##
    [812,] -0.6322886
                           -1.0139085
                                        1.5720492
                           -1.0139085 -0.9616259
    [813,] -1.3844812
```

```
##
    [814,] -1.3844812
                           -1.0139085 -0.9616259
##
    [815,] -0.6322886
                            2.0046548 1.5720492
##
    [816,]
            0.8720965
                           -0.2592677 -0.1170675
##
                            0.4953731 -0.1170675
    [817,]
            0.8720965
##
    [818,] -1.3844812
                           -1.0139085 -0.1170675
##
    [819,] -1.3844812
                            1.2500140 -0.9616259
##
    [820,]
            1.6242891
                           -0.2592677 -0.9616259
##
    [821,]
            0.1199040
                           -1.0139085
                                       1.5720492
##
    [822,] -0.6322886
                           -1.0139085
                                       1.5720492
    [823,]
##
            0.8720965
                           -1.0139085 -0.1170675
##
    [824,]
            0.1199040
                            0.4953731 -0.9616259
##
    [825,] -0.6322886
                           -1.0139085
                                        2.4166076
                           -1.0139085 -0.1170675
##
    [826,] -0.6322886
##
    [827,]
            0.8720965
                           -1.0139085
                                       1.5720492
##
    [828,] -0.6322886
                           -1.0139085 -0.1170675
##
                            1.2500140 -0.9616259
    [829,]
           0.8720965
##
    [830,] -0.6322886
                           -1.0139085
                                        0.7274909
##
    [831,]
            1.6242891
                           -0.2592677
                                        0.7274909
    [832,]
                                        1.5720492
##
            0.8720965
                            0.4953731
##
    [833,]
            0.8720965
                           -1.0139085
                                        2.4166076
                                        1.5720492
##
    [834,] -0.6322886
                           -0.2592677
##
    [835,] -0.6322886
                           -0.2592677
                                        0.7274909
##
    [836,]
            0.1199040
                           -1.0139085 -0.9616259
    [837,] -1.3844812
##
                           -1.0139085
                                        0.7274909
##
            1.6242891
                           -1.0139085
                                       0.7274909
    [838,]
##
    [839,]
            0.8720965
                           -0.2592677 -0.9616259
##
    [840,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [841,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [842,] -0.6322886
                            2.0046548 -0.9616259
                           -0.2592677 -0.9616259
##
    [843,] -0.6322886
            0.1199040
##
                            0.4953731 -0.1170675
    [844,]
##
    [845,]
            0.1199040
                            1.2500140
                                       2.4166076
##
                           -1.0139085 -0.9616259
    [846,]
            0.1199040
    [847,]
##
            0.1199040
                            2.0046548
                                       0.7274909
##
    [848,] -0.6322886
                           -1.0139085
                                        1.5720492
##
    [849,] -1.3844812
                           -0.2592677 -0.9616259
                                       2.4166076
##
    [850,]
           0.1199040
                           -1.0139085
##
    [851,] -1.3844812
                           -1.0139085 -0.9616259
##
    [852,] -0.6322886
                            2.0046548 -0.9616259
##
    [853,]
            0.1199040
                            0.4953731 -0.9616259
##
    [854,]
            0.1199040
                           -1.0139085
                                      1.5720492
##
    [855,] -0.6322886
                           -1.0139085 -0.9616259
##
    [856,]
            0.8720965
                            1.2500140 -0.1170675
##
    [857,]
            0.8720965
                            0.4953731 0.7274909
##
    [858,] -0.6322886
                            2.0046548 -0.1170675
##
    [859,] -1.3844812
                           -1.0139085 -0.9616259
##
    [860,]
            0.1199040
                            1.2500140 -0.1170675
    [861,] -0.6322886
##
                            2.0046548 0.7274909
##
    [862,] -1.3844812
                           -0.2592677 -0.9616259
                           1.2500140 -0.1170675
    [863,] 1.6242891
```

```
##
    [864,] -1.3844812
                            2.0046548 -0.1170675
##
    [865,] -0.6322886
                            0.4953731 0.7274909
##
    [866,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [867,] -1.3844812
                           -1.0139085
                                      0.7274909
##
    [868,]
            0.8720965
                           -1.0139085 -0.9616259
##
    [869,]
            0.1199040
                           -0.2592677 -0.1170675
##
    [870,] -0.6322886
                           -1.0139085 -0.9616259
##
    [871,]
           0.1199040
                            1.2500140 -0.9616259
##
    [872,] -0.6322886
                            0.4953731 0.7274909
    [873,] -1.3844812
##
                            1.2500140 -0.9616259
##
    [874,] -0.6322886
                            1.2500140 0.7274909
##
    [875,]
           1.6242891
                            0.4953731 -0.9616259
##
    [876,] -1.3844812
                            1.2500140 -0.9616259
##
    [877,] 0.1199040
                            0.4953731 -0.9616259
##
    [878,] -0.6322886
                           -1.0139085 -0.9616259
    [879,] -0.6322886
##
                            1.2500140 0.7274909
##
    [880,] -0.6322886
                            2.0046548 -0.1170675
##
    [881,] 1.6242891
                            1.2500140 -0.9616259
                           -1.0139085 -0.9616259
##
    [882,] -0.6322886
##
    [883,] -1.3844812
                            1.2500140 -0.9616259
##
    [884,] 0.8720965
                            0.4953731 -0.9616259
##
    [885,] -1.3844812
                            1.2500140 -0.9616259
##
    [886,] -1.3844812
                            0.4953731 -0.9616259
##
    [887,] -1.3844812
                           -0.2592677 -0.9616259
##
    [888,] -1.3844812
                            0.4953731 -0.1170675
##
    [889,] 1.6242891
                           -0.2592677 -0.1170675
##
    [890,] -0.6322886
                           -0.2592677 -0.1170675
##
    [891,] -1.3844812
                            1.2500140 -0.9616259
##
    [892,] -0.6322886
                            0.4953731 -0.9616259
##
    [893,] -0.6322886
                           -1.0139085 -0.1170675
##
    [894,] -0.6322886
                            0.4953731 1.5720492
##
    [895,] -0.6322886
                           -1.0139085 -0.9616259
##
    [896,] -0.6322886
                            0.4953731 -0.1170675
##
    [897,]
            0.1199040
                           -1.0139085 -0.1170675
##
    [898,]
            0.1199040
                           -0.2592677 0.7274909
##
    [899,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [900,] -1.3844812
                           -1.0139085 -0.9616259
##
    [901,]
           0.1199040
                           -1.0139085 0.7274909
##
    [902,] -0.6322886
                           -1.0139085 -0.1170675
##
    [903,] -0.6322886
                           -0.2592677 -0.9616259
                           -1.0139085 -0.9616259
##
    [904,]
            0.1199040
##
    [905.]
            1.6242891
                           -1.0139085 -0.1170675
##
    [906,] -0.6322886
                            0.4953731 -0.1170675
##
    [907,]
            1.6242891
                            2.0046548 1.5720492
##
    [908,]
                           -1.0139085 -0.9616259
            0.1199040
##
    [909,] -0.6322886
                            0.4953731 -0.1170675
##
    [910,] -0.6322886
                           -0.2592677 0.7274909
##
    [911,]
            0.8720965
                           -1.0139085 -0.1170675
##
    [912,]
            0.8720965
                           -1.0139085
                                      2.4166076
                           0.4953731 -0.1170675
  [913,] 0.1199040
```

```
##
    [914,] -0.6322886
                            0.4953731
                                        1.5720492
##
    [915,]
            1.6242891
                           -0.2592677
                                        1.5720492
##
    [916,]
            0.1199040
                            1.2500140 -0.9616259
##
    [917,] -1.3844812
                           -1.0139085 -0.9616259
##
    [918,] -0.6322886
                            0.4953731 -0.1170675
##
    [919,]
            0.8720965
                           -1.0139085
                                        0.7274909
##
    [920,]
            1.6242891
                           -1.0139085 -0.1170675
##
    [921,]
            0.1199040
                           -1.0139085
                                        0.7274909
##
    [922,] -0.6322886
                            0.4953731 -0.1170675
    [923,] -0.6322886
                                       0.7274909
##
                            1.2500140
##
    [924,] -0.6322886
                            0.4953731
                                        0.7274909
##
    [925,] -1.3844812
                           -1.0139085 -0.9616259
##
                           -0.2592677
                                        0.7274909
    [926,]
           1.6242891
##
    [927,] -0.6322886
                           -1.0139085 -0.1170675
##
    [928,] -1.3844812
                            0.4953731 -0.9616259
    [929,]
##
                            0.4953731 0.7274909
            0.8720965
##
    [930,]
            0.1199040
                            0.4953731
                                        0.7274909
##
    [931,]
            0.1199040
                            0.4953731 -0.1170675
##
    [932,] -0.6322886
                           -0.2592677
                                       0.7274909
##
    [933,]
            0.1199040
                            1.2500140 -0.1170675
            0.1199040
##
    [934,]
                           -1.0139085 -0.1170675
##
            0.1199040
                            1.2500140 -0.9616259
    [935,]
##
    [936,]
            0.1199040
                           -1.0139085 -0.9616259
##
                            0.4953731 -0.1170675
    [937,]
            0.1199040
##
            1.6242891
                           -0.2592677
                                        2.4166076
    [938,]
##
    [939,] -1.3844812
                            2.0046548
                                        0.7274909
##
    [940,]
            0.8720965
                            1.2500140 -0.1170675
##
    [941,] -1.3844812
                            2.0046548 -0.9616259
##
                           -1.0139085 -0.9616259
    [942,]
            0.1199040
##
    [943,]
            0.1199040
                            2.0046548 -0.1170675
    [944,]
                           -0.2592677 -0.1170675
##
            0.1199040
##
    [945,]
            0.1199040
                           -0.2592677
                                       0.7274909
##
    [946,]
                           -1.0139085
                                        0.7274909
            0.8720965
##
    [947,] -0.6322886
                           -0.2592677
                                       0.7274909
##
    [948,] -1.3844812
                           -1.0139085 -0.9616259
##
                           -0.2592677 -0.1170675
    [949,]
            0.8720965
##
    [950,]
            0.1199040
                           -0.2592677 -0.9616259
##
    [951,] -0.6322886
                            0.4953731
                                       0.7274909
##
    [952,] -1.3844812
                            2.0046548 -0.9616259
##
    [953,]
            0.8720965
                            1.2500140 -0.1170675
                           -1.0139085 -0.9616259
##
    [954,]
            1.6242891
##
    [955,]
                            1.2500140
                                       0.7274909
            1.6242891
##
    [956,]
            0.1199040
                           -1.0139085 -0.9616259
##
    [957,] -1.3844812
                           -1.0139085 -0.1170675
##
                           -0.2592677 -0.9616259
    [958,] -0.6322886
##
    [959,] -0.6322886
                            1.2500140 -0.1170675
##
    [960,]
                           -1.0139085 -0.1170675
            0.1199040
##
    [961,] -1.3844812
                           -1.0139085
                                        1.5720492
##
    [962,]
            0.8720965
                            1.2500140
                                        0.7274909
                           -1.0139085 0.7274909
    [963,] 0.1199040
```

```
##
    [964,] -0.6322886
                            1.2500140
                                        1.5720492
##
    [965,]
            0.1199040
                           -0.2592677
                                        1.5720492
##
    [966,]
            1.6242891
                            1.2500140
                                        0.7274909
##
    [967,]
            1.6242891
                           -1.0139085
                                        2.4166076
##
    [968,]
            0.1199040
                           -0.2592677
                                        0.7274909
##
    [969,] -0.6322886
                            0.4953731 -0.1170675
##
    [970,] -0.6322886
                           -1.0139085 -0.9616259
##
    [971,] -0.6322886
                           -1.0139085
                                       2.4166076
##
    [972,] -0.6322886
                            0.4953731 -0.1170675
    [973,]
##
            0.1199040
                           -0.2592677 -0.1170675
##
    [974,] -1.3844812
                           -1.0139085
                                       0.7274909
##
    [975,] -0.6322886
                           -0.2592677 -0.9616259
##
                            2.0046548
                                       2.4166076
    [976,]
            1.6242891
##
    [977,]
                           -0.2592677
                                       0.7274909
            1.6242891
##
    [978,] -0.6322886
                            1.2500140 -0.9616259
    [979,]
##
                           -1.0139085 -0.1170675
            0.1199040
##
    [980,]
                           -0.2592677
                                       0.7274909
            0.8720965
##
    [981,]
            0.8720965
                           -1.0139085
                                       1.5720492
    [982,] -0.6322886
                           -1.0139085 -0.1170675
##
##
    [983,] -1.3844812
                           -1.0139085 -0.1170675
                           -0.2592677 -0.9616259
##
    [984,]
            0.8720965
##
            0.1199040
                           -1.0139085 -0.9616259
    [985,]
##
    [986,] -0.6322886
                           -1.0139085 -0.1170675
##
    [987,] -0.6322886
                            1.2500140
                                       1.5720492
##
    [988,] -0.6322886
                           -1.0139085 -0.9616259
##
    [989,]
            1.6242891
                            1.2500140
                                       0.7274909
##
    [990,]
           1.6242891
                            2.0046548
                                      0.7274909
##
    [991,] -0.6322886
                           -1.0139085 -0.1170675
##
    [992,] -1.3844812
                           -0.2592677 -0.9616259
##
    [993,] -0.6322886
                            2.0046548 -0.1170675
##
    [994,] -1.3844812
                           -0.2592677 -0.9616259
##
    [995,] -1.3844812
                           -1.0139085 -0.9616259
##
    [996,] -0.6322886
                            2.0046548 -0.9616259
    [997,] -1.3844812
                           -1.0139085 -0.9616259
##
    [998,]
            0.8720965
                           -1.0139085 -0.9616259
##
                            2.0046548 -0.1170675
    [999,]
            0.1199040
## [1000,]
            1.6242891
                            2.0046548 0.7274909
## [1001,]
            0.1199040
                            0.4953731 -0.9616259
## [1002,] -0.6322886
                            0.4953731 -0.9616259
## [1003,] -1.3844812
                            0.4953731 -0.9616259
## [1004,]
                            1.2500140 -0.1170675
            0.8720965
## [1005,] -0.6322886
                            2.0046548 0.7274909
## [1006,]
            0.1199040
                            0.4953731 -0.1170675
## [1007,]
            0.1199040
                            1.2500140 -0.9616259
## [1008,] -1.3844812
                           -1.0139085 -0.9616259
## [1009,] -0.6322886
                           -0.2592677 -0.9616259
## [1010,] -0.6322886
                            0.4953731 -0.9616259
## attr(,"scaled:center")
## Slow.songs.or.fast.songs
                                                 Dance
                                                                             Folk
                                              3.116832
                                                                         2.291089
                    3.328713
```

```
##
                    2.129703
                                              2.954455
                                                                        2.762376
##
                                                  Rock
                                                              Metal.or.Hardrock
                         Pop
##
                    3.471287
                                              3.760396
                                                                        2.359406
##
                        Punk
                                          Hiphop..Rap
                                                                     Reggae..Ska
##
                    2.455446
                                              2.910891
                                                                        2.777228
##
                Swing..Jazz
                                           Rock.n.roll
                                                                     Alternative
##
                    2.756436
                                              3.140594
                                                                        2.824752
##
                      Latino
                                       Techno..Trance
                                                                           Opera
##
                    2.840594
                                              2.343564
                                                                        2.138614
  attr(,"scaled:scale")
   Slow.songs.or.fast.songs
                                                                            Folk
                                                 Dance
##
                  0.8334361
                                            1.1712673
                                                                       1.1404882
##
                                      Classical.music
                                                                         Musical
                     Country
##
                                             1.2489460
                                                                       1.2596389
                  1.0814266
##
                                                  Rock
                                                              Metal.or.Hardrock
                         Pop
##
                  1.1608357
                                             1.1829713
                                                                       1.3717147
##
                                                                     Reggae..Ska
                        Punk
                                          Hiphop..Rap
##
                   1.3027740
                                             1.3758429
                                                                       1.2163717
##
                Swing..Jazz
                                           Rock.n.roll
                                                                     Alternative
##
                  1.2569266
                                             1.2362367
                                                                       1.3474570
##
                      Latino
                                       Techno..Trance
                                                                           Opera
##
                  1,3294468
                                            1.3251337
                                                                       1.1840508
#as.matrix(scale.hobbies)%*%fact.load.hobbies%*%solve(t(fact.load.hobbies)%*%
fact.load.hobbies)
fit.pc.music<- principal(music_transformed[-1], nfactors=4, rotate="varimax")</pre>
fit.pc.music
## Principal Components Analysis
## Call: principal(r = music transformed[-1], nfactors = 4, rotate = "varimax
")
## Standardized loadings (pattern matrix) based upon correlation matrix
                                            RC2
                                                  RC4
                               RC1
                                     RC3
                                                        h2
                                                             u2 com
## Slow.songs.or.fast.songs
                              0.10 -0.14 -0.05
                                                 0.61 0.40 0.60 1.2
## Dance
                                    0.07 0.49
                                                 0.61 0.66 0.34 2.2
                             -0.20
## Folk
                              0.05
                                    0.68 0.04
                                                 0.07 0.47 0.53 1.0
## Country
                              0.14
                                    0.54 0.07
                                                 0.09 0.32 0.68 1.2
## Classical.music
                                   0.75 -0.06 -0.10 0.62 0.38 1.2
                              0.20
                                   0.55 0.36 -0.20 0.47 0.53 2.0
## Musical
                             -0.01
## Pop
                             -0.23
                                    0.03 0.58
                                                 0.19 0.43 0.57 1.5
## Rock
                              0.73
                                   0.11 -0.05 -0.05 0.56 0.44 1.1
## Metal.or.Hardrock
                                   0.10 -0.36
                                                0.10 0.63 0.37 1.6
                              0.69
## Punk
                              0.77 -0.05 -0.12
                                                 0.05 0.61 0.39 1.1
## Hiphop..Rap
                             -0.09 -0.25 0.55
                                                 0.39 0.52 0.48 2.3
## Reggae..Ska
                              0.49 -0.06 0.54
                                                 0.02 0.54 0.46 2.0
## Swing..Jazz
                              0.41
                                   0.42 0.39 -0.20 0.53 0.47 3.4
## Rock.n.roll
                              0.63
                                   0.30 0.24 -0.14 0.57 0.43 1.9
```

0.61 0.17 -0.06 -0.07 0.41 0.59 1.2

Classical.music

Country

Musical

##

Alternative

```
## Latino
                            -0.07 0.36 0.63 -0.04 0.53 0.47 1.6
                            -0.09 0.06 0.11 0.77 0.61 0.39 1.1
## Techno..Trance
                             0.06 0.77 -0.06 -0.10 0.61 0.39 1.1
## Opera
##
##
                          RC1 RC3 RC2 RC4
## SS loadings
                         2.98 2.75 2.09 1.68
## Proportion Var
                         0.17 0.15 0.12 0.09
## Cumulative Var
                         0.17 0.32 0.43 0.53
## Proportion Explained 0.31 0.29 0.22 0.18
## Cumulative Proportion 0.31 0.60 0.82 1.00
## Mean item complexity = 1.6
## Test of the hypothesis that 4 components are sufficient.
## The root mean square of the residuals (RMSR) is 0.08
## with the empirical chi square 1794.42 with prob < 8e-317
## Fit based upon off diagonal values = 0.88
round(fit.pc.music$values, 3)
## [1] 3.790 2.656 1.913 1.126 1.092 0.972 0.863 0.823 0.655 0.647 0.573 0.5
## [13] 0.462 0.443 0.413 0.383 0.358 0.330
fit.pc.music$loadings
##
## Loadings:
                            RC1
                                   RC3
                                          RC2
                                                 RC4
## Slow.songs.or.fast.songs
                             0.101 - 0.139
                                                  0.607
## Dance
                                           0.486 0.613
                            -0.195
## Folk
                                    0.676
                             0.138 0.541
## Country
## Classical.music
                             0.196
                                    0.753
                                                 -0.101
## Musical
                                    0.549
                                          0.355 -0.204
                                           0.583 0.190
## Pop
                            -0.229
## Rock
                             0.734
                                    0.106
## Metal.or.Hardrock
                             0.692
                                          -0.361
## Punk
                             0.771
                                          -0.120
## Hiphop..Rap
                                   -0.245 0.547
                                                  0.394
## Reggae..Ska
                             0.486
                                           0.545
                             0.406 0.417 0.389 -0.196
## Swing..Jazz
## Rock.n.roll
                             0.634 0.296 0.241 -0.138
## Alternative
                             0.614
                                    0.174
## Latino
                                    0.359
                                           0.632
## Techno..Trance
                                           0.111 0.766
## Opera
                                    0.768
                                                 -0.104
##
                    RC1
                          RC3
                                RC2
##
                                      RC4
## SS loadings 2.976 2.746 2.087 1.678
```

```
## Proportion Var 0.165 0.153 0.116 0.093
## Cumulative Var 0.165 0.318 0.434 0.527
# Loadings with more digits
for (i in c(1,3,2,4)) { print(fit.pc.music$loadings[[1,i]])}
## [1] 0.1005791
## [1] -0.04771002
## [1] -0.1393627
## [1] 0.607374
# Communalities
fit.pc.music$communality
## Slow.songs.or.fast.songs
                                                                         Folk
                                               Dance
##
                  0.4007175
                                           0.6551056
                                                                    0.4657410
##
                    Country
                                     Classical.music
                                                                      Musical
##
                  0.3239415
                                           0.6190906
                                                                    0.4691442
##
                        Pop
                                                Rock
                                                            Metal.or.Hardrock
##
                  0.4294610
                                           0.5559337
                                                                    0.6288478
##
                       Punk
                                         Hiphop..Rap
                                                                  Reggae..Ska
##
                  0.6141975
                                           0.5227669
                                                                    0.5366799
##
                Swing..Jazz
                                         Rock.n.roll
                                                                  Alternative
##
                  0.5293669
                                           0.5661608
                                                                    0.4149442
##
                                      Techno..Trance
                     Latino
                                                                        Opera
##
                  0.5349706
                                           0.6105532
                                                                    0.6083714
# Rotated factor scores, Notice the columns ordering: RC1, RC3, RC2 and RC4
fit.pc.music$scores
##
                    RC1
                                 RC3
                                               RC<sub>2</sub>
                                                             RC4
##
      [1,] -0.905280763 -1.111868042 -0.9015955175 -0.9908207894
##
           1.369502046 -1.691773134 -0.8834126853 -0.4871814014
##
      [3,]
           1.557296385 0.796040392 0.2946552938 -0.5215942352
##
      [4,] -0.109651498 -1.737006860 -1.3213308044 -0.5307296708
      [5,] -1.164891973  0.204316454  0.9882521853  0.1786337646
##
      [6,] 1.475223992 0.224793455 -0.2426580274 -0.6876971278
##
##
      [7,] -1.340713907
                        0.124116404 -0.4631336242 2.5186523565
##
      [8,] -0.529767074 -0.678672092 -0.1265706849 -0.0206002358
      [9,] -0.191465642 -0.838408853 -1.0886738923 -0.7945326523
##
##
     [10,] 0.740400553 0.567975814 1.0807406905 -1.5145375557
##
     [11,] -0.788635551 -0.247727919 0.0141213033 0.2332473004
##
     [12,] -0.324571727 -0.440033092 -1.7300873504 -1.4457062489
##
     [13,]
           0.224078787 -0.162149790 -1.2930806376 -0.9369505202
##
     ##
     [15,] 1.603316357 -1.667136634 0.7244966884 -1.3344984850
##
           1.456837930 -0.119273657 -0.7878618934 -0.4608140418
     [16,]
##
     [17,] -0.232002809 -1.494511653 -0.1042702080
                                                    0.1553548553
##
     [18,] -0.005597510 -0.127544958 0.3012742878 -0.4872684972
##
     [19,]
            0.703238211
                        1.501045815
                                     1.3259693211
                                                    1.1351993628
##
           1.036774920 0.629596589 -0.3616685904 0.3416337292
     [20,]
```

```
##
     [21,]
            1.722349234 0.901805846 -0.2679196431
                                                      0.3764563062
##
     [22,]
            1.293629877 -0.646129141 -2.0502000561
                                                      0.1597527641
##
     [23,] -1.195871179
                          0.395957586 -0.5923258215
                                                      0.1017872471
##
     [24,]
            0.035391202 -0.620724332
                                      1.1765974440
                                                    -0.7812207960
                                                      0.0860316889
##
     [25,]
            0.436926206
                          0.391743235 -2.0215449867
##
     [26,] -2.243607318 -0.473831384
                                       0.4791641913
                                                    -0.2994383531
##
                          2.139159586 -0.2370659703
                                                      1.5340276588
     [27,] -0.061832102
##
     [28,]
            0.772633095
                          0.052932434 -0.8021851615
                                                      1.5111639495
##
     [29,]
            0.054087055 -1.717093937
                                       0.3011187222
                                                      0.7733613653
##
     [30,]
                          0.334688407
                                       0.6079344105
                                                      0.3194801356
            0.324510012
##
     [31,] -0.105210151
                          0.690743019
                                       0.6430610680
                                                      0.4146584766
##
     [32,] -1.491190789 -0.385887236
                                       1.2165453376 -0.7204046784
            0.963625760 -0.757847948 -0.4645849980
##
     [33,]
                                                      1.3191028917
##
     [34,] -0.608603302
                          1.524297227 -0.0829626839 -1.1421221380
            1.181658366 -0.660652768
                                       0.1493653186 -0.4672336809
##
     [35,]
##
     [36,] -1.028692320
                          0.032504293
                                       1.4512049929 -1.0946533607
##
     [37,] -1.802914065
                          0.851784212 -1.6648737819 -1.1576937721
##
     [38,] -0.042711593 -0.580292139 -2.4991626988
                                                      0.0649551664
##
     [39,] -0.529277198
                          0.668498969
                                       0.5907755114
                                                      2.1039706019
##
     [40,]
            0.664798804 -0.152988996 -0.8364502079
                                                      0.0703192721
##
     [41,] -1.967560605 -1.435344937 -0.0349791416
                                                      0.3604660235
##
     [42,]
            1.508261982
                          1.543549689
                                       0.5186774119
                                                      2.4695311916
##
     [43,]
            1.237009846 -0.359167393
                                       0.1133368962
                                                      0.8447883457
##
     [44,] -0.342571009 -1.123648839
                                       0.2245209529
                                                      0.3439478920
##
     [45,] -0.742509881
                          0.572973710
                                       0.3032623550
                                                      0.7643604160
##
     [46,] -0.395432107
                          0.872755471
                                       1.0636210358
                                                      0.7288473946
##
     [47,]
            0.435873977
                          0.403641820
                                       1.7330473960 -0.0272615274
            0.019764286 -0.389223422
                                       0.1505025916 -0.9095788369
##
     [48,]
##
     [49,] -0.497347567 -1.617569665
                                       1.6059970273 -0.4090917944
##
            1.093053542 -1.316394972 -0.8880961526
                                                      0.1915016075
     [50,]
     [51,]
##
            0.834902066
                          0.715023637
                                       1.5484421372 -1.1190593354
##
                                       1.1826017377 -0.4221872589
     [52,]
            0.341088394
                          0.373466508
##
     [53,]
            0.665317011
                          2.708747707
                                       2.0470421932
                                                      0.5209323936
##
     [54,] -0.754587075
                          2.103031651
                                       0.6920422394 -0.1337316806
##
     [55,]
            0.359118593
                          2.790957776
                                       0.7406557084
                                                      1.2264051372
##
     [56,]
            0.071338387
                          0.715977504
                                       0.5570662476
                                                      1.0838792624
     [57,]
##
            1.103408056
                          0.540965624 -0.2185505922 -1.4152647567
##
            0.814228037
                          0.076830610 -0.6876625750 -0.8034273684
     [58,]
##
     [59,] -1.718647792
                          0.138981063 -0.2690084050
                                                      1.6790337502
            1.763523907 -0.453086275 -0.7375293753
##
     [60,]
                                                      0.8231255659
##
     [61,]
            0.125824950
                          0.320522396
                                       0.2699500628 -1.8456253612
##
     [62,] -0.551707644
                          0.554226966
                                       0.5303319184
                                                      0.6597035701
##
     [63,] 1.449167727
                          2.345300545
                                       1.1557430282
                                                      2.0191567776
##
     [64,] -0.459027419 -0.820882021
                                       0.6864745954
                                                      1.7760767157
##
     [65,] -0.727253572 -0.805274402 -0.0264549059 -0.7563488228
##
     [66,] -0.644109738 -0.759803155 -0.7458258129
                                                      0.8426137635
##
     [67,] -0.147285377 -0.187217392
                                       0.7198493507
                                                      1.0655636642
     [68,] -1.188137280 -0.124069779
                                       2.0983590999 -0.5876775576
##
##
     [69,] 2.082564510 -0.481066030 -0.2074384844
                                                      1.1226315622
##
     [70,] -1.429166340 -0.744237393 -0.1856253406 -1.3929207914
```

```
##
     [71,] -1.468875908 -0.554234142 0.8623456691
                                                   0.6793119591
##
     [72,] -1.117601738 -0.652094591 -0.3124837269
                                                   0.0912355956
##
     [73,]
           0.257741415 -0.619344683
                                     1.2321132565 -1.1779057586
##
     [74,] -1.147525669 -0.885425942
                                     0.7475124196
                                                   0.2751634797
     [75,] -1.658585782
##
                        0.618482918 -0.7477908336 -0.1583373583
##
     [76,]
          1.960666640 0.230084032
                                     0.1763957536 -0.3355841541
     [77,] -1.085035125 -1.349848430 -0.9377481409
##
                                                   0.2539036547
##
     [78,] -0.882389181 -0.557192913
                                     0.9725675779
                                                   1.2997970084
##
     [79,]
           0.107495171
                        0.216944304
                                     2.8217463172
                                                   0.2959342948
##
     [80,] -0.183961189
                        1.522704178
                                     0.9752297615
                                                   1.1008495445
##
     [81,]
           0.505005184 -0.450215044
                                     1.6203522869
                                                   0.0305932473
##
     [82,]
           0.453290206 -0.158752217
                                     1.5922015956
                                                   0.4909657372
                        0.110085074 -3.1350665119
##
     [83,]
           1.079381366
                                                   0.3689469789
##
     [84,] -0.545663924
                        0.927671900 0.9839244985
                                                   0.9518500931
##
                        1.181182588 -0.1347646011 -1.2025751506
     [85,]
           2.142417533
##
     [86,] -0.629873840
                        2.112030295 -1.8609537306
                                                   0.5852294233
##
     [87,]
           0.8990546164
##
           1.337534119 -1.016560183 1.8920565713 -0.2004630139
     [88,]
     [89,]
##
           0.141081511 0.516086697 0.6361772057
                                                   1.4073214693
##
           0.718230241
                        0.337031182 -0.6416137495 -0.9846168549
     [90,]
##
     [91,] -0.402538499 -0.693583337 -0.5085111572 -1.4641306025
##
           1.306524461 -0.434179638 -1.0772821989
                                                   0.0502709627
     [92,]
                        1.574355955 -0.1668074644 -2.2787497242
##
     [93,] -0.318933699
##
     [94,] -0.375939755
                        2.392325309 -1.4403194098 -0.3658176347
     [95,] -0.227256280 -1.524231492 -0.0250521061
##
                                                   2.1813755829
##
     [96,]
           0.082799462 -0.262167071 1.4906700505 -0.7081553915
##
     [97,]
           0.545798152 -1.566300224 -2.3369755298
                                                   0.6771210800
##
     [98,] -1.596652789 -1.769004060 -0.5921648814 -0.4816004179
##
     [99,]
           0.220728895 -1.125643643 0.0437903089
                                                   1.1099912420
    [100,] -0.859740557 -1.422161174
                                     0.7941557935 -0.8090997766
##
##
    [101,]
           0.268954712   0.453842277
                                     0.8534000162
                                                   0.3756947782
           1.240035910 -0.433891801 -1.5671663057 -0.7826376116
##
    [102,]
##
    [103,]
           1.793135468
                        0.987054663 -0.5732366545 -1.7112551356
##
    [104,] -0.919106235
                        0.428409334 2.2560548080
                                                   1.3721220984
##
    [105,]
           1.046670375
                        0.390553193 -0.5425610380
                                                   0.7299552426
    [106,] -0.291852121 -0.065735565 -2.3685334799
##
                                                   0.0446815533
                        2.072902177 1.3320914707
##
    [107,]
           0.271536318
                                                   0.3859401600
##
           0.402695974 -1.141132440 -0.8606939461 -1.6378191505
    [108,]
##
    [109,] -0.103456814
                        0.042869212 -2.2874060666
                                                   0.0378309682
                        0.919182469 -1.2746296228
                                                  -0.7580738805
##
    [110,]
           0.163421263
##
    [111,]
           0.7683965466
##
    [112,]
           0.322924001
                        1.408143948 -0.2186629146
                                                   0.6881697591
##
    [113,] -0.429036750
                        0.1345287384
##
    [114,] -0.973777988 -0.357500697 -0.8652940899
                                                   1.9706268785
    [115,] -0.352980214 -0.091140170 -0.5478895888 -1.2694914179
##
##
    [116,] -0.180502387  0.734029074  1.0072512004  0.8492797059
##
    [117,]
           0.202927352 -0.754076001 -0.9881152750 -1.0889745747
    [118,] -1.537225575 -0.803882050 -0.1743699149 -1.3000552366
##
##
    [119,] 1.195362969 -0.777574616 -0.1131879163 -1.3817865609
  [120,] -1.559309620 -0.137560204 -0.4034151751 -0.1960154978
```

```
0.545044006 -0.1296436514
##
    \lceil 121, \rceil
            1.313122991
                                                    0.6884459206
##
    [122,] -0.275017430 -0.352071245 -0.5277368499
                                                    0.4336057500
##
    [123,]
            1.148056358
                         0.666438017 -0.6295513486 -1.0734815824
##
    [124,]
                         1.073509858
                                      0.1046196048 -0.9102631559
            0.156891015
##
    [125,]
            0.506763323
                         2.142160463 -0.7878947179 -0.7419259564
##
            0.885846817
                         0.033504615
                                      0.0211319876 -0.5065196067
    [126,]
    [127,] -0.423327570 -1.383288356 -0.9617262167
##
                                                    1.0704760500
##
    [128,]
           0.706093087
                         0.920905100
                                      0.0205529570
                                                    0.4188344078
##
    [129,]
            0.781104735
                         1.570221720
                                      0.2173210745
                                                    2.4623157625
    [130,]
                                      0.6222090366
##
            0.459170330 -0.603058671
                                                    0.0346081736
            0.004775090 -0.267951037 -1.1517589513 -0.8519707732
##
    [131,]
##
    [132,] -1.346021011 -1.415276286 -0.3547175741
                                                    0.8181776044
##
    [133,]
           0.582021350 -2.035611950
                                     0.3362891864 -0.4530650009
##
    [134,] -1.327893852  0.908029460 -1.1087106594 -1.3690004524
                                      1.2184666066
##
    [135,] -0.140887387
                         0.534028111
                                                    0.3640920719
##
    [136,] 2.014664415 -0.233956292 -0.3141337740 -0.6281301094
##
    [137,] -1.860801049
                         0.130574992 -0.6923918703
                                                    0.2761390469
##
                                      1.6431145764 -0.3820646934
    [138,] 0.041600291
                         1.174064133
    [139,] -1.032793066
                         0.898634268
                                      0.4282504113 -1.5522554992
##
                                      1.2551198478
                                                    1.0506120414
##
    [140,] -0.280498595
                         0.084646362
    [141,] -0.179284783 -0.136745709
##
                                      0.4897461530 -0.1007876221
##
    [142,] 1.120400927 -0.889392634 -0.7721605031
                                                    0.3965633771
##
    [143,] -1.112902175 -0.734460378 -0.1549589232
                                                    0.5500122193
##
           0.021739130 -1.580681842
                                      0.6057928853
                                                    1.1180685604
    [144,]
##
           0.025783905 -0.255932510
                                      0.2287261079 -0.3436837593
    [145,]
##
    [146,] -0.958436220 -0.617574498 -1.3368228548
                                                    0.5890915439
##
    [147,] -0.566446140 -0.515800010 -0.6247159885
                                                    2.3293542590
##
    [148,]
           0.733188754 -0.866544217 -0.5643594131
                                                    0.5786483141
##
    [149,] -0.151722631
                         0.738327088 0.6227711149
                                                    0.8262327286
    [150,] -1.361134118 -0.154186345 -1.6443998091 -1.0798945773
##
##
    [151,] 0.769518842
                         1.076075495 -1.1924013391 -1.3064952198
           1.798583126 -1.218883868 0.0029221500 -0.1298796585
##
    [152,]
##
    [153,] -0.139107112 -0.114386636
                                      0.7878418213
                                                    0.1300231973
    [154,] -1.303549280
##
                         0.434428529 -0.0241397357
                                                    1.6069648447
##
    [155,]
           0.933367093
                         0.663245991 -2.0707980390 -0.5645945923
##
                         1.115136324 -0.6906635581
                                                    0.7686717568
    [156,]
            0.025721369
##
    [157,]
            1.187811995 -0.004027409 -0.2960735126
                                                    0.0325810110
##
                         0.340406768 -1.5570595236
    [158,]
            0.071546453
                                                    1.6105383153
##
    [159,]
            0.484996370 -0.895085942
                                      1.4138332645
                                                    0.8126569695
##
    [160,]
            0.596165630
                        1.419968445
                                      0.2565497375
                                                    0.6258239363
##
            2.403437386 -1.477920892 -0.3449733013
                                                    0.1775396384
    [161,]
##
    [162,]
           0.412302849 -0.758721301 -0.1424690823
                                                    0.1520941539
##
    ##
    [164,] -1.041169981 -0.802435909 -1.9246616957
                                                    1.9260872435
##
    [165,]
           0.456352913 -0.190905024 -0.0236507123
                                                    0.4748973877
##
    [166,] -1.430611142 -0.123323695
                                     1.2188544858
                                                    0.8674447958
##
    [167,] -0.574729933  0.440401509 -3.3824782487
                                                    0.3759577660
                                                    0.2606184953
##
    [168,]
           0.815340818 -0.501518852 0.2909897269
           0.198755317 -0.655328790 0.3755299048 -0.1874542572
##
    [169,]
    [170,] 0.623841287 -0.149768151 -1.3401624533 -1.0081122487
```

```
[171,]
           0.717858338 -0.536048498 0.5030606273 -1.3673845655
##
    [172,] -0.360323627 -0.674472385 0.3702464159 -0.4260244431
##
    [173,]
           1.032783645 -1.4053894486
##
    [174,] -1.551796504
                                                 0.3059473111
##
    [175,] -2.571853348
                        1.948015990 -2.1996461550 -1.4177259795
##
           1.091321947 -0.474006935 0.3831814168 -1.2045043941
    [176,]
           1.640244256 -0.744153862 -0.5352882493 0.1305649162
##
    [177,]
##
    [178,]
           1.174456366
                       0.853901651 -1.8545172681 -0.9008660846
##
    [179,]
           0.352931496
                       1.253674919 -2.0631457723 -0.7464385455
    [180,] -1.840895232
                       1.651777563 -2.6705295133 -0.0943327229
##
           1.441468702 -1.141554949 -1.5056283374 -0.2535701358
##
    [181,]
##
    [182,]
           0.535454181
                        0.936599504 1.0562546133 0.2886438225
##
    [183,]
           0.343999936
                       1.241238102 0.1738326898 -0.3259653303
##
    [184,] -0.356248402 -0.058370241 1.5657458779 -0.2086198998
                        0.238215030 -0.9389737034 -1.0852292436
##
    [185,]
           0.519525161
##
    [186,] -0.990265466 -0.645698012 1.6472895503 -0.9517037636
##
    [187,] -1.906329307
                        1.381583269 -0.7695854421 -1.2123153901
##
    [188,] -0.585513295 -0.468644353 -1.8833994389 0.5493826733
##
    [189,] -1.442437867
                        1.295579961 -0.6742040419 -0.6534587568
##
    [190,] 0.181245136
                       1.161020858 -3.0835671265 -0.4968740766
                        0.217139168 -1.6412060741 0.3589710115
##
    [191,] 0.728239241
##
    [192,] -1.081718846
                       1.872900198 0.3076161776 -1.4436563382
##
    [193,] -0.646657460 -0.733461887
                                    1.0037875933 -0.1347094739
##
          1.748748780 1.198369159 -1.9933083595 -0.7522764476
    [194,]
    [195,] 1.188361450 -1.127197442 -1.1320373841 -0.7520576170
##
##
    [196,] -0.445325410 -0.549946307
                                   0.1092072687 -1.0039220022
##
    [197,] 0.489147161 -0.338460661 0.5417853026 -0.1754403115
##
    [198,] -1.683719752 -0.474993950 -0.1034948855 -0.9211482633
##
    [199,] 1.328067841 -0.595481816 0.3265483855
                                                 0.2843781126
    [200,] -1.291264110 -1.438887382 -0.7472884256
                                                 1.2995574848
##
##
    [201,] 0.845708294 -0.820213734 0.7767828704 -0.1496937348
    [202,] 1.168110667 -0.361940996 1.2651918046 -0.2118156736
##
##
    [203,] -1.439161886 -1.655202360 -0.0264650292 1.2181032451
    [204,]
##
           0.073214155 -0.075531348 -0.0711571174 0.7059639978
##
    [205,]
           1.881960581 -0.153233690 0.3955822508 -0.8860292422
##
                       2.632967611 -0.1657608726 -2.2093856826
    [206,] -0.656924049
                       1.696532379 -0.8496621873 -0.2447409972
##
    [207,]
           0.267794283
##
    [208,] -0.422368758
                       1.404186956 -0.0060574304 -1.2835589503
##
    [209,]
           1.372942484 -1.020749145 1.8241553481 -1.1895554053
##
    [210,]
           1.017721753 0.425830203
                                    1.0745656576 -0.3973820265
##
    [211,]
                       1.418373318
                                    0.4840929638
                                                 2.6650126911
           1.291171490
##
    [212,]
           0.211701773 -0.509994918
                                    2.8711486261
                                                 0.5393332380
##
    [213,]
           0.730391162
                      1.321786606 -1.4760896219 -0.4650178648
##
    [214,]
           0.486604179
                       0.263263210 0.0993103765
                                                 1.9783663848
##
    [215,]
           ##
    [216,] -2.061274523 -1.318777892 0.1144953425 -0.8707382404
##
    [217,] 0.328244902 -1.562989761 -2.4661793255
                                                 0.0814414721
   ##
##
    [219,] -0.952526649 -0.630787690 -0.3146924476
                                                 0.4045031328
## [220,] -1.735858258 -1.205227991 -0.2807211587 2.4519937624
```

```
0.3185094327 -0.2831113033
##
    [221,]
            0.018480579
                         0.469093005
##
    [222,]
            1.795328331
                         0.765040476
                                      0.7352636394 1.1181214192
##
    [223,]
            0.242927949
                         0.446722067 -0.0519174407 -0.5384932311
##
    [224,] -0.956124382
                         0.022165345
                                      0.8487014454 -0.3467721270
                         0.312226508 -0.3090547459 -0.6508272918
##
    [225,]
            0.946555284
##
            1.597024469
                         0.268564248
                                       0.3062964242 -0.4501289837
    [226,]
                                      0.6946354228 2.2467327777
##
    [227,]
            0.520909020
                         0.730948628
##
    [228,]
            0.452311562
                         1.423428161 -0.2080182737 -1.4769748432
##
    [229,] -0.315253142
                         1.661572860 -0.4275375110 -0.4541101852
    [230,]
                                       0.4712228559 0.4124854943
##
            0.193693407 -0.414973497
                         1.951844278
                                       1.1355427675 -0.9503906838
##
    [231,] -0.691479351
##
    [232,]
            0.229463281 -0.355685527
                                       0.7058822585 -1.9470717749
                                       0.2083486004 -0.6546166120
##
    [233,]
            0.007789757
                         0.024561005
##
    [234,]
            1.045166960 -0.231367689
                                       0.6216808738
                                                    1.4253772525
                                       0.1126749580
##
    [235,]
            1.104504768 -0.366853632
                                                     0.6655874779
##
            0.216606995 -0.283994574 -0.7030308290 -1.6561725232
    [236,]
##
    [237,]
            0.387823170 -0.009131572
                                       1.0683102750 -1.1391361975
##
    [238,] -0.783261213 -0.339929390
                                       1.5708015693 0.4161660196
                                       1.3988086569 -1.7961888550
    [239,] -1.059750902 -1.153104241
##
            0.370556260 0.558826450 -0.2008706947 -0.2751519574
##
    [240,]
    [241,] -0.661525337 -1.508392497 -1.3260894009 -0.2092044564
##
##
    [242,] -0.380847732 -0.134447592
                                       0.4750015157 -0.9167857904
##
    [243,] -1.642063965
                         0.307262516
                                       0.2205962005 -1.3605195304
##
                         0.145808727
                                       0.7096062096 -1.8054965452
    [244,]
            0.705116753
##
            0.317747326
                         0.456631480
                                       1.5592286154 -0.1820651011
    [245,]
##
    [246,]
            1.796237439 -0.835266585
                                       1.0486739794 -0.9239640323
##
                                       0.9760910877 -0.8429018499
    [247,]
            0.176387680
                         0.500505750
##
    [248,]
            1.007152653 -0.160005574
                                       1.3150870930 -1.1128077252
##
            0.093861792 -0.083940032 -0.4814907445 0.7374369310
    [249,]
                                      0.2349080637 -0.0423018104
##
    [250,]
            0.758888190
                         1.963837464
##
    [251,] -0.421414006 -1.198375974
                                      0.9590342688 -0.4330402968
##
    [252,]
            0.572210468
                         0.164564356
                                      1.3634375862 2.0995826322
##
    [253,] -0.488201420
                         0.901365272 -0.2912912099 -1.1953525935
##
    [254,] -2.040968676 -1.173054070 -1.4183328532 -0.6844967882
##
    [255,] -1.120107442
                         0.439874479
                                       1.5710250920
                                                    0.2434765056
##
    [256.] 0.762900198
                         2.339063189
                                      0.1614421771 -0.7325088879
##
    [257,] -1.803254477 -0.407728357 0.6611684038 -0.6450922913
##
                         0.546007539 -0.0240235762
                                                    1.6354949954
    [258,] -0.381330802
##
    [259,]
           1.063481861 -0.067204389 -2.2914552971 -0.5972404730
##
    [260,] -0.448304079
                         1.156756182 -0.2042690679 -0.7744385025
##
    [261,] 0.022806638 0.681669981 -0.2428595635
                                                     0.2923759898
##
    [262,] -1.853002461 -0.388090193 -0.2718987857 -0.2028932582
##
    [263,]
            0.319290114 1.762596147 -0.5130975623
                                                     0.3985161209
##
    [264,]
            0.001891519 -0.082175130
                                      1.4004681940
                                                     1.3162750670
##
    [265,]
            0.381820929 -0.096919050
                                       0.9688020267
                                                     0.2614408406
##
    [266,] -1.266163221 -1.091975791
                                       0.7692314294 -0.9244167532
##
    [267,] -0.952452558
                         0.375726657
                                      0.5613954958 -1.1848437092
##
    [268,] 0.214283795
                         1.108932246 -1.0178618354 0.6723080295
##
    [269,] -1.119997030 -0.535426641
                                     1.1905052668 -1.3482740436
   [270,] -0.108950539  0.786859293 -1.1024074819 -0.3284376631
```

```
##
   [271,]
           2.465347159 -1.608657546
                                   1.9033653359 -0.5247139954
##
   [272,]
           2.429940251 -1.739267706
                                   1.2344236725
                                                 0.0057654731
##
   [273,]
           1.883388625
                       1.466708985 -0.9679159087 -0.4055264257
##
   [274,]
           0.891809923
                       0.550349684
                                   1.4652661477
                                                 0.3175078097
##
   [275,] -0.794957276 -0.290177938
                                   0.8276135799
                                                 0.7781253349
##
           0.141764140
                       1.849591480 -0.1638874389
                                                 0.4299936267
   [276,]
                                                 1.0722418375
##
   [277,]
           0.324149814
                       0.380594349 -0.7318634907
##
   [278,]
           0.103330337 -0.292925308 -0.4442818853 -0.5921569882
##
   [279,]
           0.640259034 0.783328654
                                   0.5445748371
                                                 0.9391122143
   [280,] -0.923203089 -1.113632139 -0.1717965440
                                                 0.2862031542
##
           1.0488710273
##
   [281,]
##
   [282,]
           1.573774183 0.051024854
                                   0.8088011608
                                                 0.4541751767
   [283,] -1.361461126 -1.175624143 -0.6863615832 -1.6241572514
##
##
   [284,] 0.784950867 -0.316314427
                                   1.3743783933 0.2664409475
   [285,] -1.977368192 -1.462023460 -1.9559085768 -1.8925625084
##
##
   [286,] -1.320340189 -0.067313369 -0.7070234082 -0.1960096042
##
   [287,]
          0.553429103 -0.724037894
                                   1.7925105118 -0.9274850190
##
           0.234240888 -0.398058183 -0.3779437331
   [288,]
                                                 0.2297719963
##
   [289,] -0.632424123  0.458922822
                                   0.2297291499
                                                 1.8091073318
   [290,] -0.742493651
                       0.367594779 -0.0267406115
                                                 0.0457095606
##
   [291,] -0.153373036 -0.969367738
                                   1.9374454796 -1.3121292530
##
##
   [292,]
          1.201914492 0.373908864
                                   0.0582849403 -0.0153373635
##
   [293,] -0.112262485 -0.073071152
                                   1.7660267807 0.2012824854
##
           1.535581253 -0.052275349 -0.7256065140 -2.0215875520
   [294,]
##
   [295,]
           0.698149075 -0.533319050
                                   0.7437469720 -1.3928144085
##
   [296,]
           0.981092692 0.920924579
                                   0.3479296330 -0.6351764669
##
   [297,] -0.095913130 -1.486448322
                                   0.0035739054 1.8417205037
##
   [298,]
           0.075554815 -0.292206491 -1.1049549642 -0.0556559545
                                   2.4197204831 -0.2179165345
##
   [299,] -0.326033668 -0.563517676
   [300,] 0.127623679 -1.014528426
                                   1.3350013271 -0.8784516447
##
##
   [301,]
           ##
##
   [303,] -0.361112505 -0.004745953
                                   1.7337478894
                                                 0.2679404817
##
   [304,] 0.064941555 -0.010727627
                                   0.4270315729
                                                 0.1219744788
##
   [305,] -0.949429450
                       0.196189847 -0.3031387588 -1.2357725732
##
           0.832996152 -0.751646311 -0.8006099495 -0.8216728015
   [306,]
                                                1.6063046587
##
   [307,]
           1.680821631
                       0.116848880 1.7501783752
##
                       0.652242523 -0.5965139117 -1.5528995408
   [308,]
           0.866118037
##
   [309,] -1.521913250
                       0.159507885 -0.7393011181
                                                 2.2865701266
   [310,] -0.867265805 -0.504227640 -0.1593801474 -0.1008006241
##
##
                       0.120342980 -1.2151899489
                                                 1.9844920388
   [311,] -1.206955777
##
   [312.]
          0.228041526
                       2.051500891 2.0698330094
                                                 0.5746672215
##
   [313,] 0.313564768 -1.381940550 -0.4602665155 -0.2094588980
##
   [314,] -1.171864093
                       ##
   [315,] 2.066415792
                       2.320387703
                                  1.1591013138
                                                2.0033451240
##
   [316,] -1.875410616 -0.543564740 -0.7602802013 -1.4085825681
##
   [317,] -1.219725580 -0.891955557 -0.4533289727
                                                 0.6032989838
##
   [318,] -0.401765362 -0.337087634 -0.2803124433
                                                 0.9192064995
##
   [319,] -0.510100844
                       [320,] -0.256882562  0.833394377  1.3548914167  -0.1840371741
```

```
[321,]
           0.970342141 -0.655153350 -1.0360644455
                                                  1.2637581931
##
   [322,]
           0.332471624 0.194492469
                                    1.1054628070
                                                  0.0353116857
##
   [323,]
           2.012748537 -0.169728482 -0.7841039542 -1.0414360373
##
                       1.529023392 -0.7342456207 -1.4121925730
   [324,] -1.229285816
##
   [325,] -0.121807205 -0.431599936
                                    0.5464344456 -0.1648889452
##
           1.047538100 0.241618271
                                    0.7911183024
                                                  1.3752338975
   [326,]
##
   [327,]
           0.030215537 -0.380365828
                                    0.2642013991
                                                  0.3778907152
##
   [328,] -0.535878756 -0.310882989
                                    1.7745000569 -1.1614041340
##
   [329,]
          1.799038581 -0.509744878 -0.8534585264
                                                  0.8952596005
   [330,] -0.555921920 -0.303594998
                                                  0.5807887787
##
                                    0.1026690763
           0.551364735 -0.003085395 -0.6945044456
##
   [331,]
                                                  0.4871163116
##
   [332,]
           1.3469899943
##
   [333,] -1.793475169
                        0.156604298
                                   0.4515421613 -1.1477200551
##
   [334,] -0.586129851
                        ##
   [335,] -0.561205982
                        0.017994230 -0.1904413953 -1.6383774608
##
   [336,] 0.176464014
                       0.131880565 0.5056637832
                                                 1.6533568323
##
   [337,] -0.466706304 -0.474234938 -0.0816211300
                                                  0.8673653120
##
   [338,] -1.350524160 -0.038761135 -0.5000553986
                                                  1.6932013032
   [339,] -0.868729115
                        0.460981359 -1.5898994654
                                                  0.0839730937
##
                        0.295639378 -1.2041056638 -0.9022542555
##
   [340,] 1.965843741
                       0.599145123 -0.6771573732 -2.1391505209
##
   [341,] -0.707733730
   [342,] -1.161367100 -1.542615091 -1.6539213273
##
                                                  1.2357189357
##
   [343,] -0.280973250 -0.307536660 1.1886793996 -0.4361040511
                        ##
   [344,] -0.432541057
##
   [345,] -1.066121959 0.058005808 -0.2397762674 -0.7096414516
##
   [346,] 0.211729087 -1.242957806 -0.2005760327
                                                  0.4625504213
##
   [347,] -0.349339167 -2.062101203 0.3828668833
                                                  0.2557665531
##
   [348,]
           0.090390347 -0.884519486 -1.3222106026
                                                  0.7904505914
##
   [349,] -0.952291236 2.740078032 -0.0483958379 -0.4211520072
                                   0.5607419513
                                                  1.1076884079
##
   [350,] -1.313955048 -0.436227669
   [351,] -0.050367590 -1.295517561 -0.8093736441
##
                                                  0.4923004251
   [352,] 1.142330313 0.890702916 0.5060809146 -0.8414863695
##
##
   [353,]
          0.332172572 -0.409904344 -2.1193114036
                                                  0.3622009666
##
   [354,] -0.790002382 -0.301717206
                                   0.0130968371 -0.6904879153
##
   [355,] -0.503969525
                       1.079132931 -0.6801741284
                                                  0.3534090868
   [356,] -1.187945963 -1.233998022
##
                                    0.2057199675
                                                  0.0698141321
##
   [357,] 0.402692255 0.948815822
                                    0.7826906615
                                                  0.4023262866
##
   [358,] -0.138074950 -0.957602021 -0.5155569755
                                                  0.9183999725
##
   [359,] -0.215085419
                        0.181884667
                                    0.0078363726
                                                  0.4434935171
                                                  0.1671022427
##
   [360,] -0.974249014
                        0.205722948
                                    0.9434665242
##
           0.326641728 -1.352149723 2.3338563976 -0.9026343782
   [361,]
##
   [362,]
           0.102522753
                       1.094697132 -0.5860021747 -0.8563603939
##
   [363,]
           1.149900906
                        0.933607523 -0.1148403001 -0.5703166249
##
   [364,]
           1.012599379
                        1.007517489 -0.3067253765 -1.2152937662
##
   [365,]
           0.982854664 -0.487718564 -0.4501011037
                                                  0.9803876597
##
   [366,]
           ##
   [367,] -0.760813631 -1.262173912 -0.4963883908 -0.4620600120
##
          1.698351389 -0.220054092 -0.4746531022
                                                  0.1715130878
   [368,]
##
   [369,] -0.945391641
                        0.273614729 1.6010411549
                                                  0.2060727388
  [370,] -0.521058434 -0.505639844 -1.5223472850 2.1409547380
```

```
##
    [371,]
            0.360139237 0.147623159
                                      0.7209637839 -0.0144114660
                                      0.7647717531
##
    [372,]
            0.259284025
                         3.277583104
                                                    0.3411582677
##
    [373,]
           1.043497768 -0.592764345 -1.0400644107
                                                    0.6261614538
##
    [374,] -1.553994066 -1.599450699 -0.9621246486 -0.4306987553
##
    [375,] -1.210146533 -0.914428387
                                      0.6673028970
                                                    0.5402028633
    [376,] -0.937305429 -1.122316987
##
                                      0.7679105308
                                                    0.4768715924
##
    [377,] -1.836190106 -1.682865363 -0.4134204783
                                                    0.5349367293
           1.331256372
##
    [378,]
                         0.226438014 -0.4880093723 -0.9037540261
##
    [379,] -0.506672853 -0.741744103
                                      1.3513480588
                                                    1.3691883122
    [380,] -0.536963215
                         1.837368925
##
                                      0.8672736128
                                                    0.0907957799
    [381,] -0.685429732
                         0.059991969
                                      0.8506802600
                                                    1.3484620510
##
##
    [382,]
           0.222179951
                         1.062847280 -1.8685753405 -0.3186406672
##
    [383,] -1.859252668
                         0.248534350
                                      0.6591737134
                                                    1.0279805671
##
    [384,]
           1.075542061 -0.008654118 -0.5551134250 -0.4637369592
##
    [385,]
           1.920056678 -1.426059733
                                      0.5001334269 -0.2978944047
##
           1.244672055
                        1.680346407
                                      1.8436707181
                                                    0.5612254643
    [386,]
##
    [387,]
           0.751551404 -1.178394442
                                      0.6313873165
                                                    0.6180132115
##
    [388,] -0.777496843 -0.672530583
                                      2.7935036365 -0.3517001434
    [389.]
                         0.879190467
                                      2.1837210399 -0.4356929686
##
           0.396955591
                         0.261464800
                                      0.4786335961 -0.9098022512
##
    [390,] -1.084391844
                         0.013685889 -0.8265837817 -0.8632073216
##
    [391,] -0.566084421
##
    [392,] -0.556891257
                         0.290263990 -0.1711536315 -0.1823427563
##
    [393,] -1.088003265 -0.548297684 0.9277658109 0.4993963072
    [394,] 0.094143942 -1.211794906 -2.6149809755 -0.0241699390
##
##
    [395,] -0.494521225 -1.202390092 -0.6957983367 -0.9793964351
##
    [396,]
           1.191114897 -0.819283856 -1.1983996736
                                                    1.8352109416
##
                        1.979880907 -0.3598904749 -0.5791208868
    [397,] -1.195156970
##
    [398,] -2.025631703
                         ##
    [399,] 0.810876924 -0.345880228
                                     0.6390210561
                                                    1.4102222648
                         1.423987051 -0.4238273109 -0.4592174046
##
    [400,] 0.597945755
##
    [401,] -1.239108660 -0.233839430 -0.4319334237
                                                    0.8176531965
##
    [402,] -0.467437135 -0.391917919 -1.5155551821 -0.8724331824
##
    [403,] -1.028903296
                        1.531615631 -2.1878522653
                                                    1.4910238767
##
    [404,] 0.075836026
                         0.528260947
                                      0.0980684472 -1.1541432541
##
    [405,]
           0.821111042
                         1.942272950 -0.9844215709
                                                    2.0690110015
##
    [406,] -0.806941672
                         0.728445618
                                      0.2197037316 -0.3529826400
##
    [407,] -1.005752664
                         1.892613762
                                      1.3859970732 0.1564317377
                                      0.5267256961 -0.3390736885
##
    [408,] -0.168978574
                         0.104698819
##
    [409,] -1.312593655
                         2.841049754 -0.3057134215 -0.3223240036
##
    [410,]
           0.077517432 -0.093909240
                                      0.8244067667
                                                    1.3494998591
##
           0.802428139 -1.183529269 -0.5785622051
                                                    0.9971496891
    [411,]
##
    [412,] -0.756733855 0.166300584
                                      1.5421332719 -0.8663522878
##
    [413,] -0.342979533 -1.037817111 -2.4762384889
                                                    2.2495874033
##
    [414,]
           0.424096828 -0.303942044 -0.6365996255
                                                    0.6892285785
##
    [415,] -0.498189702 0.815316137
                                      0.1775602886 -0.0066508621
##
    [416,] 0.136105073 -1.661998519
                                      0.7187214797 -0.0497314743
##
    [417,] -1.062995436 -0.419045382
                                      0.1353942370 0.4581004922
##
    [418,] 1.406557933 -1.208816894 -1.5842570641 -0.1571696334
##
    [419,] -2.211305078
                         0.437912853
                                      0.3571112476 -1.5184908359
  [420,] 0.077311577 2.319558438 1.0583706557 0.3467772859
```

```
0.546423332 -0.954975505 -2.0155674415 -0.4758374593
    [421,]
    [422,] -0.959769806
##
                        1.414137278
                                     0.6455885557 -1.7098787062
##
    [423,] -2.106876270 -0.216448708
                                     0.6171439951 1.7204776712
##
    [424,]
           0.067614063
                        0.035941857
                                     0.2037073121 -1.0651777025
##
    [425,] -0.990996747 -0.169656896
                                     0.4657421047
                                                   2.4812644645
##
           1.675108542 -0.996299079
                                     0.2492157222 -0.3677147583
    [426,]
           0.930557226 -1.542007479 -0.5187843486 -2.1728082528
##
    [427,]
##
    [428,] -0.021214648
                        0.918613282 -0.4205571665 -0.6277994544
##
    [429,] -0.887730727
                        0.974810842
                                     0.0181474649
                                                   0.8424735524
    [430,]
           1.097652416 -0.555095923 -1.9851396941 -0.0453845180
##
           0.190871846
                        0.558471414
                                     0.0948544485
                                                   0.9975364774
##
    [431,]
##
    [432,] -1.272674328
                        0.599243564
                                     0.0854607311
                                                   0.7170497731
##
    [433,]
          1.482517873 -0.812791025 -0.6721581420 -0.7725024913
##
    [434,]
           0.4249532946
                                     1.5072638763
                                                   0.7088208293
##
    [435,] -1.069681846 -0.629590547
##
    [436,] 0.976046035 -1.561149885 -1.4441210272 -0.9741917699
##
    [437,] -0.258124758 -0.527210325 -0.0270118957 -0.2822053784
##
    [438,] -1.020505130 -1.324638547 -0.9660891042
                                                   0.1136857518
    [439,] 0.433296551 -1.423396546 -0.3369401419 -0.8767410253
##
    [440,] -0.852002100 -0.840038550 -0.0115745364
                                                   2.0948596638
##
    [441,] -0.249355239 -0.156367459 0.8008371605
##
                                                   0.2063199353
##
    [442,] -1.416187032 -0.795552879
                                     0.2075938357 -1.8646465474
##
    [443,] 0.492407027 -0.256347385
                                     1.2635648229 -0.1695515859
##
    [444,] -0.624705162  0.427367705 -0.0185942655 -0.4863989782
##
    [445,] 1.794491033 -0.093361132 -0.2308656666
                                                   1.0031393305
##
    [446,] -1.212521851 -0.513812475
                                     1.4864524762 -0.7593378919
##
    [447,] -1.240544917 -1.062296936 -0.6159229308
                                                   0.9795516938
##
    [448,] -2.287416971  0.627581492 -2.0850856804 -1.6851436071
    [449,] -0.678264930 -0.272779599 -0.0093785730
##
                                                   0.4116679346
    [450,] 0.023455605 -0.211385421
                                     1.2055186156 -1.5602631014
##
##
    [451,] -1.899864792 1.072599217 -0.5428304339
                                                   0.1524975404
                                     0.0089737104
##
    [452,] -0.833495304 -0.442597217
                                                   0.0140507917
##
    [453,]
           0.361203501 -1.679557687
                                     0.1958882759
                                                   0.4652712188
##
    [454,]
           0.199118026 -0.754687140
                                     1.1133329221 -1.4952643018
##
    [455,]
           1.788163239 -1.641149919
                                     0.9733014586 -0.9150076831
##
           0.511299996 -0.716833159
                                     0.3392953954
                                                   0.8019937535
    [456,]
##
    [457,]
           0.301491865 -2.428828300
                                     0.2491546874
                                                   0.4850499301
           0.291851503 -0.878558151 -0.6086514084
                                                   1.3083531572
##
    [458,]
##
    [459,] -1.496202136
                        3.429260195
                                     0.3475746545
                                                   2.3951075182
##
    [460,]
           ##
           0.693490941 -2.467734420 -0.1134189798
                                                   0.1791144812
    [461,]
##
    [462,] -0.908640209
                       1.401980061 -0.2900129384 -0.8748785130
##
    [463,] 0.817860822 -1.070650034 -0.0757138533
                                                   0.0344935925
##
    [464,] -0.901560797 -0.904554010
                                     0.9788549340 -1.0914867575
##
    [465,]
                        0.352801436
                                     0.2168028226
                                                   0.7601774244
           0.129086953
##
    [466,] -0.878030031
                        0.182566551
                                     1.0591838611 -1.1278985804
##
    [467,] -1.233831886
                        0.010260100
                                     0.2034334798
                                                   0.6458399404
##
    [468,] -1.388468692 -0.245443746 -0.3824950028 -0.0944710856
##
    [469,] 0.700196671
                        0.043126327
                                     1.0000220389 -0.1508972141
   [470,] 0.731088522 -1.747939561 0.6079760472 1.8368806764
```

```
[471,] -1.464344601 -0.070514650 0.8328744286 -0.6748698258
##
    [472,] 2.099636245 -1.108713749 0.2664374323 0.0502868068
##
    ##
           0.034023168 -1.613541617 -2.2185426845 -1.3471140214
    [474,]
##
    [475,] -1.219791414 -1.001728265 -0.0903367611 1.7830574374
##
           1.356973914 0.734567737
                                    0.7306564398 -0.6445498154
    [476,]
                                     1.1316173755 -1.5242711483
##
    [477,]
           1.542799574 -0.326352237
    [478,]
##
           1.171828384 -0.898553459 -0.4795486742 -1.5816698689
##
    [479,]
           0.003762559 0.146141548 -0.2238002071
                                                  1.1146798237
    [480,]
           0.510769624 -0.143014164 0.5620623019 -0.5315088261
##
           0.456867193
                       1.709904211
                                    1.4099942414 1.5184123902
##
    [481,]
##
    [482,] -0.315919099
                       1.861209862 -2.5902074816
                                                  1.9001653475
           0.356760760 -1.823936550 -0.1806559490 -0.1397695066
##
    [483,]
##
    [484,]
           0.655891037 -0.151716979
                                    0.5129633624 - 0.3624575189
           0.209997907 -0.845163601
                                    0.1430497468 -0.3210380777
##
    [485,]
##
           0.312372180 -0.811015192 1.0791882593 -1.2744047390
    [486,]
##
    [487,] -0.956306435 -0.651513193
                                    0.3903906506 -0.1945075716
##
           0.155030144 -1.813413028 -0.3039210205 1.1903371482
    [488,]
    [489,]
           0.780416453 1.733376010
                                    0.1474345770 -1.0456655983
##
    [490,] 2.058138998 -1.888461528 -0.1026203071 -0.0059502483
##
    [491,] -1.878489923 -0.033872775 0.1757412319 0.4654403423
##
##
    [492,] -0.426807226 -0.501212820
                                    0.4883722290 -0.7340235240
##
    [493,] 0.541384391 0.633776038 -0.8422293310 0.1926975029
##
    [494,] -0.806950669 -1.129150403
                                    1.1425079539 -0.0411334155
    [495,] 1.047278833 -0.482400205
##
                                   0.2787658914 -1.8982704604
##
    [496,]
          1.094049036 -1.158678896 -0.6312210266 -0.5967994043
##
    [497,] -1.077171286
                       1.747082978 -0.1169203996 -1.0281778864
##
    [498,]
          0.268437607
                        1.670262217  0.6652303721  -0.6978797268
##
    [499,] -0.116166223 -0.625558774 -0.3524478249 -1.2069242917
    [500,] 0.233978202 0.131236810 -1.3744583284 0.7124344525
##
##
    [501,] -0.332337108
                       1.897958969 -1.2701342261
                                                  0.5471500158
##
    [502,] -0.367348852
                       1.371947263 0.3900429838 -0.0012999142
##
    [503,]
          1.299940281
                        0.495674646 -0.7286577754
                                                  1.0744086225
##
    [504,] -1.784659306
                       1.581842195 -0.9422515592
                                                  0.1084167281
##
    [505,] -1.668399051 -1.351056545 0.7490855848 -0.0551361384
##
    [506.] 1.161415599 -0.570930111 -0.4131442727
                                                  0.2363864829
##
    [507,] -0.631909836 -1.792719106 -1.5086060587
                                                  0.5565342467
##
                        [508,] -0.143549454
##
    [509,] 1.191043797
                        0.262623067 -1.0368022160 -0.9089218090
##
    [510,] -1.581226972
                        0.752865326 0.2894168158
                                                  1.7458639287
##
    [511,] 0.102244291
                        1.202736258
                                    0.8948315516
                                                  0.3334208047
##
    [512,] -0.166762807 -1.034398497 0.8914540172 -1.1105496389
##
    [513,] -2.006228990
                        0.360315416 -1.4721127334 -0.8852310851
##
    [514,]
          0.972120750 -1.119634114 -0.8018465035
                                                  0.9046541590
##
    [515,] -0.284676381
                        0.882220244 -1.1560710310 -0.8798244155
##
    [516,]
           0.785755298
                        0.653118148 -0.8363504375
                                                  0.3844178465
##
    [517,]
           0.428414986 -0.084200293 0.1461929791
                                                  2.5339273382
##
   [518,] -0.360162331
                        0.302993658 -0.0738624568
                                                  0.5941297536
##
    [519,] -0.677497597
                        0.479585184 0.8863061440
                                                  1.1245187675
  [520,] -0.630015161 -0.803120531 -0.5341927170 1.3566581263
```

```
1.1535659421 -0.6235657023
    [521,] -0.984353573 -1.177420778
##
    [522,] -0.616015239
                       1.681948218
                                     1.2821015994 0.3453464213
##
    [523,] -0.595322637
                        0.420065467
                                     0.6975986876
                                                   0.3820850922
##
    [524,] -0.438830739 -0.787420758 -0.2378283982
                                                   0.1653452913
##
    [525,]
           2.012520468 -0.537527022 -0.8854927475 -0.6082731589
##
           0.216432890 0.417536254
                                     0.0503582909 -0.2080644409
    [526,]
           1.532280834 -1.853941412 1.2738187707 -0.1787922668
##
    [527,]
    [528,]
##
           1.246240994 -0.832817074
                                     1.0682448500 0.0770080931
##
    [529,] -0.189455869 -0.126176789
                                     0.2007314850
                                                   0.4690641480
    [530,]
           0.075545082 -0.457853925 -1.2441412460 -1.6081137437
##
##
    [531,] -1.811483976  0.680341385 -0.7308652031 -0.4891748453
##
    [532,]
          1.279755671
                        1.249038024 -1.6831911159 0.1117282514
                                     1.1449848202 -0.0653003386
##
    [533,] -0.028805750
                        0.057142187
##
    [534,] 0.939261753 -0.527665185 -0.0866877566 -0.2521484266
                                     1.4504775260 -0.8335523748
##
    [535,] -0.615949255 -0.140173845
##
    [536,] 0.604953488 0.638610441 1.4653963925 -0.4451419129
##
    [537,] -1.156156620 -1.454908796 -0.0417760743
                                                  1.6109709565
##
    [538,] 0.111208140 -0.094468172 -0.6431327985 -0.2391888511
##
    [539,]
           0.355311421 -0.413992306 -0.3380831433  0.5231258854
                        0.854045719 -2.1220833563 -0.0434709042
##
    [540,] -0.195354617
                        ##
    [541,] -0.064176087
##
    [542,] -0.696509124 -0.822089753 0.2359236943 -0.2158733070
##
    [543,]
           1.527455831 -1.118230172
                                     1.7846837902 0.2478864551
##
                        0.004560496 0.2945365454 0.9819326475
    [544,]
           0.906429761
##
           0.878986174 0.729744155 -1.0266916357 -0.5321910707
    [545,]
##
    [546,]
           0.280490873 -0.244480221 -0.7496892961 0.5995104146
##
                       1.339786333 1.5043724111 -1.4603404086
    [547,]
           1.196879738
##
    [548,]
           0.242766802
                        1.633968594 -2.7705404809 -0.0011762765
##
    [549,]
           0.174369447 -0.316280221 -1.6623834380 -1.0206621944
    [550,] -1.125786706 -0.448485188 1.3548280830
                                                  1.2697552319
##
##
    [551,] 0.539783207
                        1.036326143 -0.5205505408 -0.8730894285
                        0.222363524 -1.3331902316  0.0420003653
##
    [552,] -2.019687099
##
    [553,] 0.334245553
                        ##
    [554,] -1.792410147
                        0.337441383 -1.1208620923
                                                   0.7945848588
##
    [555,] -0.935971314  0.556321219 -0.4866108770
                                                   0.1663763859
##
    [556,] -0.887786939 -1.123408539
                                     1.6454037671
                                                   0.9697723762
##
    [557,] -1.954232535 -0.819113357 -0.4407410615 -0.3057674392
##
    [558,] 0.334604268 -0.044240101
                                     0.7405362051 -1.3103849303
##
    [559,] -1.503260795 -0.061053263 0.6670342547 -1.6231479250
##
    [560,] -0.693593432 -1.335515711 -0.0654077916
                                                   0.2358661236
##
    [561,] 0.851076361 0.695859663
                                     0.4750673524
                                                   1.3110840919
##
    [562,] -0.011446843 0.767964657
                                     1.0359334917
                                                   0.8317934073
##
    [563,] -0.386287029 -0.620391604 -0.5970599317
                                                   1.6444719491
##
    [564,]
           0.519979264 -1.157443038 -0.1262096442
                                                   1.1101164653
##
    [565,]
           0.492407731 -1.937532048 -0.9730195999
                                                   1.3972281264
##
    [566,] -1.388470440 0.215142746 -0.2349724396
                                                   0.5215399833
##
    [567,] -1.379345466 -0.738528504 0.0712857221 -0.4191224340
##
    [568,] -0.066584279 -1.301707051 0.1027482959
                                                   0.4975526635
##
    [569,] -1.437738420 -0.736238641 -0.2682706457
                                                   1.2922101093
  [570,] -0.658803443  0.046263613 -0.4973873374  0.2435708271
```

```
[571,] -0.905482138 -1.273496177 -0.8300497758 -0.7815913138
##
    [572,] -0.990447501 -0.881519684 -0.2278311674
                                                    2.0446719383
##
    [573,] -1.077815156 -0.330597994 -1.1904754313 -0.6423319691
##
    [574,] 0.268747917 -1.424034662 -1.5455540208
                                                    0.8161832457
##
    [575,] -1.336654177 -0.425367528 -0.6875114721
                                                    2.3847849381
##
           0.060126196
                        1.260435667 -0.3478853779
                                                    0.0855007500
    [576,]
                                      0.8665711438
##
    [577,] -0.499058742
                         0.094048340
                                                    0.0672104259
##
    [578,] -1.808780153 -0.198885368 -0.8833176807
                                                    0.0179316236
##
    [579,] -0.901749022 -0.129074741
                                      1.4518228517 -1.0194790579
    [580,]
                                      0.0991043708
##
           1.011013202 0.620097054
                                                    1.3132633665
    [581,] -1.028460754 -1.829336111 -0.6311417433 -0.5204615668
##
##
    [582,]
           1.260396613 -1.246159550
                                      0.3743809932
                                                    0.9023856447
##
    [583,] -0.218781167
                         0.090809557
                                      0.5799250429
                                                    0.3843577151
##
    [584,] -0.166526463 -0.985723597
                                      1.6840316693 -1.1678155224
##
    [585,] -1.122610861
                         0.360308239
                                      0.7378359809
                                                    0.4944450356
##
    [586,] -0.046174316
                         0.698164103 -0.0375960277
                                                    0.4551618518
##
    [587,]
           0.039940040
                         1.113272305 -1.5042135206
                                                    2.7854962336
##
           1.151675807 -2.150062274 -0.8785186892 -0.1853994797
    [588,]
    [589,] -2.125105531 -0.308908429
                                      0.4308709132 -0.9631508852
##
           1.544149441 -0.513891321 -1.8778930860 -0.3745557761
##
    [590,]
           1.237002766 0.241747156
                                      0.5865221524 -1.1566120733
##
    [591,]
##
    [592,] -1.656326618
                         0.110604913
                                      1.4614606401 -1.3008806959
##
    [593,] -1.742224566
                         0.019066627
                                      0.6331807029 0.2117721424
##
                         0.060440879 -0.0406146143 -1.2655133852
    [594,]
           0.647131613
##
    [595,]
            0.129364651
                         0.281757267 -1.3239442665 -0.7320669075
##
    [596,]
           0.946607992 -1.819349381 -1.6762152202 -0.2470578546
##
                                      0.5300331584
                                                    0.9720167799
    [597,] -0.715634083 -1.338196304
##
    [598,]
            0.343656182 -0.487568738
                                      0.4109084043
                                                    1.0357469426
##
    [599,]
            0.289048411 -0.413216282
                                      0.6737150595
                                                    0.5116116865
                                                    1.6913811827
            0.809970309 -0.291427179
                                      0.6384833815
##
    [600,]
##
    [601,]
            0.923486585 -0.888432297
                                      0.0835877299
                                                    0.5195846061
##
    [602,]
            0.098789214 1.201114543 -0.6374307885 -1.6301917642
##
    [603,]
            0.286361398 -0.109988035
                                      0.0819061178
                                                    1.0297346715
##
    [604,]
            0.050353009 0.092156518
                                      0.9517226896
                                                    0.7412931225
##
    [605,]
            0.774160216 -1.528070842
                                      0.7869280868 -0.6178443891
##
            [606,]
##
    [607,] -0.833135551 -0.618579275 -0.2332957183 -0.8138106879
                                      0.3635268251 -1.0559483741
##
    [608,] -0.067847745 -0.070216861
##
    [609,] -0.036296922
                         0.998683325
                                      0.8976615823 -0.4355888999
##
    [610,] -0.580624380
                         0.586675025 -0.5758199112
                                                    0.8508363490
##
                         0.063790784 -0.4575753543
                                                    0.5464074847
    [611,] 1.006376564
##
    [612,] -1.353273016 -1.333330478 -0.3302270693
                                                    0.2150441564
##
    [613,] 0.288791964 -0.243305511
                                      0.7679768252
                                                    1.2633389376
##
    [614,]
           0.068871000 -0.699855226
                                      0.5911830921 -0.3237138952
##
    [615,] -0.329463357 -0.572908197
                                      0.6398120169
                                                    0.2056466397
##
    [616,]
                         0.844895888
                                      0.1291315486 -0.3347265506
           0.524261003
##
    [617,]
                         0.264821405
                                      0.1484855933
                                                    0.6336939126
           0.620586049
##
    [618,] -1.736703563
                         2.160684200 -0.4612498607 -0.9824789823
##
    [619,] -0.365359410
                        1.745903960
                                      1.9990294725
                                                    0.5208983532
    [620,] -1.050336388 1.497402138 -0.1797017516 -1.4010817030
```

```
[621,] -0.368483162 -0.658898721 -0.5695889982 -0.4009192614
##
    [622,] -0.539202831 -0.291893973 -1.8525093123
                                                    0.3026717032
##
    [623,]
           0.591786201 1.881225319
                                     1.1718797741
                                                    0.9981473683
##
    [624,] -0.106462295 -1.237319927 -0.4672125988
                                                    0.0008847847
##
    [625,] -0.387762523 -1.449647064
                                     0.7901591313 -1.2251049772
##
    [626,] -0.774459287
                         0.134513272
                                     0.9862557763
                                                    0.6986855338
##
    [627,] -0.429031178 -0.743639610
                                     0.6631626705
                                                    0.6129441368
    [628,] -1.018524513  0.493690067 -0.4643426625
##
                                                    0.5171347688
##
    [629,] 1.806140743 -1.615041710
                                      0.2216426442
                                                    0.3998824674
    [630,] -0.945495984 -0.162199809
##
                                      1.2328186541
                                                    0.6822074801
##
    [631,] 0.728613015 -0.559984375
                                      1.9087591924
                                                    1.6531930742
##
    [632,] -0.342911771
                         0.935255265
                                     0.4496855633
                                                    0.2007575257
##
    [633,] -0.268781456 -0.135200654 -0.2507561005
                                                    1.7947895827
##
    [634,] -1.067030481 -0.126846086
                                     0.0201377433 -0.0639323796
##
    [635,] -0.237531056
                        1.014837323
                                     0.5828340685 -0.3335331437
##
    [636,] -0.630846555
                         0.564566032
                                     1.5349917875 -1.5747089282
##
    [637,]
           0.920365030
                        1.231616564
                                     1.5834812918
                                                    0.3048468099
##
    [638,] -0.317197243
                         0.494743215 -1.1023833860 -0.5585432166
    [639,]
           1.126022588 -0.106526618
                                     1.2894877347 -0.6832033709
##
           1.908619971 -1.236376830 -1.2185016014 -1.0982723958
##
    [640,]
           0.268409023 -0.638452149 -0.3992185385
                                                    1.3860426589
##
    [641,]
    [642,] -0.184200334
##
                         0.403496907
                                     0.8143253554
                                                    0.2707892805
##
    [643,] -1.406197473
                         2.241584338 -1.1672006471
                                                    0.6136198204
##
    [644,] -0.918199404
                         0.532110862
                                     0.8158598645 -0.4332388534
##
    [645,] -0.303842774 -0.629926318
                                     0.5646240220
                                                    0.5150666360
##
    [646,] -1.133931184
                         0.831901552
                                     0.1445011282
                                                    1.2154269951
                                     0.3834500126 -0.7324435022
##
    [647,] -1.042662991 -0.161039715
##
    [648,] -0.438607603
                         0.231248631
                                     1.9730881324 -1.2511923740
##
    [649,] -1.329896482
                         1.019613600
                                     0.9934517170
                                                    0.4008254106
    [650,] 0.601877850 -0.580162823
                                     0.9982528732
##
                                                    0.1725025096
##
    [651,] -1.551197629 -1.399430697
                                     0.1692300063
                                                    0.2793074491
##
    [652,] -0.226979387
                        0.243258093
                                     0.2509906415
                                                    1.1866306212
##
    [653,] -1.407641240 -0.688155758 -0.7958501985 -0.6939063899
##
    [654,] 0.821497770
                         0.528144327 -0.2098505407 -0.8694843339
##
    [655,] -1.225399444
                        0.316782536 0.2293728492
                                                    0.4959317148
##
    [656,]
          1.007734381 -0.973336467 -0.1752663666
                                                    0.6751465478
##
    [657,]
           ##
    [658,] -1.037255289 -1.545889670 0.6346618018 -0.5043011189
    [659,] -0.885540648 -0.239582471 -0.1722259742 1.2074819897
##
           0.861558227 -0.578069102 -0.6802016944 -1.3957276179
##
    [660,]
##
           1.344156127 -1.152619874 0.4828916353 -0.9585641947
    [661,]
##
    [662,] -2.030995629 -0.862339098 -1.2250370403 -0.0017961646
##
    [663,] -0.619057970 -0.919980374 0.1459798139
                                                    0.0535924439
##
    [664,]
           0.972482163 0.111017812 0.1888395580
                                                    0.0055565035
##
    [665,] -1.163174829
                       1.664823434 -0.1804157467 -1.6214122396
##
    [666,]
           2.461031667 -0.530122353 -0.1597828668 0.3513118064
##
           0.523417810 -0.924515902 -1.7141583636 -0.8953376283
    [667,]
    [668,] -0.416153135 -0.579114488 0.0984300327 -1.2218650072
##
##
    [669,] 1.109864438 0.456041061 -0.7026407744 -1.2611582440
   [670,] 0.424490107 0.323858002 0.4966641831 0.8010984882
```

```
##
    [671,] -0.693948639 -0.072523041
                                     0.3298914733 -0.6837715049
    [672,] -0.158187903
                        0.514353849
##
                                     1.0856967020 0.0769930381
##
    [673,] -1.181985307
                        2.216389911 -0.7686925238 -2.0039834084
##
    [674,] -0.414556058
                        0.478643415
                                     0.8608449797 -1.5482676491
    [675,] -0.058267861 -0.717660835 -0.8775366727 0.4033923554
##
##
    [676,] -1.086712453
                        0.877964351
                                     0.1577477171 -0.0897796988
    [677,] -0.917187284 -0.362746452 -1.8979345846 -0.1095521237
##
    [678,] -0.434048689 -0.757591292
##
                                     0.7081386304 -0.9427916062
##
    [679,]
           1.581874025
                        0.939794822 -0.4665564977 -0.8503505300
    [680,]
           2.195935124 -1.376949948
                                     0.2984559011 -0.5998449890
##
           0.783102481 -0.009794981
                                     2.0766156765
                                                   1.5826638183
##
    [681,]
##
    [682,]
           1.640716117
                        0.974449324
                                     0.3425838356
                                                   1.9125277690
##
    [683,]
           0.944368039
                        0.103382402
                                     0.1638513918
                                                   1.7350059812
##
    [684,]
                        0.874179259
                                     0.8063776971 -0.4963242706
           0.585360008
##
    [685,] -0.478739252 -1.093880306
                                     1.1538702866
                                                   0.4813932596
##
                        0.250112058
                                     1.1695119994 -0.2188908387
    [686,] -0.166007669
##
    [687,]
           0.190477645
                        1.407650587
                                    -0.2192371001
                                                   1.3482090404
##
    [688,]
           1.492981517 -1.091630388
                                     0.5145471226 -0.5151345872
    [689,] -0.376913603 -0.318080566
                                     0.0130767463
                                                   0.1430725050
##
                                     0.2959889644
##
    [690,] -0.706749322 -0.818478631
                                                   0.0961941930
##
    [691,]
           0.522935707 -0.428134222
                                     0.0694757813
                                                   0.5073853693
##
    [692,]
           0.844778363 -0.116695338
                                     0.6692215902 -0.1585744788
##
    [693,]
           ##
    [694,] -0.430909274 -0.320965097
                                     0.7259916433
                                                   0.3076897469
##
    [695,] 0.586275206
                        1.566129944
                                     0.2957032749
                                                   0.5310497176
##
    [696,]
           0.160590689
                        0.740120236
                                     1.5395513637
                                                   0.4863182602
                                     0.5217247953 -0.0482341273
##
    [697,] -1.537354008
                        0.720601507
           0.157653874 -0.760036588 -0.5830437813 -0.3884947343
##
    [698,]
##
                        0.010116099
                                     1.9895215156
                                                   0.9869531976
    [699,] -0.681298501
    [700,] -1.134821904 -0.527414914
                                     1.2872551559 -0.3721748670
##
    [701,] -0.878013705 -0.918523762 -0.5129904118 -0.4028907762
##
                        1.970954041 -1.1525751102 2.4591608202
##
    [702,] -1.260147542
##
    [703,] -0.033593964 1.442295906 -1.7410880650 -1.0811827705
    [704,]
##
           1.099395215 -0.226645795
                                     0.2511683983 -0.3261573062
##
    [705,]
           0.328857114 -1.024847374
                                     2.4489224934 -0.7085453305
##
           1.770866803 -0.264621387
                                     0.8617888172
                                                   0.8229380472
    [706,]
##
    [707,] -0.809992057
                        0.174622934
                                     0.3862832749
                                                   0.5492132726
##
           [708,]
##
    [709,] -0.604826671 -1.457496421
                                     0.3592347942   0.6722177244
##
    [710,]
           1.531267646 -0.507307507
                                     0.4128438307 -0.1407909731
##
    [711,] -0.080284759 -0.805573672
                                     1.2252189540 0.1754571204
##
    [712,]
           0.110439694 -0.314162103
                                     0.6828724041 -0.6456743901
##
    [713,] -1.499167340
                        0.426594122 -0.1434688742 -1.5606229598
##
    [714,]
           1.548386923 0.415685974
                                     1.5881451549 -0.4530633316
##
    [715,] -0.042385287 -0.659445366
                                    1.1094961999
                                                   0.5925799237
##
    [716,]
           1.035559502 0.571763316 -0.7416396015 -0.8305677789
##
    [717,] -0.335927618
                       1.510670213 -0.2234152372
                                                   0.1931547596
##
    [718,] -0.498580691 -0.443680735 -0.9687894372 -1.6516643146
##
    [719,] 1.235226085 0.593723271 -0.1764328931
                                                   0.2970776315
   [720,] -0.406141132 -0.642143779 -0.3538907573 0.3514621778
```

```
0.7102617251 -0.2283140189
##
    [721,]
            0.359224156
                         0.800443213
##
    [722,] -0.888209644
                         1.306606095 -0.6154729705 -0.8496993094
##
    [723,]
            0.649802909
                         0.689158103
                                       1.5252988666 -0.6157360594
##
    [724,] -0.996739474
                         0.515013058
                                       0.3303707907 -0.7735478605
                                       1.6321682183 -0.1352923587
##
    [725,] -0.615719768
                         0.842849237
##
    [726,] -0.979935443
                         0.015295999 -0.0303294585
                                                     0.8658369863
##
    [727,] -0.896188229 -0.954732469
                                       1.0680576314
                                                     0.3574957706
##
    [728,]
            0.064703727 -0.801777351
                                       0.4038364585
                                                     0.0069003436
##
    [729,] -1.089479923 -0.322684053
                                       1.0594393017
                                                     0.9369784805
    [730,]
                                       0.4927434166 -0.1772856734
##
            1.285071985
                         0.538862929
            1.722487701 -0.710857051 -1.4449090933 -0.4561631619
##
    [731,]
##
    [732,]
            0.383711744 -0.322644502
                                       0.9238172006 -0.5703331954
##
    [733,] -0.093734683 -0.544936399
                                       0.2233822800 -0.4056963913
##
    [734,] -0.249215597
                         2.632494240
                                       0.3454951049 -0.8670681837
##
    [735,] -1.483892600
                         2.975302798 -0.6216332958 -0.7083064777
##
                         0.673108735 -2.2301908788 -2.0699153456
    [736,] -2.190867886
##
    [737,]
           0.429674246
                         2.003752835
                                       0.5839785014
                                                     0.0820819636
##
    [738,] -0.324163399
                         0.484981340
                                       0.2990196014 -1.7786047357
    [739,]
            0.239929592 -1.226005617 -1.1410672145
                                                      2.3286073837
##
                         1.798178887 -1.2334788564
##
    [740,]
            0.672915432
                                                     1.4574658072
    [741,] -0.372631320 -0.685479577 0.8792702800
##
                                                     0.3235515656
##
    [742,] -0.730753732
                         2.210598760 -0.1930073768 -1.2047637558
                         1.210058434 -0.2269906217
##
    [743,] -0.067095620
                                                     0.2872340624
            1.117965113 -1.044286353 -0.5880701377 -0.7107959901
##
    [744,]
##
            1.765978934
                         0.936374843 -0.9518494966 -0.4981980787
    [745,]
##
    [746,] -0.442430740
                         0.715950833 -0.2990807017
                                                     0.7941827806
##
                                      0.1809911156 -0.8101494350
    [747,]
            0.469812120 -0.122582864
##
    [748,]
            0.263129277
                         1.321208135
                                       0.6479765933
                                                     0.5042144307
##
    [749,]
            0.783163711
                         1.163118363 -0.4803964605
                                                     0.4986279412
            1.061543033 -0.062080022 -1.8444131742 -0.5168890370
##
    [750,]
##
    [751,] -0.681149244
                         2.066002616  0.8180115187  -0.1654541444
##
    [752,]
            0.092811149
                         1.901535924 -0.3866035040 -0.6774365157
##
    [753,] -0.748782463
                         0.175254373
                                       1.3730618645
                                                     1.0219997185
##
    [754,]
            0.453350388
                         0.187357943 -0.1451704484 -1.0713868255
##
    [755,] -0.037100719 -0.464251207
                                       0.2976408492
                                                     0.3809711794
##
            1.634446990 -0.323975274
                                       0.0580913950 -1.1120899091
    [756,]
##
    [757,]
            1.984729844
                         0.401472660 -0.0068138400
                                                     1.3661452203
##
    [758,] -0.282786208
                         1.518655358
                                       1.7485291683
                                                     0.8611145710
##
    [759,] -1.558500485 -0.879405027 -1.3885144808
                                                     2.1839729577
##
    [760,]
            0.378818043
                         2.324117315
                                       0.9692591223
                                                     0.2357965446
##
            1.092576570 -0.461724010
                                       0.0052391044
                                                     0.9519366712
    [761,]
##
    [762,] -0.666512054 -2.214700947
                                       0.4718692763
                                                      0.3316647309
##
    [763,]
            0.531955561 -2.074865937
                                       0.4349180999
                                                     0.3488334714
##
    [764,]
            0.748443462
                         0.153520490 -1.5274082987
                                                      0.1769402226
##
    [765,] -1.031175490
                         0.163553294
                                       0.8923616034 -1.7901672710
##
    [766,]
            1.745520581 -0.467477473 -0.5477501494 -0.4209541373
##
                         2.307205346
                                       0.4091926507
                                                      2.6793491333
    [767,]
            1.263507144
##
    [768,] -0.053672106
                         1.108149181 -0.9261610139 -1.1931674420
##
    [769,] -0.062680436 -1.010589723 0.6791665685
                                                     0.1586130456
    [770,] 0.022806638 0.681669981 -0.2428595635 0.2923759898
```

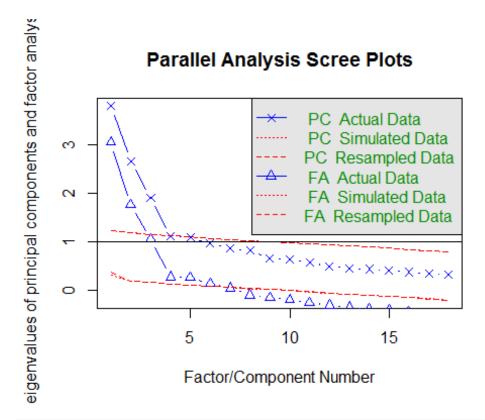
```
[771,] -2.063682305 -1.472543807 -1.8227492750 -2.3846052796
##
##
    [772,]
           0.647334559 1.196364213 -1.4084755232 -0.4596049202
##
    [773,] -1.307805194 -0.015224974 0.1867828851 -0.3657364678
##
    [774,] 1.531239404 -0.403390799
                                     0.5806223888
                                                    0.5213962029
                         0.389823656 -0.5531685594 -1.5681423330
##
    [775,] -1.222614653
##
    [776,] -0.400436826
                         0.439660641 -0.1830301531
                                                    0.3065144139
                         1.450454453
                                      0.5387470567
##
    [777,] -0.747566737
                                                    1.1398943492
##
    [778,] -0.428092606 -0.551711386
                                      0.8382020489
                                                    0.9023369058
##
    [779,] -1.568176571 -1.524898215
                                      0.0044956969 -1.1722859282
    [780,] -0.211258159
                        1.390199177 -0.0622202510
                                                   0.1660505901
##
##
    [781,] -0.379957382 -0.444542413
                                      0.8531826881 -0.0713986918
##
    [782,] -1.176132484
                         0.345250136 -0.1467098988 -1.1442936275
                                      0.5223101557 -0.5957681253
                        0.994949725
##
    [783,] 2.351136784
##
    [784,] -0.204771545
                         1.701377002 -0.4097706426 0.2517535079
                                      0.7259024877
##
    [785,] -1.024915151
                         0.941975577
                                                    0.1626212032
##
    [786,] -0.374498693
                         0.548553014
                                      0.4229314368
                                                    0.1011422551
##
    [787,] 0.683397799
                         0.651899921
                                      0.3649517107 -0.3417722898
##
                                      1.0772948421 -0.4241552143
    [788,] -0.769756760 -0.824817231
                                      0.5997318439 -1.0019897957
##
    [789.]
           0.093438629 -0.845566347
##
    [790,] -1.218059933 1.619565020 -0.8910711717
                                                    2.3519366398
    [791,] 1.596490639 -0.148057987 -2.4559326042
##
                                                    2.2057828300
##
    [792,] -0.370364202 -0.658967982 0.6853963863 -0.4436400135
##
    [793,] -0.260734836 -0.670324817 -0.3160060757
                                                    0.8902481805
##
           0.020933818 -0.193422980
                                      0.6358612746
                                                    0.3865989496
    [794,]
    [795,] -1.637304830 -1.781445150 -0.4046847595
##
                                                    0.6384329173
##
    [796,]
           0.447009393 0.561553565
                                      1.0054695518 -1.6449715646
##
    [797,]
           0.132981154 0.239720594
                                      0.5508915353
                                                    0.8585550097
##
    [798,] -1.478201460 -0.470412183
                                      0.2371324840 -0.4276370199
##
    [799,]
           0.275998698 -0.290420277 -0.2896167862 -0.1297728765
           0.645507893 1.324350365 -2.0435555637 -0.5844054285
##
    [800,]
##
    [801,] -0.736420588 -1.212782416 0.0193923085 -0.4138791121
           0.427288101 -1.102799421 -1.2043918099
##
    [802,]
                                                    2.0237208981
##
    [803,]
           0.435025897 -0.334788721 -0.0889215870
                                                    2.8306147900
    [804,]
##
           0.811772018 -0.737319040 -1.6846183998
                                                    0.0498868295
##
    [805,]
           0.836441693 -0.578407292 1.5664212118 -1.2812599736
##
           1.700650193 0.267996739 0.5561134157
                                                    0.9790694731
    [807,] -2.063682305 -1.472543807 -1.8227492750 -2.3846052796
##
##
    [808,] -1.531424482 1.720865816 -1.9217264083 -1.0755112801
##
    [809,] 0.271242451 -0.906513042 -0.6134309096 1.0326338171
    [810,] -1.232694205 -1.333697132 -0.9070020270 -0.1895119140
##
##
    [811,] 1.254914033 2.176643464 -1.3616896095 -0.8726706078
##
    [812.]
           1.027768954 0.823858178 -1.0961120794 -0.3114198991
##
    [813,] -1.608590998 -1.524573653 -1.9096914942 -0.8720064015
##
    [814,] -0.956619226 -1.467775574 -1.7167293218 -0.3790802162
##
    [815,] -0.489143876
                        0.986468274 0.2418047595
                                                    1.7729782399
##
    [816,]
                         0.030901502
                                      0.0403156570
                                                    0.9698390607
           1.676976811
##
    [817,]
           2.337999558 0.046936175
                                      0.8856885266
                                                    0.5945823723
##
    [818,]
           0.772467783 -1.820886156 1.1716251623 -1.0577383027
##
    [819,]
           0.123101572 -0.090948389 -1.9406847421
                                                    1.6784395644
  [820,] -1.220110911 -1.013590007 -0.0599716703 0.6452698217
```

```
##
    [821,]
##
    [822,]
            1.866025391
                         0.926834098 -0.5785665139 -0.9439676629
##
    [823,]
            0.281049722 -1.285449515
                                      1.8212370278 -0.6152535184
##
    [824,] -1.371459921 -0.611283772 -0.0193193429 -0.1352223152
##
    [825,]
            0.559611086
                         0.557379664 -1.3059142341 -1.2120821422
##
    [826,]
            0.295393141
                         0.074540103 -1.9181204262 -0.9753243688
                                      0.9635277858 -1.1241192782
##
    [827,]
            0.813150643
                         0.838848002
           1.161121764
##
    [828,]
                         0.862982808
                                      0.3980150448 -0.7454552120
##
    [829,]
            0.542262080 -1.309164327
                                      0.4661850731 1.1155308506
    [830,]
                         0.609882243 -0.8121879298 -1.0174175823
##
           1.330299748
    [831,] -0.465993225 -0.233669201
                                      1.8261146953 -0.4889988315
##
##
    [832,]
           0.909175789
                         1.018003215
                                      1.5942368932 0.4646539902
                         2.547012294 -0.1111898383 -0.7525237160
##
    [833,]
           0.988893673
##
    [834,] -0.373231930
                         0.680659994 -0.7634096536 -1.3171688695
                         0.953529189 -0.9487178261
##
    [835,] -0.094823121
                                                    0.2309198315
##
    [836,] -0.312408222 -0.667314815
                                     0.9933727100 -1.3635132705
##
    [837,]
           1.781508063 -0.976667207
                                      0.1903562106 -0.8615500399
##
                                      0.4504847712 -0.5843873011
    [838,]
           1.797912628 0.965011707
    [839,]
           0.479165890 -1.677509595
                                      2.0432154685
                                                   0.2531607476
##
    [840,] -0.224078684 -0.422675351
                                      1.3664668800 -1.1080154589
##
    [841,] -0.565808880 -0.215250076
                                      1.1613529591 -0.6951225462
##
##
    [842,] 0.402686272 -0.406892910 -0.6791651383
                                                    3.0482260981
##
    [843,]
           0.627763112 -0.650319631 -0.3848494566
                                                    0.6999828900
##
    [844,] -0.547868108 -0.039059232
                                      0.4328856554
                                                    1.1408325650
##
    [845,] 0.166658266 2.949920064 -0.7095588210
                                                    0.6006703250
##
    [846,] -1.832515873 -1.375719944
                                      0.6886710282 -0.5015130181
##
                         0.667996406
                                      0.5178443164
                                                   1.1674983538
    [847,] -1.422043258
##
    [848,]
           0.575347793
                         1.610350853
                                      0.6616128968 -1.6253727591
##
          1.316349817 -1.424222147 -0.7611382531 -1.0609716840
    [849,]
                         2.364364079 -1.2001746075 -1.7782558643
##
    [850,] -1.751285000
    [851,] -0.912592658 -0.818505143
##
                                      1.1154079166 -0.8576052111
    [852,] -0.613653937 -1.207825483 -0.3098472923
##
                                                    1.7357285043
##
    [853,] -0.867464477 -1.252683452 -0.0756839174
                                                    0.2745108558
##
    [854,] -1.365649312
                         1.137988154 -0.1376301668 -0.5606748742
##
    [855,] -0.868119298 -1.455292415
                                     0.9265097743 -1.0536497339
##
    [856,]
                         0.042971676
                                      0.9498807828
                                                   2.0908733199
           0.453176942
##
    [857,]
           0.429988164
                         0.215503910
                                      0.8589784568 -0.4070278738
##
    [858,] -0.361386974
                         0.701870547
                                                   1.1752262458
                                      0.1469839404
##
    [859,]
           0.444036516
                         0.294222518
                                      0.3221276831 -2.2165635460
##
    [860,] -0.532911365
                         0.438742717
                                      0.6744063762
                                                    0.9636700254
##
                         0.741042276 -0.6799975388
                                                    1.7797659674
    [861,]
           0.080317415
##
    [862,]
           0.310453306 -0.847408124 -0.6071551769 -0.5917016689
##
    [863,] -0.195487357
                         0.088799151 0.9853389576
                                                    1.1435221020
##
    [864,] -0.760676142
                         0.746557443 -0.9980215168
                                                    1.4633417940
##
    [865,]
           1.226770322
                         0.322300116 -0.1339850748
                                                    0.3914991360
##
    [866,] -0.379074967
                         0.174206121 -0.0645083987 -0.2099786475
##
    [867,]
                         0.475857443 -0.8345096381 -0.5114954681
           1.336417797
##
    [868,] -0.909195084 -0.075432451 0.4081590941 -0.6842708714
##
    [869,] -0.473128840
                         0.380173569 0.1547200786
                                                    0.6677198683
    [870,] 0.887331628 0.042100172 -0.3960066667 -1.1772696957
```

```
[871,] -1.005483459 -0.730223886 -0.7539320331
                                                   1.6886659477
##
    [872,] 1.028571501 0.390078670 -0.3114846317 -0.1780446852
##
    [873,]
           0.364511223 -0.125251799 -1.1838928323
                                                   0.2559421907
    [874,] -0.245739346  0.394962344 -0.2497530650
##
                                                   1.0796347538
##
    [875,] -1.173862623 -1.089504672 0.6892125437
                                                   0.1722200819
##
    [876,] -1.543665165 -1.139445112 -0.7739799188
                                                   0.4604906652
    [877,] -0.570714570 -1.116474173 1.6991741201 -0.3445701789
##
    [878,]
##
           1.804159500 -0.074742397 -0.8032247048 -0.7822956760
##
    [879,]
           0.211891703 0.446222205
                                     1.1000369296 -0.6141347240
    [880,]
           0.850189252 0.167901012 -1.9082071836
                                                   3.0383867087
##
    [881,] -1.084946227 -0.958605680
                                    0.7603678594
                                                   0.8190575520
##
##
    [882,]
           0.724754664 -1.338889595 -1.2274602662
                                                   1.5641150149
##
    [883,]
##
    [884,] -0.532140538 -0.775013558
                                     1.0517963580 -0.8680337172
           1.637957901 -0.727080972
                                     0.1310864869
##
    [885,]
                                                   0.8456317314
##
           0.074565819 -0.936001955 0.2145826126
                                                   0.8962853678
    [886,]
##
    [887,]
           0.842209619 -0.690067063 -2.3819870531
                                                   1.3288052818
##
           [888,]
                                                   0.5594426184
    [889,] -0.364684560 -0.302879495 -0.0124277080 -0.4960241582
##
    [890,] 0.548770363 1.105763156 -0.4556942538 -0.1444782690
##
    [891,] -1.105908239 -0.594322901 0.0685767298
##
                                                   1.0334866243
##
    [892,] -0.236859508 -0.701773494 0.2235490704
                                                   0.3184707715
    [893,] -0.225714407 -0.200401652 -0.5026480052 -0.4518913682
##
##
    [894,] -0.119692164  0.831988373 -1.0402649299
                                                   0.4684024704
    [895,] 0.761029320 -1.286436060 0.2877001858 -0.7070870374
##
##
    [896,] -0.959977676 -0.242429260
                                     0.0731999395
                                                   0.8733062181
##
    [897,] 0.745951376 0.843572061 -0.6468442466 -1.0993296261
##
    [898,] -0.628526592 -0.204024621 -0.0310728808 -0.5981701100
##
    [899,] 1.365901206 -0.658248887
                                     0.0972033640 -1.7002554995
    [900,] -0.251662332 -1.590008856 -0.1560075402 -0.6649495871
##
    [901,] -0.979297566 -0.062726794 0.6991375834 -2.2659470859
##
    [902,] -0.657443328 -0.443411629 -0.7354946683 -1.5911819963
##
##
    [903,] 0.319228801 -1.164347918 -0.0058728083 -0.6526684141
##
    [904,] 1.975892440 -0.177792588 -1.0400003191 0.3622829016
##
    [905,] -1.377983470 -0.198773915
                                     1.0467459085 -1.7849173376
##
    [906.] -0.130061785 -0.247443909
                                     0.6301170011 0.6776686404
    [907,] -1.068304943 2.000359391
                                                  0.5396165977
##
                                     0.4240436098
##
    [908,] -0.600411076 -0.552429994
                                     0.5551062646 0.1780943294
##
    [909,] -0.185116881 -0.267963453 -0.6641838418 -0.0335830747
##
    [910,]
           0.221258481 0.232522114
                                     0.7960674747 -0.0288197899
##
           0.879729060 -0.629272538
                                     1.9214929162 -1.5411689723
    [911,]
##
    [912.]
           0.929158000 1.271334037 -1.0179876175 -1.0989254570
##
    [913,]
           0.233805348 -1.103105246
                                     0.2441257550
                                                   0.8590904105
##
    [914,] -0.032328787
                        1.549504380 -0.6588955894
                                                   0.1721546326
##
    [915,]
          1.543791641
                       1.077304045 -0.1251121733 -0.2862337511
##
    [916,] -0.277935642 -0.340582449 0.2792585467
                                                   1.6818388179
##
    [917,]
           1.636874228 -1.040699627 -0.8917035872 -0.9039725121
##
   [918,]
           1.210250617 -0.191000502 -1.5569612341 0.6260985862
##
    [919,]
           1.331293283 -0.606240135 0.5132191400 -0.9238160787
  [920,] 0.690929885 -0.612708085 0.4609427015 -1.6099059390
```

```
0.266004160 0.846800166 0.0840053747 -0.4284939741
    [921,]
##
    [922,] -0.296805200 -0.823287018 -0.0355806801
                                                  0.6763114968
##
    [923,] -1.459573030 -0.349421292 0.4024231770
                                                  0.9964924982
##
    [924,] 1.058303582 0.400633032 -0.6905786743
                                                  0.3372500615
##
    [925,] -1.618886551 -1.623873536 -0.9106965137 -0.7437141001
##
    [926,] -0.783505423 0.552268086
                                    1.6739848187 -0.7047190485
    [927,] 0.295912483 -0.413448777 -1.3621726319 -0.5382486792
##
##
    [928,] -0.459731165 -1.882835986
                                    0.6755055620
                                                  0.7255781690
##
    [929,] -0.168064051 0.584094800
                                    0.8593022941
                                                  0.2726396358
    [930,]
                        0.639549686 -0.0114877033 -0.0901249372
##
          0.372268051
##
    [931,] -1.020975546 -0.804667853
                                   0.0609044191
                                                  0.3087700824
##
    [932,] -0.196951554 -0.324022100 -0.2438362451
                                                  0.1259093312
    [933,] -1.120627138 -0.485507790 0.7814611476
##
                                                  0.7075253034
##
    [934,] 0.955332220 0.663976538 0.5042668403 -1.6586607783
           0.508415420 -0.381521158 -0.9683758753
##
    [935,]
                                                  0.8090590458
##
    [936,] -1.982244937 -1.287956178 -0.1269146607 -0.9069826224
##
    [937,]
          0.460646283 -0.044858672 -0.4101692271
                                                  0.0686482607
##
                       0.581197280 1.9643743197 -0.4374024026
    [938,]
          2.022404800
                        1.051287152 -1.2180859322
##
    [939,]
                                                 1.2847370006
          0.817097991
                       1.071257104
                                    0.0811060765
                                                  0.3299635889
##
    [940,] -0.359859343
    [941,] -0.401453224 -0.828386900 0.4985900877 -0.0545027586
##
##
    [942,] 1.228270259 -1.416722151
                                    1.4696858218 -0.9478630323
##
    [943,] -0.685864494 0.761535716
                                    0.3005700879 0.5326597733
           0.550936625 -0.301454767
                                    0.6794250890 -0.5204211871
##
    [944,]
    [945,] -1.084065864
##
                       1.007708929 -0.2773265729 0.0230265166
##
    [946,]
          0.777620703 -0.041082642 1.2452273771 -0.1858644323
    [947,]
##
                       0.294083633 -1.3557075852
                                                  0.5560213994
          1.759646578
##
    [948,] -0.381035097 -1.686005060 -0.4901998682 -0.3624711620
##
    [949,] -1.105718210
                        0.304722488 -0.780394723 -0.0264061332 -0.3148738066
##
    [950,]
##
    [951,]
           1.500792554 0.309290684 -0.3004017189
                                                  0.5948847100
           0.801317576 -1.724226942 1.0101277091 0.8445503201
##
    [952,]
##
    [953,]
           [954,]
##
           0.672074881 -0.781504872 2.1942435553 -1.1782572871
##
    [955,] -0.587110854
                        0.333637322
                                    1.3023111031
                                                  0.6849832326
          1.108657417 -1.629810278 -1.1781596306 -0.6260733908
##
    [956,]
           0.417322931 -0.047432271 0.1807113649 -0.2356736022
##
    [957,]
##
    [958,] -1.539542056 -1.474678807 -0.6409113657 -0.1046649277
##
    [959,] -1.482124719 0.353585109 -0.3863770272
                                                 1.9285892499
##
    [960,]
          1.008229595
                       0.155510556 1.2172553128 -1.1877544463
##
                       0.747564660 -1.0951545286
                                                 0.4012014602
    [961,]
          1.547908404
##
    [962,] -0.937710785
                        0.598594906 1.5116857153
                                                  0.5476002090
##
    [963,] -2.255044839
                        2.062682187 -1.1545851896 -1.1549280358
##
    [964,] -1.460967322
                        1.576685720 -0.8737450117
                                                  1.6535048679
                        0.369845753 -0.2910120500
##
    [965,]
          1.968236012
                                                  0.5891900385
##
    [966,]
          0.435479648
                        1.236576792 0.6715281409
                                                  1.6298557157
##
    [967,] -1.045506592
                       1.314216039 -0.6794585204 -1.3290403562
    [968,] 1.648817721 -0.080172494 -0.6765039622 -0.5634413751
##
##
    [969,] -0.513619949 -0.195597213 0.4255919303 0.5855135292
  [970,] 0.872561974 -0.835125149 -0.4399010070 -0.9097231930
```

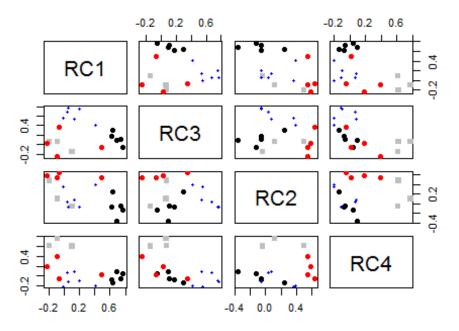
```
[971,] -0.174662394 1.774604478 0.4358219255 -0.3773248261
##
    [972,]
           1.374333565
                        0.656827312 -1.2943153263
                                                   0.6513430154
##
    [973,]
           1.125667482
                        0.515969415
                                    0.0168558670 -0.5934905331
##
    [974,]
                        1.796027575 -1.2034764852 -0.4098523188
           1.327236845
##
    [975,]
           2.224332645 -1.142967294 -0.6528687164 -0.8066897194
##
           1.936667355
                        2.814843076
                                    1.6033487518 1.9852717169
    [976,]
                                    1.9449517565 -0.6481132512
##
    [977,]
           0.152798676
                        0.641715742
##
    [978,] -0.179258955 -1.038659969 -0.5943231288
                                                   1.8132252164
##
    [979,]
           1.460825924 -0.893386637
                                     0.3775074151 -1.5926706526
    [980,] -0.687796517
                        0.781893232
                                     1.1721455797 -0.6065229456
##
                        0.857779475 -0.1952289710 -1.1444646975
##
    [981,]
           0.206295298
##
    [982,] -0.121361075
                        1.170952834 -0.7256160250 -1.2067931942
##
    [983,]
          1.067049837 -0.942955260 -0.6472125222 -0.7571187094
##
    [984,] -0.458237694 -1.026779969 1.4473341487 -0.3475151597
           0.267272206 -0.154306991 -0.9869291320 -1.5608914909
##
    [985,]
##
           0.847003806 -0.084735718 -0.5754938752 -1.5632141997
    [986,]
##
    [987,]
           0.665544106
                        1.772234484 -1.0387311040 0.6485645671
##
    [988,]
           0.757445574 -0.692134762 -1.1817036297 -0.9433573658
    [989,]
           1.660115232 0.502410623
                                    1.0930331121 -0.5326301963
##
    [990,]
                                     0.4349669705
                                                   1.9316186470
##
           0.194366324 1.060239806
##
    [991,] -0.471904255 -0.674100709 -1.4745548399 -0.5511964618
##
          1.400665403 -1.979657236 -1.5419523934
                                                   1.1092515073
    [992,]
##
    [993,] -0.058599538  0.265452886 -1.4790182012
                                                   2.2801773965
    [994,] -0.936151698 -0.953628745 -0.8770917290
                                                   0.1269958602
##
    [995,]
##
           1.448829730 -0.617904541 0.0476808321 -0.4297081207
##
    [996,]
           0.058057804 -1.306558400 -1.8388488234
                                                   1.3839977419
           0.377337156 -1.449674388 -0.6347815500 -1.2776410243
##
    [997,]
##
    [998,] -0.018049372 -0.734433156 0.0004649137 -0.0565303935
##
           1.144093805
                        0.062944558 -1.0085431404
    [999,]
                                                   2.1693187904
                                     1.7378201928
## [1000,]
           0.969286783
                        1.693704946
                                                   2.1811791485
## [1001,] -0.725191444 -0.231922936
                                     0.7802227899
                                                  0.0891184835
## [1002,]
           0.076519813 -1.170388602 0.5401728918
                                                   1.5610107592
## [1003,]
           1.404760894 -1.219915063 -1.6240088387
                                                   1.4619401355
## [1004,]
           0.522365060 0.071066965
                                    1.0395488037
                                                   0.2883541862
## [1005,]
           0.299049556 -0.340554391 -0.0757500211
                                                   1.5688317754
           0.047901732  0.945312936  0.6505529350  -0.0113210131
## [1006,]
## [1008,] 0.111285341 -1.404693606 -0.4571929801 -1.3161494102
## [1009,] -0.373128906 -0.407489126 -0.6435240642 -0.3971397440
## [1010,] -1.419859802 0.157139604 -0.7124316352 1.4981924465
# Play with FA utilities
fa.parallel(music_transformed[-1]) # See factor recommendation
```



 $\mbox{\tt \#\#}$ Parallel analysis suggests that the number of factors = $\,6\,$ and the number of components = $\,3\,$

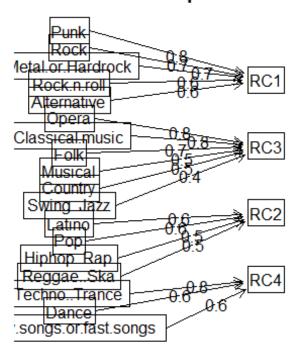
fa.plot(fit.pc.music) # See Correlations within Factors

Principal Component Analysis

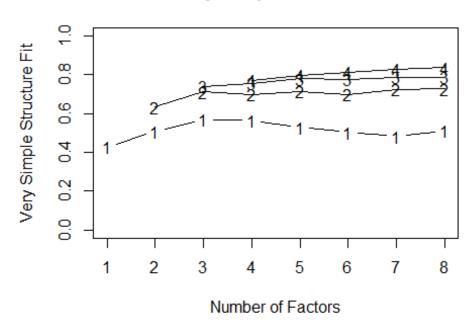


fa.diagram(fit.pc.music) # Visualize the relationship

Components Analysis



Very Simple Structure



```
## Very Simple Structure
## Call: vss(x = music_transformed[-1])
## VSS complexity 1 achieves a maximimum of 0.57
                                                   with
                                                            factors
## VSS complexity 2 achieves a maximimum of 0.73
                                                   with
                                                            factors
##
## The Velicer MAP achieves a minimum of 0.02 with 3 factors
## BIC achieves a minimum of -191.98 with 7 factors
## Sample Size adjusted BIC achieves a minimum of -50.73
                                                            with
##
## Statistics by number of factors
     vss1 vss2
                 map dof chisq
                                                            BIC SABIC complex
                                    prob sqresid
                                                 fit RMSEA
## 1 0.43 0.00 0.033 135
                          2965
                                0.0e+00
                                            18.5 0.43 0.144 2031
                                                                  2460
                                                                            1.0
## 2 0.51 0.63 0.026 118
                          1787 7.1e-296
                                            11.8 0.63 0.118
                                                             970
                                                                  1345
                                                                            1.3
## 3 0.57 0.71 0.022 102
                           978 3.8e-143
                                             8.4 0.74 0.092
                                                             273
                                                                    597
                                                                            1.4
## 4 0.56 0.70 0.026
                                             7.4 0.77 0.085
                     87
                           729 4.0e-102
                                                             127
                                                                    404
                                                                            1.6
## 5 0.53 0.71 0.030
                      73
                                             6.3 0.81 0.072
                                                             -47
                           458
                                4.0e-57
                                                                    185
                                                                            1.7
## 6 0.50 0.70 0.036
                      60
                           337
                                4.1e-40
                                             5.5 0.83 0.068
                                                             -79
                                                                    112
                                                                            1.9
                                             4.7 0.85 0.044 -192
## 7 0.48 0.73 0.042
                      48
                           140
                                6.1e-11
                                                                    -40
                                                                            1.9
## 8 0.51 0.73 0.055
                                             4.3 0.87 0.037 -168
                      37
                            88
                                5.3e-06
                                                                    -51
                                                                            1.9
     eChisq SRMR eCRMS
##
                          eBIC
## 1
       5850 0.138 0.146 4916.2
## 2
       2352 0.087 0.099 1535.5
## 3
        842 0.052 0.064 136.6
```

```
## 4 594 0.044 0.058 -7.6

## 5 329 0.033 0.047 -175.5

## 6 209 0.026 0.042 -205.6

## 7 73 0.015 0.027 -258.8

## 8 44 0.012 0.024 -211.6
```

@Conclusion: The proportion of the total variance for RC4 is about 61% which restores maximum of the total variance. Also the components for RC4 contribute to Techno Trance, Dance, Slow songs or fast songs.

MultiLinear Regression

| music_t | ransfo | rmed | | | | | |
|--------------------|--------|--------------------------|-------|------|---------|-----------------|-----|
| ## ical | Music | Slow.songs.or.fast.songs | Dance | Folk | Country | Classical.music | Mus |
| ## 1 | 5 | 3 | 2 | 1 | 2 | 2 | |
| 1 ## 2 | 4 | 4 | 2 | 1 | 1 | 1 | |
| 2 ## 3 | 5 | 5 | 2 | 2 | 3 | 4 | |
| 5 ## 4 | 5 | 3 | 2 | 1 | 1 | 1 | |
| 1 ## 5 | 5 | 3 | 4 | 3 | 2 | 4 | |
| 3 ## 6 | 5 | 3 | 2 | 3 | 2 | 3 | |
| 3 ## 7 | 5 | 5 | | 3 | 1 | 2 | |
| 2 | | | | | | | |
| ## 8 2 | 5 | 3 | 3 | 2 | 1 | 2 | |
| ## 9 4 | 5 | 3 | 3 | 1 | 1 | 2 | |
| ## 10 5 | 5 | 3 | 2 | 5 | 2 | 2 | |
| ## 11 | 5 | 3 | 3 | 2 | 1 | 2 | |
| 3 ## 12 | 5 | 3 | 1 | 1 | 1 | 4 | |
| 1 ## 13 | 5 | 3 | 1 | 2 | 1 | 4 | |
| 3 ## 1 4 | 5 | 3 | 5 | 3 | 2 | 1 | |
| 5 ## 15 | 5 | 3 | 2 | 1 | 1 | 2 | |
| 3 | | | | | | | |
| ## 16 3 | 1 | 3 | | 2 | 3 | 4 | |
| ## 17 2 | 5 | 3 | 3 | 1 | 1 | 1 | |

| ## 18 | 5 | 3 | 3 | 3 | 3 | 2 |
|-----------------|---|---|---|---|---|---|
| 2 ## 19 | 5 | 3 | 5 | 4 | 3 | 4 |
| 5 ## 20 | 5 | 4 | 3 | 3 | 2 | 4 |
| 2 ## 21 | 5 | 3 | 3 | 2 | 3 | 4 |
| 3 ## 22 | 5 | 5 | 1 | 1 | 3 | 2 |
| 2 ## 23 | 5 | 3 | 3 | 2 | 3 | 3 |
| 3 ## 24 | 5 | 3 | 4 | 2 | 2 | 2 |
| 4 ## 25 | 5 | 2 | 3 | 1 | 1 | 4 |
| 3 ## 26 | 5 | 3 | 4 | 2 | 1 | 2 |
| 3 ## 27 | 5 | 5 | 5 | 5 | 4 | 5 |
| 3 ## 28 2 | 4 | 5 | 3 | 4 | 1 | 3 |
| ## 29 1 | 5 | 3 | 5 | 1 | 1 | 1 |
| ## 30 3 | 5 | 4 | 3 | 4 | 2 | 3 |
| ## 31 3 | 4 | 3 | 4 | 3 | 3 | 3 |
| ## 32 3 | 4 | 3 | 4 | 1 | 3 | 2 |
| ## 33 3 | 5 | 5 | 3 | 1 | 3 | 2 |
| ## 34 5 | 5 | 4 | 2 | 2 | 3 | 4 |
| ## 35 4 | 5 | 4 | 3 | 2 | 1 | 3 |
| ## 36 5 | 5 | 3 | 3 | 3 | 1 | 4 |
| ## 37 4 | 5 | 3 | 1 | 3 | 2 | 3 |
| ## 38 1 | 5 | 5 | 1 | 1 | 1 | 5 |
| ## 39 2 | 5 | 5 | 5 | 3 | 1 | 5 |
| ## 40 3 | 5 | 3 | 3 | 3 | 2 | 2 |
| ## 41 1 | 4 | 3 | 4 | 1 | 1 | 1 |
| ## 42 1 | 5 | 4 | 5 | 5 | 5 | 5 |
| _ | | | | | | |

| ## 43 4 | 5 | 5 | 2 | 2 | 2 | 3 |
|------------|---|---|---|---|---|---|
| ## 44 2 | 5 | 4 | 3 | 1 | 1 | 2 |
| ## 45 | 4 | 4 | 4 | 2 | 1 | 3 |
| 3 ## 46 | 5 | 4 | 5 | 2 | 2 | 4 |
| 3 ## 47 | 5 | 3 | 4 | 3 | 4 | 1 |
| 5 ## 48 | 5 | 3 | 3 | 1 | 1 | 2 |
| 3 ## 49 | 5 | 4 | 3 | 1 | 1 | 1 |
| 4 ## 50 | 5 | 4 | 2 | 1 | 2 | 2 |
| 2 ## 51 | 4 | 3 | 2 | 4 | 2 | 5 |
| 5 ## 52 | 5 | 3 | 3 | 3 | 1 | 4 |
| 3 ## 53 | 5 | 3 | 5 | 5 | 5 | 5 |
| 5 ## 54 | 5 | 3 | 4 | 4 | 3 | 4 |
| 5 ## 55 | 5 | 3 | 5 | 5 | 3 | 5 |
| 5 ## 56 | 5 | 3 | 4 | 2 | 2 | 4 |
| 3 ## 57 | 5 | 3 | 1 | 2 | 3 | 4 |
| 3 ## 58 | 5 | 3 | 3 | 3 | 2 | 3 |
| 2 ## 59 | 5 | 5 | 5 | 3 | 2 | 3 |
| 2 ## 60 | 5 | 4 | 2 | 1 | 2 | 3 |
| 1 ## 61 | 5 | 2 | 2 | 2 | 2 | 4 |
| 4 ## 62 | 5 | 3 | 5 | 1 | 2 | 4 |
| 3 ## 63 | 5 | 3 | 5 | 4 | 5 | 4 |
| 4 ## 64 | 5 | 4 | 5 | 1 | 3 | 2 |
| 1 ## 65 | 5 | 3 | 3 | 1 | 1 | 1 |
| 4 ## 66 | 4 | 3 | 3 | 1 | 2 | 2 |
| 1 ## 67 | 4 | 3 | 4 | 2 | 2 | 2 |
| 4 | • | 5 | Г | _ | _ | 2 |

| ## 4 | 68 | 3 | 4 | 4 | 3 | 2 | 2 |
|--------------|----|---|---|---|---|---|---|
| ## 4 | 69 | 5 | 5 | 3 | 2 | 1 | 2 |
| ## 4 | 70 | 5 | 4 | 1 | 1 | 1 | 1 |
| ## 3 | 71 | 5 | 3 | 5 | 2 | 2 | 2 |
| ## 1 | 72 | 4 | 3 | 2 | 3 | 1 | 4 |
| ## 5 | 73 | 5 | 3 | 2 | 2 | 2 | 2 |
| ## 1 | 74 | 5 | 3 | 3 | 2 | 2 | 2 |
| ## 3 | 75 | 5 | 3 | 2 | 1 | 4 | 5 |
| ## 1 | 76 | 5 | 3 | 3 | 4 | 4 | 3 |
| ## 2 | 77 | 4 | 4 | 4 | 1 | 1 | 2 |
| ## 2 | 78 | 5 | 3 | 5 | 1 | 2 | 2 |
| ## 5 | 79 | 4 | 4 | 4 | 2 | 4 | 1 |
| ## 4 | 80 | 5 | 3 | 4 | 4 | 4 | 3 |
| ## 3 | 81 | 5 | 3 | 4 | 2 | 2 | 2 |
| ## 3 | 82 | 5 | 4 | 4 | 1 | 2 | 3 |
| ## 2 | 83 | 5 | 5 | 1 | 3 | 1 | 3 |
| ## 4 | 84 | 5 | 3 | 5 | 1 | 2 | 4 |
| ## 5 | 85 | 5 | 3 | 1 | 1 | 4 | 5 |
| ## 3 | 86 | 5 | 2 | 3 | 3 | 5 | 5 |
| ## 2 | 87 | 4 | 3 | 4 | 3 | 3 | 3 |
| ## 4 | 88 | 5 | 4 | 4 | 1 | 2 | 2 |
| ## 2 | 89 | 5 | 5 | 5 | 1 | 1 | 5 |
| ## 3 | 90 | 5 | 3 | 3 | 2 | 1 | 4 |
| 3 ## 4 | 91 | 4 | 2 | 3 | 2 | 1 | 3 |
| 4 ## 5 | 92 | 5 | 5 | 1 | 5 | 1 | 2 |
| , | | | | | | | |

| ## 4 | 93 | 5 | 2 | 1 | 3 | 4 | 4 |
|---------|-----|---|---|---|---|---|---|
| | 94 | 5 | 4 | 1 | 5 | 5 | 4 |
| | 95 | 5 | 5 | 5 | 1 | 1 | 1 |
| | 96 | 5 | 3 | 3 | 2 | 2 | 4 |
| | 97 | 5 | 3 | 1 | 1 | 1 | 1 |
| | 98 | 5 | 3 | 2 | 1 | 1 | 1 |
| | 99 | 3 | 5 | 5 | 1 | 1 | 1 |
| | 100 | 5 | 3 | 4 | 1 | 1 | 2 |
| | 101 | 5 | 4 | 4 | 3 | 2 | 4 |
| | 102 | 5 | 3 | 1 | 3 | 2 | 3 |
| | 103 | 5 | 3 | 1 | 2 | 3 | 5 |
| | 104 | 5 | 5 | 5 | 2 | 2 | 2 |
| | 105 | 4 | 4 | 3 | 3 | 2 | 4 |
| | 106 | 5 | 5 | 1 | 3 | 1 | 3 |
| | 107 | 5 | 3 | 4 | 4 | 5 | 5 |
| | 108 | 5 | 3 | 1 | 1 | 1 | 2 |
| ## 1 | 109 | 4 | 3 | 2 | 2 | 1 | 4 |
| ## 2 | 110 | 5 | 2 | 2 | 2 | 4 | 4 |
| | 111 | 5 | 4 | 4 | 5 | 2 | 3 |
| ## 3 | 112 | 5 | 3 | 4 | 3 | 2 | 5 |
| | 113 | 5 | 3 | 4 | 2 | 2 | 4 |
| | 114 | 3 | 4 | 4 | 2 | 3 | 1 |
| | 115 | 5 | 3 | 2 | 1 | 1 | 3 |
| ## 4 | 116 | 5 | 4 | 5 | 2 | 2 | 5 |
| ## 1 | 117 | 5 | 3 | 2 | 2 | 2 | 2 |
| | | | | | | | |

| шш | 110 | - | _ | 2 | 2 | 1 | 1 |
|---------|-----|----------|---|---|---|---|---|
| ## 3 | 118 | 5 | 3 | 2 | 2 | 1 | 1 |
| ## 1 | 119 | 5 | 3 | 1 | 2 | 2 | 4 |
| | 120 | 4 | 2 | 4 | 2 | 1 | 3 |
| | 121 | 5 | 5 | 4 | 1 | 2 | 4 |
| | 122 | 4 | 3 | 2 | 3 | 4 | 2 |
| | 123 | 5 | 3 | 3 | 2 | 2 | 5 |
| | 124 | 5 | 3 | 3 | 3 | 3 | 3 |
| | 125 | 4 | 4 | 1 | 4 | 5 | 5 |
| | 126 | 5 | 3 | 3 | 3 | 2 | 3 |
| | 127 | 3 | 5 | 4 | 1 | 1 | 3 |
| | 128 | 4 | 3 | 3 | 3 | 4 | 4 |
| | 129 | 5 | 5 | 5 | 1 | 5 | 5 |
| | 130 | 5 | 4 | 5 | 3 | 1 | 2 |
| | 131 | 4 | 2 | 2 | 1 | 1 | 4 |
| | 132 | 5 | 4 | 3 | 1 | 1 | 2 |
| | 133 | 5 | 4 | 3 | 1 | 1 | 1 |
| ## 2 | 134 | 5 | 3 | 2 | 4 | 1 | 4 |
| | 135 | 5 | 3 | 4 | 3 | 3 | 3 |
| | 136 | 5 | 3 | 2 | 1 | 3 | 5 |
| | 137 | 5 | 3 | 4 | 3 | 2 | 3 |
| | 138 | 5 | 3 | 4 | 3 | 3 | 5 |
| | 139 | 5 | 3 | 2 | 3 | 3 | 4 |
| | 140 | 5 | 4 | 5 | 3 | 2 | 3 |
| | 141 | 5 | 4 | 3 | 2 | 1 | 2 |
| | 142 | 3 | 4 | 1 | 3 | 1 | 3 |
| | | | | | | | |

| ## 143 2 | 5 | 4 | 4 | 1 | 3 | 2 |
|-------------|---|---|---|---|---|---|
| ## 144 2 | 5 | 4 | 4 | 2 | 1 | 1 |
| ## 145 2 | 5 | 2 | 3 | 1 | 2 | 3 |
| ## 146 2 | 1 | 4 | 4 | 1 | 1 | 2 |
| ## 147 1 | 5 | 3 | 5 | 2 | 1 | 4 |
| ## 148 | 5 | 4 | 3 | 2 | 3 | 2 |
| 2 ## 149 | 4 | 3 | 4 | 4 | 4 | 3 |
| 3 ## 150 | 2 | 3 | 1 | 3 | 1 | 3 |
| 4 ## 151 | 5 | 2 | 2 | 2 | 3 | 4 |
| 4 ## 152 | 5 | 4 | 3 | 1 | 1 | 3 |
| 2 ## 153 | 5 | 3 | 5 | 2 | 2 | 3 |
| 3 ## 154 | 2 | 5 | 5 | 2 | 2 | 3 |
| 2 ## 155 | 5 | 3 | 1 | 2 | 4 | 5 |
| 1 ## 156 | 5 | 4 | 4 | 3 | 3 | 5 |
| 2 ## 157 | 5 | 4 | 2 | 4 | 3 | 4 |
| 2 ## 158 | 5 | 5 | 4 | 4 | 4 | 2 |
| 2 ## 159 | 5 | 3 | 4 | 2 | 1 | 3 |
| 2 ## 160 | 5 | 3 | 4 | 4 | 3 | 5 |
| 4 ## 161 | 5 | 3 | 3 | 2 | 1 | 2 |
| 1 ## 162 | 5 | 3 | 2 | 2 | 2 | 2 |
| 2 ## 163 | 4 | 2 | 3 | 5 | 4 | 5 |
| 2 ## 164 | 5 | 5 | 3 | 1 | 1 | 2 |
| 1 ## 165 | 5 | 4 | 4 | 2 | 1 | 3 |
| 2 ## 166 | 5 | 4 | 5 | 2 | 4 | 3 |
| 1 ## 167 | 5 | 5 | 1 | 2 | 1 | 3 |
| 1 | | | | | | |

| ## 2 | 168 | 3 | 3 | 3 | 2 | 2 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 169 | 5 | 4 | 4 | 1 | 2 | 4 |
| | 170 | 5 | 3 | 2 | 1 | 2 | 4 |
| | 171 | 4 | 3 | 2 | 3 | 2 | 2 |
| | 172 | 5 | 4 | 3 | 1 | 2 | 4 |
| | 173 | 5 | 3 | 2 | 3 | 3 | 4 |
| | 174 | 5 | 3 | 2 | 1 | 2 | 4 |
| | 175 | 5 | 2 | 1 | 5 | 3 | 3 |
| | 176 | 5 | 3 | 1 | 1 | 1 | 5 |
| | 177 | 5 | 3 | 3 | 5 | 1 | 1 |
| ## 3 | 178 | 5 | 3 | 1 | 4 | 2 | 4 |
| ## 2 | 179 | 4 | 3 | 1 | 3 | 3 | 5 |
| ## 2 | 180 | 4 | 3 | 1 | 2 | 2 | 5 |
| ## 3 | 181 | 4 | 4 | 2 | 1 | 1 | 3 |
| ## 3 | 182 | 5 | 3 | 4 | 3 | 3 | 4 |
| ## 4 | 183 | 5 | 3 | 4 | 3 | 2 | 4 |
| ## 5 | 184 | 5 | 3 | 3 | 2 | 1 | 2 |
| ## 4 | 185 | 5 | 4 | 2 | 2 | 2 | 3 |
| ## 5 | 186 | 3 | 3 | 3 | 1 | 1 | 2 |
| | 187 | 4 | 2 | 2 | 4 | 2 | 3 |
| | 188 | 5 | 3 | 1 | 2 | 2 | 2 |
| ## 4 | 189 | 3 | 3 | 3 | 3 | 2 | 5 |
| | 190 | 5 | 3 | 1 | 3 | 2 | 5 |
| ## 2 | 191 | 4 | 4 | 2 | 2 | 2 | 4 |
| ## 5 | 192 | 5 | 3 | 2 | 5 | 2 | 4 |
| | | | | | | | |

| ## | 193 | 5 | | 1 | 4 | 1 | 2 | 3 |
|---------|-----|---|---|---|---|---|---|---|
| 3 | | | | | | | | |
| ## 3 | 194 | 5 | | 3 | 1 | 4 | 3 | 5 |
| | 195 | 5 | • | 4 | 1 | 2 | 1 | 3 |
| | 196 | 5 | | 3 | 2 | 2 | 2 | 3 |
| | 197 | 5 | | 3 | 2 | 2 | 2 | 2 |
| | 198 | 5 | | 3 | 3 | 2 | 3 | 1 |
| | 199 | 5 | | 3 | 3 | 4 | 2 | 2 |
| | 200 | 5 | • | 4 | 4 | 1 | 1 | 1 |
| | 201 | 4 | | 3 | 3 | 1 | 2 | 4 |
| | 202 | 5 | | 3 | 2 | 4 | 3 | 3 |
| | 203 | 5 | | 3 | 5 | 1 | 1 | 1 |
| | 204 | 5 | | 3 | 4 | 2 | 2 | 3 |
| | 205 | 5 | | 3 | 3 | 3 | 2 | 3 |
| | 206 | 5 | | 1 | 2 | 4 | 3 | 5 |
| | 207 | 5 | | 3 | 5 | 2 | 2 | 5 |
| | 208 | 5 | | 3 | 2 | 3 | 3 | 4 |
| | 209 | 5 | | 3 | 3 | 2 | 1 | 3 |
| | 210 | 5 | | 2 | 4 | 3 | 3 | 4 |
| | 211 | 5 | • | 4 | 5 | 5 | 5 | 5 |
| | 212 | 5 | • | 4 | 5 | 1 | 2 | 2 |
| | 213 | 5 | | 3 | 1 | 3 | 3 | 5 |
| | 214 | 5 | | 4 | 4 | 2 | 3 | 3 |
| | 215 | 4 | | 3 | 2 | 2 | 2 | 3 |
| | 216 | 1 | | 3 | 2 | 2 | 1 | 1 |
| | 217 | 5 | | 4 | 1 | 1 | 1 | 1 |
| | | | | | | | | |

| ## 218 | 5 | 3 | 4 | 1 | 3 | 2 |
|------------------|---|---|---|---|---|---|
| 5 ## 219 | 5 | 4 | 2 | 1 | 3 | 2 |
| 3 ## 220 | 5 | 5 | 5 | 1 | 1 | 1 |
| 2 ## 221 | 5 | 3 | 4 | 3 | 3 | 4 |
| 2 ## 222 3 | 5 | 3 | 4 | 5 | 1 | 4 |
| ## 223 3 | 5 | 3 | 3 | 2 | 4 | 4 |
| ## 224 1 | 5 | 3 | 3 | 3 | 2 | 3 |
| ## 225 4 | 5 | 3 | 2 | 2 | 3 | 5 |
| ## 226 4 | 5 | 4 | 2 | 3 | 2 | 4 |
| ## 227 3 | 5 | 5 | 5 | 5 | 4 | 3 |
| ## 228 3 | 5 | 2 | 2 | 4 | 3 | 5 |
| ## 229 2 | 4 | 3 | 3 | 5 | 3 | 4 |
| ## 230 1 | 4 | 3 | 4 | 2 | 4 | 1 |
| ## 231 5 | 5 | 2 | 2 | 5 | 4 | 5 |
| ## 232 2 | 5 | 1 | 3 | 2 | 3 | 2 |
| ## 233 1 | 5 | 3 | 1 | 2 | 4 | 4 |
| ## 234 3 | 4 | 4 | 4 | 2 | 2 | 4 |
| ## 235 1 | 4 | 4 | 4 | 4 | 3 | 2 |
| ## 236 3 | 5 | 3 | 1 | 1 | 1 | 3 |
| ## 237 5 | 1 | 3 | 3 | 3 | 2 | 3 |
| ## 238 3 | 5 | 4 | 4 | 2 | 1 | 3 |
| ## 239 3 | 5 | 2 | 2 | 1 | 2 | 2 |
| ## 240 2 | 5 | 3 | 4 | 2 | 1 | 5 |
| ## 241 1 | 3 | 4 | 2 | 1 | 1 | 1 |
| ## 242 5 | 5 | 4 | 2 | 1 | 1 | 3 |
| | | | | | | |

| ## 5 | 243 | 3 | 3 | 3 | 2 | 1 | 2 |
|---------|-----|---|---|---|---|---|---|
| | 244 | 5 | 3 | 2 | 1 | 2 | 4 |
| | 245 | 5 | 3 | 5 | 2 | 4 | 3 |
| | 246 | 5 | 3 | 2 | 3 | 3 | 2 |
| | 247 | 5 | 3 | 3 | 2 | 3 | 4 |
| | 248 | 5 | 3 | 3 | 2 | 1 | 4 |
| | 249 | 5 | 3 | 4 | 1 | 1 | 4 |
| | 250 | 5 | 3 | 3 | 4 | 4 | 4 |
| | 251 | 5 | 3 | 3 | 2 | 1 | 2 |
| | 252 | 5 | 5 | 5 | 2 | 2 | 3 |
| | 253 | 5 | 2 | 2 | 2 | 3 | 3 |
| | 254 | 5 | 3 | 3 | 1 | 2 | 1 |
| | 255 | 5 | 3 | 5 | 3 | 2 | 2 |
| | 256 | 5 | 3 | 2 | 5 | 4 | 5 |
| | 257 | 5 | 3 | 3 | 4 | 2 | 1 |
| | 258 | 5 | 3 | 5 | 3 | 2 | 3 |
| | 259 | 5 | 4 | 1 | 2 | 1 | 5 |
| | 260 | 2 | 3 | 3 | 3 | 3 | 2 |
| | 261 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 262 | 5 | 3 | 4 | 2 | 3 | 2 |
| | 263 | 5 | 4 | 3 | 4 | 2 | 5 |
| | 264 | 5 | 5 | 5 | 2 | 2 | 2 |
| | 265 | 3 | 3 | 3 | 3 | 1 | 3 |
| | 266 | 5 | 3 | 3 | 2 | 1 | 2 |
| | 267 | 5 | 3 | 3 | 3 | 2 | 3 |
| | | | | | | | |

| ## 268 | 5 | 3 | 4 | 3 | 4 | 4 |
|-------------|---|---|---|---|---|---|
| 3 ## 269 | 5 | 3 | 3 | 2 | 1 | 2 |
| 2 | | | | | | |
| ## 270 4 | 5 | 3 | 3 | 1 | 2 | 4 |
| ## 271 3 | 5 | 3 | 3 | 2 | 1 | 1 |
| ## 272 1 | 5 | 3 | 4 | 3 | 1 | 1 |
| ## 273 3 | 5 | 3 | 2 | 4 | 3 | 5 |
| ## 274 4 | 5 | 3 | 4 | 2 | 2 | 4 |
| ## 275 2 | 5 | 4 | 5 | 3 | 3 | 2 |
| ## 276 5 | 5 | 3 | 3 | 3 | 4 | 4 |
| ## 277 2 | 5 | 4 | 5 | 3 | 5 | 2 |
| ## 278 1 | 5 | 3 | 2 | 1 | 3 | 3 |
| ## 279 3 | 5 | 4 | 3 | 5 | 2 | 4 |
| ## 280 1 | 5 | 3 | 4 | 2 | 2 | 2 |
| ## 281 4 | 5 | 3 | 4 | 2 | 1 | 3 |
| ## 282 1 | 5 | 3 | 4 | 2 | 3 | 4 |
| ## 283 2 | 5 | 3 | 1 | 1 | 2 | 1 |
| ## 284 | 5 | 3 | 4 | 2 | 3 | 3 |
| 2 ## 285 | 1 | 2 | 1 | 1 | 1 | 1 |
| 1 ## 286 | 5 | 4 | 3 | 1 | 1 | 3 |
| 3 ## 287 | 5 | 3 | 3 | 2 | 2 | 4 |
| 3 ## 288 | 5 | 3 | 3 | 1 | 1 | 3 |
| 2 ## 289 | 5 | 3 | 5 | 3 | 5 | 3 |
| 1 ## 290 | 5 | 3 | 4 | 2 | 2 | 3 |
| 4 ## 291 | 4 | 3 | 4 | 1 | 1 | 2 |
| 4 ## 292 | 4 | 3 | 3 | 3 | 3 | 3 |
| 3 | | | | | | |

| ## 5 | 293 | 5 | 4 | 5 | 2 | 3 | 2 |
|---------|-----|---|---|---|---|---|---|
| | 294 | 5 | 1 | 2 | 2 | 2 | 4 |
| | 295 | 5 | 3 | 2 | 2 | 1 | 4 |
| | 296 | 5 | 3 | 3 | 2 | 5 | 3 |
| | 297 | 5 | 4 | 5 | 1 | 1 | 1 |
| | 298 | 5 | 3 | 2 | 1 | 2 | 3 |
| | 299 | 5 | 3 | 5 | 2 | 3 | 2 |
| | 300 | 5 | 3 | 4 | 1 | 1 | 3 |
| | 301 | 5 | 2 | 1 | 5 | 2 | 5 |
| | 302 | 4 | 2 | 1 | 2 | 1 | 5 |
| | 303 | 5 | 4 | 5 | 4 | 1 | 2 |
| | 304 | 4 | 5 | 2 | 2 | 4 | 2 |
| | 305 | 5 | 3 | 2 | 2 | 1 | 4 |
| | 306 | 5 | 3 | 3 | 2 | 1 | 2 |
| | 307 | 5 | 5 | 5 | 3 | 3 | 3 |
| | 308 | 5 | 3 | 1 | 4 | 3 | 2 |
| | 309 | 5 | 5 | 5 | 2 | 3 | 3 |
| | 310 | 5 | 3 | 4 | 2 | 1 | 3 |
| | 311 | 5 | 5 | 4 | 1 | 1 | 3 |
| ## 5 | 312 | 5 | 4 | 5 | 5 | 2 | 5 |
| | 313 | 2 | 4 | 2 | 1 | 1 | 2 |
| | 314 | 5 | 4 | 3 | 2 | 2 | 4 |
| | 315 | 5 | 4 | 5 | 4 | 5 | 4 |
| ## 3 | 316 | 5 | 3 | 1 | 1 | 1 | 3 |
| ## 3 | 317 | 5 | 3 | 4 | 1 | 1 | 1 |
| | | | | | | | |

| ## 318 1 | 5 | 3 | 5 | 2 | 2 | 2 |
|-------------|---|---|---|---|---|---|
| ## 319 3 | 5 | 3 | 2 | 3 | 4 | 3 |
| ## 320 5 | 5 | 3 | 4 | 3 | 2 | 4 |
| ## 321 2 | 5 | 4 | 3 | 2 | 2 | 2 |
| ## 322 | 5 | 3 | 3 | 2 | 4 | 3 |
| 4 ## 323 | 5 | 3 | 2 | 2 | 1 | 4 |
| 3 ## 324 | 5 | 2 | 2 | 1 | 4 | 5 |
| 4 ## 325 | 5 | 3 | 4 | 2 | 2 | 2 |
| 2 ## 326 | 5 | 3 | 4 | 4 | 3 | 3 |
| 3 ## 327 | 5 | 4 | 3 | 2 | 2 | 3 |
| 2 ## 328 | 5 | 3 | 3 | 2 | 1 | 4 |
| 4 ## 329 | 5 | 5 | 3 | 3 | 4 | 2 |
| 1 ## 330 | 5 | 3 | 4 | 2 | 3 | 3 |
| 2 ## 331 | 5 | 3 | 4 | 2 | 1 | 4 |
| 3 ## 332 | 5 | 5 | 3 | 2 | 3 | 3 |
| 3 ## 333 | 4 | 3 | 3 | 2 | 3 | 3 |
| 5 ## 334 | 5 | 2 | 3 | 2 | 3 | 3 |
| 4 ## 335 | 5 | 2 | 2 | 3 | 3 | 2 |
| 3 ## 336 | 5 | 5 | 4 | 3 | 2 | 3 |
| 3 ## 337 | 5 | 4 | 3 | 1 | 2 | 3 |
| 2 | | | | | | |
| ## 338 2 | 5 | 3 | 5 | 1 | 2 | 3 |
| ## 339 3 | 5 | 3 | 3 | 3 | 2 | 4 |
| ## 340 3 | 5 | 3 | 2 | 2 | 1 | 5 |
| ## 341 3 | 5 | 1 | 1 | 3 | 2 | 5 |
| ## 342 1 | 5 | 4 | 1 | 1 | 1 | 1 |
| | | | | | | |

| ## 4 | 343 | 5 | 3 | 3 | 2 | 2 | 2 |
|---------|-----|---|---|---|---|---|---|
| | 344 | 5 | 4 | 3 | 5 | 2 | 2 |
| ## | 345 | 5 | 3 | 2 | 4 | 4 | 1 |
| | 346 | 4 | 3 | 4 | 2 | 1 | 1 |
| | 347 | 5 | 4 | 1 | 1 | 1 | 1 |
| | 348 | 5 | 4 | 3 | 2 | 2 | 2 |
| | 349 | 5 | 4 | 3 | 5 | 2 | 5 |
| | 350 | 5 | 4 | 5 | 2 | 1 | 2 |
| | 351 | 2 | 3 | 4 | 2 | 2 | 1 |
| | 352 | 5 | 3 | 3 | 2 | 4 | 5 |
| | 353 | 5 | 5 | 2 | 1 | 3 | 2 |
| | 354 | 5 | 3 | 3 | 1 | 2 | 3 |
| | 355 | 5 | 3 | 3 | 3 | 2 | 4 |
| | 356 | 5 | 4 | 2 | 1 | 3 | 1 |
| | 357 | 4 | 4 | 3 | 3 | 4 | 4 |
| | 358 | 5 | 4 | 3 | 1 | 1 | 2 |
| | 359 | 4 | 3 | 5 | 3 | 3 | 2 |
| | 360 | 5 | 3 | 4 | 2 | 4 | 3 |
| | 361 | 5 | 3 | 4 | 1 | 2 | 1 |
| | 362 | 5 | 1 | 3 | 5 | 5 | 5 |
| | 363 | 5 | 3 | 2 | 3 | 2 | 4 |
| | 364 | 5 | 3 | 1 | 3 | 2 | 4 |
| | 365 | 2 | 4 | 4 | 2 | 3 | 3 |
| | 366 | 5 | 3 | 2 | 2 | 3 | 4 |
| | 367 | 5 | 2 | 2 | 1 | 2 | 2 |
| | | | | | | | |

| ## 36 1 | 8 | 5 | 3 | 3 | 3 | 1 | 3 | 4 |
|------------|------------|---|---|---|---|---|---|---|
| ## 36 3 | 9 | 5 | 4 | ļ | 5 | 2 | 2 | 3 |
| ## 37 1 | 0 | 5 | 3 | 3 | 5 | 3 | 2 | 1 |
| ## 37 3 | '1 | 5 | 4 | Ļ | 3 | 3 | 2 | 4 |
| ## 37 5 | '2 | 5 | 3 | 3 | 5 | 5 | 5 | 5 |
| ## 37 2 | '3 | 4 | 4 | ļ | 2 | 2 | 2 | 2 |
| ## 37 1 | ' 4 | 5 | 4 | Ļ | 2 | 1 | 1 | 1 |
| ## 37 2 | '5 | 5 | 3 | 3 | 5 | 2 | 2 | 1 |
| ## 37 3 | '6 | 5 | 3 | 3 | 4 | 2 | 1 | 1 |
| ## 37 1 | 7 | 5 | 5 | 5 | 3 | 1 | 1 | 1 |
| ## 37 2 | 8 | 5 | 3 | 3 | 2 | 3 | 3 | 4 |
| ## 37 4 | '9 | 5 | 5 | ; | 5 | 2 | 2 | 2 |
| ## 38 5 | 80 | 5 | 3 | 3 | 5 | 4 | 3 | 4 |
| ## 38 3 | 31 | 5 | 4 | ļ | 4 | 3 | 2 | 2 |
| ## 38 3 | 32 | 5 | 4 | ļ | 2 | 2 | 3 | 4 |
| ## 38 2 | 3 | 5 | 3 | 3 | 4 | 3 | 4 | 2 |
| ## 38 4 | 34 | 5 | 3 | 3 | 2 | 2 | 2 | 3 |
| ## 38 3 | 35 | 5 | 4 | ļ | 3 | 1 | 1 | 2 |
| ## 38 4 | 86 | 5 | 3 | 3 | 5 | 4 | 4 | 5 |
| ## 38 3 | 37 | 5 | 3 | 3 | 3 | 2 | 1 | 2 |
| ## 38 4 | 88 | 5 | 3 | 3 | 5 | 2 | 2 | 2 |
| ## 38 4 | 39 | 5 | 3 | 3 | 3 | 4 | 2 | 4 |
| ## 39 3 | 10 | 5 | 4 | Ļ | 3 | 2 | 2 | 3 |
| ## 39 2 | 1 | 4 | 3 | 3 | 1 | 1 | 2 | 3 |
| ## 39 3 | 2 | 4 | 4 | ŀ | 3 | 3 | 3 | 3 |
| | | | | | | | | |

| | 393 | 5 | 4 | 4 | 3 | 1 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 394 | 5 | 4 | 1 | 1 | 3 | 1 |
| ## | 395 | 5 | 3 | 3 | 1 | 1 | 2 |
| | 396 | 5 | 4 | 3 | 1 | 3 | 1 |
| | 397 | 5 | 3 | 3 | 4 | 2 | 5 |
| | 398 | 5 | 3 | 3 | 5 | 2 | 2 |
| | 399 | 5 | 4 | 3 | 3 | 2 | 2 |
| | 400 | 5 | 4 | 2 | 4 | 1 | 5 |
| ## | 401 | 5 | 3 | 4 | 1 | 2 | 3 |
| 1 ## | 402 | 5 | 3 | 2 | 1 | 3 | 1 |
| 3 ## | 403 | 5 | 3 | 5 | 5 | 1 | 5 |
| 2 ## | 404 | 2 | 3 | 2 | 3 | 3 | 3 |
| 4 | | 5 | 3 | 4 | 5 | 5 | 5 |
| 2 | 406 | 4 | 3 | 3 | 3 | 3 | 3 |
| 3 | 407 | 5 | 3 | 4 | 5 | 1 | 4 |
| 5 | | 5 | 3 | 4 | 2 | 3 | 3 |
| 3 | 409 | 5 | 5 | 3 | 4 | 3 | 5 |
| 5 | | | 4 | | 1 | | |
| 5 | | 5 | | 5 | | 5 | 1 |
| 1 | | 5 | 5 | 4 | 2 | 1 | 3 |
| 4 | | 5 | 3 | 3 | 2 | 2 | 3 |
| 1 | | 5 | 5 | 3 | 1 | 1 | 1 |
| 2 | 414 | 5 | 3 | 4 | 3 | 1 | 2 |
| 3 | 415 | 5 | 3 | 4 | 3 | 2 | 5 |
| 1 | 416 | 5 | 3 | 3 | 1 | 1 | 1 |
| ## 2 | 417 | 4 | 2 | 5 | 1 | 1 | 4 |

| ## 418 2 | 5 | 5 | 1 | 2 | 1 | 2 |
|-------------|---|---|---|---|---|---|
| ## 419 3 | 5 | 1 | 4 | 4 | 2 | 2 |
| ## 420 5 | 5 | 3 | 5 | 2 | 5 | 5 |
| ## 421 1 | 5 | 4 | 1 | 1 | 1 | 3 |
| ## 422 5 | 5 | 2 | 2 | 3 | 2 | 5 |
| ## 423 4 | 5 | 5 | 4 | 1 | 1 | 1 |
| ## 424 3 | 5 | 2 | 3 | 2 | 1 | 3 |
| ## 425 2 | 5 | 5 | 5 | 3 | 3 | 2 |
| ## 426 3 | 5 | 3 | 3 | 1 | 1 | 2 |
| ## 427 1 | 5 | 2 | 1 | 1 | 1 | 1 |
| ## 428 1 | 5 | 3 | 3 | 3 | 1 | 5 |
| ## 429 5 | 5 | 3 | 5 | 3 | 2 | 4 |
| ## 430 2 | 5 | 4 | 2 | 1 | 2 | 3 |
| ## 431 2 | 5 | 5 | 3 | 3 | 3 | 4 |
| ## 432 3 | 4 | 3 | 4 | 1 | 3 | 2 |
| ## 433 1 | 5 | 3 | 2 | 2 | 2 | 3 |
| ## 434 4 | 5 | 3 | 4 | 4 | 4 | 2 |
| ## 435 3 | 5 | 4 | 4 | 1 | 2 | 2 |
| ## 436 2 | 5 | 3 | 1 | 1 | 1 | 1 |
| ## 437 1 | 4 | 3 | 2 | 2 | 2 | 2 |
| ## 438 2 | 5 | 3 | 2 | 1 | 1 | 1 |
| ## 439 3 | 5 | 3 | 1 | 1 | 1 | 2 |
| ## 440 1 | 5 | 5 | 5 | 2 | 2 | 1 |
| ## 441 3 | 5 | 3 | 4 | 1 | 2 | 4 |
| ## 442 2 | 5 | 1 | 3 | 2 | 1 | 2 |
| | | | | | | |

| ## 3 | 443 | 5 | 3 | 4 | 2 | 4 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 444 | 4 | 3 | 2 | 2 | 2 | 4 |
| ## | 445 | 5 | 4 | 3 | 2 | 4 | 2 |
| ## | 446 | 5 | 3 | 4 | 2 | 2 | 2 |
| | 447 | 4 | 3 | 4 | 1 | 2 | 2 |
| | 448 | 3 | 2 | 1 | 3 | 3 | 3 |
| | 449 | 5 | 3 | 4 | 2 | 2 | 2 |
| ## | 450 | 5 | 3 | 3 | 3 | 1 | 2 |
| ## | 451 | 5 | 4 | 4 | 3 | 1 | 5 |
| | 452 | 5 | 3 | 3 | 2 | 2 | 3 |
| | 453 | 5 | 3 | 4 | 1 | 1 | 1 |
| | 454 | 5 | 4 | 2 | 2 | 1 | 1 |
| | 455 | 4 | 4 | 2 | 1 | 1 | 2 |
| ## 3 | 456 | 5 | 3 | 4 | 2 | 1 | 2 |
| ## 1 | 457 | 5 | 5 | 3 | 1 | 1 | 1 |
| ## 1 | 458 | 5 | 4 | 4 | 2 | 1 | 2 |
| ## 5 | 459 | 5 | 4 | 5 | 5 | 5 | 5 |
| ## 3 | 460 | 4 | 2 | 2 | 2 | 3 | 3 |
| ## 1 | 461 | 5 | 4 | 3 | 1 | 1 | 1 |
| ## 3 | 462 | 5 | 3 | 2 | 4 | 3 | 3 |
| ## 1 | 463 | 4 | 3 | 3 | 1 | 2 | 3 |
| ## 3 | 464 | 5 | 3 | 3 | 1 | 1 | 3 |
| 2 | 465 | 5 | 4 | 4 | 3 | 3 | 3 |
| 4 | 466 | 5 | 3 | 3 | 2 | 2 | 3 |
| ## 3 | 467 | 5 | 3 | 3 | 1 | 3 | 3 |

| ## 468 2 | 4 | 2 | 4 | 3 | 2 | 3 |
|-------------|---|---|---|---|---|---|
| ## 469 2 | 5 | 3 | 3 | 2 | 4 | 4 |
| ## 470 1 | 5 | 5 | 5 | 1 | 1 | 1 |
| ## 471 3 | 4 | 3 | 4 | 3 | 1 | 2 |
| ## 472 2 | 5 | 3 | 4 | 2 | 2 | 2 |
| ## 473 | 3 | 3 | 2 | 2 | 4 | 3 |
| 2 ## 474 | 5 | 2 | 1 | 1 | 1 | 1 |
| 1 ## 475 | 5 | 3 | 5 | 1 | 1 | 3 |
| 1 ## 476 | 5 | 3 | 3 | 2 | 5 | 4 |
| 5 ## 477 | 5 | 3 | 2 | 1 | 1 | 4 |
| 3 ## 478 | 5 | 3 | 2 | 1 | 1 | 2 |
| 4 ## 479 | 5 | 4 | 5 | 2 | 3 | 2 |
| 3 ## 480 | 5 | 3 | 3 | 2 | 2 | 3 |
| 3 ## 481 | 5 | 4 | 5 | 3 | 5 | 3 |
| 4 ## 482 | 5 | 4 | 4 | 4 | 1 | 5 |
| 1 ## 483 | 3 | 4 | 2 | 1 | 3 | 1 |
| 1 ## 484 | 5 | 4 | 3 | 2 | 1 | 5 |
| 3 ## 485 | 5 | 3 | 3 | 1 | 2 | 2 |
| 2 ## 486 | 5 | 3 | 4 | 2 | 1 | 2 |
| 1 ## 487 | 3 | 3 | 4 | 2 | 2 | 2 |
| 1 ## 488 | 5 | 5 | 5 | 2 | 1 | 1 |
| 1 ## 489 | 5 | 3 | 2 | 4 | 3 | 5 |
| 4 490 | 5 | 5 | 2 | 2 | 2 | 1 |
| 1 ## 491 | 4 | 3 | 3 | 2 | 2 | 2 |
| 3 ## 492 | 5 | 3 | 3 | 2 | 2 | 2 |
| ## 492 2 | , | J | 5 | ۷ | 2 | 2 |

| ## 4 | 493 | 5 | 5 | 3 | 3 | 1 | 4 |
|-----------|-----|---|---|---|---|---|---|
| ## · 1 | 494 | 5 | 3 | 4 | 1 | 2 | 2 |
| ## 4 | | 5 | 3 | 2 | 2 | 1 | 2 |
| ## - 2 | | 5 | 3 | 2 | 1 | 2 | 2 |
| ## | 497 | 3 | 2 | 3 | 2 | 4 | 5 |
| 4 ## | 498 | 5 | 4 | 3 | 3 | 3 | 4 |
| 4 ## · | 499 | 5 | 3 | 3 | 2 | 1 | 3 |
| 2 ## | 500 | 5 | 4 | 2 | 4 | 2 | 3 |
| 2 ## | 501 | 5 | 3 | 3 | 5 | 2 | 4 |
| 2 ## | 502 | 5 | 3 | 4 | 5 | 3 | 4 |
| 2 ## | 503 | 5 | 4 | 4 | 3 | 2 | 4 |
| 2 ## | 504 | 5 | 3 | 2 | 2 | 1 | 5 |
| 5 ## | 505 | 5 | 3 | 5 | 1 | 1 | 2 |
| 2 ## | 506 | 5 | 4 | 3 | 4 | 2 | 2 |
| 2 ## | 507 | 5 | 4 | 2 | 1 | 1 | 1 |
| 1 ## | 508 | 5 | 4 | 3 | 4 | 3 | 3 |
| 4 ## | 509 | 5 | 3 | 1 | 3 | 5 | 4 |
| 1 ## | 510 | 4 | 5 | 4 | 5 | 2 | 3 |
| 4 ## | 511 | 5 | 3 | 5 | 3 | 3 | 4 |
| 4 ## | | 5 | 3 | 3 | 1 | 2 | 3 |
| 2 ## | | 5 | 1 | 2 | 4 | 1 | 2 |
| 1 ## | 514 | 5 | 4 | 3 | 1 | 1 | 2 |
| 3 ## | 515 | 5 | 3 | 1 | 5 | 5 | 2 |
| 2 ## | | 5 | 4 | 4 | 3 | 3 | 3 |
| 4 ## | | 5 | 5 | 5 | 3 | 1 | 2 |
| 3 | | | | | | | |

| ## 4 | 518 | 5 | 3 | 3 | 1 | 1 | 4 |
|---------|-----|---|---|---|---|---|---|
| | 519 | 5 | 4 | 4 | 2 | 2 | 3 |
| | 520 | 5 | 4 | 4 | 3 | 1 | 2 |
| | 521 | 5 | 3 | 3 | 1 | 2 | 2 |
| | 522 | 5 | 3 | 5 | 5 | 1 | 5 |
| | 523 | 5 | 3 | 4 | 2 | 2 | 3 |
| | 524 | 5 | 3 | 5 | 2 | 1 | 2 |
| | 525 | 5 | 3 | 2 | 1 | 2 | 4 |
| ## | 526 | 3 | 4 | 3 | 3 | 3 | 3 |
| | 527 | 5 | 4 | 3 | 1 | 1 | 2 |
| | 528 | 4 | 5 | 3 | 1 | 3 | 2 |
| | 529 | 5 | 4 | 3 | 1 | 1 | 5 |
| | 530 | 5 | 2 | 1 | 2 | 2 | 2 |
| | 531 | 5 | 3 | 3 | 5 | 2 | 3 |
| | 532 | 5 | 4 | 2 | 5 | 4 | 5 |
| | 533 | 5 | 3 | 4 | 2 | 1 | 3 |
| | 534 | 5 | 3 | 3 | 1 | 2 | 2 |
| | 535 | 5 | 3 | 3 | 3 | 1 | 3 |
| | 536 | 5 | 1 | 3 | 3 | 4 | 4 |
| | 537 | 5 | 5 | 2 | 1 | 1 | 1 |
| | 538 | 5 | 3 | 3 | 2 | 1 | 4 |
| | 539 | 5 | 3 | 3 | 2 | 1 | 3 |
| | 540 | 5 | 3 | 3 | 2 | 2 | 5 |
| | 541 | 5 | 3 | 3 | 5 | 1 | 5 |
| | 542 | 5 | 4 | 3 | 2 | 2 | 2 |
| _ | | | | | | | |

| ## 2 | 543 | 5 | 3 | 5 | 2 | 1 | 2 |
|---------|-----|---|---|---|---|---|---|
| | 544 | 5 | 4 | 4 | 1 | 1 | 4 |
| ## | 545 | 5 | 4 | 2 | 3 | 1 | 4 |
| | 546 | 5 | 3 | 3 | 3 | 3 | 3 |
| | 547 | 5 | 3 | 3 | 2 | 2 | 5 |
| | 548 | 5 | 4 | 1 | 4 | 2 | 5 |
| | 549 | 4 | 3 | 1 | 3 | 3 | 3 |
| | 550 | 5 | 4 | 5 | 1 | 2 | 2 |
| | 551 | 5 | 3 | 2 | 5 | 4 | 3 |
| | 552 | 5 | 4 | 3 | 3 | 3 | 2 |
| | 553 | 5 | 3 | 2 | 3 | 1 | 3 |
| | 554 | 3 | 3 | 4 | 4 | 2 | 2 |
| | 555 | 4 | 3 | 3 | 4 | 2 | 3 |
| | 556 | 5 | 5 | 5 | 3 | 1 | 1 |
| | 557 | 5 | 3 | 3 | 1 | 1 | 3 |
| | 558 | 5 | 3 | 2 | 3 | 3 | 2 |
| | 559 | 4 | 2 | 3 | 1 | 2 | 2 |
| | 560 | 5 | 3 | 5 | 2 | 2 | 1 |
| | 561 | 5 | 5 | 4 | 3 | 3 | 4 |
| | 562 | 5 | 3 | 4 | 3 | 3 | 4 |
| | 563 | 5 | 5 | 5 | 3 | 2 | 2 |
| | 564 | 5 | 4 | 4 | 1 | 3 | 3 |
| | 565 | 5 | 5 | 5 | 1 | 1 | 1 |
| | 566 | 5 | 3 | 5 | 2 | 2 | 2 |
| | 567 | 5 | 3 | 3 | 2 | 2 | 2 |
| | | | | | | | |

| ## 568 | 5 | 4 | 4 | 2 | 2 | 1 |
|------------------|---|---|---|---|---|---|
| 1 ## 569 | 5 | 4 | 5 | 2 | 1 | 2 |
| 1 ## 570 | 5 | 3 | 4 | 4 | 2 | 3 |
| 2 ## 571 | 5 | 3 | 3 | 1 | 1 | 2 |
| 1 ## 572 | 3 | 5 | 4 | 2 | 1 | 2 |
| 3 ## 573 | 5 | 3 | 3 | 1 | 1 | 4 |
| 3 ## 574 | 4 | 3 | 3 | 1 | 1 | 1 |
| 1 ## 575 | 5 | 5 | 5 | 3 | 1 | 1 |
| 3 ## 576 | 5 | 4 | 3 | 4 | 3 | 4 |
| 4 ## 577 | 5 | 3 | 3 | 2 | 4 | 3 |
| 5 ## 578 5 | 5 | 4 | 4 | 2 | 1 | 2 |
| ## 579 4 | 5 | 3 | 3 | 2 | 3 | 2 |
| ## 580 2 | 5 | 3 | 4 | 3 | 2 | 5 |
| ## 581 1 | 5 | 3 | 1 | 1 | 1 | 1 |
| ## 582 4 | 5 | 4 | 2 | 2 | 1 | 1 |
| ## 583 3 | 3 | 3 | 4 | 3 | 1 | 3 |
| ## 584 4 | 5 | 4 | 2 | 1 | 1 | 3 |
| ## 585 2 | 5 | 3 | 4 | 3 | 3 | 2 |
| ## 586 2 | 5 | 3 | 3 | 3 | 3 | 3 |
| ## 587 3 | 5 | 5 | 5 | 3 | 4 | 4 |
| ## 588 1 | 5 | 3 | 2 | 1 | 1 | 1 |
| ## 589 5 | 5 | 3 | 4 | 1 | 1 | 2 |
| ## 590 4 | 5 | 4 | 1 | 1 | 1 | 3 |
| ## 591 4 | 5 | 3 | 3 | 2 | 3 | 3 |
| ## 592 5 | 4 | 3 | 3 | 3 | 2 | 1 |
| 9 | | | | | | |

| ## 3 | 593 | 5 | 3 | 3 | 3 | 1 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 594 | 5 | 3 | 2 | 3 | 1 | 4 |
| | 595 | 5 | 3 | 2 | 3 | 1 | 5 |
| | 596 | 5 | 5 | 1 | 1 | 1 | 1 |
| ## | 597 | 5 | 3 | 4 | 1 | 1 | 2 |
| | 598 | 5 | 4 | 4 | 2 | 2 | 2 |
| | 599 | 4 | 3 | 4 | 2 | 3 | 2 |
| | 600 | 5 | 4 | 5 | 3 | 4 | 2 |
| | 601 | 5 | 3 | 2 | 1 | 1 | 5 |
| | 602 | 5 | 3 | 1 | 4 | 3 | 4 |
| | 603 | 4 | 4 | 4 | 2 | 3 | 2 |
| | 604 | 5 | 4 | 3 | 2 | 2 | 3 |
| | 605 | 5 | 3 | 3 | 2 | 2 | 1 |
| 3 ## | 606 | 5 | 3 | 1 | 5 | 5 | 2 |
| 3 ## | 607 | 4 | 3 | 3 | 2 | 1 | 2 |
| 2 ## | 608 | 3 | 3 | 3 | 1 | 3 | 3 |
| 3 ## | 609 | 3 | 4 | 2 | 4 | 2 | 4 |
| 2 ## | 610 | 4 | 3 | 3 | 2 | 2 | 5 |
| 2 | 611 | 5 | 4 | 3 | 2 | 2 | 3 |
| 2 | 612 | 5 | 3 | 3 | 2 | 1 | 1 |
| 1 | 613 | 5 | 3 | 5 | 1 | 1 | 3 |
| 2 | 614 | 5 | 2 | 3 | 2 | 2 | 2 |
| 1 | 615 | 5 | 3 | 4 | 1 | 1 | 3 |
| 2 | 616 | 5 | 3 | 3 | 3 | 1 | 5 |
| 4 | | | | | | | |
| ## 1 | 617 | 3 | 3 | 4 | 1 | 5 | 4 |
| | | | | | | | |

| ## | 618 | 5 | 3 | 3 | 2 | 4 | 5 |
|--------------|-----|---|---|---|---|---|---|
| | 619 | 5 | 5 | 5 | 4 | 2 | 5 |
| | 620 | 5 | 1 | 3 | 3 | 1 | 5 |
| | 621 | 5 | 3 | 2 | 1 | 1 | 5 |
| 2 ## 2 | 622 | 4 | 1 | 4 | 1 | 2 | 2 |
| | 623 | 5 | 3 | 5 | 4 | 4 | 5 |
| | 624 | 5 | 4 | 2 | 3 | 3 | 1 |
| | 625 | 5 | 2 | 3 | 1 | 2 | 1 |
| | 626 | 5 | 4 | 5 | 3 | 2 | 3 |
| | 627 | 5 | 3 | 4 | 2 | 2 | 1 |
| | 628 | 5 | 5 | 4 | 4 | 3 | 1 |
| | 629 | 4 | 4 | 3 | 1 | 1 | 2 |
| | 630 | 5 | 3 | 5 | 3 | 2 | 2 |
| | 631 | 5 | 5 | 4 | 1 | 3 | 2 |
| | 632 | 5 | 3 | 5 | 2 | 1 | 4 |
| | 633 | 5 | 4 | 4 | 3 | 2 | 2 |
| | 634 | 5 | 4 | 3 | 5 | 3 | 1 |
| | 635 | 5 | 3 | 3 | 4 | 2 | 4 |
| | 636 | 4 | 2 | 4 | 4 | 2 | 3 |
| | 637 | 5 | 3 | 3 | 5 | 4 | 3 |
| | 638 | 5 | 2 | 2 | 3 | 2 | 4 |
| | 639 | 5 | 3 | 3 | 3 | 2 | 2 |
| | 640 | 5 | 3 | 2 | 1 | 2 | 1 |
| | 641 | 5 | 4 | 5 | 2 | 2 | 4 |
| | 642 | 5 | 3 | 3 | 3 | 3 | 3 |
| | | | | | | | |

| ## 5 | 643 | 4 | 3 | 4 | 4 | 2 | 5 |
|---------|-----|---|---|---|---|---|---|
| | 644 | 5 | 3 | 4 | 2 | 1 | 3 |
| | 645 | 4 | 5 | 3 | 3 | 2 | 2 |
| | 646 | 5 | 4 | 4 | 2 | 1 | 4 |
| | 647 | 4 | 3 | 3 | 1 | 2 | 3 |
| | 648 | 5 | 3 | 3 | 1 | 3 | 5 |
| | 649 | 5 | 4 | 5 | 5 | 2 | 2 |
| | 650 | 5 | 3 | 5 | 2 | 2 | 2 |
| | 651 | 5 | 3 | 4 | 1 | 1 | 1 |
| | 652 | 5 | 4 | 4 | 2 | 2 | 3 |
| | 653 | 4 | 3 | 3 | 2 | 1 | 3 |
| ## 2 | 654 | 5 | 3 | 3 | 2 | 2 | 3 |
| ## 2 | 655 | 4 | 3 | 4 | 3 | 2 | 3 |
| ## 2 | 656 | 5 | 3 | 3 | 2 | 2 | 2 |
| ## 2 | 657 | 5 | 3 | 2 | 2 | 2 | 4 |
| ## 3 | 658 | 5 | 3 | 4 | 1 | 1 | 1 |
| 2 | 659 | 5 | 3 | 5 | 2 | 2 | 3 |
| ## 3 | 660 | 5 | 2 | 2 | 1 | 1 | 3 |
| ## 1 | 661 | 5 | 3 | 2 | 2 | 1 | 3 |
| ## 3 | 662 | 5 | 4 | 3 | 1 | 1 | 2 |
| ## 3 | 663 | 5 | 4 | 3 | 2 | 2 | 1 |
| 3 | 664 | 5 | 3 | 3 | 3 | 2 | 4 |
| 4 | 665 | 5 | 2 | 3 | 4 | 4 | 3 |
| ## 1 | 666 | 5 | 3 | 1 | 2 | 1 | 3 |
| ## 2 | 667 | 5 | 3 | 2 | 1 | 2 | 2 |

| ## 668 3 | 5 | 3 | 2 | 1 | 1 | 5 |
|------------------|---|---|---|---|---|---|
| ## 669 2 | 5 | 3 | 1 | 2 | 3 | 4 |
| ## 670 4 | 4 | 3 | 4 | 2 | 3 | 3 |
| ## 671 3 | 5 | 3 | 3 | 2 | 2 | 2 |
| ## 672 3 | 5 | 3 | 3 | 3 | 3 | 2 |
| ## 673 | 3 | 1 | 2 | 4 | 2 | 5 |
| 5 ## 674 | 4 | 3 | 2 | 2 | 1 | 3 |
| 4 ## 675 | 5 | 4 | 3 | 3 | 1 | 3 |
| 1 ## 676 | 5 | 3 | 3 | 3 | 3 | 3 |
| 5 ## 677 | 5 | 4 | 2 | 2 | 1 | 2 |
| 2 ## 678 | 4 | 3 | 3 | 2 | 1 | 3 |
| 3 ## 679 | 5 | 3 | 2 | 3 | 3 | 3 |
| 3 ## 680 | 5 | 3 | 2 | 2 | 1 | 2 |
| 2 ## 681 | 5 | 4 | 4 | 3 | 4 | 2 |
| 4 ## 682 | 5 | 5 | 4 | 3 | 2 | 4 |
| 4 ## 683 | 4 | 4 | 4 | 2 | 3 | 3 |
| 3 ## 684 | 5 | 3 | 2 | 5 | 5 | 3 |
| 3 ## 685 | 5 | 5 | 5 | 1 | 1 | 2 |
| 3 ## 686 | | 3 | 3 | 2 | 3 | 3 |
| 4 ## 687 | | 4 | 4 | 4 | 4 | 4 |
| 3 ## 688 | | 3 | 3 | 1 | 2 | 3 |
| 3 ## 689 | | 4 | 4 | 3 | 1 | 3 |
| 4 ## 690 | | 3 | 3 | 1 | 2 | 2 |
| 1 ## 691 | | 4 | 4 | 1 | 2 | 3 |
| ## 691 ## 692 | | 3 | 4 | 2 | 2 | 2 |
| 3 | 5 | , | - | _ | 4 | _ |

| ## 3 | 693 | 5 | 3 | 2 | 3 | 3 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 694 | 5 | 3 | 3 | 2 | 2 | 3 |
| | 695 | 5 | 3 | 3 | 3 | 4 | 5 |
| | 696 | 5 | 4 | 4 | 2 | 2 | 3 |
| | 697 | 5 | 3 | 3 | 5 | 3 | 1 |
| | 698 | 5 | 3 | 3 | 1 | 1 | 3 |
| | 699 | 5 | 5 | 5 | 4 | 1 | 3 |
| | 700 | 5 | 3 | 4 | 3 | 1 | 2 |
| | 701 | 5 | 3 | 3 | 3 | 2 | 1 |
| | 702 | 5 | 5 | 5 | 4 | 3 | 4 |
| | 703 | 5 | 2 | 1 | 3 | 3 | 5 |
| | 704 | 4 | 3 | 3 | 3 | 3 | 3 |
| | 705 | 5 | 3 | 4 | 2 | 1 | 2 |
| | 706 | 5 | 4 | 5 | 1 | 2 | 4 |
| | 707 | 5 | 3 | 4 | 2 | 3 | 3 |
| | 708 | 5 | 3 | 2 | 2 | 1 | 3 |
| | 709 | 5 | 4 | 2 | 1 | 1 | 2 |
| | 710 | 5 | 3 | 3 | 2 | 2 | 2 |
| | 711 | 4 | 4 | 4 | 3 | 3 | 2 |
| | 712 | 4 | 3 | 3 | 3 | 4 | 2 |
| | 713 | 5 | 3 | 2 | 2 | 2 | 2 |
| | 714 | 5 | 3 | 3 | 4 | 4 | 3 |
| | 715 | 5 | 3 | 5 | 3 | 3 | 1 |
| | 716 | 4 | 3 | 2 | 3 | 3 | 3 |
| | 717 | 5 | 3 | 2 | 4 | 5 | 5 |
| | | | | | | | |

| ## 718 3 | 5 | 3 | 1 | 1 | 1 | 4 |
|------------------|---|---|---|---|---|---|
| ## 719 3 | 5 | 4 | 3 | 2 | 2 | 4 |
| ## 720 1 | 4 | 3 | 3 | 1 | 3 | 3 |
| ## 721 3 | 4 | 3 | 4 | 2 | 1 | 5 |
| ## 722 3 | 5 | 3 | 3 | 5 | 1 | 5 |
| ## 723 | 5 | 3 | 3 | 3 | 2 | 5 |
| 3 ## 724 | 5 | 3 | 4 | 2 | 3 | 3 |
| 4 ## 725 | 4 | 3 | 5 | 3 | 3 | 2 |
| 5 ## 726 | 5 | 4 | 4 | 2 | 2 | 4 |
| 1 ## 727 | 5 | 3 | 2 | 4 | 2 | 1 |
| 1 ## 728 | 5 | 2 | 2 | 1 | 3 | 1 |
| 1 ## 729 | 5 | 4 | 5 | 1 | 3 | 2 |
| 5 ## 730 | 5 | 3 | 2 | 2 | 2 | 5 |
| 4 ## 731 | 5 | 4 | 1 | 2 | 1 | 3 |
| 3 ## 732 | 5 | 3 | 3 | 2 | 2 | 3 |
| 2 ## 733 | 5 | 4 | 2 | 1 | 1 | 4 |
| 2 ## 734 | 4 | 3 | 3 | 5 | 5 | 5 |
| 4 ## 735 | 5 | 3 | 3 | 4 | 5 | 5 |
| 5 ## 736 | 2 | 1 | 1 | 3 | 2 | 4 |
| 2 ## 737 | 4 | 3 | 5 | 2 | 4 | 5 |
| 5 ## 738 | 5 | 1 | 3 | 2 | 1 | 3 |
| 4 ## 739 | 5 | 5 | 4 | 1 | 1 | 1 |
| 1 ## 740 | 5 | 5 | 3 | 3 | 4 | 4 |
| 4 ## 741 | 4 | 3 | 5 | 2 | 2 | 2 |
| 2 ## 742 3 | 5 | 3 | 3 | 5 | 1 | 5 |
| | | | | | | |

| ## 74 3 | 43 | 5 | 3 | 1 | 3 | 4 | 5 |
|------------|----|---|---|---|---|---|---|
| ## 74 2 | 44 | 2 | 3 | 2 | 2 | 2 | 2 |
| ## 74 4 | 45 | 5 | 4 | 2 | 3 | 2 | 5 |
| ## 74 2 | 46 | 5 | 3 | 3 | 4 | 3 | 2 |
| ## 74 3 | 47 | 5 | 3 | 3 | 1 | 2 | 3 |
| ## 74 | 48 | 5 | 3 | 4 | 3 | 1 | 5 |
| 4 ## 74 | 49 | 5 | 3 | 3 | 3 | 3 | 5 |
| 4 ## 75 | 50 | 5 | 3 | 2 | 4 | 4 | 1 |
| 1 ## 75 | 51 | 5 | 3 | 5 | 5 | 2 | 5 |
| 3 ## 75 | 52 | 5 | 3 | 2 | 4 | 1 | 5 |
| 5 ## 75 | 53 | 5 | 4 | 5 | 2 | 1 | 3 |
| 4 ## 75 | 54 | 5 | 3 | 3 | 2 | 2 | 4 |
| 3 ## 75 | 55 | 4 | 4 | 2 | 1 | 3 | 2 |
| 1 ## 75 | 56 | 5 | 3 | 2 | 2 | 3 | 3 |
| 3 ## 75 | 57 | 5 | 4 | 3 | 3 | 4 | 3 |
| 3 ## 75 | 58 | 5 | 3 | 5 | 3 | 3 | 5 |
| 5 ## 75 | 59 | 5 | 5 | 4 | 1 | 1 | 2 |
| 1 ## 76 | 60 | 5 | 3 | 5 | 4 | 3 | 5 |
| 5 ## 76 | 61 | 5 | 3 | 5 | 2 | 2 | 2 |
| 2 ## 76 | 62 | 5 | 4 | 3 | 1 | 1 | 1 |
| 1 ## 76 | 63 | 5 | 3 | 4 | 1 | 1 | 1 |
| 1 ## 76 | 64 | 5 | 3 | 3 | 2 | 1 | 3 |
| 3 ## 76 | | 5 | 2 | 3 | 1 | 2 | 3 |
| 4 ## 76 | | 5 | 3 | 2 | 1 | 2 | 4 |
| 3 ## 76 | | 5 | 5 | 5 | 5 | 5 | 4 |
| 4 | | | , | J | , | | • |

| ## 76 | 8 | 1 | 1 | 2 | 3 | 4 | 3 |
|-----------------|---|---|---|---|---|---|---|
| 3 ## 76 | 9 | 4 | 3 | 3 | 1 | 2 | 3 |
| 1 ## 77 | 0 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 ## 77 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 ## 77 | 2 | 5 | 2 | 2 | 4 | 4 | 4 |
| 2 ## 77 | 3 | 5 | 4 | 3 | 1 | 2 | 4 |
| 3 ## 77 | 4 | 5 | 4 | 4 | 2 | 2 | 2 |
| 2 ## 77 | 5 | 3 | 3 | 2 | 1 | 1 | 4 |
| 3 ## 77 | 6 | 5 | 3 | 2 | 1 | 1 | 4 |
| 3 ## 77 | 7 | 5 | 3 | 5 | 5 | 1 | 3 |
| 3 ## 77 | 8 | 5 | 5 | 3 | 1 | 2 | 3 |
| 2 ## 77 | 9 | 5 | 3 | 2 | 1 | 1 | 1 |
| 3 ## 78 4 | 0 | 5 | 3 | 3 | 3 | 4 | 4 |
| ## 783 3 | 1 | 5 | 3 | 3 | 1 | 2 | 2 |
| ## 78 2 | 2 | 4 | 2 | 4 | 1 | 2 | 3 |
| ## 78. 4 | 3 | 5 | 3 | 2 | 3 | 4 | 4 |
| ## 78 | 4 | 5 | 3 | 2 | 5 | 2 | 4 |
| ## 78 4 | 5 | 4 | 3 | 4 | 3 | 1 | 4 |
| ## 78 4 | 6 | 4 | 4 | 3 | 3 | 3 | 3 |
| ## 78° | 7 | 5 | 3 | 3 | 2 | 2 | 4 |
| ## 78 4 | 8 | 5 | 3 | 2 | 2 | 1 | 2 |
| ## 789 3 | 9 | 5 | 3 | 2 | 1 | 2 | 3 |
| ## 79 3 | 0 | 5 | 5 | 4 | 3 | 3 | 5 |
| ## 79 | 1 | 5 | 5 | 3 | 2 | 2 | 4 |
| ## 79 1 | 2 | 5 | 3 | 3 | 1 | 1 | 3 |
| | | | | | | | |

| ## 1 | 793 | 5 | 4 | 3 | 2 | 2 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 794 | 2 | 3 | 3 | 1 | 2 | 3 |
| | 795 | 4 | 5 | 3 | 1 | 1 | 1 |
| | 796 | 5 | 1 | 5 | 1 | 5 | 1 |
| | 797 | 3 | 5 | 3 | 2 | 2 | 4 |
| ## | 798 | 5 | 1 | 5 | 1 | 2 | 3 |
| | 799 | 5 | 3 | 3 | 2 | 1 | 4 |
| | 800 | 5 | 3 | 1 | 2 | 3 | 4 |
| | 801 | 5 | 3 | 4 | 1 | 1 | 2 |
| | 802 | 4 | 5 | 5 | 1 | 1 | 1 |
| | 803 | 5 | 5 | 5 | 3 | 2 | 2 |
| | 804 | 5 | 5 | 2 | 1 | 1 | 2 |
| | 805 | 5 | 1 | 4 | 1 | 1 | 4 |
| | 806 | 5 | 4 | 4 | 3 | 1 | 3 |
| | 807 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 808 | 3 | 3 | 1 | 3 | 3 | 5 |
| | 809 | 5 | 4 | 3 | 1 | 2 | 3 |
| | 810 | 4 | 3 | 4 | 1 | 1 | 2 |
| | 811 | 5 | 3 | 2 | 3 | 4 | 5 |
| | 812 | 5 | 3 | 2 | 3 | 3 | 4 |
| | 813 | 5 | 4 | 1 | 1 | 1 | 1 |
| | 814 | 5 | 4 | 2 | 1 | 1 | 1 |
| | 815 | 5 | 4 | 4 | 3 | 1 | 5 |
| | 816 | 5 | 5 | 2 | 3 | 4 | 3 |
| | 817 | 5 | 4 | 3 | 3 | 1 | 4 |
| 3 | | | | | | | |

| | 818 | 3 | 4 | 1 | 1 | 1 | 1 |
|--------------|-----|---|---|---|---|---|---|
| | 819 | 4 | 4 | 3 | 3 | 1 | 4 |
| | 820 | 5 | 5 | 3 | 1 | 2 | 2 |
| | 821 | 5 | 3 | 2 | 2 | 2 | 4 |
| | 822 | 5 | 3 | 2 | 2 | 2 | 5 |
| | 823 | 5 | 4 | 3 | 1 | 1 | 2 |
| | 824 | 5 | 2 | 3 | 2 | 2 | 3 |
| | 825 | 5 | 3 | 1 | 1 | 2 | 5 |
| | 826 | 4 | 3 | 1 | 3 | 1 | 4 |
| | 827 | 5 | 3 | 3 | 3 | 1 | 4 |
| | 828 | 5 | 3 | 3 | 4 | 3 | 4 |
| | 829 | 1 | 3 | 4 | 1 | 2 | 1 |
| | 830 | 5 | 3 | 1 | 2 | 2 | 5 |
| 4 ## 2 | 831 | 5 | 3 | 4 | 2 | 1 | 3 |
| | 832 | 5 | 3 | 4 | 2 | 4 | 4 |
| | 833 | 5 | 3 | 3 | 4 | 5 | 5 |
| | 834 | 3 | 3 | 2 | 1 | 1 | 4 |
| | 835 | 4 | 3 | 4 | 3 | 2 | 4 |
| | 836 | 4 | 3 | 3 | 2 | 2 | 2 |
| | 837 | 5 | 3 | 2 | 1 | 1 | 2 |
| | 838 | 5 | 3 | 4 | 3 | 2 | 5 |
| | 839 | 5 | 5 | 4 | 1 | 1 | 1 |
| | 840 | 4 | 3 | 4 | 2 | 1 | 2 |
| | 841 | 5 | 4 | 2 | 3 | 3 | 1 |
| | 842 | 5 | 5 | 4 | 3 | 3 | 2 |
| _ | | | | | | | |

| ## 3 | 843 | 5 | 5 | 4 | 2 | 1 | 3 |
|---------|-----|---|---|---|---|---|---|
| | 844 | 5 | 4 | 4 | 2 | 3 | 3 |
| | 845 | 5 | 4 | 2 | 5 | 4 | 5 |
| | 846 | 4 | 4 | 3 | 1 | 1 | 1 |
| | 847 | 5 | 3 | 5 | 2 | 2 | 3 |
| | 848 | 5 | 2 | 3 | 4 | 2 | 5 |
| | 849 | 5 | 2 | 2 | 1 | 1 | 3 |
| | 850 | 3 | 2 | 1 | 4 | 4 | 5 |
| | 851 | 4 | 3 | 4 | 1 | 2 | 3 |
| | 852 | 5 | 5 | 3 | 1 | 1 | 2 |
| | 853 | 5 | 4 | 2 | 1 | 2 | 2 |
| ## 4 | 854 | 5 | 3 | 4 | 4 | 2 | 3 |
| ## 2 | 855 | 5 | 2 | 4 | 2 | 1 | 1 |
| ## 2 | 856 | 5 | 4 | 5 | 3 | 3 | 3 |
| ## 4 | 857 | 5 | 3 | 3 | 2 | 1 | 3 |
| ## 5 | 858 | 5 | 4 | 4 | 2 | 3 | 3 |
| ## 3 | 859 | 3 | 1 | 3 | 3 | 2 | 5 |
| ## 3 | 860 | 5 | 3 | 4 | 4 | 2 | 3 |
| ## 3 | 861 | 5 | 3 | 4 | 3 | 3 | 3 |
| ## 1 | 862 | 5 | 3 | 3 | 2 | 1 | 3 |
| ## 2 | 863 | 5 | 4 | 4 | 2 | 2 | 3 |
| ## 4 | 864 | 5 | 5 | 3 | 2 | 2 | 4 |
| ## 4 | 865 | 5 | 3 | 3 | 2 | 3 | 3 |
| ## 4 | 866 | 4 | 2 | 4 | 3 | 2 | 3 |
| ## 4 | 867 | 4 | 3 | 2 | 3 | 3 | 4 |

| ## 3 | 868 | 5 | 3 | 4 | 2 | 4 | 2 |
|---------|-----|---|---|---|---|---|---|
| | 869 | 5 | 4 | 3 | 4 | 3 | 2 |
| | 870 | 5 | 3 | 2 | 1 | 2 | 5 |
| | 871 | 5 | 4 | 4 | 2 | 1 | 2 |
| | 872 | 5 | 3 | 3 | 2 | 1 | 4 |
| | 873 | 5 | 3 | 2 | 3 | 1 | 3 |
| | 874 | 4 | 4 | 4 | 2 | 2 | 3 |
| | 875 | 5 | 3 | 5 | 1 | 1 | 1 |
| | 876 | 5 | 3 | 3 | 1 | 1 | 1 |
| | 877 | 5 | 3 | 3 | 1 | 2 | 3 |
| | 878 | 5 | 3 | 1 | 3 | 5 | 3 |
| | 879 | 4 | 2 | 2 | 2 | 2 | 4 |
| | 880 | 4 | 5 | 5 | 1 | 4 | 2 |
| | 881 | 5 | 3 | 5 | 1 | 2 | 1 |
| | 882 | 5 | 3 | 1 | 1 | 3 | 5 |
| | 883 | 5 | 4 | 4 | 1 | 1 | 2 |
| | 884 | 5 | 3 | 3 | 1 | 1 | 2 |
| | 885 | 5 | 3 | 4 | 2 | 1 | 4 |
| | 886 | 3 | 4 | 3 | 2 | 2 | 2 |
| | 887 | 5 | 5 | 3 | 2 | 1 | 3 |
| | 888 | 4 | 3 | 3 | 2 | 4 | 3 |
| | 889 | 5 | 3 | 3 | 2 | 1 | 2 |
| | 890 | 5 | 3 | 3 | 3 | 4 | 5 |
| | 891 | 5 | 3 | 5 | 1 | 2 | 3 |
| | 892 | 5 | 3 | 4 | 3 | 2 | 1 |
| | | | | | | | |

| ## 3 | 893 | 5 | 3 | 3 | 3 | 2 | 2 |
|---------|-----|---|---|---|---|---|---|
| | 894 | 5 | 3 | 2 | 3 | 4 | 3 |
| ## | 895 | 5 | 4 | 3 | 1 | 1 | 2 |
| | 896 | 4 | 4 | 4 | 2 | 3 | 2 |
| | 897 | 5 | 3 | 2 | 3 | 4 | 3 |
| | 898 | 5 | 3 | 2 | 2 | 3 | 1 |
| 2 ## | 899 | 5 | 3 | 2 | 2 | 1 | 3 |
| 2 ## | 900 | 5 | 3 | 2 | 1 | 2 | 2 |
| 1 ## | 901 | 5 | 2 | 2 | 1 | 2 | 3 |
| 4 ## | 902 | 4 | 3 | 1 | 2 | 2 | 2 |
| 2 | 903 | 5 | 3 | 1 | 2 | 2 | 3 |
| 1 | 904 | 5 | 5 | 2 | 4 | 3 | 2 |
| 1 | | | | | | | |
| 5 | 905 | 3 | 3 | 2 | 1 | 2 | 2 |
| 2 | 906 | 5 | 3 | 4 | 3 | 3 | 2 |
| 5 | 907 | 5 | 3 | 5 | 3 | 1 | 5 |
| ## 3 | 908 | 5 | 4 | 4 | 3 | 2 | 2 |
| ## 1 | 909 | 5 | 2 | 3 | 2 | 3 | 2 |
| ## 4 | 910 | 5 | 3 | 4 | 3 | 2 | 3 |
| | 911 | 5 | 4 | 2 | 1 | 1 | 3 |
| | 912 | 5 | 3 | 2 | 2 | 1 | 4 |
| | 913 | 5 | 4 | 4 | 2 | 1 | 1 |
| ## | 914 | 5 | 3 | 4 | 4 | 2 | 4 |
| | 915 | 5 | 4 | 2 | 3 | 1 | 5 |
| | 916 | 4 | 4 | 5 | 2 | 3 | 1 |
| | 917 | 4 | 3 | 2 | 2 | 1 | 3 |
| 1 | | | | | | | |

| ## 918 2 | 5 | 4 | 2 | 2 | 2 | 3 |
|-------------|---|---|---|---|---|---|
| ## 919 4 | 4 | 3 | 2 | 2 | 1 | 2 |
| ## 920 1 | 5 | 1 | 3 | 2 | 1 | 3 |
| ## 921 5 | 4 | 4 | 3 | 3 | 3 | 3 |
| ## 922 1 | 5 | 3 | 4 | 2 | 2 | 1 |
| ## 923 2 | 5 | 3 | 5 | 1 | 1 | 3 |
| ## 924 2 | 5 | 4 | 2 | 2 | 1 | 5 |
| ## 925 1 | 5 | 3 | 3 | 1 | 1 | 1 |
| ## 926 4 | 5 | 3 | 4 | 3 | 3 | 2 |
| ## 927 2 | 5 | 3 | 3 | 2 | 2 | 2 |
| ## 928 1 | 5 | 3 | 5 | 1 | 1 | 1 |
| ## 929 3 | 5 | 3 | 4 | 2 | 2 | 5 |
| ## 930 2 | 3 | 2 | 3 | 5 | 1 | 4 |
| ## 931 3 | 5 | 3 | 3 | 2 | 1 | 2 |
| ## 932 3 | 5 | 3 | 4 | 2 | 2 | 1 |
| ## 933 3 | 5 | 3 | 4 | 2 | 2 | 1 |
| ## 934 4 | 5 | 3 | 2 | 2 | 3 | 5 |
| ## 935 3 | 5 | 3 | 3 | 2 | 2 | 2 |
| ## 936 2 | 5 | 3 | 3 | 1 | 1 | 1 |
| ## 937 1 | 4 | 3 | 2 | 3 | 2 | 3 |
| ## 938 4 | 5 | 3 | 4 | 1 | 1 | 5 |
| ## 939 1 | 5 | 3 | 2 | 5 | 1 | 5 |
| ## 940 3 | 4 | 3 | 4 | 1 | 4 | 5 |
| ## 941 3 | 5 | 3 | 2 | 1 | 1 | 3 |
| ## 942 2 | 5 | 3 | 3 | 2 | 1 | 2 |
| | | | | | | |

| ## 943 | 5 | 2 | 5 | 3 | 2 | 4 |
|------------------|---|---|---|---|---|---|
| 1 ## 944 | 4 | 3 | 3 | 2 | 1 | 5 |
| 2 ## 945 | 5 | 4 | 3 | 3 | 2 | 4 |
| 3 ## 946 | 5 | 2 | 5 | 2 | 3 | 3 |
| 3 ## 947 | 5 | 5 | 2 | 1 | 2 | 4 |
| 3 ## 948 | 5 | 3 | 3 | 1 | 1 | 2 |
| 1 ## 949 | 5 | 3 | 4 | 3 | 2 | 3 |
| 4 ## 950 | 5 | 3 | 3 | 2 | 3 | 1 |
| 2 ## 951 | 5 | 3 | 2 | 3 | 3 | 4 |
| 2 ## 952 | 4 | 3 | 4 | 1 | 1 | 1 |
| 1 ## 953 | 5 | 2 | 3 | 3 | 3 | 4 |
| 3 ## 954 | 5 | 3 | 3 | 1 | 3 | 3 |
| 3 ## 955 | 5 | 3 | 5 | 3 | 2 | 2 |
| 3 ## 956 | 5 | 3 | 2 | 1 | 2 | 1 |
| 1 ## 957 | 5 | 4 | 3 | 1 | 4 | 3 |
| 4 ## 958 | 5 | 4 | 2 | 1 | 1 | 1 |
| 2 ## 959 | 5 | 5 | 5 | 3 | 1 | 3 |
| 3 ## 960 | 4 | 3 | 3 | 2 | 3 | 4 |
| 4 ## 961 | 5 | 3 | 4 | 4 | 1 | 5 |
| 1 ## 962 | 5 | 3 | 4 | 4 | 1 | 3 |
| 4 ## 963 | 5 | 2 | 3 | 4 | 4 | 5 |
| 3 ## 964 | 4 | 4 | 4 | 3 | 3 | 5 |
| 1 ## 965 | 5 | 4 | 3 | 2 | 3 | 3 |
| 3 ## 966 | 5 | 5 | 5 | 3 | 3 | 3 |
| 5 ## 967 5 | 5 | 5 | 1 | 1 | 1 | 5 |
|) | | | | | | |

| ## 968 2 | 5 | 3 | 2 | 2 | 2 | 3 |
|-------------|---|---|---|---|---|---|
| ## 969 3 | 5 | 4 | 3 | 2 | 2 | 3 |
| ## 970 2 | 5 | 3 | 2 | 1 | 2 | 3 |
| ## 971 5 | 5 | 3 | 5 | 1 | 4 | 5 |
| ## 972 2 | 5 | 4 | 2 | 4 | 3 | 4 |
| ## 973 | 5 | 3 | 3 | 3 | 3 | 3 |
| 4 ## 974 | 5 | 3 | 2 | 5 | 5 | 4 |
| 5 ## 975 | 5 | 3 | 1 | 2 | 2 | 2 |
| 2 ## 976 | 5 | 3 | 5 | 5 | 5 | 5 |
| 5 ## 977 | 5 | 3 | 4 | 2 | 3 | 3 |
| 5 ## 978 | 5 | 4 | 4 | 2 | 2 | 1 |
| 1 ## 979 | 5 | 2 | 2 | 1 | 2 | 2 |
| 1 ## 980 | 5 | 3 | 4 | 2 | 2 | 4 |
| 4 ## 981 | 5 | 3 | 2 | 2 | 2 | 5 |
| 1 ## 982 | 5 | 4 | 1 | 2 | 4 | 5 |
| 5 ## 983 | 5 | 4 | 2 | 1 | 1 | 3 |
| 2 ## 984 | 5 | 4 | 3 | 1 | 1 | 3 |
| 3 ## 985 | 5 | 2 | 1 | 3 | 2 | 3 |
| 3 ## 986 | 5 | 2 | 1 | 3 | 2 | 4 |
| 2 ## 987 | 4 | 3 | 2 | 5 | 3 | 5 |
| 2 ## 988 | 4 | 3 | 2 | 2 | 3 | 2 |
| 1 ## 989 | 5 | 2 | 3 | 2 | 2 | 5 |
| 2 ## 990 | 5 | 5 | 3 | 2 | 2 | 4 |
| 5 ## 991 | 5 | 4 | 2 | 1 | 1 | 2 |
| 2 ## 992 | 5 | 5 | 2 | 1 | 1 | 1 |
| 1 | J | , | _ | - | - | 1 |

| ## 1 | 993 | | 4 | | 4 | 4 | 1 | 4 | 4 |
|----------|------|--------|--------|-------------------|--------|---------|--------|------------|------------|
| ## | 994 | | 5 | | 3 | 3 | 1 | 2 | 3 |
| | 995 | | 5 | | 4 | 3 | 2 | 2 | 3 |
| | 996 | | 5 | | 4 | 2 | 1 | 1 | 1 |
| | 997 | | 5 | | 3 | 1 | 1 | 1 | 3 |
| | 998 | | 5 | | 4 | 3 | 3 | 3 | 1 |
| | 999 | | 5 | | 4 | 4 | 3 | 1 | 3 |
| | 1000 | | 5 | | 5 | 5 | 3 | 4 | 5 |
| | 1001 | | 5 | | 3 | 3 | 3 | 2 | 3 |
| | 1002 | | 5 | | 5 | 5 | 1 | 2 | 1 |
| | 1003 | | 5 | | 5 | 3 | 1 | 3 | 1 |
| | 1004 | | 4 | | 3 | 4 | 3 | 2 | 2 |
| | 1005 | | 5 | | 3 | 4 | 1 | 2 | 3 |
| | 1006 | | 5 | | 2 | 5 | 2 | 2 | 5 |
| | 1007 | | 4 | | 4 | 5 | 1 | 3 | 4 |
| | 1008 | | 4 | | 3 | 1 | 1 | 2 | 2 |
| | 1009 | | 5 | | 3 | 3 | 3 | 1 | 3 |
| | 1010 | | 5 | | 5 | 4 | 3 | 2 | 3 |
| 3 ## | | Don | Pock | Metal.or.Hardrock | Dunk | Uinhon | Pan | Poggao Ska | Swing loss |
| ## | | 5 5 | 5 | 1 | 1 | птрпор. | ap | neggaeska | 1 |
| ## | 2 | 3 | 5 | 4 | 4 | | 1 | 3 | 1 |
| ## | | 3 | 5 | 3 | 4 | | 1 | 4 | 3 |
| ## | | 2 | 2 | 1 | 4 | | 2 | 2 | 1 |
| ## ## | | 5 2 | 3 5 | 1 5 | 2 3 | | 5 4 | 3 | 2 4 |
| ## | | 5 | 3 | 1 | 1 | | 3 | 1 | 1 |
| ## | | 4 | 5 | 1 | 2 | | 3 | 2 | 2 |
| ## | 9 | 3 | 5 | 5 | 1 | | 1 | 2 | 2 |
| ## | | 3 | 5 | 2 | 3 | | 2 | 4 | 4 |
| ## | | 4 | 3 | 2 | 1 | | 3 | 2 | 2 |
| ## ## | | 2 | 5 5 | 1 4 | 1 2 | | 1 3 | 1 1 | 2 1 |
| ππ | 10 |) | 5 | 4 | | | 3 | 1 | T |

| ## 14 | 1 5 | 2 | 1 | 1 | 2 | 1 | 3 |
|-------|-----|---|---|---|---|---|---|
| ## 15 | 5 4 | 5 | 2 | 5 | 3 | 4 | 4 |
| | | | | | | | |
| ## 16 | | 5 | 5 | 5 | 2 | 4 | 2 |
| ## 17 | 7 4 | 4 | 1 | 3 | 2 | 3 | 2 |
| ## 18 | 3 4 | 4 | 2 | 3 | 3 | 4 | 3 |
| | | | | | | | |
| ## 19 | 5 | 4 | 4 | 3 | 4 | 4 | 4 |
| ## 26 |) 2 | 4 | 5 | 2 | 1 | 4 | 5 |
| ## 21 | L 2 | 5 | 5 | 4 | 4 | 3 | 5 |
| | | | | | - | | |
| ## 22 | | 5 | 5 | 4 | 1 | 2 | 1 |
| ## 23 | 3 4 | 3 | 1 | 2 | 2 | 1 | 1 |
| ## 24 | 1 4 | 5 | 2 | 3 | 3 | 3 | 3 |
| | | | | | _ | | |
| ## 25 | | 5 | 5 | 5 | 1 | 1 | 1 |
| ## 26 | 5 5 | 1 | 1 | 1 | 3 | 1 | 2 |
| ## 27 | 7 4 | 4 | 3 | 2 | 2 | 1 | 3 |
| | | | | | | | |
| ## 28 | | 4 | 2 | 4 | 2 | 4 | 2 |
| ## 29 | 3 | 4 | 1 | 3 | 5 | 2 | 1 |
| ## 36 | 3 | 4 | 1 | 3 | 3 | 4 | 3 |
| ## 31 | | | | | | | |
| _ | | 4 | 2 | 2 | 4 | 3 | 4 |
| ## 32 | 2 5 | 3 | 1 | 1 | 3 | 3 | 2 |
| ## 33 | 3 | 4 | 3 | 4 | 4 | 2 | 2 |
| ## 34 | | 3 | 1 | 1 | 1 | 3 | 4 |
| | | | | | | | |
| ## 35 | 5 4 | 5 | 3 | 4 | 2 | 3 | 3 |
| ## 36 | 5 5 | 3 | 1 | 1 | 4 | 3 | 1 |
| ## 37 | | 4 | 1 | 1 | 1 | 1 | 1 |
| | | | | | _ | | |
| ## 38 | | 3 | 5 | 2 | 1 | 2 | 2 |
| ## 39 | 5 | 4 | 1 | 2 | 4 | 5 | 2 |
| ## 46 | 5 | 5 | 4 | 4 | 1 | 2 | 1 |
| | | | - | | | | |
| ## 41 | | 1 | 1 | 1 | 3 | 2 | 1 |
| ## 42 | 2 1 | 4 | 5 | 1 | 5 | 5 | 5 |
| ## 43 | 3 5 | 5 | 4 | 4 | 3 | 3 | 3 |
| ## 44 | | 4 | 1 | 2 | 3 | 2 | 2 |
| | | | | | | | |
| ## 45 | | 4 | 1 | 1 | 3 | 1 | 3 |
| ## 46 | 5 5 | 4 | 1 | 2 | 3 | 3 | 3 |
| ## 47 | 7 5 | 5 | 3 | 2 | 5 | 2 | 3 |
| | | | | | | 3 | |
| ## 48 | | 4 | 2 | 2 | 1 | 5 | 3 |
| ## 49 | 3 | 2 | 1 | 2 | 5 | 5 | 2 |
| ## 50 | 3 | 5 | 3 | 5 | 3 | 2 | 2 |
| ## 51 | | 5 | | 4 | | 4 | 3 |
| | | | 2 | | 4 | | |
| ## 52 | | 4 | 3 | 2 | 2 | 4 | 4 |
| ## 53 | 3 5 | 5 | 4 | 2 | 5 | 5 | 5 |
| ## 54 | | 3 | 2 | 2 | 3 | 3 | 3 |
| | | | | | | | |
| ## 55 | | 5 | 4 | 3 | 3 | 3 | 4 |
| ## 56 | 5 4 | 3 | 3 | 2 | 4 | 3 | 3 |
| ## 57 | | 5 | 1 | 4 | 2 | 3 | 4 |
| | | | | | | | |
| ## 58 | | 5 | 2 | 2 | 2 | 2 | 4 |
| ## 59 | 5 | 1 | 1 | 1 | 2 | 2 | 1 |
| ## 60 | 3 | 4 | 3 | 5 | 3 | 3 | 4 |
| ## 61 | | 4 | 1 | 3 | | | |
| | | | _ | | 2 | 3 | 3 |
| ## 62 | | 4 | 1 | 2 | 3 | 2 | 3 |
| ## 63 | 3 5 | 4 | 5 | 4 | 5 | 4 | 5 |
| | | | | | | | |

| ## 64 | 2 | 2 | 1 | 1 | г | 1 | า |
|--------|---|---|---|---|---|---|---|
| | 2 | 3 | 1 | 1 | 5 | 4 | 3 |
| ## 65 | 4 | 5 | 1 | 3 | 2 | 1 | 2 |
| ## 66 | 3 | 3 | 3 | 2 | 4 | 2 | 2 |
| ## 67 | 5 | 3 | 4 | 3 | 3 | 3 | 3 |
| ## 68 | 5 | 1 | 1 | 1 | 4 | 3 | 4 |
| | | | | | _ | | |
| ## 69 | 3 | 5 | 5 | 5 | 1 | 5 | 4 |
| ## 70 | 5 | 4 | 1 | 1 | 1 | 1 | 1 |
| ## 71 | 5 | 3 | 1 | 1 | 5 | 2 | 3 |
| ## 72 | 4 | 1 | 1 | 1 | 4 | 4 | 1 |
| ## 73 | 5 | 5 | 2 | 4 | _ | 2 | 2 |
| | | | _ | | 4 | | |
| ## 74 | 5 | 2 | 1 | 2 | 5 | 2 | 2 |
| ## 75 | 2 | 1 | 1 | 1 | 5 | 4 | 1 |
| ## 76 | 1 | 5 | 4 | 4 | 3 | 5 | 4 |
| ## 77 | 2 | 2 | 1 | 3 | 4 | 1 | 1 |
| ## 78 | 5 | 4 | 2 | 1 | 4 | 2 | 2 |
| | | | | | | | |
| ## 79 | 5 | 3 | 1 | 1 | 4 | 5 | 5 |
| ## 80 | 5 | 5 | 2 | 2 | 5 | 3 | 3 |
| ## 81 | 4 | 5 | 2 | 3 | 4 | 4 | 3 |
| ## 82 | 5 | 4 | 2 | 3 | 4 | 4 | 3 |
| ## 83 | 1 | 5 | 5 | 4 | 1 | 1 | 2 |
| | | | | | _ | | |
| ## 84 | 5 | 5 | 3 | 1 | 3 | 2 | 4 |
| ## 85 | 1 | 5 | 5 | 5 | 4 | 4 | 5 |
| ## 86 | 3 | 4 | 4 | 1 | 1 | 1 | 2 |
| ## 87 | 4 | 5 | 3 | 3 | 4 | 3 | 3 |
| ## 88 | 4 | 5 | 2 | 4 | 3 | 5 | 3 |
| | | | | | _ | | |
| ## 89 | 5 | 5 | 1 | 1 | 1 | 1 | 5 |
| ## 90 | 3 | 5 | 3 | 3 | 1 | 2 | 4 |
| ## 91 | 3 | 4 | 1 | 3 | 1 | 3 | 1 |
| ## 92 | 3 | 5 | 5 | 5 | 1 | 5 | 1 |
| ## 93 | 2 | 3 | 1 | 2 | 1 | 3 | 5 |
| ## 94 | | 3 | | 3 | | | 5 |
| | 4 | | 3 | | 1 | 1 | |
| ## 95 | 4 | 3 | 1 | 3 | 5 | 2 | 1 |
| ## 96 | 3 | 3 | 1 | 2 | 5 | 5 | 4 |
| ## 97 | 2 | 4 | 5 | 4 | 3 | 1 | 1 |
| ## 98 | 2 | 1 | 1 | 1 | 5 | 2 | 2 |
| ## 99 | 3 | 5 | 2 | 1 | 1 | 3 | 2 |
| | | | | | | | |
| ## 100 | 4 | 2 | 1 | 3 | 2 | 4 | 1 |
| ## 101 | 4 | 5 | 3 | 2 | 4 | 4 | 3 |
| ## 102 | 2 | 4 | 5 | 4 | 1 | 4 | 3 |
| ## 103 | 1 | 5 | 2 | 5 | 1 | 4 | 5 |
| ## 104 | 5 | 1 | 1 | 1 | 5 | 5 | 4 |
| ## 105 | 2 | | 4 | | | | |
| | | 4 | | 3 | 3 | 3 | 4 |
| ## 106 | 2 | 4 | 5 | 1 | 1 | 2 | 3 |
| ## 107 | 4 | 5 | 1 | 2 | 4 | 4 | 4 |
| ## 108 | 2 | 4 | 4 | 1 | 1 | 3 | 4 |
| ## 109 | 2 | 4 | 4 | 3 | 2 | 1 | 1 |
| ## 110 | 3 | 5 | 5 | 3 | 2 | 2 | 2 |
| | | | | | | | |
| ## 111 | 4 | 4 | 1 | 1 | 1 | 4 | 5 |
| ## 112 | 3 | 4 | 2 | 2 | 3 | 3 | 4 |
| ## 113 | 3 | 3 | 2 | 2 | 1 | 3 | 4 |
| | | | | | | | |

| 444 | | | _ | _ | 2 | 4 | 4 |
|--------|---|---|-----|---|---|---|---|
| ## 114 | 4 | 4 | 2 | 1 | 3 | 1 | 1 |
| ## 115 | 4 | 4 | 1 | 3 | 2 | 2 | 2 |
| ## 116 | 5 | 5 | 2 | 2 | 3 | 3 | 3 |
| _ | | | | | | | |
| ## 117 | 3 | 5 | 1 | 2 | 1 | 1 | 2 |
| ## 118 | 5 | 3 | 2 | 1 | 1 | 1 | 1 |
| ## 119 | 3 | 4 | 2 | 4 | 2 | 4 | 4 |
| ## 120 | 4 | 2 | 2 | | 2 | 2 | |
| | | | | 1 | | | 2 |
| ## 121 | 2 | 5 | 5 | 2 | 1 | 3 | 5 |
| ## 122 | 4 | 4 | 2 | 2 | 4 | 2 | 2 |
| ## 123 | 1 | 5 | 2 | 4 | 1 | 3 | 4 |
| | | | | | | | |
| ## 124 | 3 | 5 | 3 | 1 | 3 | 1 | 5 |
| ## 125 | 3 | 5 | 3 | 3 | 1 | 2 | 4 |
| ## 126 | 2 | 4 | 3 | 3 | 2 | 4 | 5 |
| ## 127 | 4 | 4 | 1 | 4 | 4 | 1 | 1 |
| | | | | | | | |
| ## 128 | 4 | 4 | 3 | 3 | 3 | 4 | 3 |
| ## 129 | 5 | 5 | 5 | 1 | 2 | 3 | 1 |
| ## 130 | 4 | 5 | 2 | 2 | 2 | 3 | 4 |
| | | | | | | | |
| ## 131 | 2 | 5 | 3 | 3 | 1 | 2 | 2 |
| ## 132 | 4 | 2 | 1 | 2 | 5 | 2 | 1 |
| ## 133 | 4 | 4 | 1 | 5 | 2 | 4 | 3 |
| ## 134 | 1 | 3 | 1 | 1 | 1 | 2 | 5 |
| | | | | | | | |
| ## 135 | 3 | 3 | 1 | 1 | 4 | 4 | 4 |
| ## 136 | 3 | 5 | 4 | 4 | 3 | 5 | 4 |
| ## 137 | 4 | 3 | 1 | 1 | 5 | 1 | 1 |
| ## 138 | 5 | 4 | 2 | 2 | | | 5 |
| | | | | | 4 | 3 | |
| ## 139 | 2 | 1 | 1 | 1 | 3 | 3 | 4 |
| ## 140 | 5 | 4 | 1 | 2 | 5 | 3 | 4 |
| ## 141 | 4 | 4 | 2 | 2 | 2 | 2 | 5 |
| ## 142 | 3 | | 5 | | | 3 | |
| | | 5 | | 4 | 4 | | 1 |
| ## 143 | 4 | 4 | 1 | 1 | 3 | 2 | 1 |
| ## 144 | 4 | 4 | 2 | 3 | 5 | 4 | 1 |
| ## 145 | 4 | 5 | 1 | 3 | 2 | 2 | 2 |
| | 2 | | | | | | |
| ## 146 | | 4 | 1 | 1 | 1 | 2 | 1 |
| ## 147 | 5 | 4 | 3 | 4 | 5 | 1 | 1 |
| ## 148 | 3 | 5 | 4 | 3 | 5 | 2 | 2 |
| ## 149 | 5 | 3 | 2 | 3 | 4 | 3 | 2 |
| | | | | | | | |
| ## 150 | 1 | 2 | 2 | 2 | 3 | 2 | 1 |
| ## 151 | 3 | 5 | 5 | 3 | 1 | 2 | 4 |
| ## 152 | 2 | 4 | 4 | 4 | 2 | 5 | 4 |
| ## 153 | 4 | 4 | 2 | 1 | 4 | 3 | 3 |
| | - | | | | | | |
| ## 154 | 4 | 2 | 1 | 2 | 4 | 1 | 4 |
| ## 155 | 1 | 5 | 4 | 4 | 2 | 2 | 3 |
| ## 156 | 3 | 3 | 2 | 3 | 3 | 2 | 4 |
| ## 157 | 3 | 5 | 2 | 5 | 3 | 5 | 2 |
| | | | | | | | |
| ## 158 | 4 | 4 | 4 | 4 | 2 | 2 | 2 |
| ## 159 | 5 | 4 | 1 | 3 | 4 | 5 | 4 |
| ## 160 | 4 | 5 | 3 | 3 | 3 | 4 | 3 |
| ## 161 | 1 | 5 | 4 | 5 | 3 | 5 | 4 |
| | | | · · | | _ | | |
| ## 162 | 4 | 5 | 3 | 3 | 4 | 3 | 2 |
| ## 163 | 4 | 3 | 1 | 1 | 5 | 4 | 3 |
| | | | | | | | |

| | | _ | _ | _ | _ | _ | _ |
|--------|---|---|--------------|---|---|---|---|
| ## 164 | 4 | 3 | 2 | 1 | 1 | 1 | 1 |
| ## 165 | 4 | 4 | 1 | 3 | 2 | 2 | 4 |
| ## 166 | 4 | 1 | 1 | 1 | | 3 | 3 |
| | | | | | 5 | | |
| ## 167 | 1 | 3 | 5 | 2 | 1 | 1 | 1 |
| ## 168 | 3 | 4 | 3 | 4 | 4 | 4 | 3 |
| ## 169 | 4 | 4 | 1 | 3 | | 3 | 3 |
| | | | | | 3 | | |
| ## 170 | 3 | 5 | 4 | 3 | 1 | 1 | 3 |
| ## 171 | 3 | 4 | 2 | 2 | 2 | 3 | 5 |
| ## 172 | 4 | 4 | 1 | 1 | 4 | 3 | 3 |
| | | | | | | | |
| ## 173 | 2 | 5 | 5 | 5 | 2 | 4 | 4 |
| ## 174 | 3 | 2 | 1 | 1 | 2 | 1 | 2 |
| ## 175 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ## 176 | 3 | 5 | 5 | 2 | 3 | 4 | 4 |
| | | | | | | | |
| ## 177 | 3 | 5 | 5 | 3 | 2 | 4 | 3 |
| ## 178 | 1 | 5 | 5 | 3 | 1 | 3 | 3 |
| ## 179 | 2 | 4 | 4 | 3 | 1 | 2 | 2 |
| | | | | | _ | | |
| ## 180 | 1 | 1 | 2 | 1 | 1 | 1 | 4 |
| ## 181 | 2 | 5 | 4 | 5 | 2 | 2 | 1 |
| ## 182 | 3 | 4 | 3 | 3 | 4 | 4 | 5 |
| ## 183 | 4 | 5 | 4 | 3 | 2 | 4 | 3 |
| | | | | | | | |
| ## 184 | 4 | 3 | 1 | 1 | 5 | 4 | 4 |
| ## 185 | 2 | 5 | 1 | 2 | 1 | 1 | 4 |
| ## 186 | 3 | 2 | 1 | 1 | 4 | 3 | 3 |
| ## 187 | 4 | 2 | | 1 | _ | 1 | 3 |
| | | | 1 | | 1 | | |
| ## 188 | 4 | 3 | 2 | 2 | 1 | 1 | 2 |
| ## 189 | 3 | 3 | 1 | 1 | 3 | 2 | 2 |
| ## 190 | 1 | 4 | 5 | 4 | 1 | 1 | 1 |
| | | | | | | | |
| ## 191 | 2 | 4 | 5 | 3 | 2 | 3 | 2 |
| ## 192 | 5 | 2 | 1 | 1 | 1 | 3 | 4 |
| ## 193 | 5 | 4 | 1 | 3 | 5 | 2 | 1 |
| ## 194 | 1 | 5 | 5 | 4 | 1 | 3 | 3 |
| ## 195 | 2 | 4 | 2 | | | | |
| | | | | 4 | 2 | 3 | 1 |
| ## 196 | 2 | 3 | 1 | 1 | 5 | 3 | 3 |
| ## 197 | 4 | 4 | 3 | 3 | 4 | 4 | 3 |
| ## 198 | 2 | 2 | 1 | 1 | 3 | 2 | 2 |
| | | | | | - | | |
| ## 199 | 3 | 5 | 3 | 5 | 5 | 4 | 2 |
| ## 200 | 2 | 3 | 1 | 1 | 4 | 2 | 1 |
| ## 201 | 4 | 4 | 4 | 3 | 5 | 4 | 3 |
| ## 202 | 5 | 5 | 2 | 3 | 5 | 5 | 1 |
| | | | | | | | |
| ## 203 | 3 | 2 | 1 | 1 | 5 | 3 | 1 |
| ## 204 | 4 | 5 | 3 | 3 | 3 | 3 | 2 |
| ## 205 | 2 | 5 | 4 | 4 | 2 | 5 | 4 |
| ## 206 | 4 | 4 | 3 | 1 | 1 | 1 | 4 |
| | | | | | | | |
| ## 207 | 3 | 4 | 4 | 3 | 1 | 2 | 4 |
| ## 208 | 3 | 3 | 1 | 4 | 2 | 2 | 3 |
| ## 209 | 4 | 4 | 1 | 5 | 4 | 5 | 5 |
| ## 210 | 2 | 5 | 4 | 3 | 5 | 4 | 5 |
| | | | - | | | | |
| ## 211 | 4 | 5 | 4 | 3 | 4 | 4 | 4 |
| ## 212 | 5 | 5 | 1 | 1 | 5 | 4 | 4 |
| ## 213 | 2 | 4 | 2 | 3 | 3 | 2 | 4 |
| | | | _ | | = | _ | • |

| | _ | _ | _ | _ | _ | _ | |
|--------|---|---|---|---|---|---|---|
| ## 214 | 5 | 5 | 2 | 5 | 4 | 2 | 2 |
| ## 215 | 3 | 5 | 4 | 3 | 2 | 2 | 5 |
| | | | | | | | |
| ## 216 | 3 | 1 | 1 | 1 | 5 | 1 | 1 |
| ## 217 | 1 | 4 | 5 | 3 | 2 | 1 | 1 |
| | | | | | | | |
| ## 218 | 4 | 3 | 1 | 2 | 3 | 1 | 2 |
| ## 219 | 4 | 3 | 1 | 1 | 4 | 3 | 1 |
| | | | | | | | |
| ## 220 | 3 | 1 | 1 | 1 | 5 | 2 | 1 |
| ## 221 | 1 | 3 | 1 | 2 | 5 | 4 | 4 |
| ## 222 | 2 | | - | 4 | | - | - |
| | 3 | 5 | 5 | | 5 | 5 | 5 |
| ## 223 | 5 | 5 | 3 | 3 | 2 | 1 | 4 |
| ## 224 | 4 | 2 | 2 | 1 | 4 | 3 | 4 |
| | | | | | | | |
| ## 225 | 4 | 5 | 3 | 4 | 3 | 3 | 2 |
| ## 226 | 2 | 5 | 2 | 4 | 3 | 4 | 4 |
| | | | | | | | |
| ## 227 | 4 | 5 | 3 | 3 | 5 | 3 | 2 |
| ## 228 | 2 | 4 | 3 | 3 | 2 | 3 | 5 |
| ## 229 | | | | | | 2 | |
| | 3 | 3 | 1 | 2 | 1 | 2 | 5 |
| ## 230 | 4 | 3 | 1 | 4 | 2 | 5 | 3 |
| ## 231 | 5 | 3 | 1 | 3 | 4 | 3 | 3 |
| | | | | | 4 | | |
| ## 232 | 4 | 5 | 3 | 3 | 1 | 2 | 3 |
| ## 233 | 2 | 3 | 2 | 2 | 3 | 4 | 5 |
| | | | | | | | |
| ## 234 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |
| ## 235 | 4 | 5 | 4 | 4 | 2 | 4 | 1 |
| | | | 4 | | _ | 1 | |
| ## 236 | 3 | 5 | 4 | 2 | 1 | 1 | 3 |
| ## 237 | 4 | 4 | 3 | 3 | 2 | 4 | 3 |
| ## 238 | 4 | 3 | 1 | 1 | 5 | 4 | 3 |
| | | | | | | | |
| ## 239 | 4 | 2 | 1 | 1 | 5 | 3 | 2 |
| ## 240 | 2 | 4 | 1 | 3 | 3 | 3 | 4 |
| ## 241 | 2 | | 2 | | | 2 | |
| | | 3 | | 1 | 2 | | 2 |
| ## 242 | 3 | 3 | 1 | 2 | 5 | 3 | 3 |
| ## 243 | 5 | 4 | 1 | 1 | 1 | 1 | 2 |
| | | | | | _ | | |
| ## 244 | 5 | 5 | 1 | 4 | 1 | 2 | 4 |
| ## 245 | 5 | 5 | 2 | 3 | 2 | 3 | 3 |
| | | | | | | | |
| ## 246 | 3 | 4 | 3 | 4 | 4 | 5 | 4 |
| ## 247 | 4 | 5 | 2 | 2 | 3 | 4 | 4 |
| ## 248 | 3 | 5 | 2 | 3 | 3 | 4 | 5 |
| | | | | | 3 | - | , |
| ## 249 | 4 | 5 | 4 | 3 | 4 | 2 | 2 |
| ## 250 | 5 | 5 | 4 | 4 | 2 | 2 | 4 |
| | | | | | | | |
| ## 251 | 4 | 3 | 2 | 2 | 4 | 4 | 2 |
| ## 252 | 5 | 5 | 2 | 4 | 4 | 4 | 3 |
| | | | | | | | |
| ## 253 | 4 | 5 | 1 | 2 | 2 | 1 | 3 |
| ## 254 | 3 | 1 | 1 | 1 | 1 | 1 | 1 |
| ## 255 | 5 | 3 | 1 | 1 | 4 | 2 | 1 |
| | | | | | | | |
| ## 256 | 3 | 5 | 4 | 3 | 3 | 3 | 4 |
| ## 257 | 5 | 2 | 1 | 1 | 3 | 2 | 1 |
| | | | | | | | |
| ## 258 | 4 | 4 | 3 | 1 | 4 | 2 | 3 |
| ## 259 | 1 | 5 | 5 | 2 | 1 | 1 | 4 |
| ## 260 | 3 | 4 | 2 | 2 | 2 | 1 | 3 |
| | | | | | | | |
| ## 261 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ## 262 | 5 | 2 | 1 | 2 | 2 | 1 | 1 |
| | | | | | | | |
| ## 263 | 2 | 5 | 2 | 1 | 3 | 3 | 5 |
| | | | | | | | |

| | _ | _ | _ | _ | _ | _ | _ |
|--------|---|---|---|---|---|---|---|
| ## 264 | 5 | 4 | 2 | 2 | 4 | 3 | 2 |
| ## 265 | 5 | 4 | 3 | 3 | 5 | 4 | 3 |
| ## 266 | 5 | 2 | 1 | 1 | 4 | 3 | 3 |
| ## 267 | | | | | | 2 | |
| | 4 | 4 | 1 | 1 | 2 | | 4 |
| ## 268 | 2 | 4 | 4 | 4 | 3 | 2 | 2 |
| ## 269 | 5 | 2 | 1 | 1 | 2 | 3 | 3 |
| ## 270 | 3 | 5 | 3 | 4 | 1 | 1 | 1 |
| ## 271 | 4 | 5 | 4 | 5 | 5 | 5 | 5 |
| | - | | | | | | |
| ## 272 | 4 | 5 | 5 | 5 | 5 | 5 | 4 |
| ## 273 | 2 | 5 | 5 | 5 | 2 | 5 | 4 |
| ## 274 | 4 | 4 | 2 | 4 | 4 | 4 | 5 |
| ## 275 | 4 | 3 | 1 | 1 | 4 | 3 | 2 |
| ## 276 | 3 | 4 | 4 | 3 | 2 | 2 | 4 |
| ## 277 | 5 | 5 | 4 | 3 | 1 | 1 | 1 |
| | | | | | | | |
| ## 278 | 4 | 5 | 3 | 1 | 2 | 2 | 3 |
| ## 279 | 3 | 4 | 2 | 3 | 5 | 5 | 2 |
| ## 280 | 4 | 3 | 1 | 3 | 3 | 3 | 1 |
| ## 281 | 2 | 5 | 5 | 3 | 2 | 3 | 2 |
| ## 282 | 2 | 4 | 4 | 5 | 4 | 4 | 5 |
| | | | = | | · | | |
| ## 283 | 3 | 2 | 1 | 1 | 1 | 2 | 1 |
| ## 284 | 4 | 4 | 2 | 4 | 4 | 5 | 5 |
| ## 285 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ## 286 | 5 | 5 | 1 | 1 | 3 | 1 | 2 |
| ## 287 | 4 | 4 | 1 | 3 | 5 | 5 | 3 |
| ## 288 | 4 | | 2 | 4 | 4 | 1 | 3 |
| | | 4 | | | • | | |
| ## 289 | 2 | 3 | 2 | 1 | 4 | 4 | 2 |
| ## 290 | 4 | 4 | 2 | 2 | 4 | 1 | 2 |
| ## 291 | 4 | 4 | 1 | 1 | 4 | 3 | 4 |
| ## 292 | 3 | 5 | 4 | 4 | 3 | 4 | 3 |
| ## 293 | 5 | 4 | 1 | 3 | 3 | 3 | 3 |
| ## 294 | 1 | 5 | 4 | 5 | 1 | 4 | 3 |
| ## 295 | 3 | 4 | 1 | 4 | 3 | 4 | 4 |
| | | | _ | | | - | |
| ## 296 | 4 | 5 | 3 | 2 | 2 | 4 | 3 |
| ## 297 | 5 | 3 | 2 | 2 | 2 | 4 | 1 |
| ## 298 | 2 | 3 | 2 | 3 | 1 | 3 | 3 |
| ## 299 | 4 | 3 | 1 | 1 | 5 | 4 | 4 |
| ## 300 | 2 | 4 | 1 | 3 | 5 | 5 | 3 |
| ## 301 | 2 | 4 | 5 | 3 | 1 | 1 | 3 |
| | | | | | | | |
| ## 302 | 1 | 5 | 5 | 1 | 1 | 1 | 2 |
| ## 303 | 5 | 5 | 2 | 2 | 5 | 3 | 1 |
| ## 304 | 4 | 5 | 4 | 2 | 4 | 2 | 2 |
| ## 305 | 4 | 4 | 2 | 1 | 2 | 3 | 2 |
| ## 306 | 2 | 5 | 2 | 3 | 2 | 2 | 3 |
| ## 307 | 3 | 4 | 2 | 4 | 4 | 5 | 5 |
| | | | | | | | |
| ## 308 | 2 | 5 | 4 | 3 | 1 | 1 | 5 |
| ## 309 | 4 | 3 | 1 | 1 | 3 | 1 | 1 |
| ## 310 | 3 | 4 | 1 | 1 | 4 | 1 | 1 |
| ## 311 | 4 | 4 | 2 | 1 | 1 | 2 | 1 |
| ## 312 | 5 | 5 | 2 | 2 | 5 | 5 | 5 |
| ## 313 | 3 | 4 | 3 | 2 | 3 | 3 | 3 |
| "" "" | , | r | , | _ | 3 | , | , |

| ## 314 | 4 | 2 | 1 | 1 | 4 | 1 | 3 |
|--------|--------|---|---|---|---|---|---|
| ## 315 | 5 | 5 | 5 | 5 | 2 | 5 | 5 |
| ## 316 | 5 | 2 | 1 | 1 | 2 | 1 | 1 |
| ## 317 | 3 | 3 | 1 | 2 | 3 | 2 | 1 |
| ## 318 | 3 | 5 | 1 | 2 | 2 | 1 | 2 |
| ## 319 | 3 | 1 | 1 | 3 | 3 | 2 | 4 |
| ## 319 | 5 | 4 | 1 | 2 | 3 | 3 | 4 |
| ## 320 | 3 | 5 | 4 | 3 | 2 | 3 | 2 |
| ## 321 | | 5 | 2 | 2 | | 2 | |
| ## 322 | 4 2 | 5 | | | 5 | | 3 |
| | | | 5 | 5 | 1 | 3 | 3 |
| ## 324 | 5 | 4 | 1 | 3 | 1 | 1 | 1 |
| ## 325 | 5 | 3 | 2 | 3 | 2 | 3 | 3 |
| ## 326 | 4 | 4 | 4 | 4 | 5 | 5 | 2 |
| ## 327 | 5 | 4 | 2 | 2 | 2 | 3 | 3 |
| ## 328 | 5 | 3 | 1 | 1 | 5 | 4 | 3 |
| ## 329 | 2 | 5 | 4 | 5 | 2 | 4 | 3 |
| ## 330 | 4 | 4 | 1 | 2 | 4 | 2 | 2 |
| ## 331 | 3 | 5 | 3 | 3 | 3 | 2 | 3 |
| ## 332 | 2 | 5 | 2 | 2 | 5 | 1 | 5 |
| ## 333 | 3 | 2 | 1 | 1 | 2 | 3 | 1 |
| ## 334 | 5 | 4 | 2 | 2 | 3 | 2 | 3 |
| ## 335 | 2 | 3 | 2 | 2 | 2 | 2 | 4 |
| ## 336 | 4 | 4 | 2 | 2 | 4 | 4 | 4 |
| ## 337 | 5 | 3 | 1 | 2 | 3 | 3 | 3 |
| ## 338 | 3 | 3 | 1 | 1 | 5 | 2 | 2 |
| ## 339 | 3 | 5 | 2 | 2 | 2 | 1 | 1 |
| ## 340 | 2 | 5 | 5 | 5 | 1 | 3 | 3 |
| ## 341 | 2 | 3 | 1 | 2 | 3 | 3 | 2 |
| ## 342 | 2 | 2 | 2 | 2 | 5 | 1 | 1 |
| ## 343 | 3 | 3 | 1 | 2 | 4 | 4 | 3 |
| ## 344 | 5 | 4 | 2 | 2 | 1 | 2 | 2 |
| ## 345 | 5 | 3 | 1 | 1 | 2 | 1 | 1 |
| ## 346 | 4 | 4 | 3 | 4 | 2 | 3 | 2 |
| ## 347 | 3 | 3 | 1 | 1 | 5 | 5 | 1 |
| ## 348 | 4 | 4 | 4 | 4 | 2 | 2 | 1 |
| ## 349 | 4 | 2 | 1 | 1 | 1 | 2 | 5 |
| ## 350 | 5 | 2 | 1 | 1 | 3 | 2 | 3 |
| ## 351 | 4 | 4 | 3 | 3 | 2 | 3 | 1 |
| ## 352 | 5 | 5 | 2 | 4 | 1 | 4 | 4 |
| ## 353 | 2 | 5 | 5 | 1 | 1 | 1 | 1 |
| ## 354 | 4 | 2 | 1 | 1 | 4 | 2 | 2 |
| ## 355 | 4 | 4 | 2 | 3 | 3 | 2 | 2 |
| ## 356 | 4 | 3 | 1 | 1 | 5 | 2 | 1 |
| ## 357 | 5 | 5 | 3 | 2 | 4 | 4 | 3 |
| ## 358 | 2 | 4 | 4 | 3 | 5 | 2 | 2 |
| ## 359 | 3 | 5 | 2 | 1 | 3 | 3 | 3 |
| ## 360 | 5 | 2 | 1 | 2 | 4 | 4 | 2 |
| ## 361 | 5 | 5 | 1 | 1 | 5 | 5 | 3 |
| ## 362 | 2 | 5 | 4 | 2 | 3 | 4 | 5 |
| ## 363 | 3 | 5 | 4 | 5 | 2 | 4 | 2 |
| | | | | | | | |

| ## 364 | 3 | 5 | 3 | 5 | 2 | 4 | 1 |
|--------|---|---|----|---|---|---|---|
| ## 365 | 4 | 5 | 4 | 3 | 3 | 3 | 2 |
| | | | | | _ | | |
| ## 366 | 1 | 5 | 4 | 5 | 1 | 5 | 4 |
| ## 367 | 4 | 4 | 2 | 2 | 3 | 3 | 1 |
| | | | | | _ | | |
| ## 368 | 5 | 5 | 4 | 4 | 1 | 2 | 5 |
| ## 369 | 5 | 3 | 1 | 1 | 3 | 4 | 3 |
| ## 370 | 2 | 2 | 4 | 2 | 3 | 2 | 1 |
| | | | | | | | |
| ## 371 | 5 | 5 | 3 | 3 | 4 | 3 | 3 |
| ## 372 | 5 | 5 | 3 | 3 | 2 | 2 | 5 |
| | | | | | | | |
| ## 373 | 2 | 4 | 2 | 5 | 1 | 4 | 2 |
| ## 374 | 5 | 3 | 1 | 1 | 2 | 1 | 1 |
| ## 375 | 5 | 3 | 1 | 1 | 3 | 3 | 2 |
| | | | | | | | |
| ## 376 | 5 | 4 | 2 | 2 | 5 | 2 | 2 |
| ## 377 | 4 | 1 | 1 | 1 | 5 | 1 | 1 |
| ## 378 | 3 | 5 | 4 | 3 | 1 | 3 | 4 |
| | | | =' | | | | |
| ## 379 | 5 | 4 | 1 | 1 | 4 | 5 | 1 |
| ## 380 | 4 | 4 | 2 | 2 | 3 | 3 | 4 |
| | | | | | | | |
| ## 381 | 4 | 4 | 1 | 1 | 4 | 2 | 2 |
| ## 382 | 2 | 5 | 3 | 3 | 1 | 1 | 3 |
| ## 383 | 5 | 1 | 1 | 1 | 4 | 2 | 1 |
| | | | _ | | | | |
| ## 384 | 3 | 5 | 3 | 4 | 3 | 3 | 3 |
| ## 385 | 3 | 5 | 5 | 3 | 4 | 4 | 4 |
| ## 386 | 4 | | | | 4 | | |
| | | 5 | 3 | 3 | 4 | 5 | 5 |
| ## 387 | 4 | 5 | 3 | 3 | 5 | 4 | 2 |
| ## 388 | 5 | 2 | 1 | 1 | 5 | 5 | 3 |
| | | | | | | | |
| ## 389 | 5 | 4 | 1 | 3 | 4 | 5 | 5 |
| ## 390 | 3 | 2 | 1 | 1 | 2 | 2 | 4 |
| ## 391 | 2 | 2 | 1 | 2 | 2 | 2 | 3 |
| | | | | | | | |
| ## 392 | 3 | 3 | 2 | 1 | 3 | 3 | 3 |
| ## 393 | 4 | 3 | 1 | 1 | 5 | 3 | 1 |
| ## 394 | 1 | 3 | 5 | 3 | | 1 | 1 |
| | | | | | 2 | | |
| ## 395 | 3 | 4 | 2 | 1 | 1 | 2 | 2 |
| ## 396 | 3 | 4 | 5 | 3 | 3 | 2 | 2 |
| | | | | | | | |
| ## 397 | 3 | 3 | 1 | 1 | 2 | 3 | 4 |
| ## 398 | 4 | 1 | 1 | 1 | 4 | 2 | 1 |
| ## 399 | 2 | 3 | 3 | 3 | 5 | 5 | 3 |
| | | | | | | | |
| ## 400 | 4 | 4 | 3 | 4 | 2 | 4 | 3 |
| ## 401 | 4 | 2 | 1 | 1 | 3 | 3 | 2 |
| ## 402 | 2 | 5 | 4 | 1 | 1 | 1 | 1 |
| | | | | | | | |
| ## 403 | 4 | 5 | 4 | 1 | 1 | 1 | 1 |
| ## 404 | 3 | 4 | 2 | 2 | 2 | 4 | 2 |
| | | | | | | | |
| ## 405 | 4 | 5 | 1 | 5 | 3 | 2 | 2 |
| ## 406 | 3 | 2 | 1 | 2 | 4 | 2 | 4 |
| ## 407 | 5 | 4 | 1 | 1 | 3 | 3 | 4 |
| | | | | | | | |
| ## 408 | 3 | 3 | 1 | 3 | 3 | 3 | 5 |
| ## 409 | 3 | 1 | 1 | 1 | 1 | 1 | 4 |
| ## 410 | 4 | 4 | 1 | 3 | 4 | 2 | 3 |
| | | | _ | | | | |
| ## 411 | 4 | 5 | 1 | 5 | 4 | 1 | 1 |
| ## 412 | 5 | 5 | 1 | 1 | 4 | 2 | 4 |
| | | | | | - | | |
| ## 413 | 3 | 5 | 5 | 1 | 1 | 1 | 1 |
| | | | | | | | |

| ## 414 | 1 | 1 | 4 | 1 | า | 2 | 2 |
|--------|---|---|---|---|---|---|---|
| ## 414 | 4 | 4 | 4 | 4 | 2 | 2 | 2 |
| ## 415 | 5 | 3 | 2 | 1 | 3 | 2 | 3 |
| ## 416 | 5 | 5 | 1 | 2 | 4 | 2 | 1 |
| ## 417 | 4 | 3 | 2 | 2 | 3 | 2 | 2 |
| ## 418 | 1 | 2 | 4 | 5 | 1 | 5 | 1 |
| | | | | | _ | | |
| ## 419 | 5 | 1 | 1 | 1 | 1 | 2 | 1 |
| ## 420 | 5 | 5 | 1 | 1 | 3 | 3 | 4 |
| ## 421 | 2 | 5 | 3 | 5 | 1 | 3 | 2 |
| ## 422 | 5 | 4 | 1 | 1 | 2 | 2 | 5 |
| ## 423 | 5 | | 1 | 1 | | 2 | |
| | | 1 | _ | | 4 | | 1 |
| ## 424 | 5 | 4 | 3 | 3 | 1 | 3 | 3 |
| ## 425 | 3 | 2 | 1 | 1 | 5 | 4 | 4 |
| ## 426 | 4 | 5 | 3 | 5 | 3 | 4 | 3 |
| ## 427 | 2 | 5 | 4 | 1 | 1 | 3 | 4 |
| ## 428 | 2 | | | 2 | | | |
| | | 3 | 1 | | 2 | 3 | 5 |
| ## 429 | 5 | 3 | 2 | 4 | 3 | 2 | 2 |
| ## 430 | 2 | 5 | 4 | 4 | 2 | 1 | 2 |
| ## 431 | 4 | 4 | 2 | 2 | 2 | 4 | 3 |
| ## 432 | 2 | 2 | 1 | 1 | 3 | 3 | 3 |
| | | | | | | | |
| ## 433 | 1 | 5 | 4 | 3 | 3 | 3 | 3 |
| ## 434 | 5 | 4 | 3 | 4 | 2 | 2 | 2 |
| ## 435 | 5 | 3 | 1 | 1 | 4 | 3 | 3 |
| ## 436 | 3 | 5 | 5 | 3 | 2 | 1 | 1 |
| ## 437 | 4 | 4 | 2 | 2 | 2 | 3 | 2 |
| | | | | | | | |
| ## 438 | 3 | 3 | 1 | 2 | 3 | 1 | 1 |
| ## 439 | 4 | 5 | 4 | 4 | 4 | 3 | 1 |
| ## 440 | 4 | 2 | 1 | 1 | 4 | 2 | 2 |
| ## 441 | 4 | 4 | 1 | 1 | 3 | 3 | 3 |
| ## 442 | 5 | 4 | 1 | 3 | | 1 | 1 |
| | | | | | 1 | | |
| ## 443 | 5 | 4 | 1 | 4 | 3 | 4 | 4 |
| ## 444 | 3 | 3 | 1 | 2 | 3 | 3 | 3 |
| ## 445 | 2 | 3 | 4 | 4 | 2 | 5 | 4 |
| ## 446 | 5 | 3 | 1 | 1 | 4 | 2 | 3 |
| ## 447 | 3 | 3 | 1 | 1 | 4 | 2 | 1 |
| | | | | | | | |
| ## 448 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ## 449 | 4 | 4 | 1 | 1 | 4 | 1 | 2 |
| ## 450 | 3 | 4 | 2 | 2 | 2 | 3 | 3 |
| ## 451 | 5 | 3 | 1 | 1 | 2 | 2 | 1 |
| ## 452 | 4 | 4 | 1 | 1 | 3 | 2 | 3 |
| | | | | | | | |
| ## 453 | 5 | 3 | 3 | 3 | 3 | 3 | 2 |
| ## 454 | 3 | 4 | 2 | 2 | 2 | 3 | 3 |
| ## 455 | 4 | 5 | 3 | 4 | 3 | 5 | 4 |
| ## 456 | 5 | 5 | 2 | 5 | 3 | 3 | 2 |
| ## 457 | 3 | 2 | 1 | 4 | 5 | 5 | 1 |
| | | | | | | | |
| ## 458 | 4 | 5 | 2 | 3 | 2 | 2 | 2 |
| ## 459 | 5 | 1 | 1 | 1 | 5 | 1 | 1 |
| ## 460 | 2 | 3 | 2 | 3 | 1 | 4 | 3 |
| ## 461 | 2 | 4 | 2 | 4 | 5 | 5 | 1 |
| ## 462 | 3 | 3 | 1 | 1 | 1 | 3 | 3 |
| | | | | | | | |
| ## 463 | 3 | 5 | 1 | 4 | 3 | 3 | 3 |
| | | | | | | | |

| | _ | _ | _ | _ | _ | _ | _ |
|--------|---|---|---|---|---|---|---|
| ## 464 | 5 | 3 | 1 | 1 | 3 | 3 | 1 |
| ## 465 | 3 | 4 | 1 | 4 | 2 | 3 | 2 |
| | | | | | | | |
| ## 466 | 3 | 1 | 1 | 2 | 2 | 4 | 4 |
| ## 467 | 4 | 3 | 1 | 1 | 4 | 1 | 3 |
| | | | | | _ | | |
| ## 468 | 3 | 2 | 2 | 1 | 4 | 2 | 1 |
| ## 469 | 4 | 5 | 2 | 2 | 5 | 4 | 4 |
| ## 470 | 4 | 3 | 1 | 3 | 4 | 4 | 2 |
| | | | | | | | |
| ## 471 | 5 | 2 | 1 | 1 | 3 | 3 | 2 |
| ## 472 | 3 | 5 | 4 | 5 | 2 | 5 | 3 |
| | | | | | | | |
| ## 473 | 4 | 3 | 1 | 2 | 1 | 1 | 1 |
| ## 474 | 2 | 4 | 4 | 3 | 1 | 1 | 1 |
| ## 475 | 5 | 3 | 1 | 1 | 5 | 2 | 1 |
| | | | | | | | |
| ## 476 | 3 | 5 | 4 | 4 | 3 | 4 | 3 |
| ## 477 | 4 | 5 | 4 | 3 | 3 | 3 | 5 |
| | | | = | | _ | | |
| ## 478 | 2 | 5 | 3 | 3 | 1 | 2 | 3 |
| ## 479 | 4 | 4 | 2 | 2 | 2 | 2 | 2 |
| ## 480 | 3 | 4 | | 4 | | 3 | 4 |
| | | | 3 | | 3 | | |
| ## 481 | 5 | 4 | 2 | 3 | 4 | 3 | 4 |
| ## 482 | 1 | 2 | 4 | 1 | 1 | 1 | 4 |
| | | | | | | | |
| ## 483 | 3 | 4 | 2 | 4 | 4 | 4 | 3 |
| ## 484 | 4 | 5 | 3 | 5 | 3 | 2 | 4 |
| ## 485 | 4 | 4 | 2 | 3 | 2 | 3 | 4 |
| | | | 3 | | 3 | | |
| ## 486 | 4 | 5 | 1 | 1 | 1 | 3 | 5 |
| ## 487 | 4 | 2 | 1 | 1 | 3 | 2 | 3 |
| | | | | | | | |
| ## 488 | 1 | 1 | 2 | 4 | 5 | 4 | 2 |
| ## 489 | 3 | 5 | 3 | 2 | 3 | 3 | 5 |
| ## 490 | 2 | 5 | 1 | 5 | 3 | 5 | 2 |
| | | | _ | | | | |
| ## 491 | 3 | 2 | 1 | 1 | 5 | 1 | 1 |
| ## 492 | 4 | 4 | 2 | 3 | 3 | 2 | 2 |
| | | | | | _ | | |
| ## 493 | 2 | 5 | 2 | 2 | 1 | 2 | 3 |
| ## 494 | 5 | 3 | 1 | 1 | 5 | 2 | 2 |
| ## 495 | 2 | 5 | 2 | 2 | 1 | 4 | 5 |
| | | | | | _ | | |
| ## 496 | 3 | 5 | 2 | 4 | 2 | 2 | 1 |
| ## 497 | 3 | 3 | 1 | 1 | 2 | 2 | 2 |
| | 5 | | | | | 2 | |
| ## 498 | | 5 | 2 | 3 | 1 | , | 5 |
| ## 499 | 2 | 4 | 1 | 1 | 1 | 3 | 2 |
| ## 500 | 4 | 4 | 2 | 4 | 1 | 3 | 1 |
| | | | | | | | |
| ## 501 | 2 | 4 | 2 | 1 | 1 | 2 | 2 |
| ## 502 | 4 | 4 | 2 | 2 | 2 | 2 | 4 |
| ## 503 | 2 | 5 | 3 | 4 | 3 | 3 | 4 |
| | | | | | | | |
| ## 504 | 4 | 4 | 1 | 1 | 1 | 1 | 1 |
| ## 505 | 5 | 1 | 1 | 1 | 5 | 2 | 1 |
| | | | | | | | |
| ## 506 | 3 | 5 | 3 | 4 | 3 | 3 | 2 |
| ## 507 | 2 | 2 | 3 | 3 | 5 | 1 | 1 |
| ## 508 | 2 | 2 | 1 | 1 | 2 | 5 | 4 |
| | | | | | | | |
| ## 509 | 3 | 5 | 2 | 3 | 1 | 3 | 3 |
| ## 510 | 4 | 1 | 1 | 1 | 4 | 3 | 3 |
| | | | | | | | |
| ## 511 | 4 | 4 | 3 | 2 | 4 | 4 | 4 |
| ## 512 | 3 | 3 | 1 | 1 | 4 | 4 | 4 |
| ## 513 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| ππ 313 | 1 | _ | 1 | _ | 1 | 1 | 2 |
| | | | | | | | |

| ## 514 | 3 | 4 | 5 | 5 | 3 | 2 | 1 |
|----------------------------|--------|---|--------|--------|--------|---|--------|
| ## 515 | 3 | 5 | 1 | 1 | 1 | 2 | 1 |
| | | | | | | | |
| ## 516 | 4 | 5 | 5 | 3 | 1 | 2 | 3 |
| ## 517 | 5 | 4 | 4 | 3 | 5 | 3 | 2 |
| ## 518 | | | | 3 | | | |
| | 4 | 4 | 3 | | 4 | 3 | 1 |
| ## 519 | 5 | 4 | 1 | 2 | 4 | 3 | 3 |
| ## 520 | 1 | 2 | 2 | 1 | 4 | 4 | 2 |
| | | | | | | | |
| ## 521 | 4 | 2 | 1 | 1 | 4 | 4 | 2 |
| ## 522 | 5 | 3 | 2 | 2 | 3 | 3 | 4 |
| ## 523 | 4 | 3 | 1 | 2 | 3 | 3 | 3 |
| | | | _ | | | | |
| ## 524 | 1 | 3 | 1 | 1 | 2 | 3 | 3 |
| ## 525 | 2 | 5 | 5 | 5 | 2 | 5 | 2 |
| ## 526 | 3 | 5 | 1 | 3 | 3 | 3 | 3 |
| | | | _ | | | | |
| ## 527 | 4 | 4 | 4 | 4 | 5 | 5 | 3 |
| ## 528 | 4 | 4 | 1 | 5 | 2 | 4 | 4 |
| ## 529 | 5 | 5 | 1 | 2 | 5 | 1 | 3 |
| | | | | | | | |
| ## 530 | 3 | 5 | 3 | 2 | 1 | 1 | 2 |
| ## 531 | 5 | 2 | 1 | 1 | 1 | 1 | 1 |
| ## 532 | 2 | 5 | 4 | 3 | 1 | 2 | 3 |
| | | | | | | | |
| ## 533 | 4 | 4 | 2 | 1 | 2 | 4 | 5 |
| ## 534 | 3 | 5 | 2 | 3 | 2 | 2 | 3 |
| ## 535 | 4 | 3 | 1 | 1 | 4 | 4 | 4 |
| | | | | | 4 | | |
| ## 536 | 5 | 5 | 3 | 4 | 4 | 3 | 4 |
| ## 537 | 4 | 2 | 2 | 1 | 5 | 3 | 1 |
| ## 538 | 3 | 4 | | | | | |
| | | | 1 | 3 | 3 | 3 | 1 |
| ## 539 | 4 | 4 | 4 | 4 | 4 | 2 | 1 |
| ## 540 | 4 | 5 | 4 | 1 | 1 | 1 | 1 |
| | - | | | | | | |
| ## 541 | 5 | 5 | 1 | 2 | 4 | 4 | 2 |
| ## 542 | 3 | 2 | 2 | 2 | 4 | 3 | 2 |
| ## 543 | 4 | 4 | 3 | 5 | 5 | 5 | 4 |
| | | | | | | | |
| ## 544 | 4 | 4 | 4 | 3 | 3 | 2 | 5 |
| ## 545 | 2 | 5 | 4 | 3 | 2 | 2 | 2 |
| ## 546 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | | | | | | |
| ## 547 | 4 | 5 | 3 | 3 | 2 | 5 | 5 |
| ## 548 | 1 | 4 | 5 | 2 | 2 | 2 | 1 |
| ## 549 | 2 | 5 | 1 | 2 | 1 | 2 | 1 |
| | | | | | | | |
| ## 550 | 5 | 3 | 1 | 1 | 5 | 3 | 3 |
| ## 551 | 3 | 5 | 2 | 2 | 1 | 3 | 3 |
| ## 552 | 4 | 2 | 1 | 1 | 1 | 1 | 1 |
| | | | | | | | |
| ## 553 | 2 | 4 | 2 | 1 | 1 | 4 | 5 |
| ## 554 | 3 | 2 | 1 | 1 | 3 | 1 | 1 |
| ## 555 | 3 | 3 | 2 | 2 | 3 | 1 | 2 |
| | | | | | | | |
| ## 556 | 5 | 1 | 1 | 2 | 4 | 5 | 3 |
| ## 557 | 4 | 1 | 1 | 1 | 4 | 1 | 1 |
| ## 558 | 4 | 4 | 2 | 2 | 2 | 4 | 4 |
| | | | | | | | |
| | | 2 | 1 | 1 | 1 | 2 | 2 |
| ## 559 | 4 | | 2 | 1 | 5 | 2 | |
| ## 559 ## 560 | 2 | 4 | 2 | |) | 3 | 1 |
| ## 560 | 2 | | | | | | |
| ## 560 ## 561 | 2 4 | 3 | 4 | 4 | 4 | 4 | 3 |
| ## 560 ## 561 ## 562 | 2 | | 4 1 | 4 3 | 4 5 | | 3 4 |
| ## 560 ## 561 | 2 4 | 3 | 4 | 4 | 4 | 4 | 3 |

| ## 564 | 4 | 5 | 2 | 3 | 5 | 3 | 1 |
|--------|---|---|---|---|---|---|---|
| ## 565 | 1 | 5 | 1 | 5 | 3 | 3 | 1 |
| ## 566 | 4 | 2 | 1 | 2 | 2 | 2 | 2 |
| ## 567 | 2 | 2 | 1 | 1 | 4 | 3 | 1 |
| | | | _ | | _ | | |
| ## 568 | 3 | 3 | 2 | 2 | 3 | 4 | 2 |
| ## 569 | 5 | 3 | 1 | 1 | 3 | 1 | 1 |
| ## 570 | 3 | 3 | 2 | 2 | 2 | 3 | 1 |
| ## 571 | 3 | 3 | 1 | 2 | 2 | 1 | 1 |
| ## 572 | 4 | 1 | 3 | 2 | 5 | 3 | 2 |
| ## 573 | 3 | 3 | 3 | 1 | 2 | 2 | 1 |
| ## 574 | 2 | 4 | 3 | 3 | 3 | 1 | 1 |
| ## 575 | | 3 | | | | | |
| | 3 | | 1 | 1 | 3 | 2 | 1 |
| ## 576 | 2 | 4 | 2 | 3 | 2 | 2 | 3 |
| ## 577 | 3 | 3 | 1 | 2 | 5 | 5 | 2 |
| ## 578 | 3 | 3 | 1 | 1 | 1 | 1 | 1 |
| ## 579 | 5 | 2 | 1 | 1 | 4 | 3 | 2 |
| ## 580 | 5 | 5 | 4 | 3 | 3 | 2 | 5 |
| ## 581 | 1 | 1 | 1 | 1 | 5 | 3 | 2 |
| ## 582 | 3 | 4 | 3 | 4 | 4 | 5 | 3 |
| | | | _ | | _ | | |
| ## 583 | 2 | 3 | 2 | 1 | 4 | 4 | 4 |
| ## 584 | 5 | 4 | 1 | 1 | 5 | 3 | 4 |
| ## 585 | 5 | 3 | 1 | 1 | 2 | 3 | 3 |
| ## 586 | 3 | 4 | 3 | 1 | 3 | 2 | 4 |
| ## 587 | 2 | 3 | 4 | 2 | 1 | 3 | 2 |
| ## 588 | 2 | 4 | 4 | 5 | 3 | 4 | 1 |
| ## 589 | 2 | 1 | 1 | 1 | 4 | 1 | 1 |
| ## 590 | 1 | 5 | 5 | 5 | 1 | 2 | 1 |
| | | | | | | | |
| ## 591 | 3 | 5 | 4 | 3 | 1 | 4 | 4 |
| ## 592 | 4 | 1 | 1 | 1 | 4 | 2 | 4 |
| ## 593 | 4 | 1 | 1 | 1 | 4 | 2 | 2 |
| ## 594 | 2 | 5 | 3 | 2 | 2 | 4 | 3 |
| ## 595 | 3 | 4 | 1 | 4 | 2 | 2 | 4 |
| ## 596 | 1 | 4 | 4 | 5 | 1 | 4 | 1 |
| ## 597 | 4 | 3 | 1 | 1 | 4 | 4 | 2 |
| ## 598 | - | | 2 | | 4 | | |
| | 5 | 5 | | 3 | | 2 | 2 |
| ## 599 | 3 | 4 | 2 | 4 | 4 | 3 | 3 |
| ## 600 | 5 | 4 | 3 | 3 | 4 | 4 | 2 |
| ## 601 | 4 | 4 | 4 | 3 | 5 | 5 | 2 |
| ## 602 | 2 | 4 | 1 | 2 | 1 | 1 | 4 |
| ## 603 | 5 | 4 | 4 | 2 | 3 | 1 | 4 |
| ## 604 | 4 | 4 | 2 | 2 | 5 | 3 | 4 |
| ## 605 | 4 | 4 | 1 | 5 | 4 | 4 | 2 |
| ## 606 | 3 | 5 | 3 | 4 | 1 | 3 | 3 |
| | | | | | | | |
| ## 607 | 5 | 4 | 1 | 2 | 2 | 1 | 2 |
| ## 608 | 4 | 3 | 3 | 3 | 1 | 3 | 3 |
| ## 609 | 5 | 1 | 1 | 4 | 4 | 4 | 4 |
| ## 610 | 3 | 3 | 2 | 2 | 5 | 2 | 3 |
| ## 611 | 4 | 5 | 4 | 2 | 2 | 2 | 4 |
| ## 612 | 5 | 3 | 1 | 1 | 3 | 2 | 1 |
| ## 613 | 3 | 4 | 3 | 3 | 4 | 4 | 3 |
| ππ ОТЭ | , | - | , | , | + | 7 | J |

| | _ | | | | | - | |
|--------|---|---|---|---|--------|---|---|
| ## 614 | 3 | 4 | 3 | 1 | 5 | 2 | 4 |
| ## 615 | 4 | 4 | 1 | 1 | 1 | 4 | 5 |
| | | | | | | | |
| ## 616 | 4 | 5 | 2 | 3 | 2 | 2 | 5 |
| ## 617 | 3 | 5 | 3 | 2 | 1 | 4 | 3 |
| | | | | | _ | | |
| ## 618 | 3 | 4 | 1 | 1 | 1 | 2 | 2 |
| ## 619 | 5 | 5 | 1 | 1 | 5 | 5 | 5 |
| ## 620 | 3 | 3 | 2 | 2 | 3 | 2 | 3 |
| | | | | | | | |
| ## 621 | 4 | 4 | 1 | 3 | 4 | 1 | 1 |
| ## 622 | 1 | 3 | 4 | 1 | 1 | 1 | 1 |
| | | | | | | | |
| ## 623 | 5 | 4 | 2 | 4 | 3 | 4 | 4 |
| ## 624 | 1 | 2 | 2 | 3 | 5 | 4 | 3 |
| ## 625 | 5 | 5 | 2 | 1 | 4 | 2 | 2 |
| | | | | | | | |
| ## 626 | 5 | 2 | 1 | 3 | 4 | 1 | 2 |
| ## 627 | 3 | 3 | 2 | 1 | 4 | 4 | 4 |
| | 2 | | | | | | |
| ## 628 | | 1 | 1 | 1 | 1 | 2 | 3 |
| ## 629 | 3 | 5 | 5 | 5 | 4 | 4 | 3 |
| ## 630 | 4 | 4 | 1 | 1 | 5 | 3 | 2 |
| | | | | | | | |
| ## 631 | 5 | 4 | 3 | 2 | 4 | 5 | 4 |
| ## 632 | 4 | 5 | 3 | 2 | 2 | 2 | 3 |
| | | | | | | | |
| ## 633 | 4 | 3 | 3 | 2 | 5 | 2 | 2 |
| ## 634 | 4 | 3 | 1 | 1 | 2 | 3 | 3 |
| ## 635 | 4 | 3 | 2 | 2 | 4 | 3 | 4 |
| | | | | | | | |
| ## 636 | 4 | 4 | 1 | 1 | 2 | 4 | 4 |
| ## 637 | 4 | 4 | 1 | 4 | 5 | 5 | 3 |
| ## 638 | 5 | | 2 | 5 | 2 | 1 | 2 |
| | | 5 | 2 | | | | |
| ## 639 | 5 | 5 | 3 | 5 | 4 | 4 | 3 |
| ## 640 | 1 | 5 | 5 | 3 | 1 | 2 | 5 |
| | | | | | | | |
| ## 641 | 5 | 5 | 4 | 5 | 5 | 2 | 1 |
| ## 642 | 4 | 3 | 2 | 2 | 5 | 4 | 3 |
| ## 643 | 3 | 3 | 2 | 2 | 2 | 2 | 1 |
| | | | | | | | |
| ## 644 | 4 | 5 | 1 | 1 | 4 | 1 | 3 |
| ## 645 | 5 | 4 | 2 | 2 | 4 | 4 | 2 |
| ## 646 | 3 | 2 | 1 | 1 | 4 | 2 | 3 |
| | | | | | 4 | | |
| ## 647 | 4 | 4 | 1 | 1 | 3 | 2 | 2 |
| ## 648 | 5 | 3 | 1 | 1 | 5 | 2 | 4 |
| | | | | | 3 | _ | • |
| ## 649 | 4 | 3 | 1 | 1 | 3 | 2 | 2 |
| ## 650 | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| ## 651 | 4 | 2 | 1 | 1 | 4 | 2 | 1 |
| | | | | | _ | | |
| ## 652 | 3 | 3 | 2 | 2 | 4 | 3 | 3 |
| ## 653 | 5 | 4 | 1 | 1 | 1 | 1 | 1 |
| ## 654 | 3 | 5 | 5 | 2 | 1 | 3 | 4 |
| | | | | | | | |
| ## 655 | 5 | 3 | 2 | 1 | 3 | 2 | 2 |
| ## 656 | 3 | 5 | 3 | 4 | 3 | 4 | 2 |
| | | | | | | | |
| ## 657 | 2 | 5 | 3 | 3 | 2 | 1 | 4 |
| ## 658 | 5 | 3 | 1 | 2 | 4 | 2 | 1 |
| ## 659 | 2 | 2 | 2 | 1 | 5 | 2 | 3 |
| | | | | | | | |
| ## 660 | 4 | 5 | 4 | 4 | 2 | 1 | 3 |
| | | 5 | 3 | 4 | 3 | 5 | 4 |
| ## 661 | 4 | | | | | | |
| ## 661 | 4 | | | | า | | |
| ## 662 | 3 | 1 | 1 | 1 | 2 | 1 | 1 |
| | | | | | 2 3 | | |

| | | _ | | - | 2 | | ~ |
|--------|---|---|---|---|---|---|---|
| ## 664 | 4 | 3 | 4 | 5 | 3 | 4 | 3 |
| ## 665 | 1 | 2 | 1 | 1 | 1 | 2 | 3 |
| ## 666 | 2 | 5 | 5 | 5 | 5 | 5 | 3 |
| ## 667 | 2 | 5 | 3 | 2 | 1 | 1 | 1 |
| | | | | | | | |
| ## 668 | 1 | 2 | 1 | 3 | 5 | 4 | 4 |
| ## 669 | 2 | 5 | 5 | 1 | 2 | 2 | 4 |
| ## 670 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| ## 671 | 3 | 3 | 3 | 1 | 2 | 3 | 3 |
| ## 672 | 3 | | _ | 1 | | 4 | |
| | | 3 | 1 | | 4 | | 4 |
| ## 673 | 4 | 4 | 2 | 2 | 1 | 1 | 3 |
| ## 674 | 5 | 4 | 2 | 1 | 3 | 2 | 4 |
| ## 675 | 3 | 5 | 3 | 3 | 4 | 1 | 1 |
| ## 676 | 5 | 4 | 2 | 1 | 2 | 2 | 2 |
| ## 677 | 1 | 2 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | |
| ## 678 | 4 | 3 | 2 | 3 | 3 | 3 | 2 |
| ## 679 | 2 | 5 | 5 | 4 | 1 | 5 | 3 |
| ## 680 | 1 | 5 | 2 | 5 | 3 | 5 | 4 |
| ## 681 | 5 | 5 | 2 | 3 | 5 | 5 | 2 |
| ## 682 | 3 | 5 | 5 | 4 | 4 | 5 | 4 |
| ## 683 | 4 | 4 | | | | 4 | |
| | | | 3 | 4 | 3 | | 3 |
| ## 684 | 5 | 5 | 4 | 3 | 3 | 3 | 3 |
| ## 685 | 5 | 4 | 1 | 2 | 4 | 2 | 2 |
| ## 686 | 4 | 3 | 2 | 3 | 4 | 3 | 4 |
| ## 687 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| ## 688 | 3 | 5 | 4 | 4 | 5 | 3 | 3 |
| ## 689 | 4 | 5 | 1 | 5 | 3 | 1 | 1 |
| ## 690 | 4 | 4 | 1 | 2 | 4 | 2 | 2 |
| | | | _ | | | | |
| ## 691 | 2 | 4 | 1 | 3 | 3 | 3 | 3 |
| ## 692 | 3 | 4 | 4 | 2 | 4 | 2 | 4 |
| ## 693 | 4 | 5 | 5 | 4 | 4 | 3 | 4 |
| ## 694 | 4 | 3 | 2 | 1 | 4 | 3 | 3 |
| ## 695 | 3 | 5 | 4 | 2 | 3 | 3 | 5 |
| ## 696 | 5 | 4 | 2 | 2 | 5 | 3 | 4 |
| | | | | | | | |
| ## 697 | 5 | 3 | 1 | 1 | 3 | 1 | 3 |
| ## 698 | 4 | 5 | 3 | 5 | 3 | 1 | 1 |
| ## 699 | 5 | 3 | 1 | 1 | 5 | 5 | 3 |
| ## 700 | 5 | 3 | 1 | 2 | 3 | 3 | 2 |
| ## 701 | 1 | 4 | 2 | 1 | 4 | 2 | 1 |
| ## 702 | 2 | 2 | 1 | 1 | 2 | 2 | 3 |
| | | | | | | | |
| ## 703 | 4 | 5 | 5 | 2 | 1 | 1 | 2 |
| ## 704 | 3 | 4 | 4 | 4 | 3 | 5 | 3 |
| ## 705 | 5 | 5 | 1 | 2 | 4 | 5 | 2 |
| ## 706 | 3 | 5 | 3 | 4 | 3 | 5 | 4 |
| ## 707 | 5 | 4 | 2 | 1 | 4 | 3 | 2 |
| ## 708 | 3 | 4 | 5 | 2 | 2 | 2 | 2 |
| ## 700 | 5 | 3 | 1 | 1 | 5 | 4 | 1 |
| | | | | | | | |
| ## 710 | 3 | 5 | 5 | 3 | 4 | 3 | 4 |
| ## 711 | 5 | 4 | 1 | 2 | 4 | 5 | 3 |
| ## 712 | 4 | 4 | 2 | 3 | 2 | 4 | 2 |
| ## 713 | 4 | 3 | 1 | 1 | 1 | 1 | 3 |
| | | | | | | | |

| ## 714 | 3 | 4 | 1 | 5 | 4 | 5 | 5 |
|--------|---|---|---|---|--------|---|---|
| ## 715 | 3 | 5 | 1 | 1 | 4 | 5 | 1 |
| ## 716 | 2 | 5 | 5 | 4 | 1 | 4 | 3 |
| | | | | | _ | | |
| ## 717 | 2 | 3 | 2 | 1 | 4 | 5 | 3 |
| ## 718 | 4 | 4 | 2 | 1 | 1 | 1 | 3 |
| ## 719 | 5 | 5 | 4 | 5 | 2 | 3 | 5 |
| ## 720 | 5 | 3 | 3 | 2 | 2 | 3 | 2 |
| ## 721 | 3 | 2 | 4 | 2 | 4 | 4 | 5 |
| | | | | | _ | _ | |
| ## 722 | 4 | 4 | 1 | 1 | 1 | 1 | 3 |
| ## 723 | 5 | 5 | 2 | 2 | 4 | 3 | 5 |
| ## 724 | 5 | 4 | 1 | 1 | 2 | 1 | 4 |
| ## 725 | 5 | 3 | 2 | 2 | 3 | 3 | 3 |
| ## 726 | 4 | 2 | 1 | 1 | 4 | 1 | 4 |
| | | | | | · | _ | |
| ## 727 | 5 | 2 | 1 | 1 | 5 | 5 | 3 |
| ## 728 | 5 | 5 | 3 | 3 | 2 | 2 | 3 |
| ## 729 | 5 | 2 | 1 | 1 | 5 | 2 | 2 |
| ## 730 | 4 | 5 | 4 | 3 | 4 | 4 | 3 |
| ## 731 | 1 | 5 | 5 | 5 | 3 | 3 | 4 |
| ## 732 | 4 | 4 | 1 | 2 | 4 | 3 | 4 |
| | = | | | | | _ | |
| ## 733 | 3 | 3 | 2 | 2 | 4 | 3 | 4 |
| ## 734 | 3 | 4 | 2 | 1 | 1 | 4 | 4 |
| ## 735 | 3 | 2 | 2 | 1 | 1 | 2 | 3 |
| ## 736 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ## 737 | 4 | 5 | 4 | 3 | 2 | 2 | 4 |
| ## 738 | 3 | 4 | 2 | 1 | _ 1 | 1 | 4 |
| ## 739 | 3 | 5 | 4 | 2 | _ | 1 | |
| | | | | | 5 | | 1 |
| ## 740 | 4 | 5 | 5 | 3 | 1 | 2 | 2 |
| ## 741 | 4 | 4 | 2 | 1 | 5 | 2 | 3 |
| ## 742 | 3 | 3 | 1 | 1 | 1 | 2 | 5 |
| ## 743 | 2 | 4 | 2 | 1 | 3 | 4 | 2 |
| ## 744 | 2 | 4 | 4 | 4 | 3 | 3 | 3 |
| ## 745 | 2 | 5 | 4 | 5 | 1 | 3 | 3 |
| ## 746 | | 4 | | | | | |
| | 3 | | 2 | 2 | 1 | 3 | 2 |
| ## 747 | 4 | 5 | 2 | 3 | 1 | 2 | 3 |
| ## 748 | 4 | 2 | 4 | 3 | 5 | 4 | 5 |
| ## 749 | 3 | 4 | 4 | 5 | 3 | 3 | 3 |
| ## 750 | 1 | 5 | 3 | 3 | 1 | 1 | 3 |
| ## 751 | 3 | 3 | 1 | 1 | 5 | 1 | 5 |
| | | | | | | | 3 |
| ## 752 | 5 | 5 | 3 | 4 | 1 | 2 | |
| ## 753 | 5 | 3 | 1 | 3 | 4 | 2 | 4 |
| ## 754 | 3 | 4 | 2 | 2 | 1 | 3 | 2 |
| ## 755 | 4 | 3 | 2 | 3 | 4 | 3 | 3 |
| ## 756 | 3 | 5 | 5 | 4 | 1 | 4 | 4 |
| ## 757 | 4 | 5 | 5 | 5 | 2 | 5 | 3 |
| ## 758 | | 3 | | 2 | 5 | | 5 |
| | 2 | | 1 | | | 5 | |
| ## 759 | 3 | 1 | 1 | 1 | 3 | 1 | 1 |
| ## 760 | 5 | 4 | 3 | 3 | 3 | 3 | 4 |
| ## 761 | 5 | 5 | 4 | 4 | 2 | 3 | 2 |
| ## 762 | 4 | 1 | 1 | 2 | 5 | 5 | 1 |
| ## 763 | 3 | 3 | 1 | 3 | 4 | 5 | 1 |
| , , , | | _ | _ | _ | • | - | _ |

| 44 7/ | <i>c</i> | _ | 2 | _ | 1 | 1 | 2 |
|-------|----------|---|---|---|---|---|---|
| ## 76 | | | 3 | 5 | 1 | 1 | 3 |
| ## 76 | | | 1 | 2 | 2 | 2 | 3 |
| ## 76 | 66 4 | 5 | 5 | 5 | 2 | 2 | 3 |
| ## 76 | 67 4 | 4 | 5 | 4 | 4 | 4 | 4 |
| ## 76 | | | 5 | 2 | 2 | 2 | 3 |
| | | | | | | | |
| ## 76 | | | 2 | 2 | 5 | 3 | 3 |
| ## 77 | 70 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ## 77 | 71 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ## 77 | 72 3 | 5 | 5 | 4 | 2 | 3 | 2 |
| ## 7 | | | 1 | 1 | 4 | 1 | 1 |
| | | | _ | | | _ | |
| ## 77 | | _ | 5 | 3 | 4 | 3 | 5 |
| ## 77 | 75 2 | 2 | 1 | 1 | 2 | 2 | 3 |
| ## 77 | 76 3 | 4 | 1 | 2 | 4 | 2 | 2 |
| ## 77 | 77 4 | 5 | 1 | 1 | 3 | 1 | 3 |
| ## 7 | | 3 | 1 | 1 | 5 | 3 | 3 |
| ## 77 | | | | | | 2 | |
| | | | 1 | 1 | 3 | | 1 |
| ## 78 | | | 2 | 2 | 4 | 2 | 5 |
| ## 78 | 81 4 | 4 | 1 | 2 | 3 | 3 | 3 |
| ## 78 | 82 3 | 3 | 1 | 1 | 1 | 1 | 4 |
| ## 78 | 83 3 | 5 | 5 | 5 | 2 | 5 | 5 |
| ## 78 | | | 4 | 1 | 2 | 3 | 3 |
| ## 78 | | | 1 | 1 | 3 | 3 | 5 |
| ## 78 | | | | | _ | | |
| | | | 3 | 3 | 4 | 3 | 3 |
| ## 78 | | _ | 4 | 1 | 2 | 2 | 5 |
| ## 78 | | 2 | 2 | 1 | 5 | 3 | 2 |
| ## 78 | 89 4 | 3 | 2 | 3 | 4 | 4 | 2 |
| ## 79 | 90 5 | 4 | 1 | 2 | 4 | 1 | 1 |
| ## 79 | 91 2 | 5 | 5 | 4 | 2 | 1 | 1 |
| ## 79 | 92 3 | 2 | 1 | 1 | 4 | 3 | 5 |
| ## 79 | | | 3 | 2 | 4 | 3 | 3 |
| ## 79 | | | _ | 2 | _ | | 4 |
| | | | 4 | | 5 | 3 | |
| ## 79 | | | 1 | 1 | 5 | 1 | 1 |
| ## 79 | 96 1 | 5 | 1 | 5 | 1 | 5 | 1 |
| ## 79 | 97 5 | 1 | 4 | 3 | 4 | 4 | 2 |
| ## 79 | 98 2 | 2 | 1 | 1 | 5 | 2 | 2 |
| ## 79 | | | 3 | 3 | 3 | 3 | 2 |
| ## 80 | | | 5 | 4 | 1 | 1 | 2 |
| | | | | | | | |
| ## 80 | | | 1 | 4 | 4 | 1 | 1 |
| ## 80 | | 5 | 3 | 2 | 1 | 1 | 1 |
| ## 80 | | 4 | 4 | 3 | 5 | 3 | 1 |
| ## 80 | 04 3 | 5 | 4 | 5 | 1 | 1 | 2 |
| ## 80 | | | 3 | 4 | 4 | 4 | 4 |
| ## 80 | | | 5 | 5 | 3 | 4 | 2 |
| ## 80 | | | | 1 | 1 | | 1 |
| | | | 1 | | | 1 | |
| ## 80 | | | 2 | 2 | 1 | 1 | 1 |
| ## 80 | | | 3 | 4 | 3 | 2 | 1 |
| ## 83 | 10 2 | 2 | 2 | 1 | 4 | 1 | 1 |
| ## 83 | 11 1 | 5 | 5 | 3 | 1 | 3 | 4 |
| ## 83 | | | 4 | 4 | 3 | 2 | 3 |
| ## 83 | | | 1 | 1 | 2 | 1 | 1 |
| пπ О. | -J 1 | | _ | _ | _ | _ | _ |

| ## 814 | 2 | 2 | 3 | 1 | 2 | 1 | 1 |
|--------|---|---|----|---|---|---|----|
| ## 815 | 4 | 3 | 2 | 3 | 5 | 4 | 3 |
| | | | | | | | |
| ## 816 | 2 | 5 | 5 | 3 | 5 | 4 | 4 |
| ## 817 | 4 | 5 | 5 | 5 | 4 | 4 | 5 |
| ## 818 | | | | 2 | | | |
| | 5 | 5 | 2 | | 5 | 4 | 4 |
| ## 819 | 4 | 4 | 4 | 3 | 2 | 1 | 1 |
| ## 820 | 4 | 2 | 1 | 2 | 3 | 2 | 1 |
| | | | | | | | |
| ## 821 | 3 | 5 | 2 | 2 | 4 | 4 | 4 |
| ## 822 | 4 | 5 | 5 | 5 | 1 | 3 | 4 |
| ## 823 | 5 | 4 | 1 | 3 | 5 | 4 | 3 |
| | | | | | | | |
| ## 824 | 3 | 2 | 1 | 1 | 5 | 2 | 2 |
| ## 825 | 3 | 5 | 3 | 2 | 1 | 3 | 2 |
| ## 826 | 2 | 5 | 4 | 2 | 1 | 2 | 2 |
| | | | | | | | |
| ## 827 | 4 | 5 | 3 | 3 | 3 | 3 | 5 |
| ## 828 | 4 | 5 | 3 | 3 | 2 | 4 | 3 |
| ## 829 | 4 | 5 | 3 | 4 | 5 | 2 | 1 |
| | | | | | | | |
| ## 830 | 3 | 5 | 5 | 4 | 3 | 2 | 4 |
| ## 831 | 4 | 3 | 1 | 1 | 5 | 4 | 4 |
| ## 832 | 5 | 4 | 3 | 4 | 5 | 4 | 4 |
| | | | | | | | |
| ## 833 | 2 | 5 | 3 | 4 | 1 | 4 | 4 |
| ## 834 | 3 | 4 | 1 | 1 | 1 | 1 | 5 |
| ## 835 | 3 | 5 | 4 | 2 | 2 | 2 | 2 |
| | | | - | | | | |
| ## 836 | 5 | 4 | 1 | 1 | 1 | 4 | 3 |
| ## 837 | 4 | 5 | 5 | 5 | 4 | 3 | 5 |
| ## 838 | 2 | 5 | 5 | 4 | | 4 | 5 |
| | | | | | 2 | | |
| ## 839 | 5 | 4 | 1 | 1 | 4 | 5 | 3 |
| ## 840 | 4 | 3 | 1 | 2 | 3 | 3 | 3 |
| ## 841 | 5 | 5 | 1 | 1 | 4 | 3 | 3 |
| | | | | | | | |
| ## 842 | 4 | 4 | 3 | 4 | 5 | 2 | 2 |
| ## 843 | 4 | 5 | 1 | 4 | 1 | 3 | 2 |
| ## 844 | 4 | 4 | | 2 | | 3 | 2 |
| | | | 2 | | 5 | | |
| ## 845 | 2 | 3 | 2 | 3 | 2 | 3 | 5 |
| ## 846 | 5 | 1 | 1 | 1 | 4 | 2 | 2 |
| ## 847 | 4 | 2 | | | | | |
| | | | 1 | 1 | 4 | 2 | 4 |
| ## 848 | 5 | 5 | 2 | 2 | 1 | 4 | 4 |
| ## 849 | 3 | 5 | 3 | 4 | 1 | 4 | 2 |
| ## 850 | 2 | 2 | | | | | 4 |
| | | | 1 | 1 | 1 | 2 | |
| ## 851 | 4 | 2 | 1 | 1 | 4 | 4 | 3 |
| ## 852 | 2 | 2 | 1 | 2 | 5 | 3 | 2 |
| | | | | | | | |
| ## 853 | 2 | 2 | 1 | 1 | 5 | 3 | 2 |
| ## 854 | 3 | 3 | 1 | 1 | 2 | 3 | 2 |
| ## 855 | 3 | 3 | 1 | 1 | 5 | 3 | 3 |
| | | | | | | | |
| ## 856 | 5 | 4 | 3 | 4 | 5 | 4 | 2 |
| ## 857 | 4 | 5 | 3 | 3 | 3 | 3 | 5 |
| ## 858 | 4 | 3 | 1 | 2 | 2 | 3 | 3 |
| | | | | | | | |
| ## 859 | 2 | 3 | 3 | 1 | 1 | 5 | 5 |
| ## 860 | 4 | 3 | 2 | 2 | 5 | 3 | 3 |
| | | | 4 | 3 | 4 | 3 | |
| ## 861 | 3 | 4 | 21 | | | | ٠, |
| ## 861 | 3 | 4 | 4 | | | | 3 |
| ## 862 | 3 | 5 | 1 | 2 | 1 | 3 | 3 |
| | | | | | | | |

| ## 864 | 3 | 2 | 1 | 1 | 2 | 2 | 3 |
|--------|---|---|---|---|--------------|---|---|
| ## 865 | 3 | 5 | 4 | 4 | 4 | 3 | 3 |
| | | | | | - | | |
| ## 866 | 3 | 4 | 2 | 3 | 4 | 2 | 1 |
| ## 867 | 2 | 5 | 4 | 4 | 3 | 4 | 2 |
| | | | _ | | _ | | |
| ## 868 | 4 | 3 | 1 | 1 | 1 | 3 | 1 |
| ## 869 | 4 | 4 | 3 | 2 | 5 | 2 | 2 |
| ## 870 | 4 | 5 | 3 | 3 | 2 | 1 | 3 |
| | | | _ | | | | |
| ## 871 | 5 | 3 | 3 | 2 | 3 | 1 | 1 |
| ## 872 | 3 | 5 | 4 | 2 | 2 | 3 | 4 |
| ## 873 | 3 | 5 | 3 | 2 | 2 | 2 | 3 |
| | | | | | | | |
| ## 874 | 3 | 4 | 2 | 1 | 3 | 3 | 3 |
| ## 875 | 3 | 2 | 1 | 2 | 3 | 2 | 2 |
| | | | | | | | |
| ## 876 | 3 | 2 | 1 | 1 | 4 | 1 | 1 |
| ## 877 | 4 | 1 | 1 | 1 | 5 | 5 | 4 |
| ## 878 | 1 | 5 | 3 | 4 | 3 | 3 | 4 |
| | | | | | | | |
| ## 879 | 4 | 4 | 2 | 2 | 5 | 4 | 4 |
| ## 880 | 2 | 4 | 5 | 3 | 2 | 1 | 2 |
| ## 881 | 3 | 2 | 1 | 3 | 4 | 2 | 2 |
| | | | | | _ | | |
| ## 882 | 4 | 5 | 2 | 2 | 1 | 1 | 4 |
| ## 883 | 2 | 4 | 3 | 5 | 3 | 2 | 2 |
| ## 884 | 4 | 3 | 1 | 1 | 2 | 3 | 4 |
| | | | | | | | |
| ## 885 | 4 | 5 | 3 | 4 | 3 | 4 | 4 |
| ## 886 | 4 | 4 | 4 | 1 | 5 | 4 | 2 |
| | | | | | _ | | |
| ## 887 | 3 | 4 | 5 | 4 | 1 | 1 | 1 |
| ## 888 | 2 | 5 | 3 | 2 | 4 | 3 | 2 |
| ## 889 | 4 | 4 | 3 | 2 | 2 | 1 | 2 |
| | | | | | | | |
| ## 890 | 3 | 4 | 3 | 2 | 2 | 3 | 3 |
| ## 891 | 4 | 3 | 1 | 1 | 4 | 2 | 2 |
| ## 892 | 4 | 4 | 2 | 2 | 2 | 4 | 1 |
| | | | | | | | |
| ## 893 | 3 | 5 | 3 | 2 | 3 | 2 | 2 |
| ## 894 | 2 | 4 | 3 | 2 | 4 | 3 | 2 |
| ## 895 | 3 | 5 | 3 | 2 | 2 | 4 | 3 |
| | | | _ | | _ | | |
| ## 896 | 3 | 3 | 1 | 1 | 4 | 3 | 3 |
| ## 897 | 2 | 5 | 3 | 3 | 1 | 2 | 4 |
| ## 898 | 4 | 3 | 1 | 2 | 3 | 2 | 3 |
| | - | | | | | 2 | |
| ## 899 | 2 | 5 | 2 | 3 | 1 | 3 | 5 |
| ## 900 | 3 | 3 | 2 | 2 | 5 | 3 | 3 |
| ## 901 | 3 | 3 | 1 | 1 | | 4 | 4 |
| | | | | | 2 | | |
| ## 902 | 3 | 3 | 1 | 2 | 1 | 2 | 3 |
| ## 903 | 2 | 3 | 2 | 3 | 5 | 4 | 3 |
| ## 904 | | | | | | | |
| | 1 | 5 | 5 | 4 | 2 | 3 | 5 |
| ## 905 | 5 | 3 | 1 | 1 | 2 | 2 | 2 |
| ## 906 | 4 | 4 | 1 | 3 | 5 | 3 | 3 |
| | | | | | | | |
| ## 907 | 2 | 1 | 1 | 1 | 2 | 3 | 4 |
| ## 908 | 5 | 3 | 2 | 3 | 3 | 3 | 2 |
| ## 909 | 4 | 4 | 3 | 3 | 2 | 2 | 3 |
| | | | | | | | |
| ## 910 | 4 | 3 | 2 | 3 | 4 | 4 | 2 |
| ## 911 | 4 | 5 | 1 | 1 | 4 | 4 | 5 |
| ## 912 | 3 | 5 | 5 | 4 | 1 | 1 | 3 |
| | | | | | | | |
| ## 913 | 4 | 3 | 2 | 4 | 3 | 3 | 2 |
| | | | | | | | |

| ## 914 | 3 | 4 | 1 | 3 | 1 | 2 | 4 |
|--------|---|---|---|---|---|---|---|
| ## 915 | 3 | 5 | 4 | 4 | 2 | 3 | 4 |
| ## 916 | 4 | 4 | 3 | 1 | 4 | 2 | 2 |
| | | | | | | | |
| ## 917 | 3 | 5 | 4 | 4 | 1 | 3 | 3 |
| ## 918 | 2 | 5 | 4 | 4 | 2 | 2 | 2 |
| ## 919 | 4 | 5 | 5 | 5 | 3 | 4 | 2 |
| ## 920 | 3 | 4 | 4 | 3 | 3 | 3 | 3 |
| ## 921 | 3 | 4 | 3 | 3 | 2 | 3 | 3 |
| | | | | | | | |
| ## 922 | 4 | 3 | 2 | 3 | 4 | 2 | 3 |
| ## 923 | 5 | 3 | 1 | 1 | 4 | 3 | 2 |
| ## 924 | 4 | 4 | 2 | 5 | 3 | 1 | 4 |
| ## 925 | 3 | 2 | 1 | 1 | 2 | 2 | 1 |
| ## 926 | 3 | 2 | 1 | 1 | 3 | 5 | 4 |
| ## 927 | 2 | 4 | 3 | 3 | 1 | 2 | 2 |
| | | | | | | | |
| ## 928 | 5 | 3 | 1 | 2 | 4 | 4 | 1 |
| ## 929 | 4 | 3 | 2 | 2 | 4 | 4 | 2 |
| ## 930 | 4 | 2 | 3 | 4 | 2 | 5 | 2 |
| ## 931 | 3 | 2 | 2 | 3 | 5 | 3 | 1 |
| ## 932 | 4 | 3 | 4 | 3 | 2 | 3 | 2 |
| | | 3 | | | | | 2 |
| ## 933 | 5 | | 2 | 1 | 4 | 3 | |
| ## 934 | 3 | 4 | 2 | 3 | 1 | 4 | 5 |
| ## 935 | 3 | 4 | 5 | 4 | 2 | 2 | 2 |
| ## 936 | 5 | 2 | 1 | 1 | 2 | 1 | 1 |
| ## 937 | 4 | 3 | 4 | 4 | 2 | 3 | 4 |
| ## 938 | 5 | 5 | 4 | 5 | 4 | 5 | 5 |
| ## 939 | 4 | 5 | 2 | 4 | 4 | 1 | 3 |
| ## 940 | 4 | 4 | 1 | 2 | 1 | 2 | 3 |
| | | | | | | | |
| ## 941 | 3 | 3 | 1 | 1 | 4 | 4 | 5 |
| ## 942 | 4 | 4 | 3 | 3 | 4 | 5 | 4 |
| ## 943 | 4 | 2 | 1 | 2 | 1 | 3 | 5 |
| ## 944 | 3 | 4 | 1 | 4 | 4 | 4 | 4 |
| ## 945 | 5 | 4 | 1 | 1 | 2 | 1 | 3 |
| ## 946 | 4 | 4 | 4 | 4 | 5 | 4 | 2 |
| ## 947 | 3 | 5 | 5 | 5 | 2 | 1 | 4 |
| | | | | | | 2 | |
| ## 948 | 3 | 3 | 3 | 2 | 4 | 3 | 2 |
| ## 949 | 4 | 3 | 1 | 1 | 2 | 3 | 2 |
| ## 950 | 3 | 4 | 3 | 3 | 2 | 3 | 3 |
| ## 951 | 4 | 5 | 5 | 5 | 4 | 4 | 3 |
| ## 952 | 4 | 3 | 2 | 2 | 4 | 5 | 3 |
| ## 953 | 4 | 5 | 3 | 3 | 1 | 3 | 3 |
| ## 954 | 5 | 4 | 1 | 4 | 4 | 4 | 4 |
| | | | | | | | |
| ## 955 | 3 | 3 | 1 | 2 | 4 | 4 | 3 |
| ## 956 | 2 | 5 | 5 | 5 | 1 | 3 | 1 |
| ## 957 | 4 | 4 | 3 | 3 | 3 | 3 | 4 |
| ## 958 | 2 | 2 | 1 | 1 | 5 | 1 | 2 |
| ## 959 | 4 | 1 | 1 | 1 | 3 | 2 | 2 |
| ## 960 | 4 | 3 | 2 | 4 | 2 | 5 | 4 |
| ## 961 | 3 | 5 | 5 | 5 | 3 | 3 | 5 |
| | | | | | | | |
| ## 962 | 5 | 3 | 1 | 1 | 5 | 4 | 3 |
| ## 963 | 2 | 1 | 1 | 1 | 1 | 1 | 4 |
| | | | | | | | |

| ## 964 | 5 | 4 | | 1 | 1 | 3 | | 1 | 4 |
|---------|--------|---|------------|---|---|-------------|-------|---|---|
| ## 965 | 3 | 5 | | 5 | 5 | 3 | | 4 | 3 |
| ## 966 | 5 | 5 | | 2 | 4 | 1 | | 3 | 2 |
| ## 967 | 1 | 1 | | 1 | 1 | 1 | | 3 | 4 |
| ## 968 | 2 | 5 | | 5 | 5 | 1 | | 4 | 4 |
| ## 969 | 4 | 3 | | 2 | 1 | 5 | | 3 | 3 |
| ## 970 | 4 | 5 | | 4 | 3 | | | 2 | 3 |
| | | | | | | 2 | | | |
| ## 971 | 3 | 4 | | 2 | 1 | 4 | | 2 | 5 |
| ## 972 | 2 | 5 | | 4 | 4 | 1 | | 4 | 3 |
| ## 973 | 3 | 5 | | 2 | 4 | 1 | | 3 | 3 |
| ## 974 | 2 | 5 | | 5 | 5 | 1 | | 4 | 5 |
| ## 975 | 2 | 5 | | 5 | 5 | 1 | | 5 | 3 |
| ## 976 | 5 | 5 | | 5 | 5 | 5 | | 5 | 5 |
| ## 977 | 5 | 5 | | 2 | 2 | 3 | | 4 | 4 |
| ## 978 | 4 | 4 | | 3 | 2 | 4 | | 2 | 1 |
| ## 979 | 4 | 5 | | 5 | 3 | 2 | | 3 | 5 |
| ## 980 | 5 | 5 | | 1 | 1 | 3 | | 2 | 4 |
| ## 981 | | | | | | _ | | | |
| | 4 | 4 | | 4 | 2 | 1 | | 3 | 5 |
| ## 982 | 3 | 4 | | 1 | 1 | 1 | | 2 | 3 |
| ## 983 | 2 | 4 | | 3 | 2 | 2 | | 4 | 3 |
| ## 984 | 5 | 3 | | 1 | 1 | 4 | | 4 | 2 |
| ## 985 | 3 | 4 | | 4 | 3 | 1 | | 2 | 1 |
| ## 986 | 4 | 5 | | 3 | 3 | 1 | | 4 | 2 |
| ## 987 | 2 | 4 | | 2 | 4 | 3 | | 3 | 4 |
| ## 988 | 1 | 5 | | 3 | 2 | 1 | | 3 | 3 |
| ## 989 | 2 | 5 | | 2 | 4 | 3 | | 5 | 5 |
| ## 990 | 5 | 5 | | 5 | 1 | 5 | | 2 | 3 |
| ## 991 | 3 | 4 | | 4 | 1 | 1 | | 1 | 2 |
| | | | | | | | | | |
| ## 992 | 1 | 5 | | 5 | 4 | 5 | | 2 | 1 |
| ## 993 | 3 | 4 | | 4 | 3 | 2 | | 3 | 2 |
| ## 994 | 4 | 4 | | 1 | 1 | 4 | | 1 | 1 |
| ## 995 | 3 | 5 | | 3 | 4 | 2 | | 4 | 3 |
| ## 996 | 1 | 4 | | 4 | 3 | 3 | | 2 | 1 |
| ## 997 | 1 | 4 | | 3 | 1 | 4 | | 4 | 2 |
| ## 998 | 3 | 4 | | 2 | 4 | 2 | | 4 | 1 |
| ## 999 | 3 | 5 | | 5 | 4 | 3 | | 2 | 1 |
| ## 1000 | 4 | 4 | | 3 | 1 | 5 | | 5 | 5 |
| ## 1001 | 4 | 3 | | 1 | 1 | 5 | | 3 | 2 |
| ## 1001 | 4 | | | 2 | 4 | 4 | | 3 | 1 |
| | | 3 | | | | | | | |
| ## 1003 | 2 | 5 | | 5 | 3 | 1 | | 4 | 2 |
| ## 1004 | 4 | 5 | | 2 | 3 | 2 | | 4 | 4 |
| ## 1005 | 3 | 3 | | 4 | 3 | 5 | | 4 | 2 |
| ## 1006 | 4 | 4 | | 3 | 2 | 4 | | 1 | 5 |
| ## 1007 | 4 | 1 | | 1 | 4 | 1 | | 1 | 2 |
| ## 1008 | 3 | 4 | | 1 | 2 | 3 | | 3 | 2 |
| ## 1009 | 3 | 4 | | 1 | 1 | 2 | | 2 | 3 |
| ## 1010 | 4 | 1 | | 1 | 2 | 3 | | 1 | 1 |
| ## | | | Alternativ | _ | | echnoTrance | Onera | | _ |
| ## 1 | NOCK I | 3 | | 1 | 1 | 1 | = | | |
| | | | | | | | | | |
| ## 2 | | 4 | | 4 | 2 | 1 | . 1 | | |

| ## | 3 | 5 | 5 | 5 | 1 | 3 |
|-------|-------------------|---|---|---|---|---|
| ## | 1 | 2 | 5 | 1 | 2 | 1 |
| | | | | | | |
| ## | | 1 | 2 | 4 | 2 | 2 |
| ## | 6 | 4 | 5 | 3 | 1 | 3 |
| ## | 7 | 2 | 3 | 3 | 5 | 2 |
| ## | | 3 | 1 | 2 | 3 | 2 |
| | | | | | | |
| ## | | 2 | 1 | 1 | 1 | 1 |
| ## | 10 | 4 | 4 | 5 | 1 | 2 |
| ## | 11 | 3 | 3 | 3 | 4 | 2 |
| ## | 12 | 2 | 5 | 2 | 1 | 2 |
| ## | | 4 | 3 | 2 | 1 | 2 |
| | | | | | | |
| ## | | 2 | 1 | 3 | 1 | 1 |
| ## | 15 | 4 | 4 | 1 | 1 | 1 |
| ## | 16 | 3 | 3 | 2 | 1 | 2 |
| ## | 17 | 3 | 1 | 1 | 4 | 1 |
| ## | | 3 | 1 | 2 | 1 | 3 |
| | | _ | | | | |
| ## | | 4 | 4 | 4 | 4 | 3 |
| ## | 20 | 4 | 3 | 4 | 3 | 2 |
| ## | 21 | 4 | 5 | 3 | 3 | 4 |
| ## | | 4 | 3 | 2 | 1 | 2 |
| ## | | | 2 | | | 2 |
| | | 3 | | 3 | 3 | |
| ## | | 3 | 1 | 4 | 1 | 1 |
| ## | 25 | 2 | 3 | 2 | 3 | 4 |
| ## | 26 | 1 | 1 | 4 | 2 | 1 |
| ## | | 5 | 3 | 5 | 2 | 2 |
| ## | | | | | | |
| | | 3 | 4 | 3 | 4 | 2 |
| ## | | 4 | 3 | 2 | 3 | 1 |
| ## | 30 | 4 | 3 | 4 | 3 | 2 |
| ## | 31 | 3 | 3 | 3 | 3 | 3 |
| ## | | 1 | 1 | 5 | 1 | 2 |
| ## | | _ | 4 | 2 | 3 | 1 |
| | | 4 | | | | |
| ## | | 4 | 3 | 2 | 1 | 5 |
| ## | 35 | 4 | 4 | 2 | 1 | 1 |
| ## | 36 | 3 | 3 | 5 | 1 | 1 |
| ## | | 1 | 1 | 1 | 1 | 4 |
| ## | | | | | | |
| | | 2 | 1 | 1 | 1 | 1 |
| ## | | 2 | 1 | 3 | 4 | 4 |
| ## | | 5 | 2 | 1 | 2 | 2 |
| ## | 41 | 1 | 1 | 2 | 3 | 1 |
| ## | | 5 | 5 | 5 | 5 | 1 |
| ## | | 3 | 4 | 3 | 3 | 1 |
| | | | | | | |
| ## | | 2 | 4 | 3 | 3 | 1 |
| ## | | 3 | 4 | 5 | 4 | 3 |
| ## | 46 | 5 | 1 | 4 | 3 | 4 |
| ## | | 5 | 4 | 5 | 2 | 2 |
| ## | | | | 3 | 2 | 3 |
| | | 3 | 4 | | | |
| ## | | 2 | 2 | 4 | 2 | 1 |
| ## | 50 | 4 | 2 | 1 | 2 | 1 |
| ## | 51 | 4 | 4 | 5 | 1 | 2 |
| ## | | 4 | 3 | 5 | 3 | 2 |
| II TT | <i>J</i> <u>_</u> | • | _ | | , | _ |

| ## | 53 | 5 | 2 | 5 | 2 | 5 |
|----|-----|---|---|---|---|---|
| ## | 54 | 3 | 3 | 5 | 2 | 5 |
| ## | | 4 | 3 | 5 | 4 | 5 |
| | | | | | | |
| ## | | 4 | 4 | 4 | 5 | 3 |
| ## | 57 | 5 | 5 | 1 | 1 | 4 |
| ## | 58 | 5 | 5 | 1 | 1 | 2 |
| ## | 59 | 2 | 2 | 3 | 3 | 1 |
| ## | | 5 | 5 | 1 | 4 | 3 |
| | | _ | | | | |
| ## | | 4 | 4 | 2 | 1 | 3 |
| ## | 62 | 3 | 3 | 4 | 4 | 3 |
| ## | 63 | 5 | 5 | 4 | 5 | 5 |
| ## | 64 | 3 | 1 | 3 | 5 | 1 |
| ## | | 2 | 1 | 3 | 2 | 2 |
| | | | | | | |
| ## | | 2 | 1 | 2 | 4 | 2 |
| ## | 67 | 2 | 2 | 4 | 5 | 1 |
| ## | 68 | 4 | 1 | 5 | 1 | 1 |
| ## | 69 | 4 | 3 | 2 | 4 | 2 |
| ## | | 2 | 1 | 4 | 1 | 2 |
| | | | | | | |
| ## | | 1 | 1 | 2 | 3 | 1 |
| ## | 72 | 2 | 3 | 1 | 3 | 1 |
| ## | 73 | 3 | 3 | 5 | 1 | 1 |
| ## | 74 | 2 | 2 | 4 | 3 | 1 |
| ## | | _ | | _ | 2 | |
| | | 1 | 1 | 1 | | 4 |
| ## | | 5 | 4 | 4 | 1 | 2 |
| ## | 77 | 2 | 1 | 1 | 1 | 1 |
| ## | 78 | 2 | 2 | 5 | 5 | 1 |
| ## | | 5 | 3 | 5 | 4 | 2 |
| ## | | 3 | 3 | | 4 | |
| | | _ | | 4 | | 4 |
| ## | | 4 | 2 | 5 | 3 | 2 |
| ## | 82 | 4 | 3 | 5 | 3 | 3 |
| ## | 83 | 2 | 5 | 1 | 1 | 3 |
| ## | 84 | 3 | 1 | 5 | 5 | 3 |
| ## | | 5 | 4 | 3 | 1 | 5 |
| | | | | | | |
| ## | | 3 | 3 | 2 | 4 | 3 |
| ## | | 3 | 3 | 2 | 3 | 3 |
| ## | 88 | 4 | 4 | 5 | 2 | 1 |
| ## | 89 | 5 | 4 | 5 | 5 | 1 |
| ## | | 4 | 4 | 2 | 1 | 3 |
| ## | | 2 | | 1 | 1 | 1 |
| | | | 3 | | | |
| ## | | 3 | 1 | 1 | 1 | 1 |
| ## | 93 | 4 | 3 | 3 | 1 | 4 |
| ## | 94 | 4 | 1 | 1 | 1 | 4 |
| ## | | 3 | 3 | 1 | 4 | 1 |
| ## | | 4 | 2 | 3 | 2 | 2 |
| | | | | | | |
| ## | | 1 | 4 | 1 | 4 | 1 |
| ## | | 1 | 1 | 1 | 2 | 1 |
| ## | 99 | 2 | 5 | 5 | 3 | 1 |
| | 100 | 2 | 1 | 4 | 1 | 1 |
| | 101 | 3 | 2 | 3 | 2 | 2 |
| | | | | | | |
| ## | 102 | 3 | 3 | 1 | 1 | 2 |

| ## | 103 | 5 | 5 | 2 | 1 | 4 |
|----|-----|---|---|---|---|---|
| | 104 | 3 | 2 | 5 | 4 | 4 |
| | | | | | | |
| | 105 | 4 | 4 | 3 | 3 | 2 |
| ## | 106 | 1 | 1 | 1 | 1 | 2 |
| ## | 107 | 5 | 3 | 5 | 3 | 4 |
| | 108 | 2 | 4 | 2 | 1 | 1 |
| | | | | | | |
| | 109 | 2 | 3 | 2 | 2 | 3 |
| ## | 110 | 3 | 1 | 3 | 1 | 4 |
| ## | 111 | 4 | 4 | 4 | 4 | 1 |
| | 112 | 4 | 5 | 2 | 4 | 4 |
| | 113 | | | | | |
| | _ | 2 | 3 | 5 | 4 | 1 |
| | 114 | 2 | 2 | 2 | 5 | 1 |
| ## | 115 | 3 | 3 | 1 | 1 | 4 |
| ## | 116 | 2 | 3 | 5 | 3 | 2 |
| | 117 | 4 | 5 | 2 | 1 | 1 |
| | | | | | | |
| | 118 | 2 | 1 | 4 | 1 | 1 |
| ## | 119 | 4 | 4 | 2 | 1 | 1 |
| ## | 120 | 2 | 1 | 2 | 3 | 2 |
| | 121 | 5 | 3 | 4 | 3 | 2 |
| | | | | | | |
| | 122 | 4 | 1 | 1 | 3 | 1 |
| ## | 123 | 4 | 5 | 3 | 1 | 3 |
| ## | 124 | 5 | 3 | 3 | 1 | 3 |
| ## | 125 | 5 | 2 | 3 | 1 | 3 |
| | 126 | 3 | 4 | 3 | 2 | 2 |
| | | | | | | |
| | 127 | 1 | 2 | 1 | 1 | 1 |
| ## | 128 | 4 | 4 | 2 | 3 | 3 |
| ## | 129 | 5 | 5 | 5 | 5 | 2 |
| | 130 | 3 | 4 | 3 | 1 | 1 |
| | | _ | | | | |
| | 131 | 3 | 1 | 3 | 3 | 2 |
| | 132 | 1 | 1 | 1 | 3 | 1 |
| ## | 133 | 2 | 2 | 2 | 1 | 1 |
| ## | 134 | 1 | 1 | 3 | 1 | 3 |
| | 135 | 4 | 4 | 4 | 4 | 2 |
| | | | | | | |
| | 136 | 4 | 5 | 1 | 1 | 3 |
| | 137 | 1 | 1 | 1 | 1 | 3 |
| ## | 138 | 4 | 3 | 4 | 2 | 2 |
| ## | 139 | 4 | 2 | 3 | 1 | 2 |
| | 140 | 4 | 1 | 2 | 3 | 2 |
| | | | | | | |
| | 141 | 3 | 2 | 4 | 3 | 2 |
| | 142 | 1 | 5 | 5 | 2 | 1 |
| ## | 143 | 1 | 2 | 3 | 2 | 1 |
| | 144 | 1 | 3 | 3 | 3 | 1 |
| | 145 | | | | | |
| | | 4 | 3 | 4 | 4 | 2 |
| | 146 | 1 | 3 | 2 | 3 | 2 |
| ## | 147 | 1 | 1 | 2 | 5 | 1 |
| ## | 148 | 2 | 4 | 2 | 1 | 1 |
| | 149 | 4 | 3 | 3 | 3 | 2 |
| | | | | | | |
| | 150 | 1 | 1 | 1 | 1 | 2 |
| ## | 151 | 4 | 3 | 1 | 1 | 4 |
| ## | 152 | 4 | 4 | 2 | 2 | 1 |
| | | | | | | |

| ## | 153 | 4 | 3 | 2 | 2 | 2 |
|----|-----|---|---|---|--------|---|
| | 154 | 2 | 1 | 3 | 3 | 3 |
| | | | | | | |
| | 155 | 3 | 3 | 2 | 1 | 3 |
| ## | 156 | 3 | 4 | 2 | 2 | 3 |
| ## | 157 | 3 | 3 | 2 | 1 | 2 |
| | 158 | 1 | 2 | 1 | 1 | 2 |
| | | | | | | |
| | 159 | 3 | 3 | 2 | 5 | 1 |
| ## | 160 | 3 | 4 | 3 | 3 | 3 |
| ## | 161 | 4 | 5 | 1 | 3 | 1 |
| | 162 | 3 | 2 | 2 | 3 | 2 |
| | 163 | _ | | | | |
| | | 2 | 1 | 5 | 1 | 3 |
| | 164 | 1 | 3 | 1 | 5 | 1 |
| ## | 165 | 4 | 5 | 2 | 3 | 2 |
| ## | 166 | 2 | 1 | 5 | 2 | 1 |
| | 167 | 1 | 2 | 2 | 1 | 5 |
| | | | | | | |
| | 168 | 3 | 3 | 3 | 3 | 2 |
| | 169 | 4 | 2 | 1 | 1 | 1 |
| ## | 170 | 3 | 4 | 1 | 1 | 1 |
| ## | 171 | 4 | 5 | 4 | 1 | 1 |
| | 172 | 3 | 2 | 1 | _ 1 | 1 |
| | | | | | | |
| | 173 | 4 | 4 | 2 | 1 | 3 |
| | 174 | 3 | 2 | 1 | 5 | 4 |
| ## | 175 | 1 | 1 | 3 | 1 | 5 |
| ## | 176 | 4 | 2 | 4 | 2 | 1 |
| | 177 | 5 | 4 | 1 | 2 | 1 |
| | | _ | | | | |
| | 178 | 3 | 5 | 2 | 1 | 3 |
| ## | 179 | 4 | 3 | 2 | 1 | 4 |
| ## | 180 | 1 | 1 | 1 | 4 | 5 |
| | 181 | 4 | 4 | 1 | 1 | 1 |
| | 182 | 3 | 3 | 5 | 3 | 3 |
| | | _ | | | | |
| | 183 | 2 | 3 | 4 | 1 | 5 |
| ## | 184 | 3 | 4 | 3 | 4 | 3 |
| ## | 185 | 5 | 5 | 1 | 1 | 2 |
| ## | 186 | 4 | 1 | 5 | 3 | 1 |
| | 187 | 2 | 2 | 3 | 2 | 4 |
| | | | | | | |
| | 188 | 1 | 5 | 1 | 5 | 1 |
| | 189 | 2 | 2 | 2 | 1 | 4 |
| ## | 190 | 3 | 2 | 1 | 1 | 4 |
| ## | 191 | 3 | 3 | 2 | 2 | 3 |
| | 192 | 3 | 4 | 3 | 1 | 4 |
| | | | | | | |
| | 193 | 3 | 2 | 3 | 4 | 1 |
| | 194 | 5 | 5 | 1 | 1 | 3 |
| ## | 195 | 5 | 5 | 1 | 1 | 1 |
| | 196 | 3 | 3 | 2 | 1 | 2 |
| | 197 | 3 | 3 | 3 | 3 | 3 |
| | | | | | | |
| | 198 | 1 | 1 | 3 | 1 | 1 |
| | 199 | 5 | 2 | 2 | 2 | 2 |
| ## | 200 | 1 | 1 | 2 | 4 | 1 |
| | 201 | 4 | 2 | 2 | 2 | 1 |
| | 202 | 5 | 5 | 3 | 2 | 1 |
| ## | 202 | 5 | ر | 5 | 2 | 1 |
| | | | | | | |

| ## | 203 | 1 | 1 | 1 | 4 | 1 |
|----|-----|---|---|---|---|---|
| ## | 204 | 2 | 2 | 4 | 3 | 3 |
| | 205 | | 4 | | | |
| | | 5 | | 3 | 1 | 2 |
| | 206 | 5 | 3 | 4 | 1 | 5 |
| ## | 207 | 4 | 3 | 1 | 1 | 5 |
| ## | 208 | 4 | 2 | 4 | 1 | 4 |
| | 209 | 5 | 3 | 3 | 1 | 2 |
| | 210 | _ | | | | |
| | | 4 | 2 | 4 | 2 | 2 |
| | 211 | 5 | 3 | 4 | 5 | 1 |
| ## | 212 | 5 | 2 | 5 | 4 | 1 |
| ## | 213 | 5 | 5 | 1 | 2 | 5 |
| | 214 | 2 | 4 | 3 | 5 | 2 |
| | 215 | 5 | 4 | 3 | 1 | 2 |
| | | _ | | | | |
| | 216 | 1 | 1 | 5 | 1 | 1 |
| | 217 | 3 | 1 | 1 | 2 | 1 |
| ## | 218 | 4 | 4 | 3 | 2 | 3 |
| ## | 219 | 2 | 2 | 1 | 3 | 2 |
| | 220 | 1 | 1 | 2 | 5 | 1 |
| | 221 | 2 | 5 | | | |
| | | _ | | 3 | 1 | 3 |
| | 222 | 4 | 4 | 3 | 4 | 3 |
| | 223 | 3 | 3 | 3 | 1 | 1 |
| | 224 | 2 | 2 | 5 | 2 | 2 |
| ## | 225 | 3 | 5 | 2 | 1 | 2 |
| ## | 226 | 5 | 5 | 3 | 2 | 2 |
| ## | 227 | 5 | 1 | 4 | 3 | 1 |
| | 228 | 3 | 4 | 4 | 1 | 3 |
| | 229 | 4 | 4 | 3 | 2 | 3 |
| | 230 | 3 | 2 | 2 | 3 | 3 |
| | | | | | | |
| | 231 | 3 | 3 | 5 | 2 | 3 |
| | 232 | 5 | 1 | 5 | 1 | 1 |
| ## | 233 | 3 | 1 | 4 | 3 | 1 |
| ## | 234 | 4 | 3 | 4 | 4 | 1 |
| ## | 235 | 3 | 4 | 5 | 1 | 1 |
| | 236 | 4 | 2 | 4 | 1 | 2 |
| | | 4 | | 4 | | |
| | 237 | - | 2 | - | 1 | 1 |
| | 238 | 2 | 2 | 5 | 3 | 2 |
| | 239 | 3 | 2 | 4 | 1 | 1 |
| ## | 240 | 4 | 4 | 2 | 2 | 4 |
| ## | 241 | 2 | 2 | 1 | 2 | 1 |
| | 242 | 3 | 3 | 2 | 1 | 4 |
| | 243 | 2 | 1 | 4 | 1 | 3 |
| | 244 | 5 | 4 | 3 | 1 | 2 |
| | | | | | | |
| | 245 | 4 | 3 | 5 | 2 | 1 |
| | 246 | 5 | 5 | 3 | 1 | 1 |
| | 247 | 4 | 1 | 5 | 1 | 4 |
| ## | 248 | 3 | 5 | 4 | 2 | 1 |
| | 249 | 2 | 2 | 2 | 3 | 3 |
| | 250 | 4 | 4 | 5 | 2 | 4 |
| | 251 | 2 | 2 | 4 | 2 | 1 |
| | | | | | | |
| ## | 252 | 3 | 2 | 4 | 5 | 2 |
| | | | | | | |

| ## | 253 | 2 | 5 | 4 | 2 | 4 |
|----|-----|---|---|---|---|---|
| ## | 254 | 1 | 1 | 1 | 1 | 1 |
| | 255 | | 2 | 5 | 3 | 2 |
| | | 5 | | | | |
| | 256 | 4 | 4 | 5 | 1 | 4 |
| ## | 257 | 2 | 1 | 5 | 1 | 1 |
| ## | 258 | 3 | 3 | 2 | 5 | 2 |
| | 259 | 3 | 5 | 2 | 1 | 1 |
| | | _ | | | | |
| | 260 | 5 | 2 | 5 | 1 | 5 |
| ## | 261 | 3 | 3 | 3 | 3 | 3 |
| ## | 262 | 1 | 1 | 3 | 1 | 1 |
| | 263 | 3 | 5 | 2 | 3 | 4 |
| | 264 | 4 | 3 | 5 | 3 | 2 |
| | | | | | | |
| | 265 | 3 | 3 | 3 | 3 | 3 |
| ## | 266 | 2 | 1 | 1 | 1 | 1 |
| ## | 267 | 3 | 1 | 4 | 1 | 2 |
| | 268 | 3 | 2 | 3 | 2 | 3 |
| | 269 | _ | 2 | 5 | 1 | 2 |
| | | 3 | | | | |
| | 270 | 3 | 2 | 4 | 2 | 4 |
| ## | 271 | 5 | 5 | 3 | 2 | 1 |
| ## | 272 | 5 | 4 | 2 | 1 | 1 |
| ## | 273 | 3 | 5 | 2 | 1 | 5 |
| | 274 | 4 | 4 | 4 | 4 | 3 |
| | | | | | | |
| | 275 | 4 | 1 | 3 | 2 | 1 |
| | 276 | 3 | 3 | 5 | 4 | 3 |
| ## | 277 | 4 | 3 | 3 | 1 | 1 |
| ## | 278 | 5 | 1 | 2 | 2 | 2 |
| | 279 | 3 | 5 | 4 | 3 | 3 |
| | 280 | _ | | | | |
| | | 1 | 1 | 2 | 2 | 1 |
| | 281 | 2 | 4 | 5 | 5 | 2 |
| ## | 282 | 5 | 2 | 5 | 3 | 2 |
| ## | 283 | 2 | 2 | 3 | 1 | 1 |
| | 284 | 3 | 2 | 3 | 3 | 2 |
| | 285 | 1 | 1 | 1 | 1 | 1 |
| | | | | | | |
| | 286 | 1 | 1 | 1 | 1 | 4 |
| ## | 287 | 3 | 4 | 4 | 1 | 1 |
| ## | 288 | 3 | 4 | 2 | 3 | 3 |
| | 289 | 3 | 1 | 4 | 5 | 1 |
| | 290 | 4 | 1 | 2 | 2 | 3 |
| | | _ | | | | |
| | 291 | 4 | 3 | 4 | 1 | 1 |
| | 292 | 4 | 3 | 3 | 2 | 3 |
| ## | 293 | 3 | 3 | 5 | 2 | 1 |
| ## | 294 | 3 | 5 | 2 | 1 | 2 |
| | 295 | 3 | 4 | 4 | 1 | 2 |
| | 296 | | | | | |
| | | 5 | 5 | 3 | 1 | 4 |
| | 297 | 3 | 3 | 1 | 5 | 1 |
| ## | 298 | 2 | 4 | 2 | 4 | 2 |
| ## | 299 | 5 | 1 | 5 | 2 | 1 |
| | 300 | 2 | 2 | 3 | 1 | 2 |
| | 301 | 3 | 5 | 1 | 1 | 5 |
| | | | | | | |
| ## | 302 | 1 | 2 | 1 | 1 | 4 |
| | | | | | | |

| ## | 303 | 4 | 1 | 5 | 1 | 2 |
|----|-----|---|---|---|---|---|
| | 304 | 3 | 1 | 5 | 1 | 1 |
| | | | | | | |
| | 305 | 2 | 1 | 2 | 1 | 3 |
| ## | 306 | 4 | 5 | 1 | 1 | 2 |
| ## | 307 | 5 | 5 | 5 | 4 | 1 |
| | 308 | 5 | 3 | 3 | 1 | 1 |
| | | | | | | |
| | 309 | 1 | 2 | 3 | 4 | 1 |
| ## | 310 | 4 | 2 | 2 | 2 | 1 |
| ## | 311 | 1 | 1 | 3 | 5 | 3 |
| | 312 | 3 | 3 | 5 | 2 | 5 |
| | 313 | 3 | | | 2 | |
| | | _ | 2 | 1 | | 1 |
| | 314 | 4 | 2 | 4 | 2 | 2 |
| ## | 315 | 5 | 5 | 5 | 5 | 4 |
| ## | 316 | 1 | 2 | 2 | 1 | 2 |
| | 317 | 1 | 2 | 2 | 4 | 2 |
| | | | | | | |
| | 318 | 3 | 3 | 4 | 4 | 1 |
| | 319 | 4 | 3 | 3 | 2 | 1 |
| ## | 320 | 3 | 4 | 4 | 3 | 2 |
| ## | 321 | 2 | 5 | 2 | 4 | 1 |
| | 322 | | | 4 | | |
| | | 5 | 3 | | 3 | 1 |
| | 323 | 5 | 5 | 3 | 1 | 2 |
| ## | 324 | 3 | 1 | 3 | 1 | 5 |
| ## | 325 | 3 | 3 | 3 | 2 | 2 |
| | 326 | 4 | 3 | 3 | 4 | 2 |
| | | | | | | |
| | 327 | 3 | 3 | 3 | 3 | 1 |
| | 328 | 4 | 2 | 3 | 1 | 2 |
| ## | 329 | 2 | 5 | 3 | 1 | 1 |
| ## | 330 | 3 | 2 | 2 | 3 | 1 |
| | 331 | 3 | 4 | 1 | 3 | 2 |
| | | | | | | |
| | 332 | 5 | 1 | 2 | 4 | 1 |
| | 333 | 1 | 1 | 5 | 1 | 1 |
| ## | 334 | 3 | 2 | 3 | 2 | 2 |
| ## | 335 | 1 | 4 | 4 | 1 | 1 |
| | 336 | 3 | 2 | 2 | 4 | 2 |
| | | | | | | |
| | 337 | 2 | 3 | 1 | 4 | 2 |
| | 338 | 1 | 2 | 1 | 5 | 3 |
| ## | 339 | 2 | 1 | 1 | 2 | 2 |
| | 340 | 5 | 5 | 2 | 1 | 3 |
| | 341 | 2 | 4 | 2 | 1 | 3 |
| | | | | | | |
| | 342 | 1 | 1 | 1 | 5 | 1 |
| ## | 343 | 3 | 3 | 4 | 3 | 2 |
| ## | 344 | 5 | 2 | 5 | 1 | 2 |
| | 345 | 4 | 3 | 3 | 1 | 1 |
| | | | | | | |
| | 346 | 2 | 2 | 2 | 3 | 1 |
| | 347 | 3 | 1 | 2 | 4 | 1 |
| ## | 348 | 2 | 1 | 1 | 2 | 1 |
| ## | 349 | 5 | 3 | 3 | 2 | 5 |
| | 350 | 3 | 1 | 2 | 4 | 1 |
| | | | | | | |
| | 351 | 1 | 3 | 1 | 2 | 1 |
| ## | 352 | 4 | 5 | 3 | 1 | 3 |
| | | | | | | |

| ## | 353 | 5 | 1 | 2 | 1 | 2 |
|----|-----|---|---|---|---|---|
| | 354 | 3 | 5 | 2 | 1 | 3 |
| | | | | | | |
| | 355 | 2 | 3 | 2 | 3 | 4 |
| ## | 356 | 2 | 1 | 3 | 2 | 1 |
| ## | 357 | 4 | 2 | 3 | 2 | 3 |
| | 358 | 1 | 1 | 4 | 3 | 2 |
| | | | | | | |
| | 359 | 4 | 1 | 2 | 2 | 3 |
| ## | 360 | 3 | 1 | 3 | 2 | 3 |
| ## | 361 | 4 | 3 | 3 | 1 | 2 |
| | 362 | 1 | 1 | 1 | 1 | 1 |
| | 363 | _ | | | 2 | |
| | | 4 | 3 | 4 | | 4 |
| | 364 | 4 | 4 | 4 | 1 | 5 |
| ## | 365 | 4 | 3 | 1 | 2 | 1 |
| ## | 366 | 5 | 5 | 1 | 2 | 4 |
| | 367 | 1 | 1 | 1 | 3 | 1 |
| | | | | | | |
| | 368 | 5 | 5 | 1 | 3 | 1 |
| ## | 369 | 3 | 1 | 5 | 2 | 3 |
| ## | 370 | 2 | 3 | 1 | 5 | 1 |
| | 371 | 3 | 2 | 4 | 1 | 2 |
| | 372 | _ | | | 2 | |
| | | 5 | 3 | 5 | | 5 |
| | 373 | 3 | 4 | 2 | 4 | 2 |
| ## | 374 | 1 | 1 | 1 | 1 | 1 |
| ## | 375 | 2 | 1 | 2 | 3 | 1 |
| | 376 | 1 | 1 | 3 | 3 | 1 |
| | | | | | | |
| | 377 | 1 | 1 | 2 | 1 | 1 |
| | 378 | 4 | 5 | 3 | 1 | 1 |
| ## | 379 | 2 | 2 | 3 | 3 | 1 |
| ## | 380 | 3 | 2 | 4 | 2 | 4 |
| | 381 | 4 | 2 | 5 | 5 | 1 |
| | | | | | | |
| | 382 | 3 | 3 | 2 | 1 | 4 |
| ## | 383 | 2 | 2 | 5 | 4 | 1 |
| ## | 384 | 3 | 5 | 1 | 2 | 3 |
| ## | 385 | 4 | 5 | 2 | 1 | 1 |
| | 386 | 5 | 4 | 5 | 3 | 3 |
| | | | | | | |
| | 387 | 3 | 3 | 2 | 4 | 1 |
| ## | 388 | 3 | 2 | 5 | 2 | 1 |
| ## | 389 | 4 | 3 | 5 | 3 | 3 |
| | 390 | 3 | 2 | 5 | 1 | 2 |
| | 391 | _ | 4 | | 3 | |
| | | 3 | | 3 | | 3 |
| | 392 | 3 | 2 | 2 | 1 | 2 |
| ## | 393 | 2 | 2 | 5 | 2 | 1 |
| ## | 394 | 2 | 2 | 1 | 1 | 1 |
| | 395 | 3 | 2 | 2 | 1 | 1 |
| | | | | | | |
| | 396 | 4 | 5 | 1 | 5 | 1 |
| | 397 | 3 | 1 | 2 | 2 | 5 |
| ## | 398 | 2 | 1 | 4 | 1 | 1 |
| | 399 | 4 | 3 | 4 | 5 | 2 |
| | 400 | 3 | | 2 | 1 | |
| | | | 4 | | | 5 |
| | 401 | 2 | 2 | 1 | 4 | 3 |
| ## | 402 | 2 | 2 | 3 | 1 | 2 |
| | | | | | | |

| ## | 403 | 1 | 2 | 1 | 3 | 3 |
|----|-----|---|---|---|---|---|
| | 404 | 4 | 3 | 3 | 1 | 3 |
| | | | | | | |
| | 405 | 5 | 5 | 1 | 5 | 3 |
| ## | 406 | 3 | 3 | 3 | 2 | 3 |
| ## | 407 | 4 | 1 | 5 | 4 | 4 |
| | 408 | 3 | 2 | 2 | 2 | 2 |
| | 409 | | | | | |
| | | 5 | 3 | 5 | 1 | 5 |
| | 410 | 4 | 3 | 2 | 4 | 1 |
| ## | 411 | 5 | 3 | 1 | 1 | 1 |
| ## | 412 | 3 | 1 | 5 | 2 | 2 |
| | 413 | 1 | 1 | 1 | 5 | 1 |
| | | | | | | |
| | 414 | 4 | 2 | 2 | 3 | 2 |
| ## | 415 | 4 | 4 | 2 | 2 | 2 |
| ## | 416 | 5 | 3 | 3 | 3 | 1 |
| | 417 | 2 | 1 | 3 | 4 | 1 |
| | | | | | | |
| | 418 | 4 | 4 | 1 | 1 | 2 |
| | 419 | 2 | 2 | 4 | 1 | 2 |
| ## | 420 | 5 | 5 | 3 | 3 | 5 |
| ## | 421 | 1 | 1 | 1 | 1 | 3 |
| | 422 | 3 | 2 | 3 | 2 | 3 |
| | | | | | | |
| | 423 | 1 | 1 | 5 | 5 | 3 |
| ## | 424 | 3 | 3 | 3 | 2 | 3 |
| ## | 425 | 1 | 1 | 2 | 5 | 1 |
| | 426 | 4 | 5 | 1 | 2 | 3 |
| | 427 | _ | | | | 1 |
| | | 4 | 4 | 2 | 1 | |
| | 428 | 3 | 5 | 3 | 2 | 4 |
| ## | 429 | 2 | 1 | 2 | 3 | 3 |
| ## | 430 | 3 | 5 | 1 | 1 | 2 |
| | 431 | 3 | 3 | 4 | 3 | 2 |
| | | | | | | |
| | 432 | 2 | 2 | 4 | 5 | 4 |
| | 433 | 4 | 5 | 3 | 1 | 1 |
| ## | 434 | 3 | 5 | 3 | 2 | 2 |
| ## | 435 | 2 | 1 | 5 | 4 | 1 |
| | 436 | 5 | 3 | 1 | 1 | 1 |
| | | | | | | |
| | 437 | 3 | 2 | 4 | 3 | 2 |
| | 438 | 3 | 1 | 1 | 4 | 1 |
| ## | 439 | 2 | 1 | 2 | 1 | 2 |
| | 440 | 3 | 3 | 2 | 4 | 1 |
| | 441 | 4 | 3 | 3 | 4 | 1 |
| | | | | | | |
| | 442 | 1 | 1 | 5 | 1 | 1 |
| ## | 443 | 4 | 2 | 2 | 2 | 1 |
| ## | 444 | 3 | 2 | 3 | 3 | 3 |
| | 445 | 5 | 5 | 2 | 4 | 2 |
| | 446 | | | | | |
| | | 2 | 2 | 5 | 1 | 1 |
| | 447 | 2 | 1 | 1 | 4 | 1 |
| ## | 448 | 1 | 1 | 1 | 1 | 2 |
| ## | 449 | 4 | 3 | 2 | 3 | 2 |
| | 450 | 5 | 2 | 5 | 1 | 1 |
| | | | | | | |
| | 451 | 1 | 1 | 3 | 1 | 4 |
| ## | 452 | 2 | 2 | 3 | 3 | 1 |
| | | | | | | |

| ## | 453 | 4 | 3 | 1 | 3 | 1 |
|----|-----|---|---|---|---|---|
| | 454 | 5 | 2 | 5 | 1 | 1 |
| | | | | | | |
| | 455 | 4 | 4 | 2 | 1 | 1 |
| ## | 456 | 3 | 2 | 2 | 4 | 2 |
| ## | 457 | 2 | 3 | 1 | 1 | 1 |
| | | | | | | |
| | 458 | 3 | 3 | 2 | 4 | 1 |
| ## | 459 | 5 | 5 | 5 | 5 | 5 |
| ## | 460 | 3 | 5 | 2 | 3 | 3 |
| | 461 | 1 | 3 | 1 | 1 | 1 |
| | | | | | | |
| ## | 462 | 3 | 3 | 4 | 2 | 4 |
| ## | 463 | 3 | 4 | 2 | 3 | 1 |
| | 464 | 1 | 5 | 5 | 1 | 1 |
| | | | | | | |
| | 465 | 4 | 2 | 5 | 3 | 2 |
| ## | 466 | 2 | 3 | 5 | 2 | 2 |
| ## | 467 | 3 | 1 | 3 | 5 | 1 |
| | 468 | _ | 2 | 2 | 2 | |
| | | 2 | | | | 1 |
| ## | 469 | 5 | 2 | 2 | 2 | 2 |
| ## | 470 | 5 | 4 | 1 | 4 | 1 |
| ## | 471 | 3 | 1 | 3 | 1 | 3 |
| | | | | | | |
| | 472 | 4 | 5 | 2 | 2 | 1 |
| ## | 473 | 2 | 1 | 1 | 1 | 2 |
| ## | 474 | 1 | 4 | 1 | 1 | 1 |
| | 475 | | | | | |
| | | 1 | 3 | 1 | 5 | 1 |
| ## | 476 | 5 | 3 | 4 | 1 | 2 |
| ## | 477 | 5 | 5 | 5 | 1 | 2 |
| ## | 478 | 5 | 5 | 2 | 1 | 1 |
| | | | | | | |
| | 479 | 4 | 4 | 2 | 3 | 2 |
| ## | 480 | 4 | 1 | 4 | 2 | 2 |
| ## | 481 | 5 | 4 | 5 | 4 | 4 |
| | 482 | 4 | 4 | 1 | 5 | 4 |
| | | | | | | |
| | 483 | 1 | 1 | 1 | 1 | 1 |
| ## | 484 | 3 | 1 | 5 | 1 | 1 |
| ## | 485 | 2 | 2 | 2 | 2 | 2 |
| | 486 | 4 | 4 | 4 | 1 | 1 |
| | | 4 | 4 | _ | | 1 |
| | 487 | 3 | 3 | 3 | 2 | 1 |
| ## | 488 | 2 | 3 | 1 | 1 | 1 |
| | 489 | 5 | 4 | 3 | 1 | 4 |
| | 490 | | 5 | 1 | 1 | |
| | | 5 | | | | 1 |
| | 491 | 2 | 1 | 5 | 4 | 2 |
| ## | 492 | 3 | 1 | 5 | 1 | 2 |
| | 493 | 4 | 5 | 3 | 2 | 2 |
| | | | | | | |
| | 494 | 3 | 3 | 4 | 2 | 1 |
| ## | 495 | 4 | 5 | 2 | 1 | 2 |
| ## | 496 | 5 | 5 | 2 | 2 | 1 |
| | 497 | 4 | 3 | 4 | 2 | 4 |
| | | | | | | |
| | 498 | 5 | 1 | 4 | 1 | 5 |
| ## | 499 | 3 | 5 | 3 | 1 | 1 |
| ## | 500 | 3 | 3 | 1 | 3 | 2 |
| | | _ | | | | |
| | 501 | 4 | 5 | 4 | 4 | 4 |
| ## | 502 | 4 | 2 | 5 | 2 | 2 |
| | | | | | | |

| ## | 503 | 5 | 3 | 1 | 3 | 3 |
|----|-----|---|---|---|---|---|
| | 504 | 2 | 1 | 4 | 5 | 4 |
| | | | | | | |
| | 505 | 2 | 2 | 2 | 1 | 1 |
| ## | 506 | 4 | 4 | 2 | 1 | 1 |
| ## | 507 | 1 | 2 | 1 | 2 | 1 |
| | 508 | 4 | 4 | 4 | 1 | 2 |
| | | | | | | |
| | 509 | 5 | 5 | 1 | 1 | 1 |
| ## | 510 | 1 | 2 | 3 | 4 | 1 |
| ## | 511 | 3 | 3 | 3 | 2 | 4 |
| | 512 | 3 | 3 | 2 | 1 | 1 |
| | | | | | | |
| | 513 | 1 | 3 | 4 | 4 | 2 |
| ## | 514 | 3 | 3 | 3 | 3 | 1 |
| ## | 515 | 5 | 3 | 2 | 1 | 2 |
| ## | 516 | 3 | 4 | 2 | 1 | 2 |
| | 517 | 3 | 3 | 2 | 4 | 3 |
| | | | | | | |
| | 518 | 1 | 3 | 4 | 4 | 4 |
| ## | 519 | 2 | 2 | 5 | 4 | 4 |
| ## | 520 | 2 | 2 | 2 | 4 | 1 |
| | 521 | 2 | 2 | 4 | 2 | 1 |
| | | | | | | |
| | 522 | 4 | 2 | 5 | 3 | 3 |
| | 523 | 3 | 3 | 4 | 4 | 3 |
| ## | 524 | 4 | 2 | 2 | 3 | 1 |
| ## | 525 | 3 | 5 | 2 | 1 | 3 |
| | 526 | 3 | 3 | 3 | 1 | 3 |
| | | | | | | |
| | 527 | 4 | 3 | 3 | 1 | 1 |
| ## | 528 | 4 | 4 | 4 | 2 | 1 |
| ## | 529 | 5 | 1 | 1 | 3 | 2 |
| ## | 530 | 3 | 4 | 3 | 1 | 2 |
| | 531 | 1 | 4 | 3 | 1 | 1 |
| | | | | | | |
| | 532 | 5 | 5 | 2 | 1 | 1 |
| ## | 533 | 3 | 3 | 4 | 4 | 2 |
| ## | 534 | 5 | 5 | 3 | 3 | 2 |
| | 535 | 3 | 2 | 4 | 2 | 2 |
| | 536 | _ | | | 4 | 1 |
| | | 5 | 1 | 4 | | |
| | 537 | 1 | 1 | 3 | 5 | 1 |
| ## | 538 | 3 | 5 | 1 | 2 | 3 |
| ## | 539 | 3 | 3 | 3 | 3 | 2 |
| | 540 | 3 | 4 | 1 | 1 | 4 |
| | | _ | | | | |
| | 541 | 5 | 3 | 3 | 3 | 5 |
| | 542 | 2 | 2 | 3 | 1 | 1 |
| ## | 543 | 3 | 5 | 4 | 2 | 2 |
| ## | 544 | 4 | 4 | 4 | 4 | 2 |
| | 545 | 4 | 5 | 3 | 1 | 3 |
| | | | | | | |
| | 546 | 3 | 3 | 1 | 3 | 1 |
| | 547 | 5 | 4 | 5 | 1 | 5 |
| ## | 548 | 4 | 3 | 1 | 1 | 5 |
| | 549 | 4 | 4 | 1 | 1 | 1 |
| | | | | | | |
| | 550 | 1 | 2 | 4 | 4 | 2 |
| | 551 | 5 | 4 | 2 | 1 | 2 |
| ## | 552 | 1 | 1 | 2 | 1 | 2 |
| | | | | | | |

| ## | 553 | 3 | 5 | 5 | 2 | 2 |
|----|-----|---|---|---|---|---|
| | 554 | 1 | 3 | 2 | 3 | 2 |
| | | | | | | |
| | 555 | 3 | 2 | 3 | 3 | 1 |
| ## | 556 | 1 | 2 | 4 | 2 | 1 |
| ## | 557 | 2 | 1 | 1 | 2 | 1 |
| | | _ | | | | |
| | 558 | 4 | 3 | 3 | 1 | 2 |
| ## | 559 | 3 | 2 | 5 | 2 | 2 |
| ## | 560 | 2 | 1 | 1 | 1 | 1 |
| | 561 | 4 | 3 | 4 | 2 | 3 |
| | | | | | | |
| | 562 | 4 | 2 | 4 | 4 | 3 |
| ## | 563 | 2 | 2 | 1 | 1 | 1 |
| ## | 564 | 3 | 3 | 1 | 2 | 1 |
| | 565 | 2 | 1 | 1 | 2 | 1 |
| | | | | | | |
| | 566 | 2 | 2 | 2 | 3 | 3 |
| ## | 567 | 2 | 1 | 3 | 2 | 1 |
| ## | 568 | 3 | 2 | 2 | 2 | 1 |
| | 569 | _ | 3 | 3 | 3 | |
| | | 1 | | | | 1 |
| | 570 | 2 | 3 | 3 | 2 | 1 |
| ## | 571 | 3 | 2 | 2 | 1 | 1 |
| ## | 572 | 1 | 1 | 1 | 4 | 1 |
| | 573 | _ | | | | |
| | | 2 | 1 | 1 | 1 | 2 |
| ## | 574 | 3 | 4 | 1 | 4 | 1 |
| ## | 575 | 1 | 2 | 2 | 5 | 1 |
| ## | 576 | 3 | 4 | 5 | 2 | 2 |
| | 577 | 2 | 2 | 2 | 3 | 2 |
| | | | | | | |
| | 578 | 1 | 1 | 2 | 2 | 1 |
| ## | 579 | 4 | 3 | 4 | 1 | 2 |
| ## | 580 | 5 | 3 | 2 | 5 | 1 |
| | 581 | 2 | 2 | 1 | 3 | 1 |
| | | | | | | |
| | 582 | 2 | 5 | 2 | 5 | 1 |
| ## | 583 | 3 | 3 | 3 | 4 | 2 |
| ## | 584 | 4 | 2 | 3 | 1 | 1 |
| | 585 | 3 | 1 | 4 | 4 | 2 |
| | | _ | | | | |
| | 586 | 4 | 3 | 4 | 4 | 2 |
| ## | 587 | 1 | 5 | 3 | 5 | 1 |
| ## | 588 | 3 | 2 | 1 | 2 | 1 |
| | 589 | 2 | 1 | 5 | 1 | 2 |
| | | | | | | |
| | 590 | 5 | 3 | 2 | 2 | 2 |
| ## | 591 | 5 | 3 | 4 | 1 | 2 |
| ## | 592 | 2 | 2 | 5 | 1 | 2 |
| | 593 | 2 | 2 | 5 | 4 | 1 |
| | | | | | | |
| | 594 | 3 | 4 | 4 | 1 | 2 |
| ## | 595 | 1 | 5 | 1 | 1 | 3 |
| ## | 596 | 2 | 1 | 1 | 1 | 1 |
| | 597 | 2 | 2 | 2 | 5 | 1 |
| | | | | | | |
| | 598 | 4 | 3 | 3 | 3 | 2 |
| ## | 599 | 3 | 2 | 5 | 3 | 2 |
| ## | 600 | 4 | 4 | 2 | 3 | 1 |
| | 601 | 2 | 4 | 1 | 4 | 1 |
| | | | | | | |
| ## | 602 | 5 | 5 | 4 | 1 | 2 |
| | | | | | | |

| ## | 603 | 4 | 3 | 3 | 3 | 1 |
|----|-----|---|---|---|---|---|
| | 604 | 2 | 4 | 4 | 4 | 2 |
| | | | | | | |
| | 605 | 2 | 5 | 2 | 1 | 1 |
| ## | 606 | 4 | 1 | 1 | 1 | 2 |
| ## | 607 | 3 | 2 | 2 | 1 | 2 |
| | 608 | 4 | 1 | 4 | 1 | 2 |
| | 609 | 4 | 4 | 4 | 1 | 5 |
| | | | | | | |
| | 610 | 2 | 3 | 2 | 4 | 3 |
| | 611 | 5 | 4 | 2 | 3 | 2 |
| ## | 612 | 2 | 1 | 1 | 3 | 1 |
| ## | 613 | 2 | 3 | 5 | 5 | 3 |
| | 614 | 3 | 4 | 4 | 3 | 1 |
| | | | | | | |
| | 615 | 3 | 1 | 2 | 5 | 1 |
| | 616 | 3 | 5 | 3 | 3 | 2 |
| ## | 617 | 5 | 1 | 4 | 4 | 1 |
| ## | 618 | 1 | 1 | 5 | 1 | 5 |
| | 619 | 1 | 3 | 5 | 1 | 5 |
| | 620 | 3 | 2 | 3 | 2 | 5 |
| | | | | | | |
| | 621 | 3 | 3 | 2 | 2 | 1 |
| | 622 | 2 | 5 | 2 | 5 | 1 |
| ## | 623 | 5 | 3 | 3 | 4 | 3 |
| ## | 624 | 2 | 1 | 1 | 1 | 1 |
| ## | 625 | 4 | 1 | 2 | 1 | 1 |
| | 626 | 4 | 3 | 5 | 2 | 1 |
| | 627 | 2 | 2 | 3 | 4 | 2 |
| | 628 | 3 | 4 | 3 | 2 | 1 |
| | 629 | 3 | 3 | 3 | 2 | 1 |
| | 630 | 2 | 2 | 5 | 3 | 2 |
| | 631 | 4 | 2 | 5 | 5 | 1 |
| | 632 | 2 | 3 | 5 | 3 | 3 |
| | | | | | | |
| | 633 | 3 | 3 | 2 | 4 | 2 |
| | 634 | 2 | 1 | 3 | 1 | 1 |
| ## | 635 | 3 | 4 | 3 | 2 | 3 |
| ## | 636 | 4 | 1 | 4 | 1 | 2 |
| | 637 | 5 | 5 | 5 | 3 | 4 |
| | 638 | 2 | 1 | 1 | 2 | 3 |
| | | | | | | |
| | 639 | 4 | 3 | 3 | 1 | 3 |
| | 640 | 5 | 5 | 1 | 1 | 1 |
| | 641 | 1 | 1 | 1 | 1 | 1 |
| | 642 | 3 | 3 | 3 | 3 | 3 |
| | 643 | 1 | 3 | 3 | 3 | 5 |
| | 644 | 4 | 1 | 5 | 2 | 4 |
| ## | 645 | 2 | 1 | 3 | 1 | 2 |
| ## | 646 | 2 | 4 | 4 | 5 | 3 |
| | 647 | 3 | 1 | 3 | 2 | 2 |
| | 648 | 5 | 3 | 5 | 1 | 1 |
| | 649 | 4 | 1 | 5 | 2 | 2 |
| | 650 | 4 | 3 | 3 | 2 | 2 |
| | 651 | 2 | 1 | 2 | 3 | 1 |
| | 652 | 3 | 3 | 4 | 4 | 3 |
| тπ | 052 | , | , | 7 | - | |

| ## | 653 | 2 | 1 | 2 | 1 | 1 |
|----|-----|---|---|---|---|---|
| | 654 | 5 | 2 | 4 | 1 | 4 |
| | 655 | | 2 | | | |
| | | 2 | | 4 | 3 | 2 |
| | 656 | 3 | 3 | 2 | 4 | 1 |
| ## | 657 | 4 | 3 | 1 | 1 | 4 |
| ## | 658 | 2 | 2 | 2 | 1 | 1 |
| | 659 | 2 | 3 | 2 | 4 | 1 |
| | | | | | | |
| | 660 | 3 | 5 | 2 | 1 | 2 |
| | 661 | 3 | 3 | 2 | 1 | 2 |
| ## | 662 | 1 | 1 | 1 | 2 | 1 |
| ## | 663 | 3 | 1 | 1 | 2 | 2 |
| | 664 | 3 | 4 | 3 | 2 | 2 |
| | | _ | | | | |
| | 665 | 4 | 3 | 5 | 1 | 3 |
| | 666 | 5 | 5 | 3 | 4 | 4 |
| ## | 667 | 4 | 5 | 1 | 1 | 1 |
| ## | 668 | 1 | 2 | 2 | 1 | 2 |
| | 669 | 5 | 5 | 4 | 1 | 2 |
| | 670 | 3 | 4 | 4 | 4 | 2 |
| | | _ | | | | |
| | 671 | 2 | 2 | 5 | 2 | 2 |
| | 672 | 4 | 4 | 4 | 4 | 3 |
| ## | 673 | 2 | 3 | 3 | 1 | 5 |
| ## | 674 | 4 | 3 | 4 | 1 | 4 |
| | 675 | 3 | 1 | 3 | 1 | 1 |
| | 676 | 3 | 1 | 3 | 3 | 2 |
| | 677 | 1 | 5 | 2 | 2 | 2 |
| | 678 | 3 | 1 | 4 | 1 | 1 |
| | 679 | 4 | 4 | 4 | 1 | 5 |
| | 680 | 5 | 5 | 2 | 3 | 1 |
| | 681 | 5 | 2 | 5 | 5 | 1 |
| | 682 | | 4 | | 4 | 4 |
| | | 3 | | 4 | | |
| | 683 | 4 | 3 | 2 | 5 | 2 |
| | 684 | 5 | 1 | 5 | 1 | 1 |
| ## | 685 | 3 | 2 | 4 | 1 | 1 |
| ## | 686 | 4 | 1 | 4 | 3 | 2 |
| | 687 | 3 | 3 | 3 | 3 | 3 |
| | 688 | 5 | 3 | 2 | 1 | 1 |
| | | | | | | |
| | 689 | 2 | 1 | 4 | 1 | 1 |
| | 690 | 2 | 2 | 4 | 3 | 2 |
| ## | 691 | 4 | 4 | 3 | 3 | 2 |
| | 692 | 5 | 5 | 4 | 2 | 2 |
| ## | 693 | 4 | 4 | 2 | 2 | 2 |
| ## | 694 | 3 | 3 | 4 | 4 | 1 |
| ## | 695 | 5 | 1 | 5 | 4 | 3 |
| ## | 696 | 4 | 4 | 4 | 3 | 4 |
| | 697 | 3 | 1 | 3 | 3 | 1 |
| | 698 | 2 | 2 | 3 | 1 | 2 |
| | 699 | 2 | 2 | 5 | 2 | 2 |
| | 700 | 2 | 1 | 5 | 2 | 1 |
| | 701 | 2 | 1 | 4 | 1 | 1 |
| | 702 | 3 | 2 | 3 | 5 | 4 |
| | | - | _ | _ | _ | • |

| ## | 703 | 3 | 3 | 3 | 1 | 4 |
|----|-----|---|---|---|---|---|
| | 704 | | | 3 | 1 | 2 |
| | | 3 | 3 | | | |
| ## | 705 | 4 | 3 | 5 | 2 | 1 |
| ## | 706 | 4 | 5 | 3 | 3 | 2 |
| | 707 | | | | | |
| | | 1 | 3 | 2 | 3 | 2 |
| ## | 708 | 3 | 4 | 2 | 2 | 4 |
| ## | 709 | 1 | 4 | 1 | 4 | 1 |
| | 710 | 4 | 5 | 4 | 2 | 2 |
| | | | | | | |
| | 711 | 2 | 2 | 2 | 1 | 1 |
| ## | 712 | 4 | 1 | 4 | 1 | 1 |
| ## | 713 | 2 | 2 | 4 | 1 | 3 |
| | 714 | | | | | |
| | | 5 | 5 | 4 | 2 | 2 |
| ## | 715 | 3 | 3 | 3 | 3 | 1 |
| ## | 716 | 3 | 2 | 3 | 1 | 3 |
| | 717 | 3 | 2 | 2 | 3 | 3 |
| | | | | | | |
| | 718 | 3 | 3 | 1 | 1 | 1 |
| ## | 719 | 3 | 3 | 2 | 2 | 4 |
| ## | 720 | 2 | 2 | 2 | 3 | 1 |
| | 721 | | | | 2 | |
| | | 3 | 5 | 4 | | 4 |
| | 722 | 3 | 4 | 3 | 1 | 2 |
| ## | 723 | 4 | 5 | 5 | 2 | 2 |
| ## | 724 | 3 | 2 | 2 | 1 | 2 |
| | | _ | | | | |
| | 725 | 4 | 2 | 5 | 2 | 3 |
| ## | 726 | 2 | 4 | 3 | 3 | 1 |
| ## | 727 | 2 | 1 | 2 | 4 | 1 |
| | 728 | 3 | 1 | 5 | 5 | 1 |
| | | | | | | |
| | 729 | 3 | 3 | 2 | 3 | 1 |
| ## | 730 | 5 | 4 | 3 | 3 | 3 |
| ## | 731 | 2 | 4 | 1 | 1 | 2 |
| | 732 | _ | | | | |
| | | 4 | 5 | 3 | 2 | 2 |
| | 733 | 3 | 2 | 3 | 2 | 2 |
| ## | 734 | 4 | 3 | 5 | 1 | 4 |
| ## | 735 | 3 | 2 | 4 | 1 | 5 |
| | | _ | | | | |
| | 736 | 2 | 1 | 1 | 1 | 3 |
| ## | 737 | 5 | 2 | 5 | 2 | 4 |
| ## | 738 | 5 | 4 | 4 | 3 | 2 |
| | 739 | 4 | 1 | 1 | 4 | 2 |
| | | | | | | |
| | 740 | 5 | 2 | 3 | 3 | 4 |
| ## | 741 | 3 | 3 | 3 | 2 | 1 |
| ## | 742 | 4 | 4 | 4 | 1 | 5 |
| | 743 | 3 | 4 | 5 | 5 | 2 |
| | | | | | | |
| | 744 | 3 | 4 | 2 | 1 | 1 |
| ## | 745 | 5 | 5 | 3 | 1 | 3 |
| ## | 746 | 3 | 2 | 5 | 5 | 2 |
| | 747 | 4 | 4 | 4 | 2 | 2 |
| | | | | | | |
| | 748 | 2 | 5 | 3 | 3 | 5 |
| ## | 749 | 3 | 3 | 3 | 3 | 3 |
| | 750 | 5 | 5 | 1 | 1 | 1 |
| | | | | | | |
| | 751 | 4 | 5 | 5 | 1 | 4 |
| ## | 752 | 3 | 3 | 4 | 2 | 5 |
| | | | | | | |

| ## 753 | 2 | 2 | 5 | 4 | 2 | |
|--------|---|---|---|--------|---|--|
| ## 754 | 5 | 5 | 3 | 1 | 2 | |
| ## 755 | 3 | 2 | 4 | 3 | 3 | |
| | _ | | | | | |
| ## 756 | 5 | 2 | 3 | 1 | 1 | |
| ## 757 | 4 | 4 | 3 | 4 | 2 | |
| ## 758 | 3 | 2 | 5 | 5 | 3 | |
| ## 759 | 2 | 2 | 1 | 5 | 1 | |
| ## 760 | | | | 2 | | |
| | 5 | 4 | 4 | | 5 | |
| ## 761 | 4 | 4 | 2 | 3 | 2 | |
| ## 762 | 1 | 3 | 1 | 2 | 1 | |
| ## 763 | 3 | 5 | 1 | 3 | 1 | |
| ## 764 | 3 | 4 | 1 | 3 | 3 | |
| ## 765 | | 2 | | | | |
| | 3 | | 4 | 1 | 3 | |
| ## 766 | 5 | 4 | 2 | 2 | 1 | |
| ## 767 | 5 | 3 | 4 | 4 | 4 | |
| ## 768 | 4 | 4 | 3 | 2 | 3 | |
| ## 769 | 3 | 3 | 3 | 3 | 1 | |
| ## 770 | 3 | 3 | 3 | 3 | 3 | |
| | _ | | _ | | | |
| ## 771 | 1 | 1 | 1 | 1 | 1 | |
| ## 772 | 3 | 2 | 2 | 1 | 4 | |
| ## 773 | 4 | 2 | 4 | 1 | 2 | |
| ## 774 | 4 | 4 | 4 | 2 | 2 | |
| ## 775 | | 2 | | 1 | 4 | |
| | 3 | | 3 | | | |
| ## 776 | 3 | 4 | 4 | 5 | 4 | |
| ## 777 | 5 | 2 | 5 | 5 | 3 | |
| ## 778 | 3 | 3 | 3 | 3 | 2 | |
| ## 779 | 2 | 1 | 1 | 1 | 1 | |
| ## 780 | 3 | 4 | 2 | 3 | 3 | |
| | _ | | | | | |
| ## 781 | 3 | 2 | 4 | 4 | 2 | |
| ## 782 | 4 | 1 | 3 | 2 | 3 | |
| ## 783 | 5 | 5 | 4 | 2 | 3 | |
| ## 784 | 3 | 2 | 3 | 4 | 3 | |
| ## 785 | 2 | 2 | 3 | 4 | 3 | |
| ## 786 | | | | | | |
| | 2 | 3 | 3 | 1 | 3 | |
| ## 787 | 5 | 4 | 4 | 3 | 2 | |
| ## 788 | 3 | 3 | 3 | 3 | 1 | |
| ## 789 | 2 | 4 | 3 | 1 | 2 | |
| ## 790 | 1 | 3 | 3 | 4 | 4 | |
| ## 791 | 5 | 5 | 1 | 4 | 1 | |
| | | | | | | |
| ## 792 | 3 | 4 | 3 | 3 | 2 | |
| ## 793 | 1 | 1 | 3 | 3 | 1 | |
| ## 794 | 3 | 3 | 4 | 4 | 2 | |
| ## 795 | 1 | 1 | 1 | 1 | 1 | |
| ## 796 | 5 | 1 | 5 | - 1 | 5 | |
| ## 797 | | | | | | |
| | 4 | 3 | 4 | 2 | 3 | |
| ## 798 | 2 | 2 | 1 | 3 | 1 | |
| ## 799 | 2 | 3 | 2 | 2 | 2 | |
| ## 800 | 4 | 4 | 2 | 2 | 4 | |
| ## 801 | 3 | 1 | 1 | 1 | 1 | |
| ## 802 | | | | | | |
| ## 80Z | 5 | 3 | 1 | 4 | 1 | |

| ## | 803 | 3 | 3 | 2 | 4 | 2 |
|----|-----|---|---|---|---|---|
| | 804 | 3 | 2 | 1 | 1 | 2 |
| | | | | | | |
| | 805 | 4 | 2 | 2 | 2 | 2 |
| ## | 806 | 5 | 4 | 3 | 3 | 3 |
| ## | 807 | 1 | 1 | 1 | 1 | 1 |
| | 808 | 3 | 1 | 1 | 1 | 4 |
| | | | | | | |
| | 809 | 2 | 2 | 2 | 3 | 1 |
| ## | 810 | 3 | 1 | 1 | 1 | 1 |
| ## | 811 | 5 | 4 | 2 | 1 | 5 |
| | 812 | 4 | 4 | 2 | 1 | 4 |
| | 813 | | | | | |
| | | 2 | 1 | 1 | 1 | 1 |
| | 814 | 3 | 1 | 1 | 1 | 1 |
| ## | 815 | 2 | 1 | 2 | 5 | 4 |
| ## | 816 | 5 | 2 | 4 | 2 | 2 |
| | 817 | 5 | 5 | 4 | 3 | 2 |
| | | | | | | |
| | 818 | 5 | 1 | 1 | 1 | 2 |
| ## | 819 | 3 | 3 | 1 | 4 | 1 |
| ## | 820 | 1 | 2 | 5 | 2 | 1 |
| | 821 | 4 | 5 | 3 | 1 | 4 |
| | 822 | | | 2 | 1 | 4 |
| | | 5 | 5 | | | |
| | 823 | 3 | 3 | 4 | 1 | 2 |
| ## | 824 | 1 | 3 | 3 | 3 | 1 |
| ## | 825 | 5 | 3 | 2 | 1 | 5 |
| | 826 | 2 | 4 | 2 | 1 | 2 |
| | | | | | | |
| | 827 | 5 | 3 | 4 | 1 | 4 |
| | 828 | 5 | 5 | 2 | 1 | 2 |
| ## | 829 | 3 | 3 | 4 | 4 | 1 |
| ## | 830 | 4 | 4 | 2 | 1 | 3 |
| | 831 | 3 | 3 | 5 | 2 | 3 |
| | | | | | | |
| | 832 | 5 | 3 | 4 | 3 | 4 |
| | 833 | 5 | 3 | 4 | 1 | 5 |
| ## | 834 | 3 | 5 | 2 | 2 | 4 |
| ## | 835 | 3 | 2 | 2 | 2 | 3 |
| | 836 | 3 | 3 | 3 | 1 | 1 |
| | | | | | | |
| | 837 | 4 | 3 | 1 | 1 | 3 |
| ## | 838 | 5 | 4 | 5 | 1 | 3 |
| ## | 839 | 4 | 4 | 4 | 2 | 1 |
| | 840 | 4 | 4 | 4 | 1 | 2 |
| | 841 | 2 | 2 | 4 | 1 | 2 |
| | | | | | | |
| | 842 | 2 | 3 | 2 | 5 | 1 |
| ## | 843 | 2 | 5 | 2 | 2 | 1 |
| ## | 844 | 2 | 1 | 3 | 3 | 2 |
| | 845 | 4 | 4 | 3 | 4 | 5 |
| | | | | | | |
| | 846 | 1 | 1 | 3 | 1 | 1 |
| | 847 | 2 | 2 | 3 | 5 | 3 |
| ## | 848 | 5 | 5 | 2 | 1 | 4 |
| | 849 | 3 | 5 | 1 | 2 | 1 |
| | 850 | 2 | | | 1 | |
| | | | 1 | 3 | | 5 |
| | 851 | 3 | 1 | 1 | 1 | 1 |
| ## | 852 | 2 | 2 | 2 | 5 | 1 |
| | | | | | | |

| ## | 853 | 2 | 2 | 3 | 3 | 1 |
|----|-----|---|---|---|---|---|
| | 854 | 2 | 2 | 3 | 1 | 4 |
| | | | | | | |
| | 855 | 2 | 2 | 2 | 1 | 1 |
| ## | 856 | 3 | 2 | 4 | 4 | 2 |
| ## | 857 | 3 | 2 | 4 | 3 | 3 |
| | 858 | 3 | 4 | 2 | 5 | 2 |
| | 859 | _ | | | | |
| | | 5 | 3 | 1 | 1 | 1 |
| | 860 | 3 | 2 | 3 | 4 | 2 |
| ## | 861 | 1 | 3 | 2 | 5 | 3 |
| ## | 862 | 3 | 4 | 1 | 2 | 1 |
| | 863 | 2 | 3 | 5 | 4 | 2 |
| | | | | | | |
| | 864 | 3 | 4 | 1 | 5 | 2 |
| ## | 865 | 4 | 4 | 2 | 3 | 3 |
| ## | 866 | 2 | 4 | 3 | 2 | 2 |
| | 867 | 4 | 4 | 1 | 1 | 3 |
| | | | | | | |
| | 868 | 3 | 3 | 4 | 1 | 1 |
| | 869 | 3 | 1 | 3 | 2 | 2 |
| ## | 870 | 5 | 5 | 2 | 1 | 1 |
| ## | 871 | 1 | 2 | 3 | 4 | 1 |
| | 872 | 5 | 4 | 2 | 3 | 3 |
| | | | | | | |
| | 873 | 2 | 5 | 1 | 4 | 1 |
| ## | 874 | 3 | 3 | 2 | 4 | 3 |
| ## | 875 | 2 | 2 | 5 | 3 | 1 |
| | 876 | 1 | 3 | 1 | 4 | 1 |
| | | _ | | | | |
| | 877 | 4 | 1 | 3 | 3 | 1 |
| | 878 | 5 | 5 | 2 | 1 | 1 |
| ## | 879 | 4 | 3 | 2 | 4 | 3 |
| ## | 880 | 4 | 4 | 2 | 5 | 2 |
| | 881 | 2 | 1 | 5 | 4 | 1 |
| | | | | | | |
| | 882 | 5 | 5 | 2 | 1 | 1 |
| | 883 | 3 | 2 | 1 | 4 | 1 |
| ## | 884 | 3 | 3 | 4 | 3 | 1 |
| ## | 885 | 4 | 5 | 1 | 4 | 1 |
| | 886 | 3 | 1 | 1 | 3 | 1 |
| | | 3 | | | | |
| | 887 | 9 | 4 | 1 | 2 | 1 |
| ## | 888 | 3 | 2 | 1 | 3 | 2 |
| ## | 889 | 4 | 2 | 5 | 2 | 2 |
| | 890 | 5 | 4 | 2 | 2 | 2 |
| | 891 | 3 | 1 | | 4 | 1 |
| | | _ | | 1 | | |
| | 892 | 3 | 2 | 2 | 3 | 1 |
| ## | 893 | 3 | 1 | 2 | 1 | 2 |
| ## | 894 | 3 | 2 | 2 | 3 | 4 |
| | 895 | 4 | 2 | 2 | 1 | 1 |
| | | | | | | |
| | 896 | 2 | 1 | 2 | 3 | 2 |
| | 897 | 4 | 4 | 3 | 1 | 2 |
| ## | 898 | 2 | 4 | 3 | 2 | 3 |
| | 899 | 5 | 5 | 3 | 1 | 1 |
| | 900 | | | | | |
| | | 1 | 3 | 1 | 1 | 1 |
| | 901 | 2 | 1 | 3 | 1 | 3 |
| ## | 902 | 3 | 2 | 2 | 1 | 2 |
| | | | | | | |

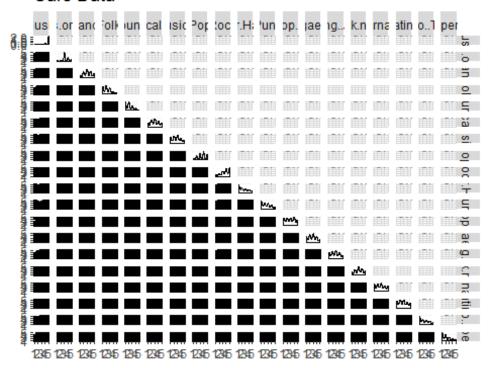
| ## | 903 | 3 | 2 | 2 | 2 | 1 |
|----|-----|---|---|---|---|---|
| | 904 | 4 | 4 | 3 | 1 | 1 |
| | | | | | | |
| | 905 | 3 | 1 | 5 | 1 | 2 |
| ## | 906 | 3 | 2 | 2 | 3 | 2 |
| ## | 907 | 3 | 5 | 5 | 5 | 4 |
| | 908 | 2 | 1 | 3 | 1 | 1 |
| | | | | | | |
| | 909 | 2 | 2 | 2 | 3 | 2 |
| | 910 | 5 | 3 | 2 | 2 | 3 |
| ## | 911 | 5 | 5 | 4 | 1 | 2 |
| ## | 912 | 4 | 5 | 4 | 1 | 5 |
| | 913 | 4 | 2 | 3 | 3 | 2 |
| | | | | | | |
| | 914 | 4 | 4 | 2 | 3 | 4 |
| ## | 915 | 5 | 5 | 5 | 2 | 4 |
| ## | 916 | 3 | 3 | 3 | 4 | 1 |
| | 917 | 5 | 4 | 1 | 1 | 1 |
| | 918 | | | | | |
| | | 4 | 4 | 2 | 3 | 2 |
| | 919 | 4 | 2 | 4 | 1 | 3 |
| ## | 920 | 3 | 5 | 5 | 1 | 2 |
| ## | 921 | 5 | 1 | 3 | 1 | 3 |
| | 922 | 2 | 3 | 2 | 3 | 2 |
| | | | | | | |
| | 923 | 1 | 1 | 2 | 4 | 3 |
| | 924 | 5 | 5 | 2 | 3 | 3 |
| ## | 925 | 1 | 1 | 1 | 1 | 1 |
| ## | 926 | 3 | 2 | 5 | 2 | 3 |
| | 927 | 2 | 5 | 2 | 1 | 2 |
| | | | | | | |
| | 928 | 2 | 3 | 1 | 3 | 1 |
| ## | 929 | 4 | 3 | 4 | 3 | 3 |
| ## | 930 | 3 | 5 | 3 | 3 | 3 |
| ## | 931 | 1 | 1 | 3 | 3 | 2 |
| | 932 | | 1 | | 2 | |
| | | 3 | | 2 | | 3 |
| | 933 | 2 | 1 | 3 | 4 | 2 |
| ## | 934 | 5 | 4 | 3 | 1 | 2 |
| ## | 935 | 2 | 3 | 3 | 4 | 1 |
| | 936 | 1 | 1 | 3 | 1 | 1 |
| | 937 | | | | | |
| | | 3 | 2 | 3 | 3 | 2 |
| | 938 | 5 | 5 | 5 | 2 | 5 |
| | 939 | 5 | 5 | 1 | 5 | 3 |
| ## | 940 | 4 | 3 | 4 | 4 | 2 |
| | 941 | 2 | 2 | 1 | 5 | 1 |
| | 942 | | | | | |
| | | 4 | 4 | 3 | 1 | 1 |
| | 943 | 3 | 3 | 3 | 5 | 2 |
| ## | 944 | 3 | 3 | 3 | 2 | 2 |
| ## | 945 | 3 | 2 | 3 | 2 | 3 |
| | 946 | 4 | 3 | 4 | 1 | 3 |
| | | | | | | |
| | 947 | 5 | 4 | 2 | 2 | 3 |
| | 948 | 1 | 2 | 1 | 1 | 1 |
| ## | 949 | 3 | 2 | 4 | 2 | 2 |
| ## | 950 | 3 | 2 | 3 | 2 | 1 |
| | 951 | 4 | 2 | 2 | 3 | 3 |
| | | | | | | |
| ## | 952 | 5 | 4 | 1 | 5 | 1 |
| | | | | | | |

| ## | 953 | 3 | 4 | 4 | 4 | 2 |
|----|--------------|--------|---|---|---|---|
| ## | 954 | 4 | 3 | 5 | 1 | 1 |
| | | | | | | |
| | 955 | 3 | 2 | 5 | 4 | 3 |
| ## | 956 | 3 | 1 | 3 | 1 | 1 |
| | 957 | 1 | | | | 2 |
| | | 4 | 1 | 1 | 1 | |
| ## | 958 | 1 | 1 | 2 | 2 | 1 |
| ## | 959 | 2 | 3 | 2 | 4 | 2 |
| | | | | | | |
| | 960 | 5 | 4 | 3 | 1 | 2 |
| ## | 961 | 2 | 5 | 1 | 1 | 4 |
| ## | 962 | 2 | 3 | 4 | 4 | 3 |
| | | | | | | |
| ## | 963 | 1 | 1 | 3 | 1 | 3 |
| ## | 964 | 1 | 1 | 2 | 4 | 4 |
| | 965 | | | | | |
| | | 4 | 5 | 3 | 2 | 4 |
| ## | 966 | 5 | 2 | 5 | 4 | 3 |
| ## | 967 | 1 | 5 | 5 | 1 | 5 |
| | | | | | | |
| | 968 | 4 | 2 | 3 | 2 | 3 |
| ## | 969 | 3 | 2 | 2 | 3 | 2 |
| | 970 | 4 | 3 | 2 | 1 | 1 |
| | | 4 | | | | |
| ## | 971 | 4 | 4 | 2 | 1 | 5 |
| ## | 972 | 4 | 3 | 2 | 3 | 2 |
| | | | | | | |
| | 973 | 5 | 5 | 3 | 2 | 2 |
| ## | 974 | 2 | 3 | 1 | 1 | 3 |
| ## | 975 | 4 | 4 | 2 | 2 | 1 |
| | | | | | | |
| | 976 | 5 | 5 | 5 | 5 | 5 |
| ## | 977 | 4 | 2 | 5 | 2 | 3 |
| ## | 978 | 2 | 3 | 2 | 4 | 1 |
| | | | | | | |
| ## | 979 | 5 | 3 | 3 | 1 | 2 |
| ## | 980 | 4 | 1 | 4 | 2 | 3 |
| | 981 | 4 | 1 | | 1 | 4 |
| | | | | 4 | | |
| ## | 982 | 4 | 5 | 2 | 1 | 2 |
| ## | 983 | 4 | 5 | 1 | 1 | 2 |
| | | | | | | |
| | 984 | 3 | 3 | 4 | 2 | 1 |
| ## | 985 | 4 | 3 | 3 | 1 | 1 |
| ## | 986 | 3 | 5 | 2 | 1 | 2 |
| | | | | | | |
| | 987 | 4 | 4 | 2 | 4 | 4 |
| ## | 988 | 3 | 4 | 2 | 1 | 1 |
| | 989 | 5 | 5 | 5 | 4 | 3 |
| | | | | | | |
| | 990 | 3 | 3 | 5 | 5 | 3 |
| ## | 991 | 3 | 1 | 2 | 1 | 2 |
| | 992 | | | | | |
| | | 4 | 2 | 1 | 2 | 1 |
| ## | 993 | 1 | 1 | 2 | 5 | 2 |
| ## | 994 | 1 | 4 | 1 | 2 | 1 |
| | | | | | | |
| | 995 | 5 | 3 | 1 | 1 | 1 |
| ## | 996 | 1 | 2 | 2 | 5 | 1 |
| | 997 | 3 | 3 | 1 | 1 | 1 |
| | | _ | | | | |
| | 998 | 1 | 2 | 4 | 1 | 1 |
| ## | 999 | 5 | 3 | 3 | 5 | 2 |
| | | | | 5 | 5 | 3 |
| ## | 1000 | 5 | | | | |
| | 1000 | 5 | 5 | | | |
| | 1000 1001 | 5 3 | 3 | 3 | 3 | 1 |
| ## | | _ | | | | |

```
## 1003
                  2
                                      1
                  4
                              2
                                      4
                                                     4
                                                           2
## 1004
                  3
                              2
                                      2
                                                     5
                                                           3
## 1005
                                                     3
## 1006
                  4
                              4
                                      3
                                                           2
## 1007
                  3
                              1
                                      3
                                                     4
                                                           1
                  2
                              5
                                                     1
## 1008
                                      1
                                                           1
                              5
## 1009
                  2
                                      2
                                                     2
                                                           1
                              2
                                      2
## 1010
                  3
                                                           1
fit = lm(Music~Dance+Folk+Pop+Rock, data= music_transformed)
summary(fit)
##
## Call:
## lm(formula = Music ~ Dance + Folk + Pop + Rock, data = music transformed)
## Residuals:
##
       Min
                1Q Median
                                 3Q
                                        Max
## -3.9013 0.0985 0.2135 0.3052 0.7219
##
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
##
## (Intercept) 4.095090
                          0.106376 38.497 < 2e-16 ***
                                      2.500
## Dance
               0.048990
                          0.019599
                                              0.0126 *
## Folk
               0.008519
                          0.018064
                                      0.472
                                              0.6373
## Pop
               0.025551
                          0.019544
                                     1.307
                                              0.1914
                                     5.690 1.66e-08 ***
## Rock
               0.099906
                          0.017557
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6512 on 1005 degrees of freedom
## Multiple R-squared: 0.04085,
                                   Adjusted R-squared: 0.03704
## F-statistic: 10.7 on 4 and 1005 DF, p-value: 1.698e-08
coefficients(fit)
                                   Folk
## (Intercept)
                     Dance
                                                Pop
## 4.095089990 0.048989937 0.008519444 0.025550694 0.099906283
library(GGally)
## Warning: package 'GGally' was built under R version 3.6.3
## Registered S3 method overwritten by 'GGally':
    method from
##
     +.gg
            ggplot2
##
## Attaching package: 'GGally'
```

```
## The following object is masked from 'package:dplyr':
##
## nasa
ggpairs(data=music_transformed, title="Cars Data")
```

Cars Data



```
confint(fit,level=0.95)
                     2.5 %
                                97.5 %
## (Intercept) 3.88634627 4.30383371
                0.01052971 0.08745016
## Dance
## Folk
               -0.02692841 0.04396730
## Pop
               -0.01280006 0.06390144
## Rock
                0.06545376 0.13435880
# Predicted Values
fitted(fit)
##
                             3
## 4.828874 4.777773 4.786292 4.452503 4.744080 4.769261 4.793070 4.860833
                  10
                            11
                                     12
                                               13
                                                        14
                                                                 15
## 4.826763 4.811851 4.661020 4.703232 4.737302 4.693164 4.803323 4.786292
##
         17
                  18
                            19
                                     20
                                               21
                                                        22
                                                                 23
## 4.752407 4.769446 4.901496 4.718345 4.809731 4.703232 4.661020 4.909823
         25
                  26
                            27
                                     28
                                               29
                                                        30
                                                                 31
## 4.826763 4.535748 4.884465 4.726864 4.824836 4.752415 4.818436 4.727042
         33
                  34
                            35
                                     36
                                               37
                                                        38
                                                                 39
```

4.726856 4.612030 4.860833 4.695090 4.671466 4.503420 4.892977 4.894903

```
## 41 42 43 44 45 46 47 48
## 4.527229 4.807813 4.837394 4.777958 4.809917 4.884457 4.943893 4.752407
                50
                       51
                                52
                                         53
                                                  54
                                                           55
## 4.527044 4.777773 4.854433 4.794997 5.009922 4.727049 5.009922 4.710010
                                60
                58
                         59
                                          61
                                                   62
                                                            63
## 4.762853 4.818251 4.593258 4.677867 4.711937 4.850387 4.901496 4.699379
                        67 68
                                          69
                                                   70
                 66
## 4.852313 4.626950 4.735561 4.544268 4.835282 4.679978 4.784551 4.420737
                        75
                                                  78
                74
                                76
                                         77
                                                           79
## 4.837394 4.586665 4.352597 4.801220 4.550483 4.875938 4.735561 4.952412
                                                            87
                 82
                         83
                                 84
                                         85
                                                   86
## 4.909823 4.826948 4.694720 4.975844 4.677681 4.743895 4.918342 4.901303
                90
                         91
                                 92
                                         93
                                                   94
                                                          95
        89
## 4.975844 4.835282 4.735376 4.762861 4.520458 4.588599 4.750481 4.635470
        97
                 98
                         99
                                 100
                                         101
                                                  102
                                                           103
## 4.603326 4.352597 4.924743 4.601585 4.918342 4.620365 4.686201 4.584738
                106
                        107
                                108
                                         109
                                                  110
                                                           111
## 4.718345 4.620365 4.926862 4.603326 4.660835 4.786292 4.835475 4.792885
                114
                                116
                                         117
                                                           119
                       115
                                                 118
## 4.684460 4.809917 4.703417 4.984363 4.786292 4.637581 4.637396 4.610104
               122
                       123
                                124
                                         125
                                                 126
                                                           127
       121
## 4.850202 4.720456 4.784181 4.843802 4.754341 4.718345 4.801397 4.769446
               130
                        131
                                132
                                         133
                                                 134
                                                           135
## 4.975844 4.967332 4.752222 4.552595 4.752407 4.552417 4.692979 4.777773
                138
                        139
                                 140
                                         141
                                                  142
                                                           143
## 4.718530 4.843987 4.369636 4.892977 4.760927 4.745822 4.801397 4.809917
                146
                        147
                                148
                                         149
                                                  150
                                                           151
## 4.852313 4.750296 4.884457 4.835282 4.752600 4.395002 4.786292 4.701306
                        155
                                 156
                                                  158
       153
                154
                                         157
                                                           159
## 4.858906 4.659094 4.686201 4.692979 4.803331 4.826955 4.835467 4.926862
       161
                162
                        163
                                 164
                                         165
                                               166
                                                           167
## 4.784181 4.811843 4.686579 4.652501 4.809917 4.559188 4.486388 4.735376
                170
                        171
                                 172
                                         173
                                                  174
                                                           175
## 4.801397 4.777773 4.694905 4.752407 4.769261 4.478054 4.312134 4.728783
       177
                178
                        179
                                180
                                         181
                                                 182
                                                           183
## 4.860841 4.703240 4.620365 4.286576 4.752222 4.792885 4.918342 4.661020
                                 188
       185
                186
                        187
                                         189
                                                  190
                                                           191
## 4.760742 4.527044 4.529163 4.563040 4.643989 4.594814 4.660835 4.563233
                                196
                                                           199
                194
                        195
                                         197
                                                 198
## 4.826948 4.703240 4.611845 4.560929 4.711937 4.510013 4.852321 4.650389
                202
                        203
                                 204
                                         205
                                                  206
                                                           207
## 4.752407 4.854433 4.625024 4.909823 4.818251 4.728976 4.833356 4.594999
       209
                210
                        211
                                 212
                                         213
                                                  214
                                                           215
## 4.760927 4.867241 4.984371 4.975844 4.620365 4.935374 4.786292 4.386667
                                 220
                                                  222
       217
                218
                        219
                                         221
                                                           223
## 4.577775 4.701491 4.603511 4.525117 4.641878 4.909830 4.886384 4.569633
       225
                226
                        227
                                 228
                                         229
                                                  230
                                                           231
## 4.811843 4.769261 4.984371 4.677874 4.661028 4.710010 4.663139 4.860833
                234
                        235
                                 236
                                         237
                                                  238
                                                           239
## 4.511939 4.809917 4.926862 4.728783 4.769446 4.710010 4.503605 4.758815
```

```
241 242 243 244 245 246 247
## 4.552410 4.577960 4.786477 4.828874 4.984363 4.694905 4.860833 4.835282
                                                    254
        249
                250
                         251
                                  252
                                            253
                                                              255
## 4.901303 4.903422 4.661020 4.984363 4.811843 4.427138 4.793070 4.811851
                 258
                          259
                                   260
                                            261
                                                     262
                                                              263
## 4.603704 4.867426 4.686201 4.743895 4.643989 4.635655 4.826770 4.884457
                          267
                                   268
                                            269
                                                     270
                                                              271
## 4.794997 4.586665 4.769446 4.767335 4.586665 4.826763 4.860833 4.918342
                 274
                         275
                                  276
                                            277
                                                    278
## 4.777780 4.809917 4.767520 4.743895 4.992883 4.803323 4.760934 4.710010
        281
                 282
                         283
                                   284
                                            285
                                                    286
                                                              287
## 4.858721 4.758815 4.429064 4.809917 4.278056 4.877864 4.760927 4.752407
                290
                         291
                                   292
                                            293
                                                    294
                                                              295
        289
## 4.716418 4.809917 4.801397 4.843802 4.884457 4.735191 4.686386 4.860833
                 298
                          299
                                   300
                                            301
                                                     302
                                                              303
## 4.776031 4.552410 4.759000 4.750296 4.637404 4.686201 5.001402 4.811843
        305
                 306
                          307
                                   308
                                            309
                                                     310
## 4.711937 4.809731 4.841875 4.728791 4.759000 4.784366 4.801397 5.009922
                 314
                          315
                                  316
                                            317
                                                     318
                                                              319
## 4.677867 4.561114 5.001402 4.480165 4.675940 4.933262 4.395187 4.843987
        321
                322
                         323
                                  324
                                           325
                                                    326
                                                              327
## 4.835282 4.860833 4.760742 4.728968 4.735561 4.826955 4.786477 4.686571
                330
                          331
                                  332
                                            333
                                                    334
                                                              335
## 4.818251 4.809917 4.884272 4.809731 4.535563 4.786477 4.569448 4.818436
                338
                          339
                                   340
                                            341
                                                     342
                                                              343
## 4.678052 4.724930 4.843802 4.760742 4.520458 4.403513 4.635470 4.812036
        345
                346
                         347
                                   348
                                            349
                                                     350
                                                              351
## 4.654620 4.809917 4.528970 4.760927 4.586672 4.684645 4.809917 4.886384
                          355
                                   356
                                                     358
        353
                 354
                                            357
                                                              359
## 4.752222 4.552595 4.769446 4.603511 4.894903 4.701306 4.941782 4.635655
        361
                362
                          363
                                   364
                                            365
                                                     366
                                                              367
## 4.926854 4.835290 4.794812 4.745822 4.909823 4.735191 4.703417 4.877864
        369
                 370
                          371
                                   372
                                            373
                                                     374
                                                              375
## 4.784551 4.616512 4.894903 5.009922 4.660835 4.629062 4.784551 4.835467
        377
                378
                          379
                                  380
                                            381
                                                     382
                                                              383
## 4.452688 4.794812 4.884457 4.875945 4.818436 4.760742 4.544268 4.786292
                386
                          387
                                   388
                                            389
                                                     390
                                                              391
## 4.826763 4.975852 4.860833 4.684645 4.803516 4.535563 4.403513 4.643989
                                  396
                                                    398
                                                              399
        393
                394
                         395
                                           397
## 4.718530 4.477869 4.726856 4.726856 4.652509 4.486766 4.618438 4.728976
                402
                         403
                                   404
                                            405
                                                     406
                                                              407
## 4.601585 4.752222 4.984371 4.694905 4.935381 4.544083 4.861026 4.684460
        409
                 410
                          411
                                   412
                                            413
                                                     414
                                                              415
## 4.452696 4.850387 4.909823 4.886384 4.826763 4.818436 4.744080 4.877864
                                                     422
                                   420
                                            421
                                                              423
        417
                418
                         419
## 4.750481 4.386482 4.552787 4.984363 4.703232 4.746007 4.527229 4.786477
        425
                426
                         427
                                   428
                                            429
                                                     430
                                                              431
## 4.642063 4.852313 4.703232 4.618438 4.793070 4.752222 4.769446 4.550483
        433
                434
                         435
                                   436
                                            437
                                                   438
                                                              439
## 4.735191 4.852506 4.727042 4.728783 4.711937 4.577960 4.754334 4.659094
```

```
## 441 442 443 444 445 446 447 448
## 4.801397 4.786477 4.835467 4.586480 4.609919 4.735561 4.675940 4.295095
       449
                450
                        451
                                 452
                                          453
                                                   454
                                                            455
## 4.809917 4.743895 4.744080 4.760927 4.727042 4.686386 4.803323 4.935374
                458
                         459
                                  460
                                           461
                                                    462
                                                             463
## 4.527044 4.909823 4.610297 4.560929 4.701306 4.603519 4.826763 4.678052
                         467
                                  468
                                           469
                                                    470
## 4.792885 4.435657 4.652501 4.593073 4.860833 4.750481 4.644174 4.884272
                                                    478
       473
                474
                         475
                                  476
                                           477
                                                             479
## 4.612030 4.603326 4.776031 4.835282 4.803323 4.752222 4.858906 4.735376
       481
                482
                         483
                                  484
                                           485
                                                    486
                                                             487
## 4.892977 4.550491 4.677867 4.860833 4.752407 4.909823 4.610104 4.482536
                490
                         491
                                  492
                                           493
                                                    494
                                                             495
       489
## 4.803331 4.760742 4.535563 4.760927 4.818251 4.727042 4.760742 4.777773
       497
                498
                         499
                                  500
                                           501
                                                    502
                                                             503
## 4.635470 4.894903 4.709825 4.728976 4.735384 4.835475 4.867241 4.711937
        505
                506
                         507
                                  508
                                           509
                                                    510
                                                             511
## 4.576219 4.852321 4.452503 4.527052 4.745822 4.535756 4.867426 4.626950
                514
                                           517
                                                             519
       513
                         515
                                  516
                                                   518
## 4.352605 4.726856 4.762861 4.918342 4.892977 4.752407 4.835467 4.541971
                        523
                                 524
                                                   526
                                                            527
        521
                522
                                          525
## 4.552595 4.810109 4.710010 4.682348 4.752222 4.843802 4.752407 4.752407
                                 532
                                                    534
                530
                         531
                                          533
                                                             535
## 4.877864 4.737302 4.612223 4.786300 4.809917 4.826763 4.669540 4.894903
                                  540
                538
                         539
                                           541
                                                    542
                                                             543
## 4.503605 4.735376 4.760927 4.860833 4.911942 4.535563 4.858906 4.801397
       545
                546
                         547
                                  548
                                           549
                                                    550
                                                             551
## 4.769261 4.643989 4.860833 4.603334 4.720271 4.776031 4.811851 4.569633
                554
                         555
                                  556
                                                    558
                                                             559
        553
                                           557
## 4.669355 4.601592 4.652509 4.593258 4.452688 4.720456 4.552595 4.807805
       561
                562
                         563
                                  564
                                           565
                                                    566
                                                             567
## 4.718530 4.818436 4.767520 4.901303 4.873641 4.659094 4.510013 4.684460
                570
                         571
                                  572
                                           573
                                                    574
                                                             575
## 4.784551 4.701498 4.626950 4.510198 4.626950 4.701306 4.741969 4.726864
       577
                578
                         579
                                  580
                                          581
                                                    582
                                                             583
## 4.635470 4.684460 4.586665 4.943893 4.278056 4.686386 4.667428 4.728968
                586
                         587
                                  588
                                           589
                                                    590
                                                             591
## 4.744080 4.743895 4.716418 4.652316 4.450577 4.677681 4.835282 4.469727
                                 596
                                                   598
                                                             599
        593
                594
                         595
                                          597
## 4.469727 4.769261 4.694905 4.577775 4.701491 4.935374 4.784366 4.892977
                         603
                                  604
                                           605
                                                    606
                                                             607
## 4.703417 4.628884 4.835467 4.760927 4.760927 4.762861 4.786477 4.652501
        609
                610
                         611
                                  612
                                           613
                                                    614
                                                             615
## 4.454807 4.635470 4.860833 4.686571 4.824836 4.735376 4.801397 4.869352
        617
                618
                         619
                                  620
                                           621
                                                    622
                                                             623
## 4.875753 4.735376 5.001402 4.643989 4.703417 4.624839 4.901496 4.443991
        625
                626
                         627
                                  628
                                           629
                                                   630
                                                             631
## 4.877864 4.693164 4.684460 4.476135 4.826763 4.867426 4.826948 4.958813
        633
                634
                       635
                                  636
                                           637
                                                638
                                                             639
## 4.718530 4.686579 4.678059 4.826955 4.786485 4.845913 4.894903 4.726671
```

```
## 641 642 643 644 645 646 647 648
## 4.984363 4.669540 4.701498 4.909823 4.794997 4.584553 4.752407 4.678052
        649
                650
                         651
                                 652
                                           653
                                                   654
                                                             655
## 4.784559 4.733449 4.601585 4.684460 4.786477 4.835282 4.744080 4.835282
                                  660
                658
                         659
                                           661
                                                    662
                                                             663
## 4.760742 4.727042 4.607993 4.803323 4.811843 4.427138 4.760927 4.669540
                         667
                                  668
                                           669
                                                    670
                                                             671
                666
## 4.501501 4.711752 4.752222 4.426953 4.711752 4.684460 4.635470 4.643989
                674
                         675
                                  676
                                           677
                                                    678
## 4.728976 4.737487 4.843802 4.794997 4.435472 4.661020 4.769261 4.735191
        681
                682
                         683
                                  684
                                           685
                                                    686
                                                             687
## 4.943893 4.892792 4.809917 4.862952 4.875938 4.661020 4.826955 4.826763
                690
                         691
                                  692
                                           693
                                                    694
        689
                                                             695
## 4.918342 4.752407 4.750296 4.784366 4.820362 4.661020 4.843802 4.835467
                698
                         699
                                  700
                                           701
                                                    702
                                                             703
## 4.712129 4.852313 4.801590 4.744080 4.692794 4.625031 4.771372 4.743895
                706
                         707
                                  708
                                           709
                                                    710
                                                             711
## 4.935374 4.924743 4.835467 4.686386 4.629062 4.835282 4.843987 4.769446
                714
                         715
                                  716
                                           717
                                                   718
                                                             719
## 4.612030 4.752415 4.941782 4.769261 4.577968 4.654427 4.886384 4.678052
                722
       721
                        723
                                 724
                                           725
                                                    726
                                                             727
## 4.584553 4.786485 4.894903 4.835467 4.793070 4.610104 4.554714 4.828874
                         731
                                  732
       729
                730
                                           733
                                                    734
                                                             735
## 4.676125 4.811843 4.686201 4.760927 4.577960 4.760934 4.552602 4.295095
                                           741
                                                             743
                738
                         739
                                  740
                                                    742
## 4.958813 4.735376 4.875753 4.869352 4.858906 4.661028 4.620365 4.660835
       745
                746
                         747
                                  748
                                           749
                                                    750
                                                             751
## 4.769261 4.752415 4.852313 4.618623 4.743895 4.752230 4.759008 4.854433
                754
                         755
                                  756
                                           757
                                                    758
                                                             759
        753
## 4.784551 4.735376 4.603511 4.786292 4.869352 4.716418 4.476128 4.901496
       761
                762
                         763
                                 764
                                           765
                                                   766
                                                             767
## 4.984363 4.452688 4.675940 4.835282 4.678052 4.803323 4.884465 4.469542
        769
                770
                         771
                                  772
                                           773
                                                    774
## 4.652501 4.643989 4.278056 4.803331 4.552595 4.884272 4.452503 4.677867
                                  780
       777
                778
                         779
                                          781
                                                    782
                                                             783
## 4.984371 4.678052 4.529155 4.643989 4.752407 4.675940 4.794812 4.837401
                786
                         787
                                  788
                                           789
                                                    790
                                                             791
## 4.718530 4.595184 4.860833 4.537675 4.603511 4.843987 4.809731 4.527044
                        795
                                  796
                                          797
                                                   798
                                                             799
                794
## 4.735376 4.527044 4.578145 4.873641 4.486758 4.599473 4.860833 4.611845
                802
                         803
                                  804
                                           805
                                                    806
                                                             807
## 4.701491 4.950293 4.892977 4.777773 4.926854 4.943893 4.278056 4.446103
        809
                810
                         811
                                  812
                                           813
                                                    814
                                                             815
## 4.877864 4.550483 4.743710 4.794812 4.278056 4.452503 4.718530 4.769261
                         819
                                  820
        817
                818
                                           821
                                                    822
                                                             823
## 4.869352 4.779884 4.769446 4.552595 4.786292 4.811843 4.777958 4.535563
        825
                826
                         827
                                  828
                                           829
                                                    830
                                                             831
## 4.728783 4.720271 4.869352 4.877872 4.901303 4.737302 4.710010 4.835467
        833
                834
                         835
                                  836
                                           837
                                                   838
                                                             839
## 4.826770 4.677867 4.892792 4.786477 4.803323 4.867241 4.826948 4.710010
```

```
## 841 842 843 844 845 846 847 848
## 4.845913 4.818436 4.909823 4.809917 4.586487 4.478239 4.659094 4.903422
       849
               850
                       851
                                852
                                         853
                                                 854
                                                          855
## 4.777773 4.429072 4.601585 4.501493 4.452503 4.701498 4.684460 4.892977
       857
                858
                        859
                                 860
                                         861
                                                  862
                                                           863
## 4.860833 4.710010 4.618438 4.727049 4.792885 4.835282 4.835467 4.535563
                        867
                                 868
                                         869
                                                  870
                                                           871
## 4.835282 4.792885 4.769261 4.710010 4.777965 4.803323 4.735561 4.835282
                874
                        875
                                876
                                         877
                                                  878
                                                           879
## 4.794812 4.784366 4.625024 4.527044 4.452688 4.694720 4.711937 4.799286
       881
                882
                        883
                                 884
                                         885
                                                  886
                                                           887
## 4.625024 4.754334 4.750296 4.652501 4.909823 4.760927 4.735376 4.809731
                890
                        891
                                 892
                                         893
                                                  894
                                                           895
       889
## 4.760927 4.743895 4.750481 4.818436 4.843802 4.669355 4.826763 4.684460
       897
                898
                        899
                                 900
                                          901
                                                  902
                                                           903
## 4.769261 4.612030 4.760742 4.577960 4.577960 4.537490 4.511939 4.752230
       905
                906
                        907
                             908
                                         909
                                                  910
                                                           911
## 4.629062 4.818436 4.516606 4.744080 4.760927 4.718530 4.803323 4.786292
       913
                914
                        915
                                916
                                         917
                                                  918
                                                          919
## 4.710010 4.801405 4.794812 4.858906 4.786292 4.760742 4.811843 4.735376
       921
                922
                       923
                                924
                                        925
                                                 926
                                                           927
## 4.743895 4.710010 4.776031 4.711937 4.527044 4.593073 4.709825 4.776031
                                932
                                        933
               930
                        931
                                                  934
                                                           935
## 4.710010 4.586672 4.535563 4.710010 4.735561 4.686386 4.735376 4.578145
                938
                                         941
                        939
                                 940
                                                  942
                                                           943
## 4.620550 4.926854 4.837401 4.801397 4.577960 4.760927 4.667613 4.735376
                                948
                                         949
       945
                946
                        947
                                                  950
                                                           951
## 4.794997 4.858906 4.777773 4.626950 4.718530 4.735376 4.820362 4.701491
                954
                        955
                                 956
                                         957
                                                  958
                                                           959
       953
## 4.869352 4.777958 4.741969 4.752222 4.752407 4.452503 4.567707 4.661020
       961
               962
                        963
                                 964
                                         965
                                                 966
                                                           967
## 4.901311 4.752600 4.427145 4.843987 4.835282 4.992883 4.278056 4.760742
       969
                970
                        971
                                972
                                         973
                                                  974
                                                           975
## 4.661020 4.803323 4.824836 4.777780 4.843802 4.786300 4.711752 5.009922
                978
       977
                        979
                              980 981
                                                 982
                                                          983
## 4.935374 4.809917 4.803323 4.935374 4.711937 4.637396 4.652316 4.678052
       985
                986
                        987
                                988
                                         989
                                                  990
                                                          991
## 4.645915 4.771372 4.686394 4.735191 4.809731 4.886384 4.677867 4.726671
                      995
                              996 997 998
                                                          999
               994
## 4.775846 4.752407 4.835282 4.626765 4.577775 4.743895 4.892792 4.867426
             1002
                      1003
                              1004
                                       1005
                                                1006
## 4.669540 4.750481 4.801212 4.918342 4.675940 4.858906 4.550668 4.628877
      1009
## 4.743895 4.518717
residuals(fit)
##
                         2
                                                               5
## 0.171125809 -0.777772803 0.213707753 0.547496738 0.255919611 0.230739
```

| 003 ## | 7 | 8 | 9 | 10 | 11 | |
|-----------------|--------------|--------------|-------------------|--------------|--------------|-----------|
| 12 ## | 0.206929674 | 0.139167122 | 0.173237259 | 0.188149421 | 0.338979687 | 0.296767 |
| 828 ## | 13 | 14 | 15 | 16 | 17 | |
| 18 ## 960 | 0.262697690 | 0.306835957 | 0.196676503 | -3.786292247 | 0.247592848 | 0.230553 |
| ## 24 | 19 | 20 | 21 | 22 | 23 | |
| ## 184 | 0.098503948 | 0.281655348 | 0.190268510 | 0.296767828 | 0.338979687 | 0.090177 |
| ## 30 | 25 | 26 | 27 | 28 | 29 | |
| ## 210 | 0.173237259 | 0.464251620 | 0.115535198 | -0.726864096 | 0.175163668 | 0.247585 |
| ## 36 | 31 | 32 | 33 | 34 | 35 | |
| ## 549 | -0.818435977 | -0.727041501 | 0.273143542 | 0.387969624 | 0.139167122 | 0.304909 |
| ## 42 | 37 | 38 | 39 | 40 | 41 | |
| ## 280 | 0.328533835 | 0.496580393 | 0.107023392 | 0.105096984 | -0.527228936 | 0.192187 |
| ## 48 | 43 | 44 | 45 | 46 | 47 | |
| ## 848 | 0.162606365 | | -0.809916533 | 0.115542836 | 0.056107046 | 0.247592 |
| ## 54 | 49 | 50 | 51 | 52 | 53 | |
| ## 862 | 0.472956107 | | -0.854432523 | | -0.009921779 | 0.272950 |
| ## 60 ## | 55 | 56 | 57 0.237146996 | 58 | 59 | a 222122 |
| ## 479 ## | 61 | 62 | 63 | 64 | 65 | 0.322133 |
| 66 ## | | | 0.098503948 | | | -0.626950 |
| 176 ## | 67 | 68 | 69 | 70 | 71 | 0.020330 |
| 72 | | | 0.164717816 | | | -0.420737 |
| 255 ## | 73 | 74 | 75 | 76 | 77 | |
| 78 ## | 0.162606365 | 0.413335275 | 0.647403021 | 0.198780316 | -0.550483136 | 0.124062 |
| 280 ## | 79 | 80 | 81 | 82 | 83 | |
| | | | | | | |

| 0.4 | | | | | |
|----------------------|-----------------|--------------|---------------|--------------|-----------|
| 84 ## -0.73556094 | l5 0.047587603 | 0.090177184 | 0.173052217 | 0.305279634 | 0.024155 |
| 997 | 0.047507005 | 0.030177104 | 0.175052217 | 0.303273034 | 0.02-133 |
| | 85 86 | 87 | 88 | 89 | |
| 90 | | | | | |
| ## 0.32231852 | 22 0.256104654 | -0.918342260 | 0.098696628 | 0.024155997 | 0.164717 |
| 816 | | | | | |
| | 92 | 93 | 94 | 95 | |
| 96 ## -0.73537596 | 0.237139358 | 0.479541505 | 0.411401229 | 0.249519256 | 0.364530 |
| 381 | /2 0.23/133330 | 0.475541505 | 0.411401223 | 0.245515250 | 0.304330 |
| | 98 | 99 | 100 | 101 | |
| 102 | | | | | |
| ## 0.39667413 | .0 0.647403021 | -1.924742615 | 0.398415476 | 0.081657740 | 0.379635 |
| 223 | | | | | |
| ## 10 | 104 | 105 | 106 | 107 | |
| 108 ## 0.31379903 | 0 0 11E261602 | -0.718344652 | 0.379635223 | 0.073138297 | 0.396674 |
| 110 | 0 0.413201003 | -0.710344032 | 0.3/9033223 | 0.0/313629/ | 0.390074 |
| ## 10 | 9 110 | 111 | 112 | 113 | |
| 114 | | | | | |
| ## -0.66083527 | '1 0.213707753 | 0.164525135 | 0.207114717 | 0.315540443 | -1.809916 |
| 533 | | | | | |
| ## 13 | .5 116 | 117 | 118 | 119 | |
| 120 ## 0.29658278 | 85 0.015636553 | 0.213707753 | 0.362418930 | 0.362603973 | 0 610102 |
| 968 | CCC0C0CIB.B C | 0.213/0//33 | 0.302410330 | 0.302003973 | -0.010103 |
| ## 12 | 122 | 123 | 124 | 125 | |
| 126 | | | | | |
| ## 0.14979803 | .6 -0.720456103 | 0.215819204 | 0.156198372 | -0.754341198 | 0.281655 |
| 348 | _ | | | | |
| ## 12 | 27 128 | 129 | 130 | 131 | |
| 132 | 39 -0.769446040 | 0.024155997 | 0 032667803 | -0.752222109 | 0.447405 |
| 413 | 59 -0.709440040 | 0.024133337 | 0.032007803 | -0.732222103 | 0.44/403 |
| ## 13 | 134 | 135 | 136 | 137 | |
| 138 | | | | | |
| | 8 0.447582818 | 0.307021000 | 0.222227197 | 0.281470305 | 0.156013 |
| 329 | | | | | |
| ## 13 | 39 140 | 141 | 142 | 143 | |
| 144 ## 0.63036413 | 3 0.107023392 | 0 230073404 | _1 7/1502175/ | 0 108602011 | 0 100082 |
| 467 | .5 0.10/023392 | 0.2330/3404 | 1./4/021/04 | 0.190002911 | 0.190003 |
| ## 14 | 5 14 6 | 147 | 148 | 149 | |
| 150 | | | | | |
| | 55 -3.750295701 | 0.115542836 | 0.164717816 | -0.752599832 | -2.395001 |
| 518 | | | | | |
| ## 15 | 51 152 | 153 | 154 | 155 | |
| 156 ## 0.2137077! | 3 0.298694236 | 0 1/1002520 | -2 650002005 | 0 313700070 | 0.307021 |
| ππ V.Z13/V// | U.230034230 | 0.141033330 | -2.033633365 | 0.313/330/8 | 0.30/021 |

| 000 | | | | | | |
|------------------------------|--------------|--------------|--------------|--------------------|--------------------|-----------|
| 000 ## | 157 | 158 | 159 | 160 | 161 | |
| 162 | 23, | 130 | 233 | 100 | 202 | |
| ## | 0.196668865 | 0.173044579 | 0.164532773 | 0.073138297 | 0.215819204 | 0.188157 |
| 059 | 162 | 164 | 165 | 166 | 167 | |
| ## 168 | 163 | 164 | 165 | 166 | 167 | |
| | -0.686578645 | 0.347499130 | 0.190083467 | 0.440812377 | 0.513611643 | -1.735375 |
| 902 | | | | | | |
| ## | 169 | 170 | 171 | 172 | 173 | |
| 174 ## | 0.198602911 | a 222227107 | 0 604005400 | 0 247502040 | 0 220720002 | 0.521946 |
| ## 044 | 0.198602911 | 0.22227197 | -0.694905409 | 0.247592848 | 0.230739003 | 0.521946 |
| ## | 175 | 176 | 177 | 178 | 179 | |
| 180 | | | | | | |
| ## | 0.687865876 | 0.271217134 | 0.139159484 | 0.296760190 | -0.620364777 | -0.286575 |
| 792 ## | 181 | 182 | 183 | 184 | 185 | |
| 186 | 101 | 102 | 183 | 104 | 185 | |
| | -0.752222109 | 0.207114717 | 0.081657740 | 0.338979687 | 0.239258447 | -1.527043 |
| 893 | | | | | | |
| ## 192 | 187 | 188 | 189 | 190 | 191 | |
| | -0.529162981 | 0.436959561 | -1.643989063 | 0.405185917 | -0.660835271 | 0.436766 |
| 881 | 0.323102301 | 0.150555501 | 1.013303003 | 0.103103317 | 0.000033271 | 0.130700 |
| ## | 193 | 194 | 195 | 196 | 197 | |
| 198 | 0 473053347 | 0.006760400 | 0 200454667 | 0 420074042 | 0.000063344 | 0 400007 |
| ## 357 | 0.173052217 | 0.296760190 | 0.388154667 | 0.439071012 | 0.288063341 | 0.489987 |
| ## | 199 | 200 | 201 | 202 | 203 | |
| 204 | | | | | | |
| ## | 0.147678928 | 0.349610581 | -0.752407152 | 0.145567477 | 0.374976233 | 0.090177 |
| 184 ## | 205 | 206 | 207 | 208 | 209 | |
| 210 | 203 | 200 | 207 | 200 | 209 | |
| ## | 0.181749066 | 0.271024454 | 0.166644224 | 0.405000874 | 0.239073404 | 0.132759 |
| 129 | | | | | | |
| ## 216 | 211 | 212 | 213 | 214 | 215 | |
| ## | 0.015628915 | 0.024155997 | 0.379635223 | 0.064626490 | -0.786292247 | -3.386667 |
| 117 | 0.013020313 | 3.02 1133337 | 0.0,0000220 | 3.001020490 | 3.7.00232247 | 3.550007 |
| ## | 217 | 218 | 219 | 220 | 221 | |
| | | | | | | |
| 222 | | 0.000====== | | | 0.00000000 | |
| ## | 0.422224804 | 0.298509193 | 0.396489068 | 0.474882515 | 0.358122388 | 0.090169 |
| ## 547 | | | | | | 0.090169 |
| ## | 0.422224804 | 0.298509193 | 0.396489068 | 0.474882515 226 | 0.358122388 227 | 0.090169 |
| ## 547 ## 228 ## | 223 | 224 | | 226 | 227 | 0.090169 |
| ## 547 ## 228 | 223 | 224 | 225 | 226 | 227 | |

| 224 | | | | | | |
|--------------|---|---------------------|--------------|--------------|--------------|-----------|
| 234 | A 6610270E1 | -0.710010251 | 0.336860598 | 0.139167122 | 0.488060949 | 0 900016 |
| ## -e 533 | 0.00102/931 | -0./10010251 | 0.330800398 | 0.13910/122 | 0.488000949 | -0.809910 |
| ## | 235 | 236 | 237 | 238 | 239 | |
| 240 | 233 | 230 | 237 | 238 | 239 | |
| | 0.926861703 | Q 27121712 <i>I</i> | -3.769446040 | 0.289989749 | 0.496395350 | 0.241184 |
| 855 | 7.920801763 | 0.2/121/134 | -3.703440040 | 0.209909749 | 0.490393330 | 0.241104 |
| ## | 241 | 242 | 243 | 244 | 245 | |
| 246 | 241 | 242 | 243 | 244 | 243 | |
| | 1.552409544 | 0 122030762 | -1.786477290 | 0.171125809 | 0.015636553 | 0.305094 |
| 591 | 1.332403344 | 0.422033702 | -1.760477230 | 0.1/1123003 | 0.01000000 | 0.505054 |
| ## | 247 | 248 | 249 | 250 | 251 | |
| 252 | 247 | 240 | 243 | 230 | 231 | |
| | 0.139167122 | 0.164717816 | 0.098696628 | 0.096577540 | 0.338979687 | 0.015636 |
| 553 | 0.13910/122 | 0.104/1/010 | 0.090090020 | 0.090377340 | 0.3303/300/ | 0.013030 |
| ## | 253 | 254 | 255 | 256 | 257 | |
| 258 | 233 | 234 | 233 | 230 | 237 | |
| | 0.188157059 | 0.572862389 | 0.206929674 | 0.188149421 | 0.396296387 | 0.132574 |
| ## 6 086 | 0.10015/059 | 0.3/2002309 | 0.200929074 | 0.100149421 | 0.390290367 | 0.132374 |
| ## | 259 | 260 | 261 | 262 | 263 | |
| 264 | 259 | 200 | 201 | 202 | 203 | |
| | 212700079 | -2.743895346 | 1 6/2090062 | 0.364345338 | 0.173229622 | 0.115542 |
| 836 | 0.313/330/6 | -2.743633340 | -1.043363603 | 0.304343336 | 0.1/3229022 | 0.113342 |
| ## | 265 | 266 | 267 | 268 | 269 | |
| 270 | 203 | 200 | 207 | 200 | 209 | |
| | L.794996734 | 0.413335275 | 0.230553960 | 0.232665411 | 0.413335275 | 0.173237 |
| 259 | 1.794990734 | 0.413333273 | 0.230333900 | 0.232003411 | 0.415555275 | 0.1/323/ |
| ## | 271 | 272 | 273 | 274 | 275 | |
| 276 | 271 | 212 | 2/3 | 2/4 | 275 | |
| | 3.139167122 | 0.081657740 | 0.222219559 | 0.190083467 | 0.232480368 | 0.256104 |
| 654 | 7.133107122 | 0.00103//-0 | 0.222213333 | 0.130003407 | 0.232+00300 | 0.230104 |
| ## | 277 | 278 | 279 | 280 | 281 | |
| 282 | 2,, | 2,0 | 2,3 | 200 | 201 | |
| | 0.007117109 | 0.196676503 | 0.239065766 | 0.289989749 | 0.141278572 | 0.241184 |
| 855 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 0.2500,0505 | 01233003700 | 01203303713 | 0,11,12,03,1 | 012.120. |
| ## | 283 | 284 | 285 | 286 | 287 | |
| 288 | | _0. | | | | |
| | 0.570935981 | 0.190083467 | -3.278056348 | 0.122135871 | 0.239073404 | 0.247592 |
| 848 | | | | | | |
| ## | 289 | 290 | 291 | 292 | 293 | |
| 294 | | | | | | |
| | 283581756 | 0.190083467 | -0.801397089 | -0.843801628 | 0.115542836 | 0.264809 |
| 141 | | | | | | |
| ## | 295 | 296 | 297 | 298 | 299 | |
| 300 | | 250 | 237 | 250 | | |
| | 3.313614035 | 0.139167122 | 0.223968562 | 0.447590456 | 0.240999812 | 0.249704 |
| 299 | | 3.20220,222 | 3.223300302 | 311320130 | | 212.2701 |
| ## | 301 | 302 | 303 | 304 | 305 | |
| 306 | 551 | 302 | 505 | 551 | 233 | |
| | 3.362596335 | -0.686200922 | -0.001402335 | -0.811842941 | 0.288063341 | 0.190268 |
| | | 0.000200722 | 0.001-02333 | 0.011072771 | 3.200003371 | 0.170200 |

| 510 | | | | | | |
|-----------|---------------|-------------|--------------|--------------|--------------|-----------|
| ## | 307 | 308 | 309 | 310 | 311 | |
| 312 | 30, | 300 | 303 | 320 | 311 | |
| ## | 0.158124780 | 0.271209496 | 0.240999812 | 0.215634161 | 0.198602911 | -0.009921 |
| 779 | | | | | | |
| ## | 313 | 314 | 315 | 316 | 317 | |
| 318 | | | | | | |
| | -2.677866521 | 0.438885969 | -0.001402335 | 0.519834593 | 0.324059887 | 0.066737 |
| 941 ## | 210 | 220 | 221 | າາາ | 323 | |
| ## 324 | 319 | 320 | 321 | 322 | 323 | |
| ## | 0.604813439 | 0.156013329 | 0.164717816 | 0.139167122 | 0.239258447 | 0.271032 |
| 091 | 0.00 1015 155 | 0.130013323 | 0.101717010 | 0.133107122 | 0.233230117 | 0.2,1032 |
| ## | 325 | 326 | 327 | 328 | 329 | |
| 330 | | | | | | |
| ## | 0.264439055 | 0.173044579 | 0.213522710 | 0.313428993 | 0.181749066 | 0.190083 |
| 467 | | | | | | |
| ## | 331 | 332 | 333 | 334 | 335 | |
| 336 | 0 445707070 | 0.400060540 | 0 525562227 | 0 040500740 | 0 420554560 | 0 404564 |
| ## 023 | 0.115727878 | 0.190268510 | -0.535563337 | 0.213522710 | 0.430551568 | 0.181564 |
| ## | 337 | 338 | 339 | 340 | 341 | |
| 342 | 557 | 330 | 555 | 540 | 341 | |
| ## | 0.321948436 | 0.275069950 | 0.156198372 | 0.239258447 | 0.479541505 | 0.596486 |
| 675 | | | | | | |
| ## | 343 | 344 | 345 | 346 | 347 | |
| 348 | | | | | | |
| ## | 0.364530381 | 0.187964378 | 0.345380042 | -0.809916533 | 0.471029699 | 0.239073 |
| 404 | 2.40 | 250 | 2-4 | 250 | 2=2 | |
| ## 354 | 349 | 350 | 351 | 352 | 353 | |
| 354 ## | 0.413327637 | 0 215255/01 | -2.809916533 | 0.113616428 | 0.247777891 | 0.447405 |
| 413 | 0.413327037 | 0.010000401 | -2.000010000 | 0.113010420 | 0.24////001 | 0.447403 |
| ## | 355 | 356 | 357 | 358 | 359 | |
| 360 | | | | | | |
| ## | 0.230553960 | 0.396489068 | -0.894903016 | 0.298694236 | -0.941781503 | 0.364345 |
| 338 | | | | | | |
| ## | 361 | 362 | 363 | 364 | 365 | |
| 366 | 0 073445034 | 0.464740470 | 0 005400000 | 0 054470046 | 2 00000000 | 0.064000 |
| ## 141 | 0.0/3145934 | 0.164/101/8 | 0.205188309 | 0.2541/8246 | -2.909822816 | 0.264809 |
| 141 ## | 367 | 368 | 369 | 370 | 371 | |
| 372 | 507 | 508 | 309 | 570 | 5/1 | |
| ## | 0.296582785 | 0.122135871 | 0.215449118 | 0.383488039 | 0.105096984 | -0.009921 |
| 779 | | | | | | |
| ## | 373 | 374 | 375 | 376 | 377 | |
| 378 | | | | | | |
| | -0.660835271 | 0.370938374 | 0.215449118 | 0.164532773 | 0.547311695 | 0.205188 |
| 309 | | | | | | |
| ## | 379 | 380 | 381 | 382 | 383 | |

| 384 ## | 0.115542836 | 0.124054642 | 0.181564023 | 0.239258447 | 0.455732176 | 0.213707 |
|-----------|--------------|--------------|------------------|--------------|--------------|-----------|
| 753 | 0.1133-2030 | 0.12-05-0-2 | 0.101304023 | 0.233230447 | 0.433732170 | 0.213707 |
| ## | 385 | 386 | 387 | 388 | 389 | |
| 390 ## | 0.173237259 | 0.024148359 | 0.139167122 | 0.315355401 | 0.196483822 | 0.464436 |
| 663 | 0.173237233 | 0.024140333 | 0.133107122 | 0.313333401 | 0.150-05022 | 0.404430 |
| ## | 391 | 392 | 393 | 394 | 395 | |
| 396 | -0.403513325 | -0.643989063 | 0.281470305 | 0.522131087 | 0.273143542 | 0.273143 |
| 542 | 0.103313323 | 0.013303003 | 0.2011,0303 | 0.322131007 | 0.273113312 | 0.2/31/3 |
| ## | 397 | 398 | 399 | 400 | 401 | |
| 402 ## | 0.347491493 | 0.513233920 | 0.381561631 | 0.271024454 | 0.398415476 | 0.247777 |
| 891 | 0,51,152155 | 0.313133310 | 0.301301031 | 012/2021131 | 0.330.123.70 | 012 |
| ## 408 | 403 | 404 | 405 | 406 | 407 | |
| 408 ## | 0.015628915 | -2.694905409 | 0.064618853 | -0.544082781 | 0.138974441 | 0.315540 |
| 443 | | | | | | |
| ## 414 | 409 | 410 | 411 | 412 | 413 | |
| ## | 0.547304058 | 0.149612974 | 0.090177184 | 0.113616428 | 0.173237259 | 0.181564 |
| 023 | | | | | | |
| ## 420 | 415 | 416 | 417 | 418 | 419 | |
| ## | 0.255919611 | 0.122135871 | -0.750480744 | 0.613517926 | 0.447212733 | 0.015636 |
| 553 | 424 | 422 | 422 | 42.4 | 425 | |
| ## 426 | 421 | 422 | 423 | 424 | 425 | |
| ## | 0.296767828 | 0.253993203 | 0.472771064 | 0.213522710 | 0.357937345 | 0.147686 |
| 565 ## | 427 | 428 | 429 | 430 | 431 | |
| 432 | 427 | 420 | 429 | 450 | 431 | |
| ## | 0.296767828 | 0.381561631 | 0.206929674 | 0.247777891 | 0.230553960 | -0.550483 |
| 136 ## | 433 | 434 | 435 | 436 | 437 | |
| 438 | 433 | 434 | - 733 | 430 | 437 | |
| ## | 0.264809141 | 0.147493885 | 0.272958499 | 0.271217134 | -0.711936659 | 0.422039 |
| 762 ## | 439 | 440 | 441 | 442 | 443 | |
| 444 | | | | | | |
| ## | 0.245666440 | 0.340906095 | 0.198602911 | 0.213522710 | 0.164532773 | -0.586479 |
| 682 ## | 445 | 446 | 447 | 448 | 449 | |
| 450 | | | | | | |
| ## 654 | 0.390081075 | 0.264439055 | -0.675940113 | -1.295095236 | 0.190083467 | 0.256104 |
| ## | 451 | 452 | 453 | 454 | 455 | |
| 456 | | | | | | |
| ## | 0.255919611 | 0.239073404 | 0.272958499 | 0.313614035 | -0.803323497 | 0.064626 |

| 490 | | | | | | |
|-----------|---------------|-------------|--------------|--------------|--------------|-----------|
| 490 ## | 457 | 458 | 459 | 460 | 461 | |
| 462 | 137 | 150 | 133 | 100 | 101 | |
| ## | 0.472956107 | 0.090177184 | 0.389703351 | -0.560928988 | 0.298694236 | 0.396481 |
| 430 | | | | | | |
| ## | 463 | 464 | 465 | 466 | 467 | |
| 468 | -0.826762741 | 0.321948436 | 0.207114717 | 0.564342946 | 0.347499130 | -0.593072 |
| 718 | -0.820/62/41 | 0.321946430 | 0.20/114/1/ | 0.304342940 | 0.347433130 | -0.593072 |
| ## | 469 | 470 | 471 | 472 | 473 | |
| 474 | | | | | | |
| ## | 0.139167122 | 0.249519256 | -0.644174106 | 0.115727878 | -1.612030376 | 0.396674 |
| 110 | | | | | | |
| ## | 475 | 476 | 477 | 478 | 479 | |
| 480 ## | 0.223968562 | 0.164717816 | 0.196676503 | 0.247777891 | 0.141093530 | 0.264624 |
| ## 098 | 0.223900302 | 0.104/1/610 | 0.1900/0303 | 0.24////091 | 0.141095550 | 0.204024 |
| ## | 481 | 482 | 483 | 484 | 485 | |
| 486 | | | | | | |
| ## | 0.107023392 | 0.449509226 | -1.677866521 | 0.139167122 | 0.247592848 | 0.090177 |
| 184 | | | | | | |
| ## | 487 | 488 | 489 | 490 | 491 | |
| 492 ## | -1.610103968 | 0.517464459 | 0.196668865 | 0.239258447 | -0.535563337 | 0.239073 |
| 404 | -1.010103508 | 0.317404433 | 0.10000000 | 0.233230447 | -0.55555557 | 0.233073 |
| ## | 493 | 494 | 495 | 496 | 497 | |
| 498 | | | | | | |
| ## | 0.181749066 | 0.272958499 | 0.239258447 | 0.222227197 | -1.635469619 | 0.105096 |
| 984 | 400 | 500 | 504 | 500 | 502 | |
| ## 504 | 499 | 500 | 501 | 502 | 503 | |
| ## | 0.290174792 | 0.271024454 | 0.264616460 | 0.164525135 | 0.132759129 | 0.288063 |
| 341 | 0,12301, 1,31 | 012,202 | 0.20.020.00 | 0.10.313133 | 0,132,33123 | 0.20000 |
| ## | 505 | 506 | 507 | 508 | 509 | |
| 510 | | | | | | |
| ## | 0.423781127 | 0.147678928 | 0.547496738 | 0.472948469 | 0.254178246 | -0.535756 |
| 017 ## | 511 | 512 | 513 | 514 | 515 | |
| ## 516 | 211 | 512 | 213 | 514 | 213 | |
| ## | 0.132574086 | 0.373049824 | 0.647395383 | 0.273143542 | 0.237139358 | 0.081657 |
| 740 | | | | | | |
| ## | 517 | 518 | 519 | 520 | 521 | |
| 522 | | | | | | |
| ## | 0.107023392 | 0.247592848 | 0.164532773 | 0.458028670 | 0.447405413 | 0.189890 |
| 786 ## | 523 | 524 | 525 | 526 | 527 | |
| ## 528 | 525 | 524 | 525 | 520 | 527 | |
| ## | 0.289989749 | 0.317651894 | 0.247777891 | -1.843801628 | 0.247592848 | -0.752407 |
| 152 | | | | | | |
| ## | 529 | 530 | 531 | 532 | 533 | |
| | | | | | | |

| 534 ## | 0.122135871 | 0.262697690 | 0.387776943 | 0.213700115 | 0.190083467 | 0.173237 |
|-----------|--------------|--------------|---------------|--------------|--------------|----------|
| 259 | 0.122133071 | 0.202037030 | 0.30,7,703.13 | 0.213700113 | 0.150005107 | 0.173237 |
| ## | 535 | 536 | 537 | 538 | 539 | |
| 540 ## | 0.330460243 | 0.105096984 | 0.496395350 | 0.264624098 | 0.239073404 | 0.139167 |
| 122 | | | | | | |
| ## 546 | 541 | 542 | 543 | 544 | 545 | |
| ## | 0.088058096 | 0.464436663 | 0.141093530 | 0.198602911 | 0.230739003 | 0.356010 |
| 937 | | - 40 | - 40 | | | |
| ## 552 | 547 | 548 | 549 | 550 | 551 | |
| ## | 0.139167122 | 0.396666473 | -0.720271060 | 0.223968562 | 0.188149421 | 0.430366 |
| 525 ## | 553 | 554 | 555 | 556 | 557 | |
| 558 | 223 | 334 | 333 | 000 | 337 | |
| ## | 0.330645285 | -1.601592162 | -0.652508507 | 0.406742239 | 0.547311695 | 0.279543 |
| 897 ## | 559 | 560 | 561 | 562 | 563 | |
| 564 | 332 | | 301 | 302 | | |
| ## · | -0.552594587 | 0.192194918 | 0.281470305 | 0.181564023 | 0.232480368 | 0.098696 |
| ## | 565 | 566 | 567 | 568 | 569 | |
| 570 | 0.406050770 | 0. 240006005 | 0 400007357 | 0.245540442 | 0.045440440 | 0 200504 |
| ## 556 | 0.126358773 | 0.340906095 | 0.489987357 | 0.315540443 | 0.215449118 | 0.298501 |
| ## | 571 | 572 | 573 | 574 | 575 | |
| 576 ## | 0 373049824 | -1.510197686 | 0 3730/1982/ | -0.701305764 | 0.258031062 | 0.273135 |
| 904 | 0.373043024 | 1.310137000 | 0.373043024 | 0.701303704 | 0.230031002 | 0.273133 |
| ## 582 | 577 | 578 | 579 | 580 | 581 | |
| ## | 0.364530381 | 0.315540443 | 0.413335275 | 0.056107046 | 0.721943652 | 0.313614 |
| 035 | | | | | | |
| ## 588 | 583 | 584 | 585 | 586 | 587 | |
| ## - | -1.667428306 | 0.271032091 | 0.255919611 | 0.256104654 | 0.283581756 | 0.347684 |
| 173 ## | 589 | 590 | 591 | 592 | 593 | |
| 594 | 369 | 390 | 391 | 392 | 393 | |
| ## | 0.549423146 | 0.322318522 | 0.164717816 | -0.469727192 | 0.530272808 | 0.230739 |
| 003 ## | 595 | 596 | 597 | 598 | 599 | |
| 600 | | | | | | |
| ## 392 | 0.305094591 | 0.422224804 | 0.298509193 | 0.064626490 | -0.784365839 | 0.107023 |
| ## | 601 | 602 | 603 | 604 | 605 | |
| 606 | 0.206502765 | 0 274445770 | 0.025467227 | 0 220072464 | 0. 220072464 | 0 227420 |
| ## | 0.296582785 | 0.3/1115779 | -0.835467227 | 0.239073404 | 0.239073404 | 0.237139 |

| 358 | | | | | |
|-----------------------|--------------|--------------|--------------|--------------|-----------|
| ## 607 | 608 | 609 | 610 | 611 | |
| 612 | 000 | 003 | 010 | 011 | |
| ## -0.786477290 | -1.652500870 | -1.454807393 | -0.635469619 | 0.139167122 | 0.313428 |
| 993 | | | | | |
| ## 613 | 614 | 615 | 616 | 617 | |
| 618 | | | | | |
| ## 0.175163668 | 0.264624098 | 0.198602911 | 0.130647678 | -1.875752678 | 0.264624 |
| 098 | | | | | |
| ## 619 | 620 | 621 | 622 | 623 | |
| 624 | | | | | |
| ## -0.001402335 | 0.356010937 | 0.296582785 | -0.624838725 | 0.098503948 | 0.556008 |
| 544 | | | | | |
| ## 625 | 626 | 627 | 628 | 629 | |
| 630 | | | | | |
| ## 0.122135871 | 0.306835957 | 0.315540443 | 0.523864815 | -0.826762741 | 0.132574 |
| 086 | 633 | 622 | 624 | 625 | |
| ## 631 | 632 | 633 | 634 | 635 | |
| 636 | 0.041187247 | 0.281470305 | 0.313421355 | 0 221040700 | 0 026055 |
| ## 0.173052217 421 | 0.04110/24/ | 0.2014/0303 | 0.313421333 | 0.321940799 | -0.020933 |
| ## 637 | 638 | 639 | 640 | 641 | |
| 642 | 030 | 033 | 040 | 041 | |
| ## 0.213515072 | 0.154086921 | 0.105096984 | 0.273328585 | 0.015636553 | 0.330460 |
| 243 | | | | | |
| ## 643 | 644 | 645 | 646 | 647 | |
| 648 | | | | | |
| ## -0.701498444 | 0.090177184 | -0.794996734 | 0.415446726 | -0.752407152 | 0.321948 |
| 436 | | | | | |
| ## 649 | 650 | 651 | 652 | 653 | |
| 654 | | | | | |
| ## 0.215441481 | 0.266550506 | 0.398415476 | 0.315540443 | -0.786477290 | 0.164717 |
| 816 | CEC | 657 | 650 | 650 | |
| ## 655 660 | 656 | 657 | 658 | 659 | |
| ## -0.744080389 | 0 16/717016 | 0 220250447 | 0 272059400 | 0 202007492 | 0.196676 |
| 503 | 0.104/1/010 | 0.239230447 | 0.272936499 | 0.332007403 | 0.190070 |
| ## 661 | 662 | 663 | 664 | 665 | |
| 666 | 002 | 003 | 001 | 003 | |
| | 0.572862389 | 0.239073404 | 0.330460243 | 0.498499163 | 0.288248 |
| 384 | | | | | |
| ## 667 | 668 | 669 | 670 | 671 | |
| 672 | | | | | |
| ## 0.247777891 | 0.573047432 | 0.288248384 | -0.684459557 | 0.364530381 | 0.356010 |
| 937 | | | | | |
| ## 673 | 674 | 675 | 676 | 677 | |
| 678 | | | | | |
| ## -1.728975546 | -0.737487353 | 0.156198372 | 0.205003266 | 0.564527988 | -0.661020 |
| 313 | 600 | 604 | 600 | 603 | |
| ## 679 | 680 | 681 | 682 | 683 | |

| 684 ## 0.230739003 0.264809141 0.056107046 0.107208434 -0.809916533 0.137048 033 ## 685 686 687 688 689 690 ## 0.124062280 0.338979687 -2.826955421 0.173237259 0.081657740 0.247592 848 ## 691 692 693 694 695 696 ## 0.249704299 0.215634161 0.179637615 0.338979687 0.156198372 0.164532 773 ## 697 698 699 700 701 |
|--|
| ## 685 686 687 688 689 690 ## 0.124062280 0.338979687 -2.826955421 0.173237259 0.081657740 0.247592 848 ## 691 692 693 694 695 696 ## 0.249704299 0.215634161 0.179637615 0.338979687 0.156198372 0.164532 773 |
| 690 ## 0.124062280 0.338979687 -2.826955421 0.173237259 0.081657740 0.247592 848 ## 691 692 693 694 695 696 ## 0.249704299 0.215634161 0.179637615 0.338979687 0.156198372 0.164532 773 |
| ## 0.124062280 0.338979687 -2.826955421 0.173237259 0.081657740 0.247592 848 ## 691 692 693 694 695 696 ## 0.249704299 0.215634161 0.179637615 0.338979687 0.156198372 0.164532 773 |
| ## 691 692 693 694 695 696 ## 0.249704299 0.215634161 0.179637615 0.338979687 0.156198372 0.164532 773 |
| 696 ## 0.249704299 0.215634161 0.179637615 0.338979687 0.156198372 0.164532 773 |
| 773 |
| |
| "" "" "" "" "" "" "" "" "" "" "" "" "" |
| 702 |
| ## 0.287870661 0.147686565 0.198410230 0.255919611 0.307206042 0.374968 595 |
| ## 703 704 705 706 707 |
| 708 |
| ## 0.228627552 -0.743895346 0.064626490 0.075257385 0.164532773 0.313614 035 |
| ## 709 710 711 712 713 |
| 714 ## 0.370938374 0.164717816 -0.843986671 -0.769446040 0.387969624 0.247585 |
| 210 |
| ## 715 716 717 718 719 |
| 720 ## 0.058218497 -0.769260997 0.422032124 0.345572722 0.113616428 -0.678051 |
| 564 |
| ## 721 722 723 724 725 726 |
| ## -0.584553274 0.213515072 0.105096984 0.164532773 -0.793070326 0.389896 |
| 032 ## 727 728 729 730 731 |
| 732 |
| ## 0.445286325 0.171125809 0.323874845 0.188157059 0.313799078 0.239073 |
| 404 ## 733 734 735 736 737 |
| 738 |
| ## 0.422039762 -0.760934234 0.447397775 -2.295095236 -0.958812753 0.264624 098 |
| ## 739 740 741 742 743 |
| 744 ## 0.124247322 0.130647678 -0.858906470 0.338972049 0.379635223 -2.660835 |
| ## 0.124247322 0.130647678 -0.858906470 0.338972049 0.379635223 -2.660835 271 |
| ## 745 746 747 748 749 |
| 750 ## 0.230739003 0.247585210 0.147686565 0.381376588 0.256104654 0.247770 |
| 253 |
| ## 751 752 753 754 755 756 |
| ## 0.240992175 0.145567477 0.215449118 0.264624098 -0.603510932 0.213707 |

| 753 | | | | | | |
|-----------|--------------|--------------|------------------|--------------|---------------|-----------|
| 753 ## | 757 | 758 | 759 | 760 | 761 | |
| 762 | 757 | 750 | 755 | 700 | 701 | |
| ## | 0.130647678 | 0.283581756 | 0.523872452 | 0.098503948 | 0.015636553 | 0.547311 |
| 695 | | | | | | |
| ## | 763 | 764 | 765 | 766 | 767 | |
| 768 | | | | | | |
| ## | 0.324059887 | 0.164717816 | 0.321948436 | 0.196676503 | 0.115535198 | -3.469542 |
| 150 | 7.00 | 770 | 771 | 770 | 770 | |
| ## 774 | 769 | 770 | 771 | 772 | 773 | |
| | -0.652500870 | -1.643989063 | -3.278056348 | 0.196668865 | 0.447405413 | 0.115727 |
| 878 | 0.032300070 | 1.013303003 | 3.270030310 | 0.13000000 | 0.117 103 113 | 0.113,2, |
| ## | 775 | 776 | 777 | 778 | 779 | |
| 780 | | | | | | |
| | -1.452503262 | 0.322133479 | 0.015628915 | 0.321948436 | 0.470844656 | 0.356010 |
| 937 | | | | | | |
| ## | 781 | 782 | 783 | 784 | 785 | |
| 786 ## | A 247E02040 | -0.675940113 | 0.205188309 | A 162500727 | -0.718529695 | A E0E194 |
| ## 169 | 0.24/592848 | -0.0/5940113 | 0.205188509 | 0.102598727 | -0./18529695 | -0.595184 |
| ## | 787 | 788 | 789 | 790 | 791 | |
| 792 | | | | | ,,, | |
| ## | 0.139167122 | 0.462325212 | 0.396489068 | 0.156013329 | 0.190268510 | 0.472956 |
| 107 | | | | | | |
| ## | 793 | 794 | 795 | 796 | 797 | |
| 798 | 0.064604000 | 2 527042002 | 0 570445004 | 0 406050770 | 4 406750440 | 0 400506 |
| ## 927 | 0.264624098 | -2.527043893 | -0.5/8145281 | 0.126358773 | -1.486758442 | 0.400526 |
| ## | 799 | 800 | 801 | 802 | 803 | |
| 804 | , , , | 000 | 501 | 002 | 003 | |
| ## | 0.139167122 | 0.388154667 | 0.298509193 | -0.950293309 | 0.107023392 | 0.222227 |
| 197 | | | | | | |
| ## | 805 | 806 | 807 | 808 | 809 | |
| 810 | | 0.05405046 | 2 272254242 | 4 445400005 | 0.400405054 | 0 550400 |
| ## | 0.0/3145934 | 0.056107046 | -3.2/8056348 | -1.446102906 | 0.1221358/1 | -0.550483 |
| 136 ## | 811 | 812 | 813 | 814 | 815 | |
| 816 | 011 | 012 | 013 | 014 | 013 | |
| ## | 0.256289697 | 0.205188309 | 0.721943652 | 0.547496738 | 0.281470305 | 0.230739 |
| 003 | | | | | | |
| ## | 817 | 818 | 819 | 820 | 821 | |
| 822 | | | | | | |
| ## | 0.130647678 | -1.779884254 | -0.769446040 | 0.447405413 | 0.213707753 | 0.188157 |
| 059 | 022 | 024 | 025 | 026 | 007 | |
| ## 828 | 823 | 824 | 825 | 826 | 827 | |
| ## | 0.222042154 | 0.464436663 | 0.271217134 | -0.720271060 | 0.130647678 | 0.122128 |
| 234 | 0.222072134 | J. +U++JUUUJ | J. Z. , IZI, IJ4 | 5.720271000 | 3.130047070 | J.122120 |
| ## | 829 | 830 | 831 | 832 | 833 | |
| | | | | | | |

| 834 | -3.901303372 | 0.262697690 | 0.289989749 | A 164E22772 | a 172220622 | 1 677066 |
|-------------|--------------|--------------|--------------|---------------|--------------|---------------|
| ## - 521 | -3.9013033/2 | 0.262697690 | 0.289989749 | 0.164532773 | 0.173229622 | -1.6//866 |
| ## | 835 | 836 | 837 | 838 | 839 | |
| 840 | 633 | 630 | 637 | 030 | 633 | |
| | a 802701566 | -0.786477290 | 0.196676503 | 0.132759129 | 0.173052217 | _0 710010 |
| 251 | -0.092791300 | -0.780477230 | 0.1900/0303 | 0.132/33123 | 0.173032217 | -0.710010 |
| ## | 841 | 842 | 843 | 844 | 845 | |
| 846 | 041 | 0-12 | 043 | 0-1-1 | 043 | |
| ## | 0.154086921 | 0.181564023 | 0.090177184 | 0.190083467 | 0.413512680 | -0 478238 |
| 999 | 0.13-000321 | 0.101304023 | 0.0001//104 | 0.100005407 | 0.413312000 | 0.470250 |
| ## | 847 | 848 | 849 | 850 | 851 | |
| 852 | 017 | 0.10 | 0 15 | 030 | 051 | |
| ## | 0.340906095 | 0.096577540 | 0.22227197 | -1.429071656 | -0.601584524 | 0.498506 |
| 801 | 0.5.0500055 | 0.00003773.0 | 012222727 | 11,12,07,1030 | 0.00230.32. | 0.1.50500 |
| ## | 853 | 854 | 855 | 856 | 857 | |
| 858 | | | | | | |
| ## | 0.547496738 | 0.298501556 | 0.315540443 | 0.107023392 | 0.139167122 | 0.289989 |
| 749 | | | | | | |
| ## | 859 | 860 | 861 | 862 | 863 | |
| 864 | | | | | | |
| ## - | -1.618438369 | 0.272950862 | 0.207114717 | 0.164717816 | 0.164532773 | 0.464436 |
| 663 | | | | | | |
| ## | 865 | 866 | 867 | 868 | 869 | |
| 870 | | | | | | |
| ## | 0.164717816 | -0.792885283 | -0.769260997 | 0.289989749 | 0.222034516 | 0.196676 |
| 503 | | | | | | |
| ## | 871 | 872 | 873 | 874 | 875 | |
| 876 | | | | | | |
| ## | 0.264439055 | 0.164717816 | 0.205188309 | -0.784365839 | 0.374976233 | 0.472956 |
| 107 | | | | | | |
| ## | 877 | 878 | 879 | 880 | 881 | |
| 882 | 0 - 4-04460- | | 0 =44004550 | . =0000=400 | 0 074074000 | 0 04566 |
| ## | 0.547311695 | 0.3052/9634 | -0.711936659 | -0./99285638 | 0.374976233 | 0.245666 |
| 440 | 000 | 004 | 005 | 006 | 007 | |
| ## | 883 | 884 | 885 | 886 | 887 | |
| 888 ## | 0.249704299 | 0 247400120 | 0 000177104 | -1.760926596 | 0.264624098 | 0 000721 |
| ## 490 | 0.249/04299 | 0.347499130 | 0.0901//184 | -1./60926596 | 0.204024098 | -0.809/31 |
| ## | 889 | 890 | 891 | 892 | 893 | |
| ## 894 | 009 | 090 | 091 | 092 | 693 | |
| ## | 0.239073404 | 0 256104654 | 0.249519256 | 0 101564022 | 0.156198372 | 0.330645 |
| 285 | 0.239073404 | 0.230104034 | 0.249319230 | 0.101304023 | 0.130198372 | 0.550045 |
| ## | 895 | 896 | 897 | 898 | 899 | |
| 900 | 0,73 | 0.70 | 057 | 078 | 0.79 | |
| ## | 0.173237259 | -0.684459557 | 0.230739003 | 0.387969624 | 0.239258447 | 0.422039 |
| 762 | | 0.000007 | 2.250,55005 | 5.23,3330E | 5.255256.77 | |
| ## | 901 | 902 | 903 | 904 | 905 | |
| 906 | 201 | 332 | 203 | 201 | 203 | |
| ## | 0.422039762 | -0.537489745 | 0.488060949 | 0.247770253 | -1.629061626 | 0.181564 |
| | 323 | | | | | • |

| 023 | | | | | | |
|-----------|--------------|--------------|--------------|--------------|--------------|-----------|
| ## | 907 | 908 | 909 | 910 | 911 | |
| 912 | | | | | | |
| ## | 0.483394321 | 0.255919611 | 0.239073404 | 0.281470305 | 0.196676503 | 0.213707 |
| 753 | | | | | | |
| ## | 913 | 914 | 915 | 916 | 917 | |
| 918 ## | 0.289989749 | 0.198595273 | 0 205188300 | -0.858906470 | -0 786292247 | 0.239258 |
| 447 | 0.20000740 | 0.100000275 | 0.200100000 | -0.030300470 | -0.760232247 | 0.233236 |
| ## | 919 | 920 | 921 | 922 | 923 | |
| 924 | | | | | | |
| ## - | -0.811842941 | 0.264624098 | -0.743895346 | 0.289989749 | 0.223968562 | 0.288063 |
| 341 | | | | | | |
| ## | 925 | 926 | 927 | 928 | 929 | |
| 930 ## | 0.472956107 | 0.406927282 | 0.290174792 | 0.223968562 | 0.289989749 | 1 506672 |
| 363 | 0.472936107 | 0.40092/202 | 0.2901/4/92 | 0.223900302 | 0.203303743 | -1.560072 |
| ## | 931 | 932 | 933 | 934 | 935 | |
| 936 | _ | | | _ | | |
| ## | 0.464436663 | 0.289989749 | 0.264439055 | 0.313614035 | 0.264624098 | 0.421854 |
| 719 | | | | | | |
| ## | 937 | 938 | 939 | 940 | 941 | |
| 942 | -0.620549820 | 0.073145934 | 0.162598727 | -0.801397089 | 0.422039762 | 0.239073 |
| 404 | 0.020343020 | 0.073143334 | 0.102330727 | 0.001337003 | 0.422033702 | 0.233073 |
| ## | 943 | 944 | 945 | 946 | 947 | |
| 948 | | | | | | |
| ## | 0.332386651 | -0.735375902 | 0.205003266 | 0.141093530 | 0.222227197 | 0.373049 |
| 824 | 0.40 | 050 | 0.51 | 053 | 0.53 | |
| ## 954 | 949 | 950 | 951 | 952 | 953 | |
| ## | 0.281470305 | 0.264624098 | 0.179637615 | -0.701490807 | 0.130647678 | 0.222042 |
| 154 | | | | | | |
| ## | 955 | 956 | 957 | 958 | 959 | |
| 960 | | | | | | |
| | 0.258031062 | 0.247777891 | 0.247592848 | 0.547496738 | 0.432292933 | -0.661020 |
| 313 ## | 961 | 962 | 963 | 964 | 965 | |
| 966 | 501 | 302 | 202 | 704 | 202 | |
| ## | 0.098688991 | 0.247400168 | 0.572854752 | -0.843986671 | 0.164717816 | 0.007117 |
| 109 | | | | | | |
| ## | 967 | 968 | 969 | 970 | 971 | |
| 972 | 0 =040:5555 | | 0 00000000 | 0.404====== | 0.4555555 | 0.000015 |
| ## 559 | 0./21943652 | 0.239258447 | 0.338979687 | 0.196676503 | 0.1/5163668 | 0.222219 |
| 559 ## | 973 | 974 | 975 | 976 | 977 | |
| 978 | 273 | 274 | 273 | 570 | 3,11 | |
| ## | 0.156198372 | 0.213700115 | 0.288248384 | -0.009921779 | 0.064626490 | 0.190083 |
| 467 | | | | | | |
| ## | 979 | 980 | 981 | 982 | 983 | |

```
984
## 0.196676503 0.064626490 0.288063341 0.362603973 0.347684173 0.321948
436
                       986
                                    987
                                                988
                                                             989
##
           985
990
## 0.354084529 0.228627552 -0.686393602 -0.735190859 0.190268510 0.113616
428
##
           991
                       992
                                    993
                                                 994
                                                             995
996
## 0.322133479 0.273328585 -0.775846395 0.247592848 0.164717816 0.373234
867
                      998
##
           997
                                   999
                                                1000
                                                            1001
                                                                         1
002
## 0.422224804 0.256104654 0.107208434 0.132574086 0.330460243 0.249519
256
          1003
                      1004
                                   1005
                                                1006
                                                            1007
##
                                                                         1
800
## 0.198787953 -0.918342260 0.324059887 0.141093530 -0.550668179 -0.628876
584
##
          1009
                      1010
## 0.256104654 0.481282870
#Anova Table
anova(fit)
## Analysis of Variance Table
##
## Response: Music
              Df Sum Sq Mean Sq F value Pr(>F)
## Dance
                   3.02 3.0206 7.1237
                                         0.00773 **
              1
                   0.33 0.3264 0.7698
## Folk
               1
                                         0.38049
## Pop
               1
                 1.07 1.0742 2.5334
                                         0.11177
               1 13.73 13.7299 32.3807 1.662e-08 ***
## Rock
## Residuals 1005 426.14 0.4240
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
vcov(fit)
                (Intercept)
                                   Dance
                                                 Folk
## (Intercept) 0.0113157661 -7.590845e-04 -5.928360e-04 -7.606637e-04
## Dance
              -0.0007590845 3.841322e-04 -2.628509e-05 -1.638440e-04
              -0.0005928360 -2.628509e-05 3.263151e-04 4.148151e-06
## Folk
              -0.0007606637 -1.638440e-04 4.148151e-06 3.819485e-04
## Pop
## Rock
              -0.0012050029 5.073407e-05 -2.320344e-05 -1.702447e-05
## (Intercept) -1.205003e-03
## Dance
              5.073407e-05
## Folk
              -2.320344e-05
## Pop
              -1.702447e-05
## Rock
              3.082471e-04
```

```
cov2cor(vcov(fit))
                                            Folk
##
                                                         Pop
              (Intercept)
                                Dance
                                                                    Rock
                1.0000000 -0.36408918 -0.30851341 -0.36588812 -0.64520332
## (Intercept)
## Dance
               -0.3640892 1.00000000 -0.07424215 -0.42774787 0.14743812
## Folk
               -0.3085134 -0.07424215 1.00000000 0.01174988 -0.07316177
## Pop
               -0.3658881 -0.42774787 0.01174988 1.00000000 -0.04961600
               -0.6452033 0.14743812 -0.07316177 -0.04961600 1.00000000
## Rock
temp <- influence.measures(fit)</pre>
temp
## Influence measures of
    lm(formula = Music ~ Dance + Folk + Pop + Rock, data = music transformed
) :
##
          dfb.1 dfb.Danc dfb.Folk dfb.Pop dfb.Rock
##
                                                            dffit cov.r
ook.d
## 1
       -2.38e-03 -1.21e-02 -9.32e-03 1.54e-02 7.62e-03 0.022794 1.012 1.0
4e-04
## 2
       -1.55e-02 2.40e-02 4.31e-02 2.21e-03 -3.81e-02 -0.076217 1.002 1.1
6e-03
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
## 3
9e-05
## 4
        6.44e-02 -1.61e-02 -2.57e-02 -2.36e-02 -4.03e-02 0.066651 1.008 8.8
9e-04
## 5
       -5.22e-03 9.75e-04 7.78e-03 1.41e-02 -8.00e-03 0.023326 1.008 1.0
9e-04
## 6
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
## 7
       -7.72e-03 1.04e-02 5.58e-03 7.30e-03 -5.06e-03 0.021537 1.009 9.2
9e-05
## 8
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 9
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
       -6.20e-03 -8.22e-03 2.19e-02 -1.58e-04 6.89e-03 0.026655 1.013 1.4
## 10
2e-04
## 11
        9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
4e-05
        1.60e-02 -1.71e-02 -1.56e-02 -8.70e-03 1.32e-02 0.036635 1.010 2.6
## 12
9e-04
## 13
        6.23e-03 -2.11e-02 -2.41e-03 4.60e-03 1.03e-02 0.028790 1.009 1.6
6e-04
## 14
       -3.23e-03 1.36e-02 9.23e-03 1.15e-02 -2.03e-02 0.037130 1.010 2.7
6e-04
## 15
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
## 16
       -2.61e-02 1.31e-01 4.86e-02 9.01e-03 -1.76e-01 -0.314471 0.849 1.9
1e-02
```

```
3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
## 17
9e-05
## 18
       -3.08e-03 -3.83e-03 6.96e-03 6.13e-03 1.32e-03 0.014671 1.006 4.3
1e-05
## 19
       -7.63e-03 5.25e-03 6.58e-03 3.33e-03 1.38e-03 0.011840 1.011 2.8
1e-05
## 20
        5.75e-03 6.45e-03 8.21e-03 -1.85e-02 2.90e-03 0.024694 1.007 1.2
2e-04
## 21
        1.30e-03 6.13e-03 -3.16e-03 -1.30e-02 1.05e-02 0.018910 1.009 7.1
6e-05
## 22
        1.60e-02 -1.71e-02 -1.56e-02 -8.70e-03 1.32e-02 0.036635 1.010 2.6
9e-04
## 23
        9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
4e-05
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
## 24
8e-05
## 25
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
## 26
        2.16e-02 -2.46e-03 -2.92e-03 2.74e-02 -5.19e-02 0.064486 1.011 8.3
2e-04
       -8.54e-03 8.10e-03 1.26e-02 -1.40e-03 1.53e-03 0.016781 1.014 5.6
## 27
4e-05
       -5.28e-03 -1.44e-02 -5.24e-02 4.76e-02 -5.23e-03 -0.079826 1.004 1.2
## 28
7e-03
## 29
       -6.82e-04 1.80e-02 -1.10e-02 -1.06e-02 4.91e-03 0.022453 1.012 1.0
1e-04
       -2.39e-03 -1.27e-05 1.79e-02 -4.73e-03 1.21e-03 0.022288 1.008 9.9
## 30
4e-05
        2.48e-02 -2.43e-02 -2.19e-02 -5.55e-03 -1.03e-02 -0.055880 0.999 6.2
## 31
4e-04
       -4.34e-03 -7.39e-03 4.01e-02 -3.94e-02 1.82e-02 -0.074309 1.003 1.1
## 32
0e-03
## 33
        8.15e-03 2.58e-03 -1.52e-02 -5.63e-03 3.89e-03 0.021076 1.007 8.8
9e-05
        1.69e-02 -2.56e-02 -2.33e-03 1.86e-02 -1.53e-02 0.035268 1.007 2.4
## 34
9e-04
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
## 35
3e-05
       -1.07e-03 -1.30e-02 1.03e-02 2.29e-02 -1.16e-02 0.030673 1.008 1.8
## 36
8e-04
## 37
        6.71e-03 -3.61e-02 1.22e-02 2.18e-02 -2.62e-03 0.041366 1.010 3.4
2e-04
## 38
        5.35e-02 -3.47e-02 -2.31e-02 -1.25e-02 -1.92e-02 0.060321 1.008 7.2
8e-04
## 39
       -6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
1e-05
## 40
       -6.01e-03 -3.19e-03 2.92e-03 7.45e-03 4.73e-03 0.010868 1.009 2.3
6e-05
## 41
       -3.16e-02 1.11e-03 2.60e-02 -3.09e-02 5.73e-02 -0.077710 1.011 1.2
1e-03
```

```
-4.44e-03 2.52e-02 2.09e-02 -2.94e-02 3.91e-03 0.040665 1.023 3.3
## 42
1e-04
        -4.41e-03 -1.20e-02 -1.88e-03 1.47e-02 6.73e-03 0.019831 1.011 7.8
## 43
7e-05
## 44
       -8.78e-04 -6.69e-03 -1.22e-02 1.60e-02 2.15e-03 0.022995 1.009 1.0
6e-04
## 45
        1.38e-02 -2.66e-02 1.29e-02 -5.09e-03 -1.27e-02 -0.052459 0.999 5.5
0e-04
        -5.89e-03 6.88e-03 -2.18e-03 3.78e-03 2.34e-03 0.011729 1.009 2.7
## 46
5e-05
## 47
        -4.15e-03 9.02e-04 1.37e-03 2.86e-03 2.91e-03 0.005618 1.009 6.3
2e-06
## 48
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
        3.95e-02 -1.32e-03 -2.35e-02 -7.81e-03 -3.26e-02 0.048506 1.007 4.7
## 49
1e-04
## 50
        4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
8e-05
## 51
        4.59e-02 6.86e-02 -6.35e-02 -7.83e-02 -3.01e-02 -0.121923 1.005 2.9
7e-03
        -6.22e-03 -7.47e-03 6.31e-03 1.49e-02 7.03e-04 0.019084 1.008 7.2
## 52
9e-05
        1.17e-03 -5.60e-04 -1.06e-03 -3.21e-04 -5.23e-04 -0.001564 1.015 4.9
## 53
0e-07
## 54
        -4.55e-03 5.58e-03 1.98e-02 2.55e-03 -8.77e-03 0.026939 1.008 1.4
5e-04
        1.17e-03 -5.60e-04 -1.06e-03 -3.21e-04 -5.23e-04 -0.001564 1.015 4.9
## 55
0e-07
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 56
6e-05
        1.60e-03 -2.38e-02 -2.05e-03 1.52e-02 8.73e-03 0.029835 1.011 1.7
## 57
8e-04
## 58
        -1.16e-03 5.28e-03 4.75e-03 -1.24e-02 9.43e-03 0.018435 1.009 6.8
0e-05
        6.67e-03 1.55e-02 1.35e-02 1.61e-02 -4.40e-02 0.060364 1.012 7.2
## 59
9e-04
        1.51e-02 -1.19e-02 -1.68e-02 -2.52e-04 2.39e-03 0.027394 1.007 1.5
## 60
0e-04
        4.80e-03 -1.72e-02 -2.60e-03 1.32e-02 5.80e-04 0.023571 1.007 1.1
## 61
1e-04
## 62
        -3.12e-03 1.24e-02 -9.31e-03 -2.11e-03 3.84e-03 0.017014 1.010 5.8
0e-05
## 63
        -7.63e-03 5.25e-03 6.58e-03 3.33e-03 1.38e-03 0.011840 1.011 2.8
1e-05
## 64
        1.21e-02 3.50e-02 -1.82e-02 -3.16e-02 -3.42e-03 0.046127 1.014 4.2
6e-04
## 65
        -2.04e-03 -6.18e-04 -8.60e-03 3.48e-03 7.90e-03 0.013949 1.009 3.9
0e-05
## 66
       -3.55e-02 -2.10e-03 3.30e-02 1.16e-02 1.71e-02 -0.050548 1.003 5.1
1e-04
```

```
5.31e-03 -5.14e-03 9.08e-03 -4.02e-02 2.07e-02 -0.063868 1.002 8.1
## 67
6e-04
        -5.17e-02 1.31e-02 -5.68e-02 -9.22e-02 1.78e-01 -0.222325 0.985 9.8
## 68
4e-03
## 69
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 70
        9.61e-03 -3.96e-02 -1.54e-02 3.59e-02 -1.29e-03 0.050840 1.014 5.1
7e-04
## 71
        -5.20e-03 1.15e-02 -3.40e-03 7.49e-03 -4.59e-03 0.021919 1.009 9.6
2e-05
## 72
        -3.55e-02 3.45e-02 -1.81e-02 -2.23e-02 5.32e-02 -0.065010 1.013 8.4
6e-04
## 73
       -4.41e-03 -1.20e-02 -1.88e-03 1.47e-02 6.73e-03 0.019831 1.011 7.8
7e-05
## 74
        1.51e-02 -1.89e-02 -2.43e-03 3.17e-02 -3.17e-02 0.048440 1.009 4.7
0e-04
## 75
        9.39e-02 -2.31e-02 -2.85e-02 -2.66e-02 -7.49e-02 0.097846 1.010 1.9
1e-03
## 76
       -5.27e-04 9.12e-03 1.37e-02 -2.27e-02 1.02e-02 0.030133 1.014 1.8
2e-04
## 77
        -4.62e-02 -3.50e-02 2.97e-02 4.56e-02 3.30e-02 -0.073936 1.009 1.0
9e-03
       -4.69e-03 7.79e-03 -7.65e-03 4.00e-03 2.90e-03 0.014566 1.011 4.2
## 78
5e-05
## 79
        5.31e-03 -5.14e-03 9.08e-03 -4.02e-02 2.07e-02 -0.063868 1.002 8.1
6e-04
## 80
        -4.16e-03 6.15e-04 3.20e-03 2.45e-03 2.32e-03 0.005627 1.011 6.3
4e-06
        -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
## 81
8e-05
       -3.61e-03 2.82e-03 -1.01e-02 9.01e-03 2.86e-03 0.017372 1.009 6.0
## 82
4e-05
## 83
        1.36e-02 -1.35e-02 9.96e-03 -2.28e-02 1.24e-02 0.041403 1.012 3.4
3e-04
        -1.56e-03 1.67e-03 -1.57e-03 7.30e-04 1.57e-03 0.003197 1.012 2.0
## 84
5e-06
        2.29e-02 -1.22e-02 -1.72e-02 -2.44e-02 1.51e-02 0.045802 1.012 4.2
## 85
0e-04
        8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
## 86
9e-05
## 87
       5.24e-02 -3.29e-02 -2.18e-02 -4.35e-03 -4.97e-02 -0.079244 0.998 1.2
5e-03
## 88
        -3.03e-03 4.17e-03 -6.09e-03 3.68e-04 5.96e-03 0.010209 1.009 2.0
9e-05
## 89
        -1.56e-03 1.67e-03 -1.57e-03 7.30e-04 1.57e-03 0.003197 1.012 2.0
5e-06
## 90
        -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 91
       -1.23e-02 -4.62e-03 9.56e-03 1.48e-02 -8.18e-03 -0.040388 1.000 3.2
6e-04
```

```
-3.80e-03 -2.15e-02 2.84e-02 4.54e-03 7.08e-03 0.038569 1.015 2.9
## 92
8e-04
        3.89e-02 -3.65e-02 1.88e-02 -1.16e-02 -2.16e-02 0.056986 1.008 6.5
## 93
0e-04
## 94
        8.64e-03 -5.07e-02 5.22e-02 2.88e-02 -2.32e-02 0.074718 1.017 1.1
2e-03
## 95
        1.50e-03 1.91e-02 -1.48e-02 -3.00e-03 -3.97e-03 0.027923 1.010 1.5
6e-04
## 96
        1.58e-02 6.20e-05 -3.63e-03 -6.57e-03 -1.11e-02 0.022507 1.005 1.0
1e-04
## 97
        3.20e-02 -2.52e-02 -1.96e-02 -1.08e-02 1.15e-03 0.045648 1.009 4.1
7e-04
## 98
        9.39e-02 -2.31e-02 -2.85e-02 -2.66e-02 -7.49e-02 0.097846 1.010 1.9
1e-03
## 99
        5.96e-02 -2.10e-01 1.28e-01 1.21e-01 -1.35e-01 -0.277291 0.970 1.5
3e-02
## 100
        1.98e-02 9.50e-03 -2.10e-02 3.95e-03 -2.56e-02 0.042155 1.008 3.5
6e-04
## 101
       -4.66e-03 2.92e-03 1.94e-03 3.86e-04 4.42e-03 0.007039 1.008 9.9
2e-06
## 102
        2.06e-02 -2.66e-02 1.37e-02 -9.95e-03 -1.28e-03 0.041732 1.008 3.4
9e-04
        1.81e-02 -1.28e-02 -3.23e-03 -2.36e-02 1.37e-02 0.041419 1.011 3.4
## 103
3e-04
## 104
        1.23e-02 1.72e-02 -4.05e-03 1.62e-02 -4.36e-02 0.060176 1.012 7.2
5e-04
       -1.47e-02 -1.65e-02 -2.10e-02 4.73e-02 -7.41e-03 -0.063014 1.002 7.9
## 105
4e-04
        2.06e-02 -2.66e-02 1.37e-02 -9.95e-03 -1.28e-03 0.041732 1.008 3.4
## 106
9e-04
      -5.15e-03 2.39e-03 4.87e-03 3.83e-04 3.73e-03 0.007783 1.010 1.2
## 107
1e-05
## 108
        3.20e-02 -2.52e-02 -1.96e-02 -1.08e-02 1.15e-03 0.045648 1.009 4.1
7e-04
       -3.34e-02 1.34e-02 6.69e-03 3.07e-02 -4.36e-03 -0.054306 1.003 5.9
## 109
0e-04
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
## 110
9e-05
       -9.35e-03 3.86e-03 1.85e-02 1.29e-03 1.04e-03 0.021244 1.012 9.0
## 111
3e-05
## 112
       -2.77e-03 1.02e-02 5.44e-03 -8.16e-03 3.07e-03 0.016266 1.007 5.3
0e-05
## 113
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
9e-04
## 114
        3.10e-02 -5.96e-02 2.89e-02 -1.14e-02 -2.84e-02 -0.117592 0.969 2.7
5e-03
## 115
        8.86e-03 -1.68e-02 -1.54e-02 1.35e-02 1.53e-03 0.028619 1.008 1.6
4e-04
## 116 -1.22e-03 1.03e-03 -3.43e-04 4.80e-04 9.68e-04 0.001834 1.011 6.7
3e-07
```

```
1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
## 117
9e-05
        9.65e-03 -3.12e-02 -1.98e-03 3.43e-02 -1.52e-02 0.044275 1.010 3.9
## 118
2e-04
## 119
        1.83e-02 -3.14e-02 -2.23e-03 7.10e-03 -9.18e-04 0.037119 1.008 2.7
6e-04
       -2.23e-02 -1.26e-02 6.01e-03 -6.35e-03 4.11e-02 -0.056268 1.004 6.3
## 120
3e-04
## 121
        4.69e-04 1.23e-02 -9.44e-03 -1.34e-02 9.77e-03 0.020484 1.013 8.4
0e-05
## 122
       -2.51e-03 4.54e-02 -2.43e-02 -3.35e-02 8.02e-04 -0.063478 1.002 8.0
6e-04
## 123
        5.14e-03 1.13e-02 -3.72e-03 -2.48e-02 1.24e-02 0.029342 1.012 1.7
2e-04
       -3.63e-03 1.44e-03 4.16e-03 -3.38e-03 7.73e-03 0.012219 1.007 2.9
## 124
9e-05
## 125
        2.05e-03 6.57e-02 -5.78e-02 -1.40e-02 -2.48e-02 -0.100848 1.006 2.0
3e-03
        5.75e-03 6.45e-03 8.21e-03 -1.85e-02 2.90e-03 0.024694 1.007 1.2
## 126
2e-04
## 127
        7.08e-03 -6.52e-02 1.06e-01 -1.05e-02 -3.40e-02 -0.155389 0.970 4.8
0e-03
        1.03e-02 1.28e-02 -2.33e-02 -2.05e-02 -4.40e-03 -0.048995 1.000 4.8
## 128
0e-04
       -1.56e-03 1.67e-03 -1.57e-03 7.30e-04 1.57e-03 0.003197 1.012 2.0
## 129
5e-06
## 130
       -2.42e-03 2.69e-03 6.65e-04 -4.94e-04 1.99e-03 0.003719 1.010 2.7
7e-06
       -2.78e-02 8.29e-03 4.21e-02 3.70e-02 -3.86e-02 -0.082512 1.003 1.3
## 131
6e-03
        2.98e-02 -1.01e-02 -2.20e-02 1.33e-02 -3.18e-02 0.047217 1.007 4.4
## 132
6e-04
## 133
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
        3.05e-02 -5.84e-03 3.50e-02 -4.03e-02 -1.75e-02 0.063916 1.011 8.1
## 134
7e-04
        4.12e-03 1.33e-02 8.99e-03 -1.15e-02 -8.19e-03 0.025059 1.007 1.2
## 135
6e-04
       4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
## 136
8e-05
## 137
       -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
7e-05
## 138
       -7.36e-03 1.55e-03 4.27e-03 8.27e-03 1.60e-03 0.013447 1.008 3.6
2e-05
## 139
        7.47e-02 -2.65e-02 2.65e-02 -2.53e-02 -7.68e-02 0.094898 1.010 1.8
0e-03
## 140 -6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
1e-05
## 141 -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
```

```
## 142 -1.84e-02 1.47e-01 -5.89e-02 -3.16e-02 -6.30e-02 -0.200277 0.975 7.9
7e-03
       -7.77e-04 7.16e-03 -1.16e-02 1.15e-03 3.73e-03 0.017067 1.008 5.8
## 143
3e-05
## 144 -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
       -2.04e-03 -6.18e-04 -8.60e-03 3.48e-03 7.90e-03 0.013949 1.009 3.9
## 145
0e-05
## 146
       -1.14e-01 -2.89e-01 2.28e-01 3.32e-01 -8.95e-02 -0.466385 0.854 4.2
1e-02
## 147
       -5.89e-03 6.88e-03 -2.18e-03 3.78e-03 2.34e-03 0.011729 1.009 2.7
5e-05
## 148
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 149
        2.53e-02 -4.81e-04 -5.52e-02 -4.19e-02 2.59e-02 -0.085128 1.004 1.4
5e-03
## 150
      -3.03e-01 1.51e-01 -1.01e-01 1.66e-01 2.04e-01 -0.373473 0.948 2.7
5e-02
## 151
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
9e-05
        1.40e-02 8.74e-03 -1.68e-02 -2.00e-02 4.95e-03 0.029906 1.008 1.7
## 152
9e-04
      -4.80e-03 1.12e-02 -2.73e-03 -1.91e-03 3.18e-03 0.013687 1.009 3.7
## 153
5e-05
       -5.27e-02 -1.80e-01 3.57e-02 2.53e-02 1.63e-01 -0.301064 0.929 1.7
## 154
8e-02
## 155
        1.81e-02 -1.28e-02 -3.23e-03 -2.36e-02 1.37e-02 0.041419 1.011 3.4
3e-04
        4.12e-03 1.33e-02 8.99e-03 -1.15e-02 -8.19e-03 0.025059 1.007 1.2
## 156
6e-04
       -3.86e-03 -7.94e-03 1.43e-02 -2.63e-04 7.80e-03 0.021416 1.010 9.1
## 157
8e-05
## 158
       -7.52e-03 4.59e-03 1.20e-02 1.26e-03 1.63e-03 0.016224 1.008 5.2
7e-05
## 159
       -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
5e-05
      -5.15e-03 2.39e-03 4.87e-03 3.83e-04 3.73e-03 0.007783 1.010 1.2
## 160
1e-05
        5.14e-03 1.13e-02 -3.72e-03 -2.48e-02 1.24e-02 0.029342 1.012 1.7
## 161
2e-04
## 162
       -1.91e-03 -1.01e-02 -2.27e-03 8.26e-03 8.19e-03 0.017447 1.008 6.0
9e-05
## 163
        8.95e-03 2.01e-02 -8.19e-02 -2.05e-02 2.90e-02 -0.093344 1.007 1.7
4e-03
## 164
        1.38e-02 -5.71e-03 -1.81e-02 9.61e-03 -1.03e-02 0.028908 1.007 1.6
7e-04
## 165
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
## 166
        2.06e-02 2.70e-02 -4.54e-03 -3.26e-03 -4.52e-02 0.061561 1.011 7.5
8e-04
```

```
5.73e-02 -2.73e-02 -2.16e-03 -3.65e-02 -2.04e-02 0.067122 1.009 9.0
## 167
1e-04
       -2.90e-02 -1.09e-02 2.26e-02 3.49e-02 -1.94e-02 -0.095589 0.971 1.8
## 168
2e-03
## 169
       -7.77e-04 7.16e-03 -1.16e-02 1.15e-03 3.73e-03 0.017067 1.008 5.8
3e-05
## 170
       4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
8e-05
## 171
       -1.42e-02 3.00e-02 -2.30e-02 -1.55e-04 -8.21e-04 -0.051969 1.002 5.4
0e-04
## 172
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
## 173
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
## 174
        5.25e-02 -2.57e-02 -2.42e-02 1.75e-03 -3.96e-02 0.059418 1.007 7.0
6e-04
## 175
        8.76e-02 -5.23e-02 9.10e-02 -4.56e-02 -9.23e-02 0.152228 1.020 4.6
3e-03
## 176
        1.00e-02 -2.10e-02 -1.41e-02 4.62e-03 1.15e-02 0.032841 1.010 2.1
6e-04
## 177
       -6.94e-03 4.05e-04 1.57e-02 -2.89e-03 6.05e-03 0.018744 1.012 7.0
3e-05
## 178
        9.29e-03 -1.41e-02 2.25e-02 -2.21e-02 1.12e-02 0.045127 1.014 4.0
8e-04
## 179
       -3.37e-02 4.34e-02 -2.24e-02 1.63e-02 2.09e-03 -0.068213 1.006 9.3
1e-04
       -4.76e-02 1.89e-02 -5.48e-04 1.93e-02 3.54e-02 -0.050443 1.017 5.0
## 180
9e-04
       -2.78e-02 8.29e-03 4.21e-02 3.70e-02 -3.86e-02 -0.082512 1.003 1.3
## 181
6e-03
       -2.77e-03 1.02e-02 5.44e-03 -8.16e-03 3.07e-03 0.016266 1.007 5.3
## 182
0e-05
## 183
       -4.66e-03 2.92e-03 1.94e-03 3.86e-04 4.42e-03 0.007039 1.008 9.9
2e-06
        9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
## 184
4e-05
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
## 185
4e-04
       -1.28e-01 4.26e-03 7.61e-02 2.53e-02 1.05e-01 -0.157005 0.982 4.9
## 186
1e-03
## 187
       -2.33e-02 4.17e-02 -4.39e-02 -2.72e-02 4.64e-02 -0.075359 1.010 1.1
4e-03
## 188
        2.65e-02 -4.93e-02 -1.12e-03 2.98e-02 -2.03e-02 0.056383 1.010 6.3
6e-04
## 189
       -4.99e-02 4.94e-03 -5.39e-02 2.89e-02 5.52e-02 -0.114072 0.975 2.5
9e-03
## 190
        2.89e-02 -2.04e-02 1.44e-02 -2.94e-02 -4.34e-04 0.052397 1.010 5.4
9e-04
## 191 -3.34e-02 1.34e-02 6.69e-03 3.07e-02 -4.36e-03 -0.054306 1.003 5.9
0e-04
```

```
6.10e-03 -4.48e-02 5.56e-02 4.32e-02 -4.10e-02 0.083691 1.018 1.4
## 192
0e-03
       -3.61e-03 2.82e-03 -1.01e-02 9.01e-03 2.86e-03 0.017372 1.009 6.0
## 193
4e-05
## 194
        9.29e-03 -1.41e-02 2.25e-02 -2.21e-02 1.12e-02 0.045127 1.014 4.0
8e-04
        2.62e-02 -2.59e-02 -2.60e-03 -1.04e-02 -9.09e-05 0.040362 1.008 3.2
## 195
6e-04
## 196
        3.39e-02 -1.16e-02 -3.11e-03 -1.95e-02 -1.53e-02 0.039106 1.006 3.0
6e-04
## 197
        4.80e-03 -1.72e-02 -2.60e-03 1.32e-02 5.80e-04 0.023571 1.007 1.1
1e-04
## 198
        4.28e-02 6.78e-03 -3.67e-03 -3.05e-02 -3.42e-02 0.053068 1.007 5.6
3e-04
       -5.39e-03 8.97e-04 1.03e-02 -3.13e-03 6.86e-03 0.014953 1.009 4.4
## 199
8e-05
## 200
        1.99e-02 2.44e-02 -1.99e-02 -2.97e-02 -6.36e-03 0.042436 1.010 3.6
0e-04
## 201
       -9.75e-03 7.75e-03 4.15e-02 -1.93e-02 -9.01e-03 -0.059213 1.001 7.0
1e-04
      -7.81e-03 -1.17e-02 1.08e-02 1.33e-02 5.12e-03 0.020754 1.013 8.6
## 202
2e-05
        1.87e-02 3.39e-02 -2.13e-02 -2.12e-02 -2.08e-02 0.051338 1.011 5.2
## 203
7e-04
## 204
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
8e-05
## 205
       -1.16e-03 5.28e-03 4.75e-03 -1.24e-02 9.43e-03 0.018435 1.009 6.8
0e-05
      -2.64e-03 -1.80e-02 2.08e-02 1.27e-02 -1.15e-03 0.030312 1.009 1.8
## 206
4e-04
      -2.85e-03 1.65e-02 -3.32e-03 -9.98e-03 4.14e-03 0.018884 1.010 7.1
## 207
4e-05
## 208
        1.91e-02 -2.00e-02 1.47e-02 9.25e-04 -1.63e-02 0.034418 1.006 2.3
7e-04
## 209
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
       -3.10e-03 1.00e-02 3.02e-03 -1.17e-02 7.81e-03 0.016367 1.011 5.3
## 210
6e-05
       -1.58e-03 1.19e-03 1.66e-03 -2.22e-04 8.60e-04 0.002421 1.015 1.1
## 211
7e-06
## 212
       -1.56e-03 1.67e-03 -1.57e-03 7.30e-04 1.57e-03 0.003197 1.012 2.0
5e-06
## 213
        2.06e-02 -2.66e-02 1.37e-02 -9.95e-03 -1.28e-03 0.041732 1.008 3.4
9e-04
## 214
       -3.93e-03 1.24e-03 -1.19e-03 3.26e-03 3.55e-03 0.006388 1.009 8.1
7e-06
## 215
       -5.33e-03 2.67e-02 9.92e-03 1.84e-03 -3.60e-02 -0.064241 1.001 8.2
5e-04
## 216 -3.93e-01 2.02e-01 1.60e-03 -2.04e-02 4.15e-01 -0.475970 0.883 4.4
1e-02
```

```
4.13e-02 -1.85e-02 -2.12e-02 -3.11e-02 2.20e-03 0.056625 1.010 6.4
## 217
2e-04
        6.83e-03 8.93e-03 -1.66e-02 2.34e-03 -6.78e-03 0.025936 1.007 1.3
## 218
5e-04
## 219
        2.25e-02 -2.49e-02 -1.93e-02 1.89e-02 -1.44e-02 0.040867 1.008 3.3
4e-04
## 220
        3.66e-02 4.01e-02 -2.56e-02 -2.59e-02 -4.62e-02 0.075453 1.013 1.1
4e-03
## 221
        1.70e-02 2.99e-02 1.02e-02 -4.68e-02 -7.96e-03 0.053597 1.013 5.7
5e-04
## 222
       -6.03e-03 4.46e-03 9.85e-03 -3.67e-03 4.54e-03 0.012949 1.014 3.3
6e-05
## 223
       -5.00e-03 -3.09e-03 -1.70e-03 7.99e-03 5.47e-03 0.011442 1.009 2.6
2e-05
## 224
        1.73e-02 -1.24e-02 1.57e-02 1.32e-02 -3.33e-02 0.043103 1.007 3.7
2e-04
## 225
       -1.91e-03 -1.01e-02 -2.27e-03 8.26e-03 8.19e-03 0.017447 1.008 6.0
9e-05
## 226
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
## 227
       -1.58e-03 1.19e-03 1.66e-03 -2.22e-04 8.60e-04 0.002421 1.015 1.1
7e-06
        7.79e-03 -8.60e-03 2.43e-02 -1.47e-02 1.13e-04 0.035833 1.009 2.5
## 228
7e-04
## 229
       -2.62e-03 6.21e-03 -7.85e-02 1.10e-02 2.64e-02 -0.088340 1.007 1.5
6e-03
       -6.88e-03 -1.90e-02 9.14e-03 -5.92e-03 1.83e-02 -0.048241 1.001 4.6
## 230
5e-04
       -4.42e-03 -3.24e-02 4.17e-02 3.26e-02 -1.74e-02 0.058766 1.016 6.9
## 231
1e-04
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
## 232
3e-05
## 233
        4.61e-02 -3.56e-02 -1.78e-03 -1.20e-02 -2.04e-02 0.054747 1.007 6.0
0e-04
        1.38e-02 -2.66e-02 1.29e-02 -5.09e-03 -1.27e-02 -0.052459 0.999 5.5
## 234
0e-04
        6.53e-02 -3.03e-02 -6.18e-02 -4.86e-03 -4.73e-02 -0.098727 1.000 1.9
## 235
5e-03
        1.00e-02 -2.10e-02 -1.41e-02 4.62e-03 1.15e-02 0.032841 1.010 2.1
## 236
6e-04
## 237
        5.13e-02 6.37e-02 -1.16e-01 -1.02e-01 -2.19e-02 -0.243964 0.849 1.1
5e-02
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 238
6e-05
## 239
        4.16e-02 -3.43e-02 -2.28e-02 2.47e-02 -3.88e-02 0.061696 1.009 7.6
2e-04
## 240
        4.04e-03 1.75e-02 -4.11e-03 -2.08e-02 4.90e-03 0.026003 1.009 1.3
5e-04
## 241 -1.41e-01 3.62e-02 7.76e-02 7.00e-02 4.96e-02 -0.158621 0.981 5.0
1e-03
```

```
3.11e-02 -1.82e-02 -2.08e-02 5.40e-04 -1.44e-02 0.038560 1.006 2.9
## 242
8e-04
        3.07e-02 5.96e-02 2.14e-02 -1.30e-01 -1.18e-02 -0.158913 0.971 5.0
## 243
2e-03
## 244
      -2.38e-03 -1.21e-02 -9.32e-03 1.54e-02 7.62e-03 0.022794 1.012 1.0
4e-04
## 245
       -1.22e-03 1.03e-03 -3.43e-04 4.80e-04 9.68e-04 0.001834 1.011 6.7
3e-07
## 246
        6.22e-03 -1.32e-02 1.01e-02 6.79e-05 3.60e-04 0.022806 1.006 1.0
4e-04
## 247
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 248
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 249
      -3.03e-03 4.17e-03 -6.09e-03 3.68e-04 5.96e-03 0.010209 1.009 2.0
9e-05
## 250 -6.81e-03 -3.24e-03 6.83e-03 6.90e-03 4.05e-03 0.011810 1.011 2.7
9e-05
        9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
## 251
4e-05
      -1.22e-03 1.03e-03 -3.43e-04 4.80e-04 9.68e-04 0.001834 1.011 6.7
## 252
3e-07
## 253 -1.91e-03 -1.01e-02 -2.27e-03 8.26e-03 8.19e-03 0.017447 1.008 6.0
9e-05
## 254
       6.35e-02 -5.12e-03 -2.68e-02 -8.30e-03 -6.35e-02 0.077057 1.009 1.1
9e-03
## 255
       -7.72e-03 1.04e-02 5.58e-03 7.30e-03 -5.06e-03 0.021537 1.009 9.2
9e-05
      -6.20e-03 -8.22e-03 2.19e-02 -1.58e-04 6.89e-03 0.026655 1.013 1.4
## 256
2e-04
       4.02e-03 -2.07e-02 3.17e-02 3.09e-02 -3.30e-02 0.056290 1.012 6.3
## 257
4e-04
## 258
       -6.26e-03 1.01e-02 3.10e-03 -1.73e-03 2.57e-03 0.012978 1.009 3.3
7e-05
        1.81e-02 -1.28e-02 -3.23e-03 -2.36e-02 1.37e-02 0.041419 1.011 3.4
## 259
3e-04
       -9.71e-03 -8.62e-03 -8.21e-02 5.42e-02 -2.22e-02 -0.168966 0.921 5.6
## 260
1e-03
      -4.99e-02 4.94e-03 -5.39e-02 2.89e-02 5.52e-02 -0.114072 0.975 2.5
## 261
9e-03
## 262
        7.14e-03 3.14e-04 -3.39e-03 2.07e-02 -2.54e-02 0.039296 1.008 3.0
9e-04
## 263
       -3.40e-03 4.49e-03 1.20e-02 -1.17e-02 8.46e-03 0.020791 1.011 8.6
5e-05
## 264
       -5.89e-03 6.88e-03 -2.18e-03 3.78e-03 2.34e-03 0.011729 1.009 2.7
5e-05
## 265
        5.46e-02 6.56e-02 -5.55e-02 -1.31e-01 -6.18e-03 -0.167725 0.971 5.5
9e-03
## 266
        1.51e-02 -1.89e-02 -2.43e-03 3.17e-02 -3.17e-02 0.048440 1.009 4.7
0e-04
```

```
-3.08e-03 -3.83e-03 6.96e-03 6.13e-03 1.32e-03 0.014671 1.006 4.3
## 267
1e-05
        8.27e-04 1.61e-02 6.00e-03 -2.00e-02 4.00e-03 0.025488 1.009 1.3
## 268
0e-04
## 269
        1.51e-02 -1.89e-02 -2.43e-03 3.17e-02 -3.17e-02 0.048440 1.009 4.7
0e-04
## 270
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
## 271
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 272
       -4.66e-03 2.92e-03 1.94e-03 3.86e-04 4.42e-03 0.007039 1.008 9.9
2e-06
## 273
       -5.95e-04 -4.57e-03 1.61e-02 -1.06e-02 9.33e-03 0.026437 1.010 1.4
0e-04
## 274 -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
## 275
       -4.74e-03 1.63e-02 6.14e-03 -2.55e-03 -5.15e-03 0.022896 1.008 1.0
5e-04
## 276
        8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
9e-05
       -6.48e-04 4.45e-04 1.49e-04 2.22e-04 4.18e-04 0.000833 1.011 1.3
## 277
9e-07
## 278
       6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
       -5.48e-03 -7.73e-04 2.76e-02 -4.46e-03 4.23e-04 0.030457 1.011 1.8
## 279
6e-04
## 280
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
6e-05
       -1.43e-03 1.11e-02 -2.84e-03 -1.25e-02 8.76e-03 0.017352 1.011 6.0
## 281
3e-05
       4.04e-03 1.75e-02 -4.11e-03 -2.08e-02 4.90e-03 0.026003 1.009 1.3
## 282
5e-04
## 283
        6.73e-02 -5.48e-02 -2.46e-02 1.33e-02 -4.73e-02 0.080361 1.009 1.2
9e-03
## 284
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
       -5.97e-01 2.08e-01 1.37e-01 2.26e-01 4.01e-01 -0.600675 0.895 7.0
## 285
4e-02
       -3.76e-03 -2.93e-03 -7.06e-03 8.54e-03 6.27e-03 0.014078 1.010 3.9
## 286
7e-05
## 287
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
## 288
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
## 289
        3.84e-03 3.12e-02 7.22e-03 -2.95e-02 -5.00e-03 0.040580 1.013 3.3
0e-04
## 290
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
## 291
        3.14e-03 -2.89e-02 4.70e-02 -4.64e-03 -1.51e-02 -0.068916 1.001 9.4
9e-04
```

```
1.96e-02 -7.80e-03 -2.25e-02 1.83e-02 -4.18e-02 -0.066060 0.999 8.7
## 292
2e-04
       -5.89e-03 6.88e-03 -2.18e-03 3.78e-03 2.34e-03 0.011729 1.009 2.7
## 293
5e-05
## 294
        1.08e-02 1.49e-03 -3.64e-03 -2.52e-02 1.34e-02 0.033240 1.011 2.2
1e-04
## 295
        1.05e-02 -1.25e-02 -3.00e-03 -8.75e-05 1.35e-03 0.021221 1.006 9.0
1e-05
## 296
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
       -2.45e-03 1.27e-02 -1.31e-02 7.69e-03 -4.08e-03 0.026087 1.010 1.3
## 297
6e-04
## 298
        4.05e-02 -1.04e-02 -2.23e-02 -2.01e-02 -1.43e-02 0.045614 1.007 4.1
6e-04
       -1.73e-03 1.76e-02 -3.94e-03 -2.77e-03 -4.58e-03 0.023197 1.008 1.0
## 299
8e-04
## 300
        7.49e-03 1.89e-02 -1.50e-02 -2.17e-02 5.86e-03 0.030535 1.011 1.8
7e-04
## 301
        1.02e-02 -2.78e-02 4.44e-02 -9.20e-03 -3.51e-03 0.058344 1.014 6.8
1e-04
## 302
       -3.96e-02 2.81e-02 7.07e-03 5.17e-02 -3.00e-02 -0.090614 1.007 1.6
4e-03
        1.46e-04 -8.34e-05 -8.95e-05 -4.45e-05 -7.81e-05 -0.000185 1.012 6.8
## 303
5e-09
## 304
        8.24e-03 4.37e-02 9.81e-03 -3.57e-02 -3.54e-02 -0.075335 1.001 1.1
3e-03
        4.80e-03 -1.72e-02 -2.60e-03 1.32e-02 5.80e-04 0.023571 1.007 1.1
## 305
1e-04
        1.30e-03 6.13e-03 -3.16e-03 -1.30e-02 1.05e-02 0.018910 1.009 7.1
## 306
6e-05
       -4.79e-03 1.52e-02 3.62e-03 -9.39e-03 3.44e-03 0.018006 1.010 6.4
## 307
9e-05
## 308
        3.87e-03 -1.82e-02 2.06e-02 -7.55e-03 9.54e-03 0.036678 1.012 2.6
9e-04
## 309
       -1.73e-03 1.76e-02 -3.94e-03 -2.77e-03 -4.58e-03 0.023197 1.008 1.0
8e-04
       -3.95e-05 1.13e-02 -3.55e-03 -8.60e-03 3.87e-03 0.016348 1.007 5.3
## 310
5e-05
       -7.77e-04 7.16e-03 -1.16e-02 1.15e-03 3.73e-03 0.017067 1.008 5.8
## 311
3e-05
## 312
        1.17e-03 -5.60e-04 -1.06e-03 -3.21e-04 -5.23e-04 -0.001564 1.015 4.9
0e-07
## 313
       -1.26e-01 9.96e-02 1.41e-01 2.11e-03 -2.01e-02 -0.229643 0.926 1.0
4e-02
## 314
        2.34e-02 -1.13e-02 -2.81e-03 1.33e-02 -3.26e-02 0.041031 1.006 3.3
7e-04
## 315
        1.46e-04 -8.34e-05 -8.95e-05 -4.45e-05 -7.81e-05 -0.000185 1.012 6.8
5e-09
## 316
        4.38e-02 -7.10e-02 -2.19e-02 6.07e-02 -4.57e-02 0.094625 1.016 1.7
9e-03
```

```
1.29e-02 1.61e-02 -1.82e-02 -1.24e-02 -6.62e-03 0.030693 1.008 1.8
## 317
9e-04
      -2.94e-03 7.04e-03 -1.54e-03 -4.14e-03 4.44e-03 0.008623 1.012 1.4
## 318
9e-05
## 319
        6.13e-02 -3.75e-02 2.57e-02 3.90e-03 -7.51e-02 0.087790 1.010 1.5
4e-03
       -7.36e-03 1.55e-03 4.27e-03 8.27e-03 1.60e-03 0.013447 1.008 3.6
## 320
2e-05
## 321
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 322
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 323
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
4e-04
        3.52e-03 -2.08e-02 -1.39e-02 2.49e-02 7.74e-04 0.034005 1.011 2.3
## 324
1e-04
## 325
      -1.91e-03 1.85e-03 -3.26e-03 1.44e-02 -7.44e-03 0.022948 1.007 1.0
5e-04
## 326 -7.52e-03 4.59e-03 1.20e-02 1.26e-03 1.63e-03 0.016224 1.008 5.2
7e-05
## 327
      -3.66e-03 -7.10e-03 -2.55e-03 1.54e-02 1.40e-03 0.018923 1.008 7.1
7e-05
       3.03e-03 -1.23e-02 -2.79e-03 2.33e-02 -1.10e-02 0.029807 1.008 1.7
## 328
8e-04
       -1.16e-03 5.28e-03 4.75e-03 -1.24e-02 9.43e-03 0.018435 1.009 6.8
## 329
0e-05
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
## 330
3e-05
      -3.12e-03 6.80e-03 -2.26e-03 -4.86e-03 6.89e-03 0.010968 1.009 2.4
## 331
1e-05
        1.30e-03 6.13e-03 -3.16e-03 -1.30e-02 1.05e-02 0.018910 1.009 7.1
## 332
6e-05
## 333
       -3.77e-02 3.19e-03 3.72e-03 8.57e-03 3.85e-02 -0.048136 1.005 4.6
4e-04
      -3.66e-03 -7.10e-03 -2.55e-03 1.54e-02 1.40e-03 0.018923 1.008 7.1
## 334
7e-05
        2.76e-02 -1.27e-02 1.54e-02 -1.89e-02 -1.64e-02 0.041213 1.007 3.4
## 335
0e-04
## 336 -5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
7e-05
## 337
        7.37e-03 -1.17e-02 -1.66e-02 2.38e-02 -1.03e-02 0.034762 1.009 2.4
2e-04
## 338
        0e-04
## 339
       -3.63e-03 1.44e-03 4.16e-03 -3.38e-03 7.73e-03 0.012219 1.007 2.9
9e-05
## 340
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
4e-04
## 341
        3.89e-02 -3.65e-02 1.88e-02 -1.16e-02 -2.16e-02 0.056986 1.008 6.5
0e-04
```

```
8.04e-02 -4.54e-02 -2.60e-02 -1.38e-02 -4.81e-02 0.083949 1.009 1.4
## 342
1e-03
        1.58e-02 6.20e-05 -3.63e-03 -6.57e-03 -1.11e-02 0.022507 1.005 1.0
## 343
1e-04
## 344
       -1.07e-02 -8.08e-03 2.20e-02 1.40e-02 -5.34e-04 0.027539 1.014 1.5
2e-04
## 345
        6.12e-05 -3.20e-02 2.78e-02 3.31e-02 -1.67e-02 0.050582 1.013 5.1
2e-04
## 346
        1.38e-02 -2.66e-02 1.29e-02 -5.09e-03 -1.27e-02 -0.052459 0.999 5.5
0e-04
        4.27e-02 -4.22e-02 -2.16e-02 9.97e-03 -1.93e-02 0.056848 1.009 6.4
## 347
7e-04
## 348
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
        5.75e-03 -1.47e-02 5.07e-02 1.32e-02 -3.48e-02 0.063820 1.013 8.1
## 349
5e-04
## 350
        8.53e-04 1.49e-02 -4.03e-03 1.16e-02 -1.99e-02 0.037172 1.010 2.7
7e-04
## 351
        4.84e-02 -9.31e-02 4.51e-02 -1.78e-02 -4.44e-02 -0.183571 0.917 6.6
2e-03
## 352
       -5.00e-03 -3.09e-03 -1.70e-03 7.99e-03 5.47e-03 0.011442 1.009 2.6
2e-05
        9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
## 353
8e-04
## 354
        2.98e-02 -1.01e-02 -2.20e-02 1.33e-02 -3.18e-02 0.047217 1.007 4.4
6e-04
       -3.08e-03 -3.83e-03 6.96e-03 6.13e-03 1.32e-03 0.014671 1.006 4.3
## 355
1e-05
        2.25e-02 -2.49e-02 -1.93e-02 1.89e-02 -1.44e-02 0.040867 1.008 3.3
## 356
4e-04
        5.12e-02 2.72e-02 -2.49e-02 -6.35e-02 -4.03e-02 -0.092628 1.000 1.7
## 357
1e-03
## 358
        1.40e-02 8.74e-03 -1.68e-02 -2.00e-02 4.95e-03 0.029906 1.008 1.7
9e-04
        5.40e-02 -9.65e-02 -1.87e-02 5.80e-02 -5.98e-02 -0.121307 1.001 2.9
## 359
4e-03
        7.14e-03 3.14e-04 -3.39e-03 2.07e-02 -2.54e-02 0.039296 1.008 3.0
## 360
9e-04
       -3.49e-03 1.64e-03 -4.48e-03 3.66e-03 4.25e-03 0.008408 1.011 1.4
## 361
2e-05
## 362
       -5.42e-03 3.76e-03 1.85e-02 -1.11e-02 7.55e-03 0.024597 1.014 1.2
1e-04
## 363
       -1.31e-03 -7.61e-03 6.18e-03 -3.77e-04 8.76e-03 0.017672 1.008 6.2
5e-05
## 364
        2.67e-03 -2.13e-02 8.55e-03 4.58e-03 9.14e-03 0.029056 1.010 1.6
9e-04
## 365
        1.29e-01 -1.15e-01 5.57e-02 -1.24e-02 -1.68e-01 -0.249827 0.912 1.2
2e-02
## 366
        1.08e-02 1.49e-03 -3.64e-03 -2.52e-02 1.34e-02 0.033240 1.011 2.2
1e-04
```

```
8.86e-03 -1.68e-02 -1.54e-02 1.35e-02 1.53e-03 0.028619 1.008 1.6
## 367
4e-04
## 368
       -3.76e-03 -2.93e-03 -7.06e-03 8.54e-03 6.27e-03 0.014078 1.010 3.9
7e-05
## 369 -5.20e-03 1.15e-02 -3.40e-03 7.49e-03 -4.59e-03 0.021919 1.009 9.6
2e-05
## 370
        1.55e-02 3.99e-02 1.09e-02 -3.91e-02 -2.28e-02 0.059112 1.013 6.9
9e-04
       -6.01e-03 -3.19e-03 2.92e-03 7.45e-03 4.73e-03 0.010868 1.009 2.3
## 371
6e-05
## 372
        1.17e-03 -5.60e-04 -1.06e-03 -3.21e-04 -5.23e-04 -0.001564 1.015 4.9
0e-07
## 373
      -3.34e-02 1.34e-02 6.69e-03 3.07e-02 -4.36e-03 -0.054306 1.003 5.9
0e-04
        1.48e-02 -3.07e-02 -1.79e-02 3.49e-02 -1.44e-02 0.048738 1.011 4.7
## 374
5e-04
## 375
      -5.20e-03 1.15e-02 -3.40e-03 7.49e-03 -4.59e-03 0.021919 1.009 9.6
2e-05
## 376 -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
5e-05
## 377
       5.13e-02 -1.58e-02 -2.53e-02 1.75e-02 -6.19e-02 0.075273 1.009 1.1
3e-03
      -1.31e-03 -7.61e-03 6.18e-03 -3.77e-04 8.76e-03 0.017672 1.008 6.2
## 378
5e-05
## 379
       -5.89e-03 6.88e-03 -2.18e-03 3.78e-03 2.34e-03 0.011729 1.009 2.7
5e-05
## 380
       -7.50e-03 9.06e-03 8.22e-03 -1.56e-03 2.02e-03 0.014390 1.011 4.1
5e-05
       -5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
## 381
7e-05
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
## 382
4e-04
## 383
        1.52e-02 -3.87e-03 1.67e-02 2.71e-02 -5.24e-02 0.065441 1.011 8.5
7e-04
## 384
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
9e-05
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
## 385
3e-05
       -2.11e-03 1.91e-03 1.53e-03 -3.54e-04 1.40e-03 0.003110 1.012 1.9
## 386
4e-06
## 387
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 388
        8.53e-04 1.49e-02 -4.03e-03 1.16e-02 -1.99e-02 0.037172 1.010 2.7
7e-04
## 389
       -8.56e-03 -7.80e-03 1.45e-02 1.44e-02 5.97e-05 0.022553 1.010 1.0
2e-04
## 390
        3.26e-02 -2.77e-03 -3.23e-03 -7.43e-03 -3.34e-02 0.041739 1.006 3.4
9e-04
## 391 -5.44e-02 3.07e-02 1.76e-02 9.35e-03 3.25e-02 -0.056777 1.011 6.4
5e-04
```

```
-1.95e-02 1.93e-03 -2.11e-02 1.13e-02 2.16e-02 -0.044564 1.002 3.9
## 392
7e-04
       -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
## 393
7e-05
## 394
        6.52e-02 -2.61e-02 -2.46e-02 -3.74e-02 -1.91e-02 0.072567 1.010 1.0
5e-03
## 395
        8.15e-03 2.58e-03 -1.52e-02 -5.63e-03 3.89e-03 0.021076 1.007 8.8
9e-05
        8.15e-03 2.58e-03 -1.52e-02 -5.63e-03 3.89e-03 0.021076 1.007 8.8
## 396
9e-05
        5.95e-03 -2.15e-03 2.62e-02 -5.93e-03 -1.27e-02 0.033752 1.008 2.2
## 397
8e-04
## 398
        2.11e-02 -2.15e-02 6.47e-02 1.75e-02 -6.49e-02 0.093057 1.016 1.7
3e-03
## 399
        1.80e-02 6.40e-03 1.23e-02 -2.43e-02 -1.19e-02 0.035308 1.007 2.4
9e-04
## 400
       -2.64e-03 -1.80e-02 2.08e-02 1.27e-02 -1.15e-03 0.030312 1.009 1.8
4e-04
## 401
        1.98e-02 9.50e-03 -2.10e-02 3.95e-03 -2.56e-02 0.042155 1.008 3.5
6e-04
## 402
        9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
8e-04
       -1.58e-03 1.19e-03 1.66e-03 -2.22e-04 8.60e-04 0.002421 1.015 1.1
## 403
7e-06
## 404
       -5.54e-02 1.17e-01 -9.00e-02 -6.05e-04 -3.21e-03 -0.203168 0.924 8.1
2e-03
       -5.42e-03 1.91e-03 7.09e-03 3.72e-04 3.11e-03 0.008901 1.013 1.5
## 405
9e-05
       -3.11e-02 4.97e-03 -1.95e-02 8.43e-03 4.09e-02 -0.052529 1.005 5.5
## 406
2e-04
       -1.03e-02 5.01e-04 1.58e-02 7.54e-03 5.60e-04 0.019455 1.013 7.5
## 407
8e-05
## 408
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
9e-04
        3.90e-02 -1.01e-02 4.49e-02 -7.12e-03 -6.59e-02 0.082451 1.011 1.3
## 409
6e-03
      -3.12e-03 1.24e-02 -9.31e-03 -2.11e-03 3.84e-03 0.017014 1.010 5.8
## 410
0e-05
      -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
## 411
8e-05
## 412 -5.00e-03 -3.09e-03 -1.70e-03 7.99e-03 5.47e-03 0.011442 1.009 2.6
2e-05
## 413
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
## 414
       -5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
7e-05
## 415
       -5.22e-03 9.75e-04 7.78e-03 1.41e-02 -8.00e-03 0.023326 1.008 1.0
9e-04
## 416 -3.76e-03 -2.93e-03 -7.06e-03 8.54e-03 6.27e-03 0.014078 1.010 3.9
7e-05
```

```
-4.51e-03 -5.74e-02 4.44e-02 9.02e-03 1.19e-02 -0.084032 1.004 1.4
## 417
1e-03
        8.51e-02 -3.65e-02 -7.07e-04 -4.25e-02 -5.00e-02 0.091459 1.010 1.6
## 418
7e-03
## 419
        9.02e-03 -5.23e-03 3.57e-02 2.69e-02 -5.29e-02 0.071727 1.013 1.0
3e-03
       -1.22e-03 1.03e-03 -3.43e-04 4.80e-04 9.68e-04 0.001834 1.011 6.7
## 420
3e-07
## 421
        1.60e-02 -1.71e-02 -1.56e-02 -8.70e-03 1.32e-02 0.036635 1.010 2.6
9e-04
## 422
       -3.42e-03 -2.11e-02 8.72e-03 2.36e-02 -8.67e-04 0.030333 1.010 1.8
4e-04
## 423
        2.83e-02 -9.94e-04 -2.33e-02 2.77e-02 -5.14e-02 0.069679 1.011 9.7
1e-04
       -3.66e-03 -7.10e-03 -2.55e-03 1.54e-02 1.40e-03 0.018923 1.008 7.1
## 424
7e-05
## 425
        8.39e-03 3.00e-02 1.04e-02 -1.98e-02 -2.20e-02 0.045735 1.010 4.1
9e-04
## 426
       -2.04e-03 -6.18e-04 -8.60e-03 3.48e-03 7.90e-03 0.013949 1.009 3.9
0e-05
## 427
        1.60e-02 -1.71e-02 -1.56e-02 -8.70e-03 1.32e-02 0.036635 1.010 2.6
9e-04
        1.80e-02 6.40e-03 1.23e-02 -2.43e-02 -1.19e-02 0.035308 1.007 2.4
## 428
9e-04
## 429
       -7.72e-03 1.04e-02 5.58e-03 7.30e-03 -5.06e-03 0.021537 1.009 9.2
9e-05
        9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
## 430
8e-04
       -3.08e-03 -3.83e-03 6.96e-03 6.13e-03 1.32e-03 0.014671 1.006 4.3
## 431
1e-05
## 432 -4.62e-02 -3.50e-02 2.97e-02 4.56e-02 3.30e-02 -0.073936 1.009 1.0
9e-03
## 433
        1.08e-02 1.49e-03 -3.64e-03 -2.52e-02 1.34e-02 0.033240 1.011 2.2
1e-04
      -8.92e-03 9.99e-04 1.04e-02 7.91e-03 1.05e-03 0.015906 1.010 5.0
## 434
7e-05
        1.63e-03 2.77e-03 -1.50e-02 1.48e-02 -6.83e-03 0.027884 1.009 1.5
## 435
6e-04
        1.00e-02 -2.10e-02 -1.41e-02 4.62e-03 1.15e-02 0.032841 1.010 2.1
## 436
6e-04
## 437
       -1.19e-02 4.26e-02 6.43e-03 -3.27e-02 -1.43e-03 -0.058285 1.002 6.7
9e-04
## 438
        3.11e-02 -1.82e-02 -2.08e-02 5.40e-04 -1.44e-02 0.038560 1.006 2.9
8e-04
## 439
        4.92e-03 -2.39e-02 -1.27e-02 1.56e-02 9.83e-03 0.033367 1.012 2.2
3e-04
## 440
        6.70e-03 2.29e-02 -4.54e-03 -3.22e-03 -2.07e-02 0.038280 1.009 2.9
3e-04
## 441 -7.77e-04 7.16e-03 -1.16e-02 1.15e-03 3.73e-03 0.017067 1.008 5.8
3e-05
```

```
## 442 -3.66e-03 -7.10e-03 -2.55e-03 1.54e-02 1.40e-03 0.018923 1.008 7.1
7e-05
## 443
       -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
5e-05
## 444 -3.54e-02 2.71e-02 3.83e-03 -1.04e-03 2.18e-02 -0.045246 1.003 4.1
0e-04
## 445
        2.36e-02 7.78e-03 -4.11e-03 -2.51e-02 -1.10e-02 0.034073 1.006 2.3
2e-04
       -1.91e-03 1.85e-03 -3.26e-03 1.44e-02 -7.44e-03 0.022948 1.007 1.0
## 446
5e-04
## 447
       -2.69e-02 -3.36e-02 3.80e-02 2.60e-02 1.38e-02 -0.064048 1.003 8.2
0e-04
## 448
       -1.99e-01 8.97e-02 -5.85e-02 8.68e-02 1.65e-01 -0.235944 0.999 1.1
1e-02
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
## 449
3e-05
## 450
       8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
9e-05
      -5.22e-03 9.75e-04 7.78e-03 1.41e-02 -8.00e-03 0.023326 1.008 1.0
## 451
9e-04
## 452 -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
        1.63e-03 2.77e-03 -1.50e-02 1.48e-02 -6.83e-03 0.027884 1.009 1.5
## 453
6e-04
## 454
        1.05e-02 -1.25e-02 -3.00e-03 -8.75e-05 1.35e-03 0.021221 1.006 9.0
1e-05
       -2.45e-03 4.07e-02 4.41e-02 -3.49e-02 -3.76e-02 -0.086152 1.002 1.4
## 455
8e-03
      -3.93e-03 1.24e-03 -1.19e-03 3.26e-03 3.55e-03 0.006388 1.009 8.1
## 456
7e-06
       3.95e-02 -1.32e-03 -2.35e-02 -7.81e-03 -3.26e-02 0.048506 1.007 4.7
## 457
1e-04
## 458
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
8e-05
## 459
       -3.96e-03 1.24e-02 4.67e-02 1.59e-02 -4.48e-02 0.073444 1.018 1.0
8e-03
       -4.34e-02 1.48e-02 3.97e-03 2.49e-02 1.96e-02 -0.049966 1.005 4.9
## 460
9e-04
        1.40e-02 8.74e-03 -1.68e-02 -2.00e-02 4.95e-03 0.029906 1.008 1.7
## 461
9e-04
## 462
        1.35e-02 -2.09e-02 3.13e-02 1.11e-03 -1.73e-02 0.043773 1.008 3.8
3e-04
## 463
       -2.55e-03 -1.29e-02 4.87e-02 1.88e-02 -4.62e-02 -0.077968 1.001 1.2
2e-03
## 464
        7.37e-03 -1.17e-02 -1.66e-02 2.38e-02 -1.03e-02 0.034762 1.009 2.4
2e-04
## 465
       -2.77e-03 1.02e-02 5.44e-03 -8.16e-03 3.07e-03 0.016266 1.007 5.3
0e-05
## 466
        5.50e-02 -6.84e-03 -2.21e-03 -7.89e-03 -6.43e-02 0.071127 1.008 1.0
1e-03
```

```
1.38e-02 -5.71e-03 -1.81e-02 9.61e-03 -1.03e-02 0.028908 1.007 1.6
## 467
7e-04
       -2.39e-02 -2.21e-02 -1.92e-02 2.10e-02 4.05e-02 -0.061175 1.005 7.4
## 468
9e-04
## 469 -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 470
        1.50e-03 1.91e-02 -1.48e-02 -3.00e-03 -3.97e-03 0.027923 1.010 1.5
6e-04
       -4.13e-03 1.49e-03 -2.16e-02 -3.69e-02 4.70e-02 -0.072556 1.005 1.0
## 471
5e-03
## 472
       -3.12e-03 6.80e-03 -2.26e-03 -4.86e-03 6.89e-03 0.010968 1.009 2.4
1e-05
## 473
       -7.03e-02 1.07e-01 9.70e-03 -7.76e-02 6.39e-02 -0.146965 0.978 4.3
0e-03
        3.20e-02 -2.52e-02 -1.96e-02 -1.08e-02 1.15e-03 0.045648 1.009 4.1
## 474
7e-04
## 475
       -2.45e-03 1.27e-02 -1.31e-02 7.69e-03 -4.08e-03 0.026087 1.010 1.3
6e-04
## 476
      -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 477
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
        9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
## 478
8e-04
## 479
       -4.80e-03 1.12e-02 -2.73e-03 -1.91e-03 3.18e-03 0.013687 1.009 3.7
5e-05
       4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
## 480
2e-05
       -6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
## 481
1e-05
        2.76e-02 3.34e-02 3.36e-02 -5.78e-02 -3.03e-02 0.078849 1.015 1.2
## 482
4e-03
## 483
       -7.87e-02 6.21e-02 8.80e-02 1.31e-03 -1.25e-02 -0.143143 0.975 4.0
7e-03
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
## 484
3e-05
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
## 485
9e-05
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
## 486
8e-05
## 487
       -5.89e-02 -3.33e-02 1.59e-02 -1.68e-02 1.09e-01 -0.148885 0.978 4.4
1e-03
## 488
        5.10e-02 6.31e-02 -6.23e-03 -7.66e-02 -5.00e-02 0.105731 1.019 2.2
4e-03
       -3.86e-03 -7.94e-03 1.43e-02 -2.63e-04 7.80e-03 0.021416 1.010 9.1
## 489
8e-05
## 490
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
4e-04
## 491 -3.77e-02 3.19e-03 3.72e-03 8.57e-03 3.85e-02 -0.048136 1.005 4.6
4e-04
```

```
-5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
## 492
6e-05
       -1.16e-03 5.28e-03 4.75e-03 -1.24e-02 9.43e-03 0.018435 1.009 6.8
## 493
0e-05
## 494
        1.63e-03 2.77e-03 -1.50e-02 1.48e-02 -6.83e-03 0.027884 1.009 1.5
6e-04
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
## 495
4e-04
        4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
## 496
8e-05
## 497
       -7.12e-02 -2.79e-04 1.63e-02 2.96e-02 4.98e-02 -0.101280 0.975 2.0
4e-03
## 498
       -6.01e-03 -3.19e-03 2.92e-03 7.45e-03 4.73e-03 0.010868 1.009 2.3
6e-05
        9.75e-03 7.56e-03 -3.93e-03 -1.92e-02 3.90e-03 0.024306 1.007 1.1
## 499
8e-04
## 500
       -2.64e-03 -1.80e-02 2.08e-02 1.27e-02 -1.15e-03 0.030312 1.009 1.8
4e-04
## 501
       -1.58e-03 4.40e-03 3.05e-02 -1.72e-02 1.08e-03 0.037591 1.013 2.8
3e-04
## 502
       -9.35e-03 3.86e-03 1.85e-02 1.29e-03 1.04e-03 0.021244 1.012 9.0
3e-05
       -3.10e-03 1.00e-02 3.02e-03 -1.17e-02 7.81e-03 0.016367 1.011 5.3
## 503
6e-05
       4.80e-03 -1.72e-02 -2.60e-03 1.32e-02 5.80e-04 0.023571 1.007 1.1
## 504
1e-04
        1.82e-02 1.89e-02 -2.24e-02 1.64e-02 -4.32e-02 0.065292 1.013 8.5
## 505
3e-04
       -5.39e-03 8.97e-04 1.03e-02 -3.13e-03 6.86e-03 0.014953 1.009 4.4
## 506
8e-05
        6.44e-02 -1.61e-02 -2.57e-02 -2.36e-02 -4.03e-02 0.066651 1.008 8.8
## 507
9e-04
## 508
        2.89e-02 3.55e-03 3.70e-02 -2.91e-02 -3.60e-02 0.063215 1.010 8.0
0e-04
        2.67e-03 -2.13e-02 8.55e-03 4.58e-03 9.14e-03 0.029056 1.010 1.6
## 509
9e-04
       -1.28e-02 -2.70e-03 -6.57e-02 -7.56e-03 6.40e-02 -0.094496 1.015 1.7
## 510
9e-03
       -6.26e-03 1.01e-02 3.10e-03 -1.73e-03 2.57e-03 0.012978 1.009 3.3
## 511
7e-05
## 512
        2.11e-02 1.25e-03 -1.97e-02 -6.92e-03 -1.02e-02 0.030068 1.006 1.8
1e-04
## 513
        7.95e-02 -1.65e-02 5.49e-02 -5.60e-02 -7.98e-02 0.119900 1.014 2.8
8e-03
## 514
        8.15e-03 2.58e-03 -1.52e-02 -5.63e-03 3.89e-03 0.021076 1.007 8.8
9e-05
## 515
       -3.80e-03 -2.15e-02 2.84e-02 4.54e-03 7.08e-03 0.038569 1.015 2.9
8e-04
## 516 -4.66e-03 2.92e-03 1.94e-03 3.86e-04 4.42e-03 0.007039 1.008 9.9
2e-06
```

```
-6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
## 517
1e-05
## 518
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
## 519
       -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
5e-05
## 520
        3.42e-02 3.54e-02 1.44e-02 -5.90e-02 -2.94e-02 0.073976 1.013 1.1
0e-03
## 521
        2.98e-02 -1.01e-02 -2.20e-02 1.33e-02 -3.18e-02 0.047217 1.007 4.4
6e-04
       -1.22e-02 8.37e-03 2.15e-02 6.93e-03 -5.86e-03 0.028799 1.014 1.6
## 522
6e-04
## 523
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
6e-05
        1.40e-02 4.25e-02 -5.76e-03 -4.82e-02 -3.89e-03 0.057106 1.017 6.5
## 524
3e-04
## 525
        9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
8e-04
## 526
        4.31e-02 -1.71e-02 -4.93e-02 4.01e-02 -9.16e-02 -0.144807 0.968 4.1
6e-03
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
## 527
9e-05
       -9.75e-03 7.75e-03 4.15e-02 -1.93e-02 -9.01e-03 -0.059213 1.001 7.0
## 528
1e-04
## 529
       -3.76e-03 -2.93e-03 -7.06e-03 8.54e-03 6.27e-03 0.014078 1.010 3.9
7e-05
## 530
        6.23e-03 -2.11e-02 -2.41e-03 4.60e-03 1.03e-02 0.028790 1.009 1.6
6e-04
       -1.21e-03 -2.15e-02 4.79e-02 3.05e-02 -3.36e-02 0.066157 1.015 8.7
## 531
6e-04
       -3.41e-03 -5.09e-03 2.47e-02 -1.01e-02 8.33e-03 0.031948 1.014 2.0
## 532
4e-04
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
## 533
3e-05
## 534
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
        4.42e-03 -7.52e-03 1.10e-02 9.47e-03 -1.18e-02 0.024060 1.006 1.1
## 535
6e-04
       -6.01e-03 -3.19e-03 2.92e-03 7.45e-03 4.73e-03 0.010868 1.009 2.3
## 536
6e-05
## 537
        4.16e-02 -3.43e-02 -2.28e-02 2.47e-02 -3.88e-02 0.061696 1.009 7.6
2e-04
## 538
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
## 539
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
## 540
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 541 -7.40e-03 -3.25e-03 1.00e-02 6.36e-03 3.43e-03 0.013355 1.015 3.5
7e-05
```

```
3.26e-02 -2.77e-03 -3.23e-03 -7.43e-03 -3.34e-02 0.041739 1.006 3.4
## 542
9e-04
       -4.80e-03 1.12e-02 -2.73e-03 -1.91e-03 3.18e-03 0.013687 1.009 3.7
## 543
5e-05
## 544
       -7.77e-04 7.16e-03 -1.16e-02 1.15e-03 3.73e-03 0.017067 1.008 5.8
3e-05
## 545
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
## 546
        1.08e-02 -1.07e-03 1.16e-02 -6.24e-03 -1.19e-02 0.024628 1.006 1.2
1e-04
## 547
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 548
        2.31e-02 -2.12e-02 3.12e-02 -2.87e-02 -1.67e-03 0.058444 1.012 6.8
4e-04
## 549
      -1.98e-02 4.60e-02 -2.38e-02 2.04e-02 -2.76e-02 -0.083883 1.005 1.4
1e-03
## 550
       -2.45e-03 1.27e-02 -1.31e-02 7.69e-03 -4.08e-03 0.026087 1.010 1.3
6e-04
## 551
       -6.20e-03 -8.22e-03 2.19e-02 -1.58e-04 6.89e-03 0.026655 1.013 1.4
2e-04
## 552
        1.73e-02 -1.24e-02 1.57e-02 1.32e-02 -3.33e-02 0.043103 1.007 3.7
2e-04
        1.23e-02 -7.76e-03 1.08e-02 -1.52e-02 1.15e-03 0.029041 1.007 1.6
## 553
9e-04
## 554
       -4.36e-02 -5.49e-02 -1.21e-01 5.61e-02 1.15e-01 -0.198640 0.981 7.8
5e-03
## 555
       -1.12e-02 4.03e-03 -4.93e-02 1.11e-02 2.39e-02 -0.063402 1.004 8.0
4e-04
## 556
        6.67e-03 1.55e-02 1.35e-02 1.61e-02 -4.40e-02 0.060364 1.012 7.2
9e-04
        5.13e-02 -1.58e-02 -2.53e-02 1.75e-02 -6.19e-02 0.075273 1.009 1.1
## 557
3e-03
## 558
        9.72e-04 -1.76e-02 9.42e-03 1.30e-02 -3.11e-04 0.024617 1.007 1.2
1e-04
       -3.68e-02 1.25e-02 2.72e-02 -1.65e-02 3.93e-02 -0.058325 1.006 6.8
## 559
1e-04
       -2.86e-05 2.30e-02 -3.95e-03 -2.05e-02 5.24e-03 0.027631 1.013 1.5
## 560
3e-04
       -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
## 561
7e-05
## 562
       -5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
7e-05
## 563
       -4.74e-03 1.63e-02 6.14e-03 -2.55e-03 -5.15e-03 0.022896 1.008 1.0
5e-04
## 564
       -3.03e-03 4.17e-03 -6.09e-03 3.68e-04 5.96e-03 0.010209 1.009 2.0
9e-05
## 565
        4.04e-04 1.89e-02 -8.55e-03 -1.98e-02 9.49e-03 0.025761 1.022 1.3
3e-04
## 566
        6.70e-03 2.29e-02 -4.54e-03 -3.22e-03 -2.07e-02 0.038280 1.009 2.9
3e-04
```

```
4.28e-02 6.78e-03 -3.67e-03 -3.05e-02 -3.42e-02 0.053068 1.007 5.6
## 567
3e-04
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
## 568
9e-04
## 569
       -5.20e-03 1.15e-02 -3.40e-03 7.49e-03 -4.59e-03 0.021919 1.009 9.6
2e-05
## 570
        7.37e-05 1.20e-02 2.15e-02 -1.10e-02 -8.91e-03 0.031346 1.009 1.9
7e-04
## 571
        2.11e-02 1.25e-03 -1.97e-02 -6.92e-03 -1.02e-02 0.030068 1.006 1.8
1e-04
## 572
       -9.61e-02 -2.20e-02 1.03e-02 -1.89e-02 1.65e-01 -0.191060 0.985 7.2
7e-03
## 573
        2.11e-02 1.25e-03 -1.97e-02 -6.92e-03 -1.02e-02 0.030068 1.006 1.8
1e-04
       -3.29e-02 -2.05e-02 3.95e-02 4.69e-02 -1.16e-02 -0.070250 1.003 9.8
## 574
7e-04
## 575
       -8.92e-04 2.32e-02 6.69e-03 -1.48e-02 -5.13e-03 0.029296 1.010 1.7
2e-04
        1.98e-03 5.40e-03 1.97e-02 -1.79e-02 1.97e-03 0.029980 1.009 1.8
## 576
0e-04
## 577
        1.58e-02 6.20e-05 -3.63e-03 -6.57e-03 -1.11e-02 0.022507 1.005 1.0
1e-04
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
## 578
9e-04
        1.51e-02 -1.89e-02 -2.43e-03 3.17e-02 -3.17e-02 0.048440 1.009 4.7
## 579
0e-04
       -4.15e-03 9.02e-04 1.37e-03 2.86e-03 2.91e-03 0.005618 1.009 6.3
## 580
2e-06
        1.30e-01 -4.53e-02 -2.98e-02 -4.91e-02 -8.71e-02 0.130669 1.012 3.4
## 581
1e-03
        1.05e-02 -1.25e-02 -3.00e-03 -8.75e-05 1.35e-03 0.021221 1.006 9.0
## 582
1e-05
## 583
       -5.08e-02 -1.06e-01 -4.82e-02 1.40e-01 4.09e-02 -0.185565 0.978 6.8
5e-03
        3.52e-03 -2.08e-02 -1.39e-02 2.49e-02 7.74e-04 0.034005 1.011 2.3
## 584
1e-04
       -5.22e-03 9.75e-04 7.78e-03 1.41e-02 -8.00e-03 0.023326 1.008 1.0
## 585
9e-04
        8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
## 586
9e-05
## 587
        3.84e-03 3.12e-02 7.22e-03 -2.95e-02 -5.00e-03 0.040580 1.013 3.3
0e-04
## 588
        2.22e-02 -5.96e-03 -1.84e-02 -1.64e-02 3.38e-03 0.033813 1.008 2.2
9e-04
## 589
        6.10e-02 3.17e-02 -2.80e-02 -4.45e-02 -5.60e-02 0.086734 1.012 1.5
0e-03
## 590
        2.29e-02 -1.22e-02 -1.72e-02 -2.44e-02 1.51e-02 0.045802 1.012 4.2
0e-04
## 591 -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
```

```
-3.16e-02 1.65e-02 -1.86e-02 -1.55e-02 5.61e-02 -0.063583 1.010 8.0
## 592
9e-04
        3.57e-02 -1.87e-02 2.10e-02 1.75e-02 -6.33e-02 0.071784 1.009 1.0
## 593
3e-03
## 594
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
## 595
        6.22e-03 -1.32e-02 1.01e-02 6.79e-05 3.60e-04 0.022806 1.006 1.0
4e-04
## 596
        4.13e-02 -1.85e-02 -2.12e-02 -3.11e-02 2.20e-03 0.056625 1.010 6.4
2e-04
        6.83e-03 8.93e-03 -1.66e-02 2.34e-03 -6.78e-03 0.025936 1.007 1.3
## 597
5e-04
## 598
       -3.93e-03 1.24e-03 -1.19e-03 3.26e-03 3.55e-03 0.006388 1.009 8.1
7e-06
## 599
        1.44e-04 -4.13e-02 1.29e-02 3.13e-02 -1.41e-02 -0.059504 1.000 7.0
8e-04
## 600
       -6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
1e-05
## 601
        8.86e-03 -1.68e-02 -1.54e-02 1.35e-02 1.53e-03 0.028619 1.008 1.6
4e-04
## 602
        1.53e-02 -2.72e-02 2.93e-02 -9.56e-03 -2.42e-03 0.048499 1.011 4.7
1e-04
        2.84e-02 -1.10e-02 1.28e-02 -4.39e-02 -1.12e-02 -0.069526 1.000 9.6
## 603
6e-04
## 604
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
## 605
6e-05
      -3.80e-03 -2.15e-02 2.84e-02 4.54e-03 7.08e-03 0.038569 1.015 2.9
## 606
8e-04
        1.35e-02 2.62e-02 9.39e-03 -5.69e-02 -5.16e-03 -0.069747 1.001 9.7
## 607
2e-04
## 608
       -6.59e-02 2.72e-02 8.64e-02 -4.59e-02 4.90e-02 -0.137891 0.976 3.7
8e-03
       -7.94e-02 1.54e-01 -1.27e-01 -1.47e-01 1.94e-01 -0.280381 0.995 1.5
## 609
7e-02
       -2.76e-02 -1.08e-04 6.33e-03 1.15e-02 1.93e-02 -0.039248 1.002 3.0
## 610
8e-04
## 611 -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 612
        3.03e-03 -1.23e-02 -2.79e-03 2.33e-02 -1.10e-02 0.029807 1.008 1.7
8e-04
## 613
       -6.82e-04 1.80e-02 -1.10e-02 -1.06e-02 4.91e-03 0.022453 1.012 1.0
1e-04
## 614
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
## 615
       -7.77e-04 7.16e-03 -1.16e-02 1.15e-03 3.73e-03 0.017067 1.008 5.8
3e-05
## 616 -5.25e-03 -1.37e-03 3.55e-03 3.21e-03 6.17e-03 0.010331 1.007 2.1
4e-05
```

```
2.60e-02 -1.17e-01 1.17e-01 8.02e-02 -1.18e-01 -0.210709 0.969 8.8
## 617
1e-03
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
## 618
2e-05
## 619
        1.46e-04 -8.34e-05 -8.95e-05 -4.45e-05 -7.81e-05 -0.000185 1.012 6.8
5e-09
## 620
        1.08e-02 -1.07e-03 1.16e-02 -6.24e-03 -1.19e-02 0.024628 1.006 1.2
1e-04
## 621
        8.86e-03 -1.68e-02 -1.54e-02 1.35e-02 1.53e-03 0.028619 1.008 1.6
4e-04
       -4.63e-02 -5.62e-02 3.60e-02 8.24e-02 9.97e-03 -0.098750 1.011 1.9
## 622
5e-03
## 623
       -7.63e-03 5.25e-03 6.58e-03 3.33e-03 1.38e-03 0.011840 1.011 2.8
1e-05
        6.03e-02 -8.91e-03 2.13e-02 -4.93e-02 -4.32e-02 0.079148 1.010 1.2
## 624
5e-03
## 625
       -3.76e-03 -2.93e-03 -7.06e-03 8.54e-03 6.27e-03 0.014078 1.010 3.9
7e-05
## 626 -3.23e-03 1.36e-02 9.23e-03 1.15e-02 -2.03e-02 0.037130 1.010 2.7
6e-04
## 627
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
9e-04
        3.74e-02 2.52e-02 4.10e-02 -4.17e-02 -5.84e-02 0.088451 1.014 1.5
## 628
7e-03
## 629
       -2.55e-03 -1.29e-02 4.87e-02 1.88e-02 -4.62e-02 -0.077968 1.001 1.2
2e-03
       -6.26e-03 1.01e-02 3.10e-03 -1.73e-03 2.57e-03 0.012978 1.009 3.3
## 630
7e-05
      -3.61e-03 2.82e-03 -1.01e-02 9.01e-03 2.86e-03 0.017372 1.009 6.0
## 631
4e-05
       -2.51e-03 3.52e-03 -9.24e-04 -6.44e-04 2.64e-03 0.004705 1.011 4.4
## 632
3e-06
## 633
      -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
7e-05
      -4.08e-03 -9.17e-03 3.74e-02 9.35e-03 -1.32e-02 0.042592 1.012 3.6
## 634
3e-04
        6.81e-05 -8.36e-03 2.45e-02 9.40e-03 -1.25e-02 0.032195 1.008 2.0
## 635
7e-04
        3.60e-02 -2.20e-02 -5.76e-02 -6.04e-03 -7.81e-03 -0.077592 1.001 1.2
## 636
0e-03
## 637
       -8.52e-03 -4.93e-03 2.48e-02 5.92e-03 -1.13e-04 0.027556 1.011 1.5
2e-04
## 638
       -6.22e-03 -1.19e-02 4.82e-03 1.40e-02 5.89e-03 0.019325 1.011 7.4
8e-05
## 639
       -6.01e-03 -3.19e-03 2.92e-03 7.45e-03 4.73e-03 0.010868 1.009 2.3
6e-05
## 640
        1.48e-02 2.41e-03 -1.55e-02 -2.62e-02 1.47e-02 0.037498 1.012 2.8
1e-04
## 641 -1.22e-03 1.03e-03 -3.43e-04 4.80e-04 9.68e-04 0.001834 1.011 6.7
3e-07
```

```
4.42e-03 -7.52e-03 1.10e-02 9.47e-03 -1.18e-02 0.024060 1.006 1.1
## 642
6e-04
       -1.73e-04 -2.82e-02 -5.06e-02 2.59e-02 2.09e-02 -0.073700 1.004 1.0
## 643
9e-03
## 644
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
8e-05
## 645
        2.41e-02 2.90e-02 -2.45e-02 -5.80e-02 -2.73e-03 -0.074057 1.001 1.1
0e-03
        2.22e-02 1.68e-02 -4.32e-03 -1.49e-02 -2.71e-02 0.040889 1.007 3.3
## 646
5e-04
## 647
       -9.75e-03 7.75e-03 4.15e-02 -1.93e-02 -9.01e-03 -0.059213 1.001 7.0
1e-04
## 648
        7.37e-03 -1.17e-02 -1.66e-02 2.38e-02 -1.03e-02 0.034762 1.009 2.4
2e-04
       -1.01e-02 1.38e-02 2.42e-02 -2.16e-03 -6.15e-03 0.031772 1.014 2.0
## 649
2e-04
## 650
        2.60e-03 2.48e-02 -4.50e-03 -1.54e-02 -4.46e-03 0.029802 1.009 1.7
8e-04
## 651
        1.98e-02 9.50e-03 -2.10e-02 3.95e-03 -2.56e-02 0.042155 1.008 3.5
6e-04
## 652
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
9e-04
        1.35e-02 2.62e-02 9.39e-03 -5.69e-02 -5.16e-03 -0.069747 1.001 9.7
## 653
2e-04
## 654
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
        1.52e-02 -2.84e-03 -2.26e-02 -4.10e-02 2.33e-02 -0.067858 1.002 9.2
## 655
1e-04
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
## 656
8e-05
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
## 657
4e-04
## 658
        1.63e-03 2.77e-03 -1.50e-02 1.48e-02 -6.83e-03 0.027884 1.009 1.5
6e-04
## 659
        2.11e-02 4.20e-02 -5.67e-03 -4.02e-02 -2.21e-02 0.059636 1.013 7.1
2e-04
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
## 660
9e-05
       -1.91e-03 -1.01e-02 -2.27e-03 8.26e-03 8.19e-03 0.017447 1.008 6.0
## 661
9e-05
## 662
        6.35e-02 -5.12e-03 -2.68e-02 -8.30e-03 -6.35e-02 0.077057 1.009 1.1
9e-03
## 663
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
## 664
        4.42e-03 -7.52e-03 1.10e-02 9.47e-03 -1.18e-02 0.024060 1.006 1.1
6e-04
## 665
        3.91e-02 1.37e-02 3.89e-02 -5.40e-02 -3.70e-02 0.080229 1.013 1.2
9e-03
## 666
        1.17e-02 -1.75e-02 -2.81e-03 -8.30e-03 1.19e-02 0.032277 1.009 2.0
9e-04
```

```
9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
## 667
8e-04
        7.73e-02 -5.53e-03 -2.73e-02 -5.14e-02 -4.09e-02 0.083183 1.010 1.3
## 668
8e-03
## 669
        1.17e-02 -1.75e-02 -2.81e-03 -8.30e-03 1.19e-02 0.032277 1.009 2.0
9e-04
       -1.82e-02 -3.18e-02 9.18e-03 2.59e-02 1.61e-02 -0.052954 1.002 5.6
## 670
1e-04
        1.58e-02 6.20e-05 -3.63e-03 -6.57e-03 -1.11e-02 0.022507 1.005 1.0
## 671
1e-04
        1.08e-02 -1.07e-03 1.16e-02 -6.24e-03 -1.19e-02 0.024628 1.006 1.2
## 672
1e-04
## 673
        1.69e-02 1.15e-01 -1.33e-01 -8.16e-02 7.37e-03 -0.194043 0.975 7.4
8e-03
        1.88e-04 5.89e-02 6.28e-03 -6.82e-02 2.07e-04 -0.084600 1.004 1.4
## 674
3e-03
## 675
       -3.63e-03 1.44e-03 4.16e-03 -3.38e-03 7.73e-03 0.012219 1.007 2.9
9e-05
## 676 -6.22e-03 -7.47e-03 6.31e-03 1.49e-02 7.03e-04 0.019084 1.008 7.2
9e-05
## 677
        6.86e-02 -7.24e-03 -2.60e-03 -5.03e-02 -4.21e-02 0.077387 1.009 1.2
0e-03
       -1.75e-02 1.29e-02 6.23e-03 -1.86e-02 2.16e-02 -0.043263 1.002 3.7
## 678
4e-04
## 679
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
        1.08e-02 1.49e-03 -3.64e-03 -2.52e-02 1.34e-02 0.033240 1.011 2.2
## 680
1e-04
       -4.15e-03 9.02e-04 1.37e-03 2.86e-03 2.91e-03 0.005618 1.009 6.3
## 681
2e-06
## 682 -4.31e-03 5.96e-03 2.49e-03 -4.45e-03 6.05e-03 0.010251 1.009 2.1
0e-05
## 683
        1.38e-02 -2.66e-02 1.29e-02 -5.09e-03 -1.27e-02 -0.052459 0.999 5.5
0e-04
       -9.21e-03 -1.15e-02 1.61e-02 1.27e-02 4.41e-03 0.023239 1.017 1.0
## 684
8e-04
       -4.69e-03 7.79e-03 -7.65e-03 4.00e-03 2.90e-03 0.014566 1.011 4.2
## 685
5e-05
        9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
## 686
4e-05
## 687
        1.24e-01 -7.57e-02 -1.99e-01 -2.08e-02 -2.69e-02 -0.267566 0.917 1.4
1e-02
## 688
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
       -4.66e-03 2.92e-03 1.94e-03 3.86e-04 4.42e-03 0.007039 1.008 9.9
## 689
2e-06
## 690
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
## 691
        7.49e-03 1.89e-02 -1.50e-02 -2.17e-02 5.86e-03 0.030535 1.011 1.8
7e-04
```

```
-3.95e-05 1.13e-02 -3.55e-03 -8.60e-03 3.87e-03 0.016348 1.007 5.3
## 692
5e-05
      -4.19e-03 -1.02e-02 5.51e-03 7.98e-03 7.26e-03 0.017416 1.009 6.0
## 693
7e-05
## 694
       9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
4e-05
       -3.63e-03 1.44e-03 4.16e-03 -3.38e-03 7.73e-03 0.012219 1.007 2.9
## 695
9e-05
       -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
## 696
5e-05
## 697
       -8.66e-03 -1.42e-02 3.46e-02 2.20e-02 -1.29e-02 0.044119 1.014 3.9
0e-04
## 698
       -2.04e-03 -6.18e-04 -8.60e-03 3.48e-03 7.90e-03 0.013949 1.009 3.9
0e-05
      -1.00e-02 9.35e-03 1.39e-02 7.11e-03 -5.48e-03 0.024319 1.011 1.1
## 699
8e-04
## 700
      -5.22e-03 9.75e-04 7.78e-03 1.41e-02 -8.00e-03 0.023326 1.008 1.0
9e-04
## 701
        1.15e-02 1.32e-02 8.82e-03 -3.45e-02 3.89e-03 0.038884 1.011 3.0
3e-04
## 702
        1.02e-02 3.79e-02 2.69e-02 -3.81e-02 -2.35e-02 0.062932 1.015 7.9
3e-04
## 703 -1.48e-03 -2.37e-02 7.82e-03 1.47e-02 7.71e-03 0.029755 1.012 1.7
7e-04
## 704
       -2.61e-03 -2.32e-03 -2.21e-02 1.46e-02 -5.96e-03 -0.045431 1.000 4.1
3e-04
## 705
       -3.93e-03 1.24e-03 -1.19e-03 3.26e-03 3.55e-03 0.006388 1.009 8.1
7e-06
      -2.32e-03 8.19e-03 -4.97e-03 -4.72e-03 5.26e-03 0.010795 1.014 2.3
## 706
3e-05
      -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
## 707
5e-05
## 708
        1.05e-02 -1.25e-02 -3.00e-03 -8.75e-05 1.35e-03 0.021221 1.006 9.0
1e-05
        1.48e-02 -3.07e-02 -1.79e-02 3.49e-02 -1.44e-02 0.048738 1.011 4.7
## 709
5e-04
## 710
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
        3.99e-02 -8.39e-03 -2.31e-02 -4.48e-02 -8.67e-03 -0.072803 1.000 1.0
## 711
6e-03
## 712
        1.03e-02 1.28e-02 -2.33e-02 -2.05e-02 -4.40e-03 -0.048995 1.000 4.8
0e-04
## 713
        1.69e-02 -2.56e-02 -2.33e-03 1.86e-02 -1.53e-02 0.035268 1.007 2.4
9e-04
## 714
       -2.39e-03 -1.27e-05 1.79e-02 -4.73e-03 1.21e-03 0.022288 1.008 9.9
4e-05
## 715
       -3.33e-03 5.96e-03 1.16e-03 -3.58e-03 3.69e-03 0.007491 1.012 1.1
2e-05
## 716 -8.10e-03 1.34e-02 -2.28e-02 3.70e-02 -3.47e-02 -0.075977 1.002 1.1
5e-03
```

```
2.15e-02 -1.39e-02 3.32e-02 -1.84e-02 -1.74e-02 0.050111 1.009 5.0
## 717
3e-04
        1.62e-02 -3.57e-02 -1.68e-02 2.26e-02 -5.88e-04 0.044831 1.011 4.0
## 718
2e-04
## 719 -5.00e-03 -3.09e-03 -1.70e-03 7.99e-03 5.47e-03 0.011442 1.009 2.6
2e-05
## 720
       -1.55e-02 2.46e-02 3.51e-02 -5.02e-02 2.16e-02 -0.073242 1.004 1.0
7e-03
## 721
       -3.13e-02 -2.36e-02 6.08e-03 2.10e-02 3.81e-02 -0.057544 1.005 6.6
2e-04
## 722
       -8.52e-03 -4.93e-03 2.48e-02 5.92e-03 -1.13e-04 0.027556 1.011 1.5
2e-04
## 723
       -6.01e-03 -3.19e-03 2.92e-03 7.45e-03 4.73e-03 0.010868 1.009 2.3
6e-05
## 724 -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
5e-05
## 725
        2.96e-02 -3.99e-02 -2.14e-02 -2.80e-02 1.94e-02 -0.082601 1.002 1.3
6e-03
## 726
        1.42e-02 8.05e-03 -3.84e-03 4.06e-03 -2.63e-02 0.035950 1.007 2.5
9e-04
## 727
        1.21e-02 -4.41e-02 3.73e-02 4.37e-02 -4.02e-02 0.073665 1.014 1.0
9e-03
      -2.38e-03 -1.21e-02 -9.32e-03 1.54e-02 7.62e-03 0.022794 1.012 1.0
## 728
4e-04
## 729
        5.16e-03 1.64e-02 -1.80e-02 1.18e-02 -1.94e-02 0.042060 1.011 3.5
4e-04
## 730
      -1.91e-03 -1.01e-02 -2.27e-03 8.26e-03 8.19e-03 0.017447 1.008 6.0
9e-05
        1.81e-02 -1.28e-02 -3.23e-03 -2.36e-02 1.37e-02 0.041419 1.011 3.4
## 731
3e-04
## 732 -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
## 733
        3.11e-02 -1.82e-02 -2.08e-02 5.40e-04 -1.44e-02 0.038560 1.006 2.9
8e-04
        1.75e-02 2.46e-03 -8.80e-02 1.42e-02 -1.35e-03 -0.097002 1.005 1.8
## 734
8e-03
## 735
        1.97e-02 -5.52e-03 3.52e-02 -6.72e-03 -3.51e-02 0.053443 1.009 5.7
2e-04
       -3.53e-01 1.60e-01 -1.04e-01 1.55e-01 2.93e-01 -0.419932 0.957 3.4
## 736
9e-02
## 737
        5.85e-02 -8.21e-02 2.15e-02 1.50e-02 -6.16e-02 -0.109646 1.000 2.4
0e-03
## 738
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
## 739
       -1.72e-03 7.71e-03 -7.75e-03 -5.29e-03 7.80e-03 0.013899 1.010 3.8
7e-05
## 740
       -5.25e-03 -1.37e-03 3.55e-03 3.21e-03 6.17e-03 0.010331 1.007 2.1
4e-05
## 741
        2.92e-02 -6.82e-02 1.67e-02 1.16e-02 -1.94e-02 -0.083393 1.000 1.3
9e-03
```

```
1.34e-03 -3.18e-03 4.02e-02 -5.63e-03 -1.35e-02 0.045283 1.011 4.1
## 742
0e-04
        2.06e-02 -2.66e-02 1.37e-02 -9.95e-03 -1.28e-03 0.041732 1.008 3.4
## 743
9e-04
## 744
       -1.35e-01 5.44e-02 2.71e-02 1.25e-01 -1.77e-02 -0.220392 0.927 9.5
6e-03
## 745
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
## 746
       -2.39e-03 -1.27e-05 1.79e-02 -4.73e-03 1.21e-03 0.022288 1.008 9.9
4e-05
## 747
       -2.04e-03 -6.18e-04 -8.60e-03 3.48e-03 7.90e-03 0.013949 1.009 3.9
0e-05
## 748
        8.90e-03 6.66e-03 1.26e-02 4.16e-03 -2.69e-02 0.037161 1.007 2.7
6e-04
## 749
        8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
9e-05
## 750
       3.55e-03 -1.84e-04 1.79e-02 -2.34e-02 1.10e-02 0.035766 1.013 2.5
6e-04
## 751
      -7.24e-03 2.02e-02 2.70e-02 -1.36e-02 -6.33e-03 0.038035 1.015 2.9
0e-04
## 752
      -7.81e-03 -1.17e-02 1.08e-02 1.33e-02 5.12e-03 0.020754 1.013 8.6
2e-05
## 753 -5.20e-03 1.15e-02 -3.40e-03 7.49e-03 -4.59e-03 0.021919 1.009 9.6
2e-05
## 754
       4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
## 755
       -3.42e-02 3.80e-02 2.94e-02 -2.87e-02 2.20e-02 -0.062220 1.005 7.7
4e-04
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
## 756
9e-05
      -5.25e-03 -1.37e-03 3.55e-03 3.21e-03 6.17e-03 0.010331 1.007 2.1
## 757
4e-05
## 758
        3.84e-03 3.12e-02 7.22e-03 -2.95e-02 -5.00e-03 0.040580 1.013 3.3
0e-04
        4.92e-02 1.97e-02 -2.64e-02 -1.80e-02 -5.45e-02 0.073058 1.010 1.0
## 759
7e-03
## 760
       -7.63e-03 5.25e-03 6.58e-03 3.33e-03 1.38e-03 0.011840 1.011 2.8
1e-05
       -1.22e-03 1.03e-03 -3.43e-04 4.80e-04 9.68e-04 0.001834 1.011 6.7
## 761
3e-07
## 762
        5.13e-02 -1.58e-02 -2.53e-02 1.75e-02 -6.19e-02 0.075273 1.009 1.1
3e-03
## 763
        1.29e-02 1.61e-02 -1.82e-02 -1.24e-02 -6.62e-03 0.030693 1.008 1.8
9e-04
## 764
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 765
        7.37e-03 -1.17e-02 -1.66e-02 2.38e-02 -1.03e-02 0.034762 1.009 2.4
2e-04
## 766
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
```

```
## 767 -8.54e-03 8.10e-03 1.26e-02 -1.40e-03 1.53e-03 0.016781 1.014 5.6
4e-05
       -3.21e-01 1.26e-01 -1.37e-01 1.48e-01 2.81e-01 -0.418061 0.875 3.4
## 768
0e-02
## 769
      -2.59e-02 1.07e-02 3.40e-02 -1.81e-02 1.93e-02 -0.054299 1.003 5.9
0e-04
## 770
       -4.99e-02 4.94e-03 -5.39e-02 2.89e-02 5.52e-02 -0.114072 0.975 2.5
9e-03
## 771
       -5.97e-01 2.08e-01 1.37e-01 2.26e-01 4.01e-01 -0.600675 0.895 7.0
4e-02
## 772
      -3.86e-03 -7.94e-03 1.43e-02 -2.63e-04 7.80e-03 0.021416 1.010 9.1
8e-05
## 773
        2.98e-02 -1.01e-02 -2.20e-02 1.33e-02 -3.18e-02 0.047217 1.007 4.4
6e-04
## 774
       -3.12e-03 6.80e-03 -2.26e-03 -4.86e-03 6.89e-03 0.010968 1.009 2.4
1e-05
## 775
       -1.71e-01 4.29e-02 6.83e-02 6.26e-02 1.07e-01 -0.177204 0.986 6.2
6e-03
## 776
        1.51e-02 -1.19e-02 -1.68e-02 -2.52e-04 2.39e-03 0.027394 1.007 1.5
0e-04
## 777
       -1.58e-03 1.19e-03 1.66e-03 -2.22e-04 8.60e-04 0.002421 1.015 1.1
7e-06
## 778
        7.37e-03 -1.17e-02 -1.66e-02 2.38e-02 -1.03e-02 0.034762 1.009 2.4
2e-04
## 779
        3.15e-02 -4.20e-02 -2.14e-02 4.54e-02 -3.80e-02 0.070373 1.012 9.9
1e-04
## 780
        1.08e-02 -1.07e-03 1.16e-02 -6.24e-03 -1.19e-02 0.024628 1.006 1.2
1e-04
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
## 781
9e-05
       -2.69e-02 -3.36e-02 3.80e-02 2.60e-02 1.38e-02 -0.064048 1.003 8.2
## 782
0e-04
## 783
       -1.31e-03 -7.61e-03 6.18e-03 -3.77e-04 8.76e-03 0.017672 1.008 6.2
5e-05
      -8.13e-03 -1.03e-02 1.90e-02 7.42e-03 5.59e-03 0.024221 1.014 1.1
## 784
7e-04
## 785
        2.50e-03 -1.69e-02 -2.14e-02 -6.36e-03 2.08e-02 -0.052524 1.001 5.5
2e-04
       -1.39e-02 2.91e-02 -2.20e-02 -4.60e-02 4.76e-02 -0.073112 1.007 1.0
## 786
7e-03
## 787
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 788
        2.48e-02 -4.27e-02 -1.12e-03 4.48e-02 -3.87e-02 0.065783 1.011 8.6
6e-04
## 789
        2.25e-02 -2.49e-02 -1.93e-02 1.89e-02 -1.44e-02 0.040867 1.008 3.3
4e-04
## 790
       -7.36e-03 1.55e-03 4.27e-03 8.27e-03 1.60e-03 0.013447 1.008 3.6
2e-05
## 791
        1.30e-03 6.13e-03 -3.16e-03 -1.30e-02 1.05e-02 0.018910 1.009 7.1
6e-05
```

```
3.95e-02 -1.32e-03 -2.35e-02 -7.81e-03 -3.26e-02 0.048506 1.007 4.7
## 792
1e-04
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
## 793
2e-05
## 794
       -2.13e-01 7.09e-03 1.27e-01 4.20e-02 1.75e-01 -0.261078 0.936 1.3
4e-02
## 795
       -2.88e-02 2.46e-02 2.82e-02 -4.41e-02 4.26e-02 -0.073382 1.008 1.0
8e-03
## 796
        4.04e-04 1.89e-02 -8.55e-03 -1.98e-02 9.49e-03 0.025761 1.022 1.3
3e-04
## 797
       -9.48e-02 7.74e-02 4.23e-03 -1.18e-01 1.77e-01 -0.221079 0.988 9.7
3e-03
## 798
        2.69e-02 4.43e-02 -2.30e-02 -4.13e-02 -2.13e-02 0.064961 1.014 8.4
5e-04
## 799
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
3e-05
## 800
        2.62e-02 -2.59e-02 -2.60e-03 -1.04e-02 -9.09e-05 0.040362 1.008 3.2
6e-04
## 801
        6.83e-03 8.93e-03 -1.66e-02 2.34e-03 -6.78e-03 0.025936 1.007 1.3
5e-04
        4.54e-02 -8.45e-02 6.22e-02 1.54e-02 -6.41e-02 -0.123514 1.001 3.0
## 802
5e-03
       -6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
## 803
1e-05
## 804
       4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
8e-05
       -3.49e-03 1.64e-03 -4.48e-03 3.66e-03 4.25e-03 0.008408 1.011 1.4
## 805
2e-05
       -4.15e-03 9.02e-04 1.37e-03 2.86e-03 2.91e-03 0.005618 1.009 6.3
## 806
2e-06
       -5.97e-01 2.08e-01 1.37e-01 2.26e-01 4.01e-01 -0.600675 0.895 7.0
## 807
4e-02
## 808
       -1.32e-01 1.48e-01 -6.22e-02 -3.52e-02 1.29e-01 -0.203915 0.989 8.2
8e-03
       -3.76e-03 -2.93e-03 -7.06e-03 8.54e-03 6.27e-03 0.014078 1.010 3.9
## 809
7e-05
       -4.62e-02 -3.50e-02 2.97e-02 4.56e-02 3.30e-02 -0.073936 1.009 1.0
## 810
9e-03
        7.05e-03 6.25e-04 7.47e-03 -2.43e-02 1.22e-02 0.032846 1.011 2.1
## 811
6e-04
## 812
       -1.31e-03 -7.61e-03 6.18e-03 -3.77e-04 8.76e-03 0.017672 1.008 6.2
5e-05
## 813
        1.30e-01 -4.53e-02 -2.98e-02 -4.91e-02 -8.71e-02 0.130669 1.012 3.4
1e-03
## 814
        6.44e-02 -1.61e-02 -2.57e-02 -2.36e-02 -4.03e-02 0.066651 1.008 8.8
9e-04
## 815
       -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
7e-05
## 816
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
4e-04
```

```
-5.25e-03 -1.37e-03 3.55e-03 3.21e-03 6.17e-03 0.010331 1.007 2.1
## 817
4e-05
       -5.43e-03 2.10e-01 9.15e-02 -1.97e-01 -6.76e-02 -0.291806 0.979 1.6
## 818
9e-02
## 819
        1.03e-02 1.28e-02 -2.33e-02 -2.05e-02 -4.40e-03 -0.048995 1.000 4.8
0e-04
## 820
        2.98e-02 -1.01e-02 -2.20e-02 1.33e-02 -3.18e-02 0.047217 1.007 4.4
6e-04
## 821
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
9e-05
## 822
       -1.91e-03 -1.01e-02 -2.27e-03 8.26e-03 8.19e-03 0.017447 1.008 6.0
9e-05
## 823
       -8.78e-04 -6.69e-03 -1.22e-02 1.60e-02 2.15e-03 0.022995 1.009 1.0
6e-04
        3.26e-02 -2.77e-03 -3.23e-03 -7.43e-03 -3.34e-02 0.041739 1.006 3.4
## 824
9e-04
## 825
        1.00e-02 -2.10e-02 -1.41e-02 4.62e-03 1.15e-02 0.032841 1.010 2.1
6e-04
## 826
      -1.98e-02 4.60e-02 -2.38e-02 2.04e-02 -2.76e-02 -0.083883 1.005 1.4
1e-03
## 827
       -5.25e-03 -1.37e-03 3.55e-03 3.21e-03 6.17e-03 0.010331 1.007 2.1
4e-05
       -6.53e-03 -1.68e-03 8.55e-03 3.06e-03 5.39e-03 0.012475 1.009 3.1
## 828
2e-05
        1.22e-01 -1.68e-01 2.45e-01 -1.48e-02 -2.40e-01 -0.410967 0.841 3.2
## 829
6e-02
        6.23e-03 -2.11e-02 -2.41e-03 4.60e-03 1.03e-02 0.028790 1.009 1.6
## 830
6e-04
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 831
6e-05
       -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
## 832
5e-05
## 833
       -3.40e-03 4.49e-03 1.20e-02 -1.17e-02 8.46e-03 0.020791 1.011 8.6
5e-05
       -7.87e-02 6.21e-02 8.80e-02 1.31e-03 -1.25e-02 -0.143143 0.975 4.0
## 834
7e-03
        3.59e-02 -4.97e-02 -2.08e-02 3.71e-02 -5.04e-02 -0.085449 0.999 1.4
## 835
6e-03
        1.35e-02 2.62e-02 9.39e-03 -5.69e-02 -5.16e-03 -0.069747 1.001 9.7
## 836
2e-04
## 837
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
## 838
       -3.10e-03 1.00e-02 3.02e-03 -1.17e-02 7.81e-03 0.016367 1.011 5.3
6e-05
## 839
       -3.61e-03 2.82e-03 -1.01e-02 9.01e-03 2.86e-03 0.017372 1.009 6.0
4e-05
## 840
       -6.88e-03 -1.90e-02 9.14e-03 -5.92e-03 1.83e-02 -0.048241 1.001 4.6
5e-04
## 841 -6.22e-03 -1.19e-02 4.82e-03 1.40e-02 5.89e-03 0.019325 1.011 7.4
8e-05
```

```
-5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
## 842
7e-05
## 843
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
8e-05
## 844
      -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
## 845
        1.57e-02 -1.50e-02 5.04e-02 -1.79e-02 -1.84e-02 0.062483 1.013 7.8
1e-04
       -3.68e-02 2.33e-02 2.19e-02 -3.76e-02 5.53e-02 -0.074307 1.012 1.1
## 846
0e-03
        6.70e-03 2.29e-02 -4.54e-03 -3.22e-03 -2.07e-02 0.038280 1.009 2.9
## 847
3e-04
       -6.81e-03 -3.24e-03 6.83e-03 6.90e-03 4.05e-03 0.011810 1.011 2.7
## 848
9e-05
       4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
## 849
8e-05
## 850
       -1.36e-01 1.23e-01 -1.22e-01 3.11e-02 1.29e-01 -0.227768 0.991 1.0
3e-02
## 851
       -2.99e-02 -1.43e-02 3.17e-02 -5.97e-03 3.87e-02 -0.063668 1.005 8.1
1e-04
## 852
        5.02e-02 8.50e-03 -2.51e-02 -3.14e-02 -3.32e-02 0.059476 1.008 7.0
8e-04
        6.44e-02 -1.61e-02 -2.57e-02 -2.36e-02 -4.03e-02 0.066651 1.008 8.8
## 853
9e-04
        7.37e-05 1.20e-02 2.15e-02 -1.10e-02 -8.91e-03 0.031346 1.009 1.9
## 854
7e-04
        8.39e-03 1.47e-02 -4.23e-03 -1.19e-02 -7.43e-03 0.024401 1.006 1.1
## 855
9e-04
       -6.86e-03 6.03e-03 2.56e-03 3.56e-03 1.83e-03 0.010979 1.009 2.4
## 856
1e-05
       -3.76e-03 -1.02e-03 -2.16e-03 3.34e-03 7.00e-03 0.010554 1.007 2.2
## 857
3e-05
## 858
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
6e-05
       -7.67e-02 -2.72e-02 -5.23e-02 1.04e-01 5.07e-02 -0.150200 0.978 4.4
## 859
9e-03
       -4.55e-03 5.58e-03 1.98e-02 2.55e-03 -8.77e-03 0.026939 1.008 1.4
## 860
5e-04
       -2.77e-03 1.02e-02 5.44e-03 -8.16e-03 3.07e-03 0.016266 1.007 5.3
## 861
0e-05
## 862
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 863
       -5.59e-03 2.16e-03 -2.53e-03 8.64e-03 2.20e-03 0.013681 1.008 3.7
5e-05
## 864
        3.26e-02 -2.77e-03 -3.23e-03 -7.43e-03 -3.34e-02 0.041739 1.006 3.4
9e-04
## 865
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 866
        1.06e-02 -3.92e-02 -2.08e-02 3.13e-02 -1.18e-02 -0.062312 1.000 7.7
6e-04
```

```
-8.10e-03 1.34e-02 -2.28e-02 3.70e-02 -3.47e-02 -0.075977 1.002 1.1
## 867
5e-03
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 868
6e-05
## 869 -5.90e-03 -4.40e-03 1.62e-02 6.02e-03 5.77e-04 0.020443 1.008 8.3
7e-05
## 870
       6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
       -1.91e-03 1.85e-03 -3.26e-03 1.44e-02 -7.44e-03 0.022948 1.007 1.0
## 871
5e-04
## 872
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 873
       -1.31e-03 -7.61e-03 6.18e-03 -3.77e-04 8.76e-03 0.017672 1.008 6.2
5e-05
        1.44e-04 -4.13e-02 1.29e-02 3.13e-02 -1.41e-02 -0.059504 1.000 7.0
## 874
8e-04
## 875
        1.87e-02 3.39e-02 -2.13e-02 -2.12e-02 -2.08e-02 0.051338 1.011 5.2
7e-04
## 876
        3.95e-02 -1.32e-03 -2.35e-02 -7.81e-03 -3.26e-02 0.048506 1.007 4.7
1e-04
        5.13e-02 -1.58e-02 -2.53e-02 1.75e-02 -6.19e-02 0.075273 1.009 1.1
## 877
3e-03
        1.36e-02 -1.35e-02 9.96e-03 -2.28e-02 1.24e-02 0.041403 1.012 3.4
## 878
3e-04
## 879
       -1.19e-02 4.26e-02 6.43e-03 -3.27e-02 -1.43e-03 -0.058285 1.002 6.7
9e-04
       -1.05e-02 -9.82e-02 5.09e-02 8.58e-02 -2.43e-02 -0.124822 1.008 3.1
## 880
1e-03
        1.87e-02 3.39e-02 -2.13e-02 -2.12e-02 -2.08e-02 0.051338 1.011 5.2
## 881
7e-04
        4.92e-03 -2.39e-02 -1.27e-02 1.56e-02 9.83e-03 0.033367 1.012 2.2
## 882
3e-04
## 883
        7.49e-03 1.89e-02 -1.50e-02 -2.17e-02 5.86e-03 0.030535 1.011 1.8
7e-04
        1.38e-02 -5.71e-03 -1.81e-02 9.61e-03 -1.03e-02 0.028908 1.007 1.6
## 884
7e-04
       -3.96e-03 3.52e-03 -1.71e-03 3.81e-04 5.16e-03 0.007665 1.008 1.1
## 885
8e-05
        3.85e-04 2.38e-02 2.20e-02 -4.61e-02 -1.56e-02 -0.101373 0.970 2.0
## 886
4e-03
## 887
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
## 888
       -5.53e-03 -2.61e-02 1.35e-02 5.55e-02 -4.46e-02 -0.080535 1.001 1.3
0e-03
## 889
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
6e-05
## 890
        8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
9e-05
## 891
        1.50e-03 1.91e-02 -1.48e-02 -3.00e-03 -3.97e-03 0.027923 1.010 1.5
6e-04
```

```
-5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
## 892
7e-05
## 893
       -3.63e-03 1.44e-03 4.16e-03 -3.38e-03 7.73e-03 0.012219 1.007 2.9
9e-05
## 894
        1.23e-02 -7.76e-03 1.08e-02 -1.52e-02 1.15e-03 0.029041 1.007 1.6
9e-04
## 895
        5.34e-04 2.70e-03 -1.02e-02 -3.93e-03 9.67e-03 0.016325 1.008 5.3
3e-05
       -1.82e-02 -3.18e-02 9.18e-03 2.59e-02 1.61e-02 -0.052954 1.002 5.6
## 896
1e-04
        2.43e-03 -4.00e-03 6.83e-03 -1.11e-02 1.04e-02 0.022775 1.008 1.0
## 897
4e-04
## 898
        1.69e-02 -2.56e-02 -2.33e-03 1.86e-02 -1.53e-02 0.035268 1.007 2.4
9e-04
## 899
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
4e-04
## 900
        3.11e-02 -1.82e-02 -2.08e-02 5.40e-04 -1.44e-02 0.038560 1.006 2.9
8e-04
## 901
        3.11e-02 -1.82e-02 -2.08e-02 5.40e-04 -1.44e-02 0.038560 1.006 2.9
8e-04
## 902
       -4.16e-02 4.99e-02 1.67e-03 -1.16e-02 2.37e-02 -0.059956 1.007 7.1
9e-04
## 903
        4.61e-02 -3.56e-02 -1.78e-03 -1.20e-02 -2.04e-02 0.054747 1.007 6.0
0e-04
## 904
        3.55e-03 -1.84e-04 1.79e-02 -2.34e-02 1.10e-02 0.035766 1.013 2.5
6e-04
## 905
       -6.52e-02 1.35e-01 7.90e-02 -1.54e-01 6.35e-02 -0.214684 0.981 9.1
7e-03
       -5.49e-03 5.39e-03 4.86e-03 1.23e-03 2.28e-03 0.012387 1.007 3.0
## 906
7e-05
        3.27e-02 4.75e-02 1.53e-02 -4.85e-02 -4.91e-02 0.084642 1.015 1.4
## 907
3e-03
## 908
       -5.22e-03 9.75e-04 7.78e-03 1.41e-02 -8.00e-03 0.023326 1.008 1.0
9e-04
       -5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
## 909
6e-05
## 910
       -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
7e-05
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
## 911
9e-05
## 912
        1.45e-03 -7.25e-03 -2.69e-03 -5.00e-04 9.79e-03 0.017448 1.007 6.0
9e-05
## 913
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
6e-05
## 914
       -5.28e-03 9.21e-03 1.37e-02 -7.74e-03 2.33e-03 0.020123 1.009 8.1
1e-05
## 915
       -1.31e-03 -7.61e-03 6.18e-03 -3.77e-04 8.76e-03 0.017672 1.008 6.2
5e-05
## 916
        2.92e-02 -6.82e-02 1.67e-02 1.16e-02 -1.94e-02 -0.083393 1.000 1.3
9e-03
```

```
-5.33e-03 2.67e-02 9.92e-03 1.84e-03 -3.60e-02 -0.064241 1.001 8.2
## 917
5e-04
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
## 918
4e-04
## 919
        8.24e-03 4.37e-02 9.81e-03 -3.57e-02 -3.54e-02 -0.075335 1.001 1.1
3e-03
## 920
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
       -2.61e-03 -2.32e-03 -2.21e-02 1.46e-02 -5.96e-03 -0.045431 1.000 4.1
## 921
3e-04
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 922
6e-05
## 923
       -2.45e-03 1.27e-02 -1.31e-02 7.69e-03 -4.08e-03 0.026087 1.010 1.3
6e-04
## 924
        4.80e-03 -1.72e-02 -2.60e-03 1.32e-02 5.80e-04 0.023571 1.007 1.1
1e-04
## 925
        3.95e-02 -1.32e-03 -2.35e-02 -7.81e-03 -3.26e-02 0.048506 1.007 4.7
1e-04
## 926
        1.64e-02 1.52e-02 1.32e-02 -1.44e-02 -2.78e-02 0.041965 1.008 3.5
2e-04
## 927
        9.75e-03 7.56e-03 -3.93e-03 -1.92e-02 3.90e-03 0.024306 1.007 1.1
8e-04
       -2.45e-03 1.27e-02 -1.31e-02 7.69e-03 -4.08e-03 0.026087 1.010 1.3
## 928
6e-04
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 929
6e-05
## 930
       -2.21e-02 5.65e-02 -1.95e-01 -5.09e-02 1.34e-01 -0.245676 0.985 1.2
0e-02
        3.26e-02 -2.77e-03 -3.23e-03 -7.43e-03 -3.34e-02 0.041739 1.006 3.4
## 931
9e-04
        2.81e-03 7.75e-03 -3.73e-03 2.42e-03 -7.48e-03 0.019693 1.006 7.7
## 932
6e-05
## 933
       -1.91e-03 1.85e-03 -3.26e-03 1.44e-02 -7.44e-03 0.022948 1.007 1.0
5e-04
        1.05e-02 -1.25e-02 -3.00e-03 -8.75e-05 1.35e-03 0.021221 1.006 9.0
## 934
1e-05
## 935
        4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
        2.10e-02 -1.79e-02 -2.06e-02 3.22e-02 -3.11e-02 0.053534 1.010 5.7
## 936
4e-04
## 937
       -1.88e-02 4.29e-02 -2.28e-02 -3.01e-02 2.65e-02 -0.060780 1.004 7.3
9e-04
## 938
       -3.49e-03 1.64e-03 -4.48e-03 3.66e-03 4.25e-03 0.008408 1.011 1.4
2e-05
## 939
       -8.13e-03 -1.03e-02 1.90e-02 7.42e-03 5.59e-03 0.024221 1.014 1.1
7e-04
## 940
        3.14e-03 -2.89e-02 4.70e-02 -4.64e-03 -1.51e-02 -0.068916 1.001 9.4
9e-04
## 941
        3.11e-02 -1.82e-02 -2.08e-02 5.40e-04 -1.44e-02 0.038560 1.006 2.9
8e-04
```

```
-5.21e-05 -3.22e-03 -2.98e-03 6.23e-03 2.11e-03 0.013714 1.006 3.7
## 942
6e-05
        2.14e-03 2.13e-02 9.81e-03 -2.97e-03 -2.12e-02 0.038346 1.009 2.9
## 943
4e-04
## 944
       -1.23e-02 -4.62e-03 9.56e-03 1.48e-02 -8.18e-03 -0.040388 1.000 3.2
6e-04
## 945
       -6.22e-03 -7.47e-03 6.31e-03 1.49e-02 7.03e-04 0.019084 1.008 7.2
9e-05
       -4.80e-03 1.12e-02 -2.73e-03 -1.91e-03 3.18e-03 0.013687 1.009 3.7
## 946
5e-05
## 947
        4.44e-03 -6.84e-03 -1.23e-02 -6.32e-04 1.09e-02 0.021763 1.008 9.4
8e-05
## 948
        2.11e-02 1.25e-03 -1.97e-02 -6.92e-03 -1.02e-02 0.030068 1.006 1.8
1e-04
## 949
       -9.80e-04 6.63e-03 8.39e-03 2.49e-03 -8.15e-03 0.020565 1.006 8.4
7e-05
## 950
       4.41e-03 1.66e-03 -3.44e-03 -5.31e-03 2.94e-03 0.014526 1.005 4.2
2e-05
## 951
       -4.19e-03 -1.02e-02 5.51e-03 7.98e-03 7.26e-03 0.017416 1.009 6.0
7e-05
## 952
       -1.61e-02 -2.10e-02 3.90e-02 -5.51e-03 1.59e-02 -0.060977 1.002 7.4
4e-04
## 953 -5.25e-03 -1.37e-03 3.55e-03 3.21e-03 6.17e-03 0.010331 1.007 2.1
4e-05
## 954
       -8.78e-04 -6.69e-03 -1.22e-02 1.60e-02 2.15e-03 0.022995 1.009 1.0
6e-04
## 955
       -8.92e-04 2.32e-02 6.69e-03 -1.48e-02 -5.13e-03 0.029296 1.010 1.7
2e-04
        9.15e-03 -2.73e-03 -1.39e-02 -1.22e-02 1.27e-02 0.027163 1.009 1.4
## 956
8e-04
        3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
## 957
9e-05
## 958
        6.44e-02 -1.61e-02 -2.57e-02 -2.36e-02 -4.03e-02 0.066651 1.008 8.8
9e-04
        1.44e-02 2.51e-02 1.41e-02 -2.98e-03 -4.57e-02 0.061864 1.011 7.6
## 959
6e-04
       -1.75e-02 1.29e-02 6.23e-03 -1.86e-02 2.16e-02 -0.043263 1.002 3.7
## 960
4e-04
       -5.28e-03 5.18e-03 6.52e-03 -4.05e-03 5.27e-03 0.011252 1.010 2.5
## 961
3e-05
## 962
       -8.32e-03 1.58e-04 1.81e-02 1.38e-02 -8.53e-03 0.027967 1.010 1.5
7e-04
## 963
        5.06e-02 7.82e-04 4.68e-02 -3.42e-02 -6.78e-02 0.092629 1.012 1.7
2e-03
## 964
        3.99e-02 -8.39e-03 -2.31e-02 -4.48e-02 -8.67e-03 -0.072803 1.000 1.0
6e-03
## 965
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 966 -6.48e-04 4.45e-04 1.49e-04 2.22e-04 4.18e-04 0.000833 1.011 1.3
9e-07
```

```
1.30e-01 -4.53e-02 -2.98e-02 -4.91e-02 -8.71e-02 0.130669 1.012 3.4
## 967
1e-03
        5.67e-03 -3.39e-03 -3.15e-03 -1.16e-02 1.15e-02 0.022742 1.008 1.0
## 968
4e-04
## 969
        9.00e-03 -6.64e-03 -3.19e-03 9.54e-03 -1.11e-02 0.022177 1.005 9.8
4e-05
## 970
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
## 971
       -6.82e-04 1.80e-02 -1.10e-02 -1.06e-02 4.91e-03 0.022453 1.012 1.0
1e-04
       -5.95e-04 -4.57e-03 1.61e-02 -1.06e-02 9.33e-03 0.026437 1.010 1.4
## 972
0e-04
## 973
       -3.63e-03 1.44e-03 4.16e-03 -3.38e-03 7.73e-03 0.012219 1.007 2.9
9e-05
       -3.41e-03 -5.09e-03 2.47e-02 -1.01e-02 8.33e-03 0.031948 1.014 2.0
## 974
4e-04
## 975
        1.17e-02 -1.75e-02 -2.81e-03 -8.30e-03 1.19e-02 0.032277 1.009 2.0
9e-04
## 976
        1.17e-03 -5.60e-04 -1.06e-03 -3.21e-04 -5.23e-04 -0.001564 1.015 4.9
0e-07
## 977
       -3.93e-03 1.24e-03 -1.19e-03 3.26e-03 3.55e-03 0.006388 1.009 8.1
7e-06
## 978
       -3.24e-03 6.24e-03 -3.02e-03 1.19e-03 2.98e-03 0.012303 1.006 3.0
3e-05
## 979
        6.00e-04 -9.96e-03 -1.08e-02 8.55e-03 9.19e-03 0.021077 1.009 8.8
9e-05
## 980
       -3.93e-03 1.24e-03 -1.19e-03 3.26e-03 3.55e-03 0.006388 1.009 8.1
7e-06
## 981
        4.80e-03 -1.72e-02 -2.60e-03 1.32e-02 5.80e-04 0.023571 1.007 1.1
1e-04
        1.83e-02 -3.14e-02 -2.23e-03 7.10e-03 -9.18e-04 0.037119 1.008 2.7
## 982
6e-04
## 983
        2.22e-02 -5.96e-03 -1.84e-02 -1.64e-02 3.38e-03 0.033813 1.008 2.2
9e-04
## 984
        7.37e-03 -1.17e-02 -1.66e-02 2.38e-02 -1.03e-02 0.034762 1.009 2.4
2e-04
        1.32e-02 -3.18e-02 1.30e-02 7.11e-03 -2.01e-03 0.038457 1.009 2.9
## 985
6e-04
       -1.48e-03 -2.37e-02 7.82e-03 1.47e-02 7.71e-03 0.029755 1.012 1.7
## 986
7e-04
## 987
       -7.55e-03 2.06e-02 -8.15e-02 3.11e-02 1.92e-03 -0.099070 1.008 1.9
6e-03
## 988
       -3.00e-02 -4.14e-03 1.01e-02 7.00e-02 -3.72e-02 -0.092337 1.005 1.7
0e-03
## 989
        1.30e-03 6.13e-03 -3.16e-03 -1.30e-02 1.05e-02 0.018910 1.009 7.1
6e-05
## 990
       -5.00e-03 -3.09e-03 -1.70e-03 7.99e-03 5.47e-03 0.011442 1.009 2.6
2e-05
## 991
        1.51e-02 -1.19e-02 -1.68e-02 -2.52e-04 2.39e-03 0.027394 1.007 1.5
0e-04
```

```
1.48e-02 2.41e-03 -1.55e-02 -2.62e-02 1.47e-02 0.037498 1.012 2.8
## 992
1e-04
       -1.01e-02 -4.34e-02 4.60e-02 3.14e-02 -1.64e-02 -0.073644 1.002 1.0
## 993
8e-03
## 994
       3.21e-03 -2.55e-03 -1.37e-02 6.34e-03 2.96e-03 0.019473 1.007 7.5
9e-05
## 995
       -1.66e-03 2.04e-03 -2.64e-03 -3.65e-03 8.67e-03 0.012397 1.007 3.0
8e-05
## 996
        3.02e-02 9.94e-04 -2.00e-02 -3.49e-02 4.50e-03 0.047268 1.010 4.4
7e-04
## 997
        4.13e-02 -1.85e-02 -2.12e-02 -3.11e-02 2.20e-03 0.056625 1.010 6.4
2e-04
## 998
        8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
9e-05
## 999 -4.31e-03 5.96e-03 2.49e-03 -4.45e-03 6.05e-03 0.010251 1.009 2.1
0e-05
## 1000 -6.26e-03 1.01e-02 3.10e-03 -1.73e-03 2.57e-03 0.012978 1.009 3.3
7e-05
## 1001 4.42e-03 -7.52e-03 1.10e-02 9.47e-03 -1.18e-02 0.024060 1.006 1.1
6e-04
## 1002 1.50e-03 1.91e-02 -1.48e-02 -3.00e-03 -3.97e-03 0.027923 1.010 1.5
6e-04
## 1003 3.98e-03 7.04e-03 -1.18e-02 -1.37e-02 1.16e-02 0.022807 1.010 1.0
4e-04
## 1004 5.24e-02 -3.29e-02 -2.18e-02 -4.35e-03 -4.97e-02 -0.079244 0.998 1.2
5e-03
## 1005 1.29e-02 1.61e-02 -1.82e-02 -1.24e-02 -6.62e-03 0.030693 1.008 1.8
9e-04
## 1006 -4.80e-03 1.12e-02 -2.73e-03 -1.91e-03 3.18e-03 0.013687 1.009 3.7
5e-05
## 1007 -3.30e-02 -3.55e-02 2.94e-02 4.36e-03 5.48e-02 -0.082211 1.011 1.3
5e-03
## 1008 -4.01e-02 5.25e-02 3.08e-02 -1.20e-02 -3.77e-04 -0.071338 1.006 1.0
2e-03
## 1009 8.98e-04 7.98e-04 7.59e-03 -5.01e-03 2.05e-03 0.015632 1.006 4.8
9e-05
## 1010 2.42e-02 5.48e-03 1.74e-02 6.27e-03 -5.41e-02 0.063118 1.010 7.9
7e-04
##
           hat inf
       0.00742
## 1
## 2
        0.00404
## 3
        0.00281
## 4
        0.00621
## 5
        0.00350
## 6
        0.00410
## 7
        0.00456
## 8
        0.00243
## 9
        0.00374
## 10
        0.00838
## 11
       0.00181
```

```
## 12
         0.00638
## 13
         0.00505
## 14
         0.00614
## 15
         0.00483
## 16
         0.00281
## 17
         0.00261
## 18
         0.00171
## 19
         0.00606
## 20
         0.00324
## 21
         0.00416
## 22
         0.00638
## 23
         0.00181
## 24
         0.00305
## 25
         0.00374
## 26
         0.00805
## 27
         0.00880
## 28
         0.00506
## 29
         0.00688
## 30
         0.00342
## 31
         0.00197
## 32
         0.00439
## 33
         0.00251
## 34
         0.00348
## 35
         0.00243
## 36
         0.00426
## 37
         0.00664
## 38
         0.00618
## 39
         0.00443
## 40
         0.00450
## 41
         0.00905
## 42
        0.01831
## 43
         0.00623
## 44
         0.00451
## 45
         0.00177
## 46
         0.00434
## 47
         0.00422
## 48
         0.00261
## 49
         0.00442
## 50
         0.00404
## 51
         0.00848
## 52
         0.00365
## 53
         0.01034
## 54
         0.00410
## 55
         0.01034
## 56
         0.00195
        0.00663
## 57
## 58
         0.00433
## 59
         0.00917
## 60
         0.00305
## 61
         0.00283
```

```
## 62
        0.00543
## 63
        0.00606
## 64
        0.00980
## 65
        0.00376
## 66
        0.00274
## 67
        0.00318
## 68
        0.00860
## 69
        0.00239
        0.01049
## 70
## 71
        0.00435
## 72
        0.00993
## 73
        0.00623
## 74
        0.00576
## 75
        0.00950
## 76
        0.00957
## 77
        0.00754
## 78
        0.00578
## 79
        0.00318
## 80
        0.00586
## 81
        0.00305
## 82
        0.00424
## 83
        0.00769
## 84
        0.00733
## 85
        0.00842
## 86
        0.00158
## 87
        0.00313
## 88
        0.00450
## 89
        0.00733
## 90
        0.00239
## 91
        0.00128
## 92
        0.01098
## 93
        0.00592
## 94
        0.01362
## 95
        0.00526
## 96
        0.00161
## 97
        0.00556
## 98
        0.00950
## 99
        0.00858
## 100
        0.00471
## 101
        0.00313
## 102
        0.00508
## 103
        0.00729
## 104
        0.00875
## 105
        0.00324
## 106
        0.00508
## 107
        0.00476
## 108
        0.00556
## 109
        0.00285
## 110
        0.00281
## 111 0.00698
```

```
## 112
        0.00260
## 113
        0.00252
## 114
        0.00177
## 115
        0.00392
## 116
        0.00577
## 117
        0.00281
## 118
        0.00625
## 119
        0.00441
## 120
        0.00358
## 121
        0.00781
## 122
        0.00327
## 123
        0.00772
## 124
        0.00258
## 125
        0.00746
## 126
        0.00324
## 127
        0.00311
## 128
        0.00171
## 129
        0.00733
## 130
        0.00544
## 131
        0.00505
## 132
        0.00468
## 133
        0.00261
## 134
        0.00850
## 135
        0.00281
## 136
        0.00404
## 137
        0.00226
## 138
        0.00313
## 139
        0.00943
## 140
        0.00443
## 141
        0.00139
## 142
        0.00548
## 143
        0.00311
        0.00177
## 144
## 145
        0.00376
## 146
        0.00627
## 147
        0.00434
## 148
        0.00239
## 149
        0.00537
## 150
        0.00998
## 151
        0.00281
## 152
        0.00422
## 153
        0.00396
## 154
        0.00529
## 155
        0.00729
## 156
        0.00281
## 157
        0.00498
## 158
        0.00370
## 159
        0.00292
## 160
        0.00476
## 161 0.00772
```

```
## 162
        0.00362
        0.00772
## 163
## 164
        0.00292
## 165
        0.00177
## 166
        0.00814
## 167
        0.00714
## 168
        0.00128
## 169
        0.00311
## 170
        0.00404
## 171
        0.00236
## 172
        0.00261
        0.00410
## 173
## 174
        0.00544
## 175
        0.01994
## 176
        0.00615
## 177
        0.00758
## 178
        0.00962
## 179
        0.00508
## 180
        0.01281
## 181
        0.00505
## 182
        0.00260
## 183
        0.00313
## 184
        0.00181
## 185
        0.00381
## 186
        0.00442
## 187
        0.00846
## 188
        0.00697
## 189
        0.00202
## 190
        0.00700
## 191
        0.00285
## 192
        0.01511
## 193
        0.00424
## 194
        0.00962
        0.00455
## 195
## 196
        0.00334
## 197
        0.00283
        0.00493
## 198
## 199
        0.00431
## 200
        0.00617
## 201
        0.00261
## 202
        0.00848
## 203
        0.00783
## 204
        0.00305
## 205
        0.00433
## 206
        0.00525
## 207
        0.00539
## 208
        0.00305
## 209
        0.00139
## 210
        0.00637
## 211 0.00998
```

```
## 212
        0.00733
## 213
        0.00508
## 214
        0.00411
## 215
        0.00281
## 216
        0.00803
## 217
        0.00752
## 218
        0.00318
## 219
        0.00447
## 220
        0.01049
## 221
        0.00933
## 222
        0.00860
## 223
        0.00427
## 224
        0.00422
## 225
        0.00362
## 226
        0.00410
## 227
        0.00998
## 228
        0.00520
## 229
        0.00746
## 230
        0.00195
        0.01259
## 231
## 232
        0.00243
## 233
        0.00528
## 234
        0.00177
## 235
        0.00476
## 236
        0.00615
## 237
        0.00171
## 238
        0.00195
## 239
        0.00647
## 240
        0.00488
## 241
        0.00437
## 242
        0.00352
## 243
        0.00331
## 244
        0.00742
## 245
        0.00577
## 246
        0.00236
## 247
        0.00243
## 248
        0.00239
## 249
        0.00450
## 250
        0.00627
## 251
        0.00181
## 252
        0.00577
## 253
        0.00362
## 254
        0.00756
## 255
        0.00456
## 256
        0.00838
## 257
        0.00842
## 258
        0.00403
## 259
        0.00729
                   *
## 260
        0.00158
## 261 0.00202
```

```
## 262
        0.00489
## 263
        0.00604
## 264
        0.00434
## 265
        0.00365
## 266
        0.00576
## 267
        0.00171
## 268
        0.00504
## 269
        0.00576
## 270
        0.00374
## 271
        0.00243
## 272
        0.00313
        0.00594
## 273
## 274
        0.00177
## 275
        0.00408
## 276
        0.00158
## 277
        0.00575
## 278
        0.00483
## 279
        0.00679
## 280
        0.00195
## 281
        0.00632
## 282
        0.00488
## 283
        0.00826
## 284
        0.00177
## 285
        0.01351
## 286
        0.00558
## 287
        0.00139
## 288
        0.00261
## 289
        0.00854
## 290
        0.00177
## 291
        0.00311
## 292
        0.00258
## 293
        0.00434
## 294
        0.00660
        0.00194
## 295
## 296
        0.00243
## 297
        0.00569
## 298
        0.00437
## 299
        0.00390
        0.00627
## 300
## 301
        0.01075
## 302
        0.00729
## 303
        0.00727
## 304
        0.00362
## 305
        0.00283
## 306
        0.00416
## 307
        0.00544
## 308
        0.00764
## 309
        0.00390
## 310
        0.00243
## 311 0.00311
```

```
## 312 0.01034
## 313
        0.00305
## 314
        0.00368
## 315
        0.00727
## 316
        0.01367
## 317
        0.00378
## 318
        0.00699
## 319
        0.00878
## 320
        0.00313
## 321
        0.00239
## 322
        0.00243
        0.00381
## 323
## 324
        0.00659
## 325
        0.00318
## 326
        0.00370
## 327
        0.00331
## 328
        0.00381
## 329
        0.00433
## 330
        0.00177
## 331
        0.00378
## 332
        0.00416
## 333
        0.00340
## 334
        0.00331
## 335
        0.00386
## 336
        0.00197
## 337
        0.00490
## 338
        0.00663
## 339
        0.00258
## 340
        0.00381
## 341
        0.00592
## 342
        0.00826
## 343
        0.00161
## 344
        0.00895
## 345
        0.00894
## 346
        0.00177
## 347
        0.00610
## 348
        0.00139
## 349
        0.00992
## 350
        0.00583
## 351
        0.00177
## 352
        0.00427
        0.00505
## 353
## 354
        0.00468
## 355
        0.00171
## 356
        0.00447
## 357
        0.00450
## 358
        0.00422
## 359
        0.00693
## 360
        0.00489
## 361 0.00555
```

```
## 362
        0.00929
        0.00313
## 363
## 364
        0.00548
## 365
        0.00305
## 366
        0.00660
## 367
        0.00392
## 368
        0.00558
## 369
        0.00435
        0.00988
## 370
## 371
        0.00450
## 372
        0.01034
        0.00285
## 373
## 374
        0.00722
## 375
        0.00435
## 376
        0.00292
## 377
        0.00790
## 378
        0.00313
## 379
        0.00434
## 380
        0.00565
## 381
        0.00197
## 382
        0.00381
## 383
        0.00860
## 384
        0.00281
## 385
        0.00374
## 386
        0.00694
## 387
        0.00243
## 388
        0.00583
## 389
        0.00553
## 390
        0.00340
## 391
        0.00826
## 392
        0.00202
## 393
        0.00226
## 394
        0.00806
## 395
        0.00251
## 396
        0.00251
## 397
        0.00397
        0.01357
## 398
## 399
        0.00361
## 400
        0.00525
## 401
        0.00471
## 402
        0.00505
        0.00998
## 403
## 404
        0.00236
## 405
        0.00793
## 406
        0.00392
## 407
        0.00818
## 408
        0.00252
## 409
        0.00944
## 410
        0.00543
## 411 0.00305
```

```
## 412
        0.00427
## 413
        0.00374
## 414
        0.00197
## 415
        0.00350
## 416
        0.00558
## 417
        0.00526
## 418
        0.00925
## 419
        0.01068
## 420
        0.00577
## 421
        0.00638
## 422
        0.00598
## 423
        0.00905
## 424
        0.00331
## 425
        0.00683
## 426
        0.00376
## 427
        0.00638
## 428
        0.00361
## 429
        0.00456
## 430
        0.00505
## 431
        0.00171
## 432
        0.00754
## 433
        0.00660
## 434
        0.00489
## 435
        0.00439
## 436
        0.00615
## 437
        0.00283
## 438
        0.00352
## 439
        0.00771
## 440
        0.00529
## 441
        0.00311
## 442
        0.00331
## 443
        0.00292
## 444
        0.00251
## 445
        0.00322
## 446
        0.00318
## 447
        0.00378
## 448
        0.01365
## 449
        0.00177
## 450
        0.00158
## 451
        0.00350
## 452
        0.00139
## 453
        0.00439
## 454
        0.00194
## 455
        0.00483
## 456
        0.00411
## 457
        0.00442
## 458
        0.00305
## 459
        0.01463
## 460
        0.00334
## 461
       0.00422
```

```
## 462
        0.00512
## 463
        0.00374
## 464
        0.00490
## 465
        0.00260
## 466
        0.00665
## 467
        0.00292
## 468
        0.00447
## 469
        0.00243
## 470
        0.00526
## 471
        0.00532
## 472
        0.00378
## 473
        0.00348
## 474
        0.00556
## 475
        0.00569
## 476
        0.00239
## 477
        0.00483
## 478
        0.00505
## 479
        0.00396
## 480
        0.00128
## 481
        0.00443
## 482
        0.01272
## 483
        0.00305
## 484
        0.00243
## 485
        0.00261
## 486
        0.00305
## 487
        0.00358
## 488
        0.01711
## 489
        0.00498
## 490
        0.00381
## 491
        0.00340
## 492
        0.00139
## 493
        0.00433
## 494
        0.00439
## 495
        0.00381
## 496
        0.00404
## 497
        0.00161
## 498
        0.00450
## 499
        0.00296
## 500
        0.00525
## 501
        0.00842
## 502
        0.00698
## 503
        0.00637
## 504
        0.00283
## 505
        0.00987
## 506
        0.00431
## 507
        0.00621
## 508
        0.00747
## 509
        0.00548
## 510
        0.01286
## 511
       0.00403
```

```
## 512 0.00274
## 513
        0.01414
## 514
        0.00251
## 515
        0.01098
## 516
        0.00313
## 517
        0.00443
## 518
        0.00261
## 519
        0.00292
## 520
        0.01083
## 521
        0.00468
## 522
        0.00958
        0.00195
## 523
## 524
        0.01335
## 525
        0.00505
## 526
        0.00258
## 527
        0.00261
## 528
        0.00261
## 529
        0.00558
## 530
        0.00505
## 531
        0.01205
## 532
        0.00931
## 533
        0.00177
## 534
        0.00374
## 535
        0.00224
## 536
        0.00450
## 537
        0.00647
## 538
        0.00128
## 539
        0.00139
## 540
        0.00243
## 541
        0.00958
## 542
        0.00340
## 543
        0.00396
## 544
        0.00311
        0.00410
## 545
## 546
        0.00202
## 547
        0.00243
## 548
        0.00904
## 549
        0.00568
## 550
        0.00569
## 551
        0.00838
## 552
        0.00422
        0.00325
## 553
## 554
        0.00641
## 555
        0.00397
## 556
        0.00917
## 557
        0.00790
        0.00327
## 558
## 559
        0.00468
## 560
        0.00862
## 561 0.00226
```

```
## 562
        0.00197
## 563
        0.00408
## 564
        0.00450
## 565
        0.01704
## 566
        0.00529
## 567
        0.00493
## 568
        0.00252
## 569
        0.00435
## 570
        0.00464
## 571
        0.00274
## 572
        0.00667
        0.00274
## 573
## 574
        0.00422
## 575
        0.00541
## 576
        0.00506
## 577
        0.00161
## 578
        0.00252
## 579
        0.00576
## 580
        0.00422
## 581
        0.01351
## 582
        0.00194
## 583
        0.00517
## 584
        0.00659
## 585
        0.00350
## 586
        0.00158
## 587
        0.00854
## 588
        0.00398
## 589
        0.01035
## 590
        0.00842
## 591
        0.00239
## 592
        0.00765
## 593
        0.00765
## 594
        0.00410
## 595
        0.00236
## 596
        0.00752
## 597
        0.00318
## 598
        0.00411
## 599
        0.00243
## 600
        0.00443
## 601
        0.00392
## 602
        0.00714
        0.00292
## 603
## 604
        0.00139
## 605
        0.00139
## 606
        0.01098
## 607
        0.00331
## 608
        0.00292
## 609
        0.01521
## 610
        0.00161
## 611 0.00243
```

```
## 612
        0.00381
## 613
        0.00688
## 614
        0.00128
## 615
        0.00311
## 616
        0.00264
## 617
        0.00526
## 618
        0.00128
## 619
        0.00727
## 620
        0.00202
## 621
        0.00392
## 622
        0.01037
        0.00606
## 623
## 624
        0.00845
## 625
        0.00558
## 626
        0.00614
## 627
        0.00252
## 628
        0.01181
## 629
        0.00374
## 630
        0.00403
## 631
        0.00424
## 632
        0.00548
## 633
        0.00226
## 634
        0.00772
## 635
        0.00421
## 636
        0.00370
## 637
        0.00697
## 638
        0.00659
## 639
        0.00450
## 640
        0.00786
## 641
        0.00577
## 642
        0.00224
## 643
        0.00464
## 644
        0.00305
        0.00365
## 645
## 646
        0.00408
## 647
        0.00261
## 648
        0.00490
## 649
        0.00906
## 650
        0.00525
## 651
        0.00471
## 652
        0.00252
## 653
        0.00331
## 654
        0.00239
## 655
        0.00350
## 656
        0.00239
## 657
        0.00381
## 658
        0.00439
        0.00963
## 659
## 660
        0.00483
## 661 0.00362
```

```
## 662
        0.00756
## 663
        0.00139
## 664
        0.00224
## 665
        0.01075
## 666
        0.00526
## 667
        0.00505
## 668
        0.00878
## 669
        0.00526
## 670
        0.00252
## 671
        0.00161
## 672
        0.00202
## 673
        0.00525
## 674
        0.00552
        0.00258
## 675
## 676
        0.00365
## 677
        0.00785
## 678
        0.00181
## 679
        0.00410
## 680
        0.00660
## 681
        0.00422
## 682
        0.00385
## 683
        0.00177
## 684
        0.01191
## 685
        0.00578
## 686
        0.00181
## 687
        0.00370
## 688
        0.00374
## 689
        0.00313
## 690
        0.00261
## 691
        0.00627
## 692
        0.00243
## 693
        0.00396
## 694
        0.00181
        0.00258
## 695
## 696
        0.00292
## 697
        0.00977
## 698
        0.00376
## 699
        0.00630
## 700
        0.00350
## 701
        0.00671
## 702
        0.01167
## 703
        0.00709
## 704
        0.00158
## 705
        0.00411
## 706
        0.00858
## 707
        0.00292
## 708
        0.00194
## 709
        0.00722
## 710
        0.00239
## 711 0.00313
```

```
## 712
        0.00171
## 713
        0.00348
## 714
        0.00342
## 715
        0.00693
## 716
        0.00410
## 717
        0.00591
## 718
        0.00704
## 719
        0.00427
## 720
        0.00490
## 721
        0.00408
## 722
        0.00697
## 723
        0.00450
## 724
        0.00292
## 725
        0.00456
## 726
        0.00358
## 727
        0.01135
## 728
        0.00742
## 729
        0.00706
## 730
        0.00362
## 731
        0.00729
## 732
        0.00139
## 733
        0.00352
## 734
        0.00679
## 735
        0.00598
## 736
        0.01365
## 737
        0.00548
## 738
        0.00128
## 739
        0.00526
## 740
        0.00264
## 741
        0.00396
## 742
        0.00746
## 743
        0.00508
## 744
        0.00285
        0.00410
## 745
## 746
        0.00342
## 747
        0.00376
## 748
        0.00400
## 749
        0.00158
## 750
        0.00869
## 751
        0.01035
## 752
        0.00848
## 753
        0.00435
## 754
        0.00128
## 755
        0.00447
## 756
        0.00281
## 757
        0.00264
## 758
        0.00854
## 759
        0.00812
## 760
        0.00606
## 761
       0.00577
```

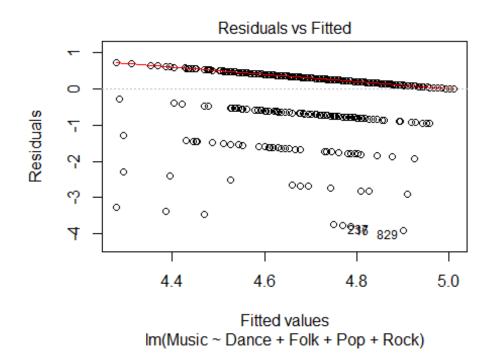
```
## 762
        0.00790
## 763
        0.00378
## 764
        0.00239
## 765
        0.00490
## 766
        0.00483
## 767
        0.00880
## 768
        0.00592
## 769
        0.00292
        0.00202
## 770
## 771
        0.01351
## 772
        0.00498
## 773
        0.00468
## 774
        0.00378
        0.00621
## 775
## 776
        0.00305
## 777
        0.00998
## 778
        0.00490
## 779
        0.00930
## 780
        0.00202
        0.00261
## 781
## 782
        0.00378
## 783
        0.00313
## 784
        0.00924
## 785
        0.00226
## 786
        0.00632
## 787
        0.00243
## 788
        0.00844
## 789
        0.00447
## 790
        0.00313
## 791
        0.00416
## 792
        0.00442
## 793
        0.00128
## 794
        0.00442
        0.00674
## 795
## 796
        0.01704
## 797
        0.00917
## 798
        0.01092
## 799
        0.00243
        0.00455
## 800
## 801
        0.00318
## 802
        0.00705
## 803
        0.00443
## 804
        0.00404
## 805
        0.00555
## 806
        0.00422
## 807
        0.01351
## 808
        0.00826
        0.00558
## 809
## 810
        0.00754
## 811
       0.00687
```

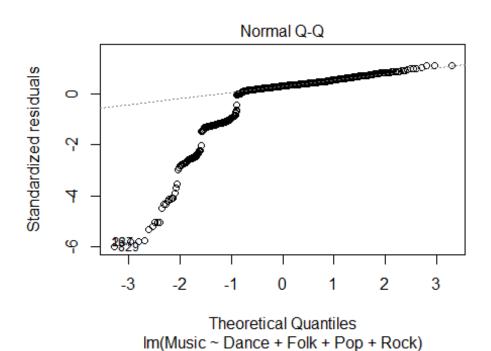
```
## 812
        0.00313
## 813
        0.01351
## 814
        0.00621
## 815
        0.00226
## 816
        0.00410
## 817
        0.00264
## 818
        0.01107
## 819
        0.00171
## 820
        0.00468
## 821
        0.00281
## 822
        0.00362
## 823
        0.00451
## 824
        0.00340
## 825
        0.00615
## 826
        0.00568
## 827
        0.00264
## 828
        0.00439
## 829
        0.00450
## 830
        0.00505
## 831
        0.00195
## 832
        0.00292
## 833
        0.00604
## 834
        0.00305
## 835
        0.00385
## 836
        0.00331
## 837
        0.00483
## 838
        0.00637
## 839
        0.00424
## 840
        0.00195
## 841
        0.00659
        0.00197
## 842
## 843
        0.00305
## 844
        0.00177
        0.00950
## 845
## 846
        0.01004
## 847
        0.00529
## 848
        0.00627
## 849
        0.00404
## 850
        0.01051
## 851
        0.00471
## 852
        0.00597
## 853
        0.00621
## 854
        0.00464
## 855
        0.00252
## 856
        0.00443
## 857
        0.00243
## 858
        0.00195
## 859
        0.00361
## 860
        0.00410
## 861
       0.00260
```

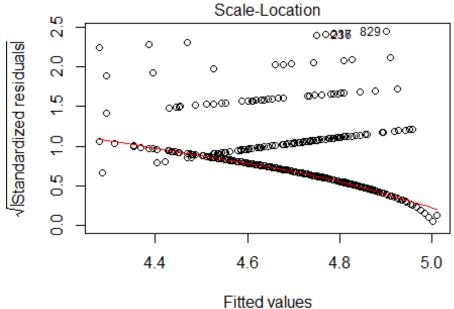
```
## 862
        0.00239
## 863
        0.00292
## 864
        0.00340
## 865
        0.00239
## 866
        0.00260
## 867
        0.00410
## 868
        0.00195
## 869
        0.00357
## 870
        0.00483
## 871
        0.00318
## 872
        0.00239
## 873
        0.00313
## 874
        0.00243
## 875
        0.00783
## 876
        0.00442
## 877
        0.00790
## 878
        0.00769
## 879
        0.00283
## 880
        0.01013
        0.00783
## 881
## 882
        0.00771
## 883
        0.00627
## 884
        0.00292
## 885
        0.00305
## 886
        0.00139
## 887
        0.00128
## 888
        0.00416
## 889
        0.00139
## 890
        0.00158
## 891
        0.00526
## 892
        0.00197
## 893
        0.00258
## 894
        0.00325
## 895
        0.00374
## 896
        0.00252
## 897
        0.00410
## 898
        0.00348
## 899
        0.00381
## 900
        0.00352
## 901
        0.00352
## 902
        0.00522
## 903
        0.00528
## 904
        0.00869
## 905
        0.00722
## 906
        0.00197
## 907
        0.01268
        0.00350
## 908
## 909
        0.00139
## 910
        0.00226
## 911 0.00483
```

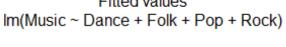
```
## 912
        0.00281
## 913
        0.00195
## 914
        0.00432
## 915
        0.00313
## 916
        0.00396
## 917
        0.00281
## 918
        0.00381
## 919
        0.00362
## 920
        0.00128
## 921
        0.00158
## 922
        0.00195
        0.00569
## 923
## 924
        0.00283
        0.00442
## 925
## 926
        0.00447
## 927
        0.00296
## 928
        0.00569
## 929
        0.00195
## 930
        0.00992
        0.00340
## 931
## 932
        0.00195
## 933
        0.00318
## 934
        0.00194
## 935
        0.00128
## 936
        0.00674
## 937
        0.00404
## 938
        0.00555
## 939
        0.00924
## 940
        0.00311
## 941
        0.00352
## 942
        0.00139
## 943
        0.00558
## 944
        0.00128
        0.00365
## 945
## 946
        0.00396
## 947
        0.00404
## 948
        0.00274
## 949
        0.00226
## 950
        0.00128
## 951
        0.00396
## 952
        0.00318
## 953
        0.00264
## 954
        0.00451
## 955
        0.00541
## 956
        0.00505
## 957
        0.00261
## 958
        0.00621
## 959
        0.00854
## 960
        0.00181
## 961 0.00546
```

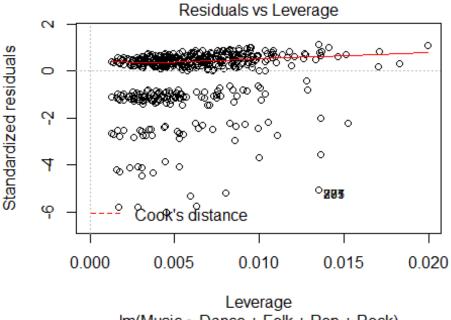
```
## 962 0.00537
## 963
        0.01085
## 964
        0.00313
## 965
        0.00239
## 966
        0.00575
## 967
        0.01351
## 968
        0.00381
## 969
        0.00181
## 970
        0.00483
## 971
        0.00688
## 972
        0.00594
## 973
        0.00258
## 974
        0.00931
        0.00526
## 975
## 976
        0.01034
## 977
        0.00411
## 978
        0.00177
## 979
        0.00483
## 980
        0.00411
## 981
        0.00283
## 982
        0.00441
## 983
        0.00398
## 984
        0.00490
## 985
        0.00496
## 986
        0.00709
## 987
        0.00868
## 988
        0.00660
## 989
        0.00416
## 990
        0.00427
## 991
        0.00305
## 992
        0.00786
## 993
        0.00379
## 994
        0.00261
## 995
        0.00239
## 996
        0.00671
## 997
        0.00752
## 998
        0.00158
## 999
        0.00385
## 1000 0.00403
## 1001 0.00224
## 1002 0.00526
## 1003 0.00552
## 1004 0.00313
## 1005 0.00378
## 1006 0.00396
## 1007 0.00928
## 1008 0.00540
## 1009 0.00158
## 1010 0.00719
```











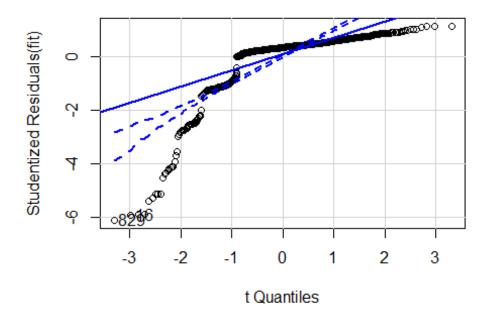
Im(Music ~ Dance + Folk + Pop + Rock)

library(car)

Warning: package 'car' was built under R version 3.6.2

```
## Loading required package: carData
## Registered S3 methods overwritten by 'car':
##
    method
                                     from
##
     influence.merMod
                                     1me4
     cooks.distance.influence.merMod lme4
##
##
     dfbeta.influence.merMod
                                     1me4
##
     dfbetas.influence.merMod
                                     lme4
##
## Attaching package: 'car'
## The following object is masked from 'package:psych':
##
##
       logit
## The following object is masked from 'package:dplyr':
##
##
       recode
# Assessing Outliers
outlierTest(fit)
        rstudent unadjusted p-value Bonferroni p
##
## 829 -6.112465
                         1.4023e-09
                                      1.4163e-06
## 16 -5.920677
                         4.3977e-09 4.4417e-06
## 237 -5.890059
                         5.2623e-09
                                      5.3149e-06
## 146 -5.872980
                         5.8144e-09
                                     5.8725e-06
## 768 -5.418935
                         7.5071e-08
                                      7.5821e-05
## 216 -5.291622
                         1.4886e-07
                                      1.5035e-04
## 285 -5.132006
                         3.4407e-07
                                      3.4751e-04
## 771 -5.132006
                         3.4407e-07
                                      3.4751e-04
## 807 -5.132006
                         3.4407e-07
                                      3.4751e-04
## 365 -4.518498
                         6.9682e-06
                                     7.0379e-03
qqPlot(fit, main="QQ Plot")
```

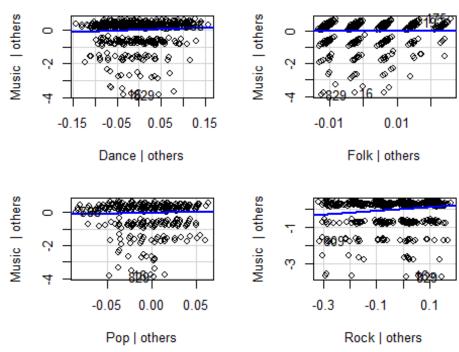




[1] 16 829

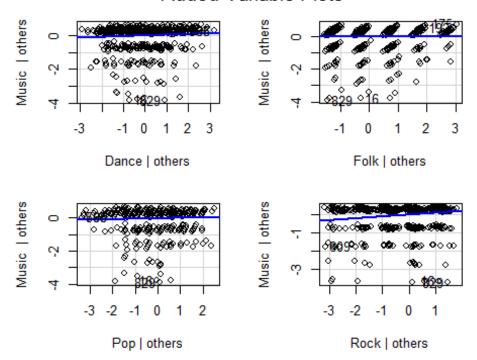
leveragePlots(fit) # leverage plots

Leverage Plots

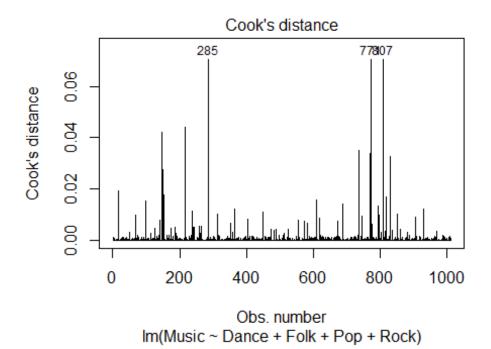


```
# Influential Observations
# added variable plots
avPlots(fit)
```

Added-Variable Plots



```
# Cook's D plot
# identify D values > 4/(n-k-1)
cutoff <- 4/((nrow(music_transformed)-length(fit$coefficients)-2))
plot(fit, which=4, cook.levels=cutoff)</pre>
```



```
# Influence Plot
influencePlot(fit, id.method="identify", main="Influence Plot", sub="Circle s
ize is proportial to Cook's Distance" )

## Warning in plot.window(...): "id.method" is not a graphical parameter

## Warning in plot.xy(xy, type, ...): "id.method" is not a graphical paramete

## Warning in axis(side = side, at = at, labels = labels, ...): "id.method" i
s not

## a graphical parameter

## Warning in axis(side = side, at = at, labels = labels, ...): "id.method" i
s not

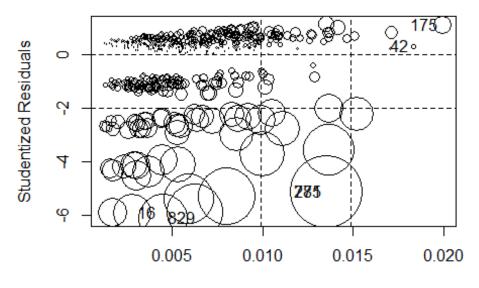
## a graphical parameter

## Warning in box(...): "id.method" is not a graphical parameter

## Warning in title(...): "id.method" is not a graphical parameter

## Warning in plot.xy(xy.coords(x, y), type = type, ...): "id.method" is not
a
## graphical parameter
```

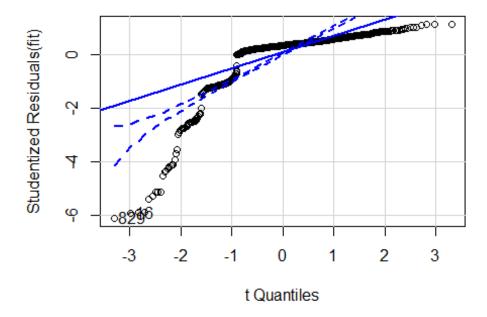
Influence Plot



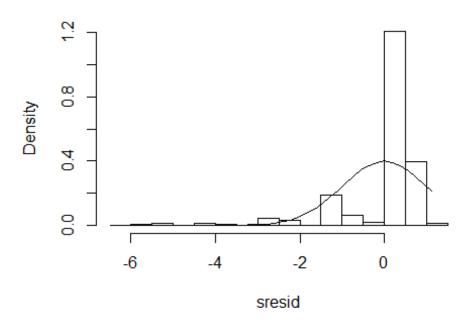
Hat-Values Circle size is proportial to Cook's Distance

```
##
          StudRes
                          Hat
                                     CookD
## 16
      -5.9206771 0.002813165 0.0191301835
## 42
        0.2977488 0.018310936 0.0003310249
       1.0671308 0.019943719 0.0046340470
## 175
## 285 -5.1320059 0.013514346 0.0703874274
## 771 -5.1320059 0.013514346 0.0703874274
## 829 -6.1124651 0.004500099 0.0325992685
# Normality of Residuals
# qq plot for studentized resid
qqPlot(fit, main="QQ Plot")
```

QQ Plot



Distribution of Studentized Residuals

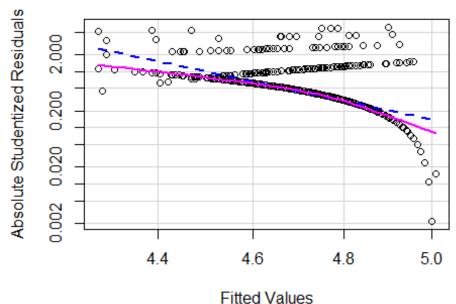


```
#Non-constant Error Variance
# Evaluate homoscedasticity
# non-constant error variance test
ncvTest(fit)

## Non-constant Variance Score Test
## Variance formula: ~ fitted.values
## Chisquare = 186.2589, Df = 1, p = < 2.22e-16

# plot studentized residuals vs. fitted values
spreadLevelPlot(fit)</pre>
```

Spread-Level Plot for fit



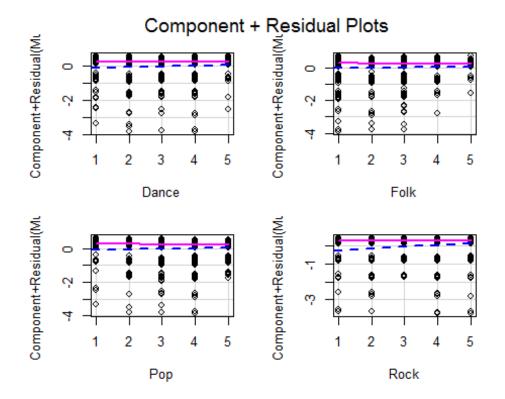
```
##
## Suggested power transformation: 19.69395

#Multi-collinearity
# Evaluate Collinearity
vif(fit) # variance inflation factors

## Dance Folk Pop Rock
## 1.254015 1.010017 1.224775 1.026496

#sqrt(vif(fit)) > 2

#Nonlinearity
# component + residual plot
crPlots(fit)
```

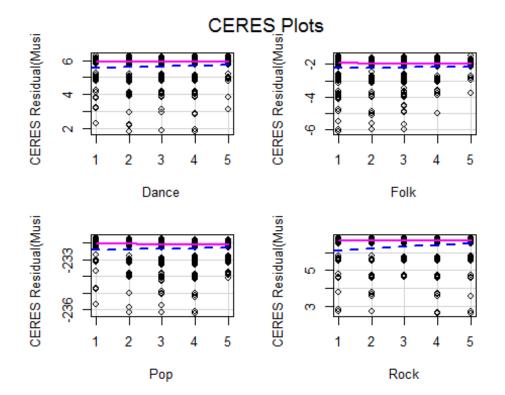


Ceres plots ceresPlots(fit)

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 3
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 0
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 3
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 0
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 3
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 0
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 0.98
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.4341e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 0.98
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.4341e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 0.98
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.4341e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 5.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.1959e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 5.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.1959e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 5.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.1959e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 5.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.5311e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 5.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.5311e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : pseudoinverse used at 5.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : neighborhood radius 2.02
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : reciprocal condition number 1.5311e-016
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric =
## parametric, : There are other near singularities as well. 1
```



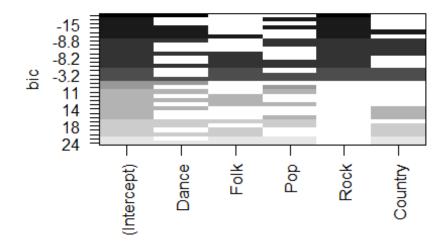
```
#Non-independence of Errors
# Test for Autocorrelated Errors
durbinWatsonTest(fit)
##
    lag Autocorrelation D-W Statistic p-value
##
                                         0.388
      1
             0.02657895
                               1.94623
##
    Alternative hypothesis: rho != 0
# Global test of model assumptions
#install.packages("gvlma")
library(gvlma)
gvmodel <- gvlma(fit)</pre>
summary(gvmodel)
##
## Call:
## lm(formula = Music ~ Dance + Folk + Pop + Rock, data = music_transformed)
##
## Residuals:
       Min
                1Q
                    Median
                                 3Q
                                        Max
## -3.9013 0.0985 0.2135
                                     0.7219
                             0.3052
##
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
##
                                              < 2e-16 ***
## (Intercept) 4.095090
                           0.106376
                                     38.497
## Dance
               0.048990
                           0.019599
                                      2.500
                                               0.0126 *
## Folk
               0.008519
                           0.018064
                                      0.472
                                               0.6373
```

```
## Pop
              0.025551
                         0.019544
                                    1.307
                                            0.1914
## Rock
                                    5.690 1.66e-08 ***
              0.099906
                         0.017557
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6512 on 1005 degrees of freedom
## Multiple R-squared: 0.04085,
                                  Adjusted R-squared: 0.03704
## F-statistic: 10.7 on 4 and 1005 DF, p-value: 1.698e-08
##
##
## ASSESSMENT OF THE LINEAR MODEL ASSUMPTIONS
## USING THE GLOBAL TEST ON 4 DEGREES-OF-FREEDOM:
## Level of Significance = 0.05
##
## Call:
## gvlma(x = fit)
##
##
                        Value
                                 p-value
                                                          Decision
## Global Stat
                     5670.911 0.0000000 Assumptions NOT satisfied!
## Skewness
                     1415.112 0.0000000 Assumptions NOT satisfied!
## Kurtosis
                     4240.094 0.0000000 Assumptions NOT satisfied!
                      12.359 0.0004389 Assumptions NOT satisfied!
## Link Function
## Heteroscedasticity 3.346 0.0673552
                                           Assumptions acceptable.
fit
##
## Call:
## lm(formula = Music ~ Dance + Folk + Pop + Rock, data = music_transformed)
##
## Coefficients:
## (Intercept)
                     Dance
                                    Folk
                                                  Pop
                                                              Rock
                 0.048990
                               0.008519
                                            0.025551
##
     4.095090
                                                         0.099906
summary(fit)
##
## lm(formula = Music ~ Dance + Folk + Pop + Rock, data = music_transformed)
##
## Residuals:
##
      Min
               10 Median
                                30
                                      Max
## -3.9013 0.0985 0.2135 0.3052 0.7219
##
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
## (Intercept) 4.095090
                        0.106376 38.497 < 2e-16 ***
## Dance
              0.048990
                         0.019599
                                    2.500
                                            0.0126 *
## Folk
              0.008519
                         0.018064
                                    0.472
                                            0.6373
## Pop
                                    1.307
                                            0.1914
              0.025551
                         0.019544
              0.099906
                         0.017557 5.690 1.66e-08 ***
## Rock
```

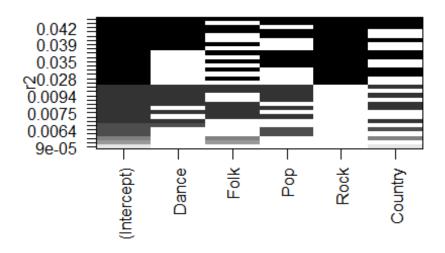
```
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 0.6512 on 1005 degrees of freedom
## Multiple R-squared: 0.04085, Adjusted R-squared: 0.03704
## F-statistic: 10.7 on 4 and 1005 DF, p-value: 1.698e-08
fit1 <- fit
fit2 <- lm(Music~Dance+Folk+Pop, data = music transformed)</pre>
# compare models
anova(fit1, fit2)
## Analysis of Variance Table
## Model 1: Music ~ Dance + Folk + Pop + Rock
## Model 2: Music ~ Dance + Folk + Pop
    Res.Df RSS Df Sum of Sq F
                                         Pr(>F)
## 1
      1005 426.14
## 2
      1006 439.86 -1 -13.73 32.381 1.662e-08 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
step <- stepAIC(fit, direction="both")</pre>
## Start: AIC=-861.58
## Music ~ Dance + Folk + Pop + Rock
          Df Sum of Sq RSS
                                  AIC
## - Folk
          1
                0.0943 426.23 -863.36
## - Pop 1
                0.7247 426.86 -861.86
                       426.14 -861.58
## <none>
## - Dance 1
               2.6492 428.78 -857.32
## - Rock
          1 13.7299 439.86 -831.55
##
## Step: AIC=-863.36
## Music ~ Dance + Pop + Rock
          Df Sum of Sq
##
                        RSS
                                  AIC
                0.7187 426.95 -863.65
## - Pop
## <none>
                       426.23 -863.36
## + Folk 1
                0.0943 426.14 -861.58
## - Dance 1
               2.7390 428.97 -858.89
## - Rock
           1
               13.9717 440.20 -832.78
##
## Step: AIC=-863.65
## Music ~ Dance + Rock
##
          Df Sum of Sq
##
                          RSS
                                  AIC
## <none>
                       426.95 -863.65
## + Pop 1 0.7187 426.23 -863.36
```

```
## + Folk 1
                 0.0883 426.86 -861.86
## - Dance 1
                 4.9857 431.93 -853.93
                14.3175 441.27 -832.34
## - Rock
            1
step$anova # display results
## Stepwise Model Path
## Analysis of Deviance Table
##
## Initial Model:
## Music ~ Dance + Folk + Pop + Rock
##
## Final Model:
## Music ~ Dance + Rock
##
##
##
       Step Df
                 Deviance Resid. Df Resid. Dev
                                                      AIC
## 1
                                1005
                                       426.1351 -861.5788
## 2 - Folk 1 0.09431191
                                1006
                                       426.2294 -863.3553
## 3 - Pop 1 0.71870767
                                1007
                                       426.9481 -863.6536
#install.packages("leaps")
library(leaps)
## Warning: package 'leaps' was built under R version 3.6.3
leaps<-regsubsets(Music~Dance+Folk+Pop+Rock+Country,data=music_transformed,nb</pre>
est=10)
# view results
summary(leaps)
## Subset selection object
## Call: regsubsets.formula(Music ~ Dance + Folk + Pop + Rock + Country,
       data = music transformed, nbest = 10)
## 5 Variables (and intercept)
##
           Forced in Forced out
## Dance
               FALSE
                          FALSE
## Folk
               FALSE
                          FALSE
## Pop
               FALSE
                          FALSE
## Rock
               FALSE
                          FALSE
## Country
               FALSE
                          FALSE
## 10 subsets of each size up to 5
## Selection Algorithm: exhaustive
##
             Dance Folk Pop Rock Country
                            "*"
## 1
      (1)
             "*"
                   .. ..
      (2)
             (3)
## 1
             .. ..
      (4)
## 1
             .......
      (5)
## 1
             "*"
                                  .. ..
                   ## 2
      (1)
                   .. ..
## 2 ( 2 )
```

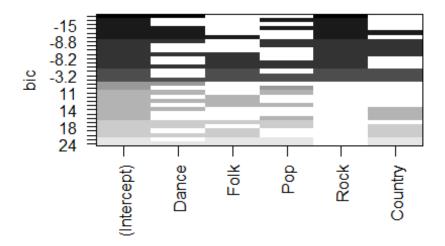
```
.. ..
## 2 ( 3 )
      (4)
## 2
      (5)
## 2
             "*"
## 2
      (6)
             "*"
      (7)
             11 11
## 2
             "*"
## 2
      (8)
      (9)
## 2
      (10)
## 2
      (1)
## 3
      (2)
                   .......
## 3
## 3
             "*"
      (3)
             11 11
      (4)
## 3
      (5)
## 3
                                 " * "
## 3
      (6)
      (7)
             "*"
## 3
      (8)
             "*"
## 3
             "*"
      (9)
## 3
      (10)
                                 "*"
## 3
      (1)
                   .......
## 4
      (2)
             "*"
                                 "*"
## 4
                                 .. ..
             "*"
## 4
      (3)
             .. ..
                                 "*"
                            "*"
## 4
      (4)
             "*"
                   "*"
                                 "*"
     (5)
## 4
             "*"
                                 "*"
      (1)
## 5
# plot a table of models showing variables in each model.
# models are ordered by the selection statistic.
plot(leaps)
```



plot(leaps,scale="r2")



#subsets(leaps, statistic="rsq")



```
summary(leaps)
## Subset selection object
## Call: regsubsets.formula(Music ~ Dance + Folk + Pop + Rock + Country,
       data = music_transformed, nbest = 10)
## 5 Variables (and intercept)
##
           Forced in Forced out
## Dance
               FALSE
                          FALSE
## Folk
               FALSE
                          FALSE
## Pop
               FALSE
                          FALSE
## Rock
               FALSE
                          FALSE
               FALSE
                          FALSE
## Country
## 10 subsets of each size up to 5
## Selection Algorithm: exhaustive
             Dance Folk Pop Rock Country
##
## 1
      (1)
        2)
## 1
      (3)
## 1
        4
## 1
       5
## 1
        1)
## 2
        2)
## 2
        3
                                  "*"
## 2
## 2
       4)
```

```
(5)
## 2
        6
## 2
        7
## 2
      (8
              "*"
## 2
        9)
## 2
## 2
        10 )
              "*"
## 3
        1)
              "*"
## 3
        2
      (3)
              "*"
## 3
## 3
        4)
        5)
## 3
## 3
        6)
      (7)
              "*"
## 3
## 3
      (8)
              " * "
                                   " * "
              "*"
                                   " * "
## 3
      (9)
      (10)
## 3
              "*"
## 4
        1)
      (2)
## 4
        3)
## 4
      (4)
                                   " * "
## 4
        5)
             "*"
                                   " * "
## 4
      (1)
              "*"
                             "*"
                                   "*"
## 5
#View(leaps)
leaps
## Subset selection object
## Call: regsubsets.formula(Music ~ Dance + Folk + Pop + Rock + Country,
       data = music_transformed, nbest = 10)
## 5 Variables (and intercept)
##
           Forced in Forced out
               FALSE
## Dance
                           FALSE
## Folk
               FALSE
                           FALSE
## Pop
               FALSE
                           FALSE
## Rock
               FALSE
                           FALSE
               FALSE
                           FALSE
## Country
## 10 subsets of each size up to 5
## Selection Algorithm: exhaustive
coef(leaps,1:5)
## [[1]]
## (Intercept)
                       Rock
   4.37996937 0.09353105
##
## [[2]]
## (Intercept)
                      Dance
## 4.58608525
                0.04671344
##
## [[3]]
```

```
## (Intercept)
## 4.57411248 0.04539258
##
## [[4]]
                      Folk
## (Intercept)
## 4.68824121 0.01896127
##
## [[5]]
## (Intercept)
                   Country
## 4.74404707 -0.00580546
# Calculate Relative Importance for Each Predictor
#install.packages("relaimpo")
library(relaimpo)
## Warning: package 'relaimpo' was built under R version 3.6.3
## Loading required package: boot
##
## Attaching package: 'boot'
## The following object is masked from 'package:car':
##
##
       logit
## The following object is masked from 'package:psych':
##
##
       logit
## The following object is masked from 'package:lattice':
##
       melanoma
##
## Loading required package: survey
## Warning: package 'survey' was built under R version 3.6.3
## Loading required package: grid
## Loading required package: Matrix
## Loading required package: survival
##
## Attaching package: 'survival'
## The following object is masked from 'package:boot':
##
##
       aml
##
## Attaching package: 'survey'
```

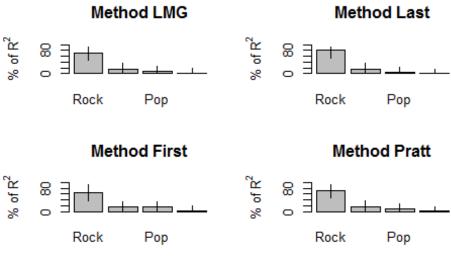
```
## The following object is masked from 'package:graphics':
##
       dotchart
##
## Loading required package: mitools
## Warning: package 'mitools' was built under R version 3.6.3
## This is the global version of package relaimpo.
## If you are a non-US user, a version with the interesting additional metric
pmvd is available
## from Ulrike Groempings web site at prof.beuth-hochschule.de/groemping.
calc.relimp(fit,type=c("lmg","last","first","pratt"),rela=TRUE)
## Response variable: Music
## Total response variance: 0.4403232
## Analysis based on 1010 observations
##
## 4 Regressors:
## Dance Folk Pop Rock
## Proportion of variance explained by model: 4.09%
## Metrics are normalized to sum to 100% (rela=TRUE).
## Relative importance metrics:
##
##
                           last
                                    first
                lmg
## Dance 0.16042852 0.154039556 0.1619915 0.17452170
## Folk 0.01504095 0.005483838 0.0253054 0.01168017
         0.10140330 0.042140512 0.1502477 0.08687960
## Rock 0.72312724 0.798336095 0.6624554 0.72691853
## Average coefficients for different model sizes:
##
##
                 1X
                           2Xs
                                      3Xs
## Dance 0.04671344 0.04663482 0.04739102 0.048989937
## Folk 0.01896127 0.01557162 0.01205119 0.008519444
## Pop
        0.04539258 0.04088266 0.03431910 0.025550694
## Rock 0.09353105 0.09617783 0.09833106 0.099906283
# Bootstrap Measures of Relative Importance (1000 samples)
boot <- boot.relimp(fit, b = 1000, type = c("lmg","last", "first", "pratt"),</pre>
rank = TRUE, diff = TRUE, rela = TRUE)
```

```
booteval.relimp(boot) # print result
## Response variable: Music
## Total response variance: 0.4403232
## Analysis based on 1010 observations
##
## 4 Regressors:
## Dance Folk Pop Rock
## Proportion of variance explained by model: 4.09%
## Metrics are normalized to sum to 100% (rela=TRUE).
##
## Relative importance metrics:
##
##
                lmg
                           last
                                    first
## Dance 0.16042852 0.154039556 0.1619915 0.17452170
## Folk 0.01504095 0.005483838 0.0253054 0.01168017
         0.10140330 0.042140512 0.1502477 0.08687960
## Pop
## Rock 0.72312724 0.798336095 0.6624554 0.72691853
##
## Average coefficients for different model sizes:
##
##
                 1X
                           2Xs
                                      3Xs
                                                   4Xs
## Dance 0.04671344 0.04663482 0.04739102 0.048989937
## Folk 0.01896127 0.01557162 0.01205119 0.008519444
## Pop
         0.04539258 0.04088266 0.03431910 0.025550694
## Rock 0.09353105 0.09617783 0.09833106 0.099906283
##
##
## Confidence interval information ( 1000 bootstrap replicates, bty= perc ):
## Relative Contributions with confidence intervals:
##
##
                               Lower
                                      Upper
               percentage 0.95 0.95
##
                                       0.95
## Dance.lmg
                0.1604
                          BCD
                                0.0204 0.3451
                0.0150
                                0.0011
## Folk.lmg
                          BCD
                                        0.1819
## Pop.lmg
                0.1014
                           BCD
                                0.0098
                                        0.2706
                0.7231
## Rock.lmg
                                0.4659
                                        0.8999
##
## Dance.last
                0.1540
                          BCD
                                0.0100
                                        0.3450
## Folk.last
                0.0055
                          _BCD 0.0000
                                       0.1625
```

```
## Pop.last
                           BCD
                0.0421
                                 0.0001
                                         0.2195
## Rock.last
                0.7983
                                 0.5443
                                         0.9142
##
                           BCD
                                 0.0147
## Dance.first
                0.1620
                                         0.3482
## Folk.first
                0.0253
                           BCD
                                 0.0001
                                         0.1985
## Pop.first
                0.1502
                            BCD
                                 0.0088
                                         0.3193
## Rock.first
                0.6625
                           A___
                                 0.3830
                                         0.9093
##
## Dance.pratt
                0.1745
                           BCD
                                 0.0119
                                         0.3796
                           BCD -0.0034
## Folk.pratt
                0.0117
                                         0.1786
## Pop.pratt
                            BCD -0.0104
                0.0869
                                         0.2830
## Rock.pratt
                0.7269
                                 0.4650
                                         0.9088
                           Α
##
## Letters indicate the ranks covered by bootstrap CIs.
## (Rank bootstrap confidence intervals always obtained by percentile method)
## CAUTION: Bootstrap confidence intervals can be somewhat liberal.
##
##
##
    Differences between Relative Contributions:
##
##
                                     Lower
                                             Upper
                    difference 0.95 0.95
##
                                             0.95
## Dance-Folk.lmg
                     0.1454
                                     -0.0963
                                              0.3250
                     0.0590
## Dance-Pop.lmg
                                     -0.1729
                                              0.2809
## Dance-Rock.lmg
                     -0.5627
                                     -0.8592 -0.1223
## Folk-Pop.lmg
                     -0.0864
                                     -0.2419
                                              0.0936
## Folk-Rock.lmg
                     -0.7081
                                     -0.8828 -0.3444
## Pop-Rock.lmg
                     -0.6217
                                     -0.8785 -0.2368
##
## Dance-Folk.last
                                     -0.0899
                     0.1486
                                              0.3374
## Dance-Pop.last
                     0.1119
                                     -0.1654 0.3319
## Dance-Rock.last
                     -0.6443
                                     -0.8634 -0.2058
## Folk-Pop.last
                     -0.0367
                                     -0.1917 0.1038
## Folk-Rock.last
                     -0.7929
                                     -0.9027 -0.4326
## Pop-Rock.last
                     -0.7562
                                     -0.8972 -0.4025
##
## Dance-Folk.first
                     0.1367
                                     -0.1114 0.3253
## Dance-Pop.first
                     0.0117
                                     -0.1974 0.2314
## Dance-Rock.first -0.5005
                                     -0.8757 -0.0473
## Folk-Pop.first
                     -0.1249
                                     -0.2914 0.1033
## Folk-Rock.first
                     -0.6371
                                     -0.8943 -0.2725
## Pop-Rock.first
                     -0.5122
                                     -0.8878 -0.1031
##
## Dance-Folk.pratt
                     0.1628
                                     -0.0974
                                              0.3691
## Dance-Pop.pratt
                     0.0876
                                     -0.1898
                                              0.3572
## Dance-Rock.pratt -0.5524
                                     -0.8699 -0.0896
## Folk-Pop.pratt
                                     -0.2561 0.1099
                     -0.0752
## Folk-Rock.pratt
                    -0.7152
                                     -0.8990 -0.3477
## Pop-Rock.pratt
                     -0.6400
                                     -0.8971 -0.2362
##
```

```
## * indicates that CI for difference does not include 0.
## CAUTION: Bootstrap confidence intervals can be somewhat liberal.
plot(booteval.relimp(boot,sort=TRUE)) # plot result
```

Relative importances for Music with 95% bootstrap confidence intervals



 $R^2 = 4.09\%$, metrics are normalized to sum 100%.

```
summary(fit)
##
## Call:
## lm(formula = Music ~ Dance + Folk + Pop + Rock, data = music transformed)
##
## Residuals:
##
      Min
               1Q Median
                               3Q
                                      Max
## -3.9013 0.0985 0.2135 0.3052 0.7219
## Coefficients:
              Estimate Std. Error t value Pr(>|t|)
## (Intercept) 4.095090
                         0.106376 38.497 < 2e-16 ***
                         0.019599
## Dance
              0.048990
                                    2.500
                                            0.0126 *
## Folk
              0.008519
                         0.018064
                                    0.472
                                            0.6373
## Pop
              0.025551
                         0.019544
                                    1.307
                                            0.1914
## Rock
              0.099906
                         0.017557
                                    5.690 1.66e-08 ***
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

```
## Residual standard error: 0.6512 on 1005 degrees of freedom
## Multiple R-squared: 0.04085, Adjusted R-squared: 0.03704
## F-statistic: 10.7 on 4 and 1005 DF, p-value: 1.698e-08
```

LOGISTIC REGRESSION

```
demo trans = data transformed[,names(demo data)]
sum(is.na(demo_trans))
## [1] 0
head(demo trans)
     Age Height Weight Number.of.siblings Gender Left...right.handed
##
                    48
                                        1 female
## 1 20
            163
                                                         right handed
## 2 19
            163
                    58
                                        2 female
                                                         right handed
## 3 20
            176
                    67
                                        2 female
                                                         right handed
## 4 22
            172
                    59
                                        1 female
                                                         right handed
## 5 20
            170
                    59
                                        1 female
                                                         right handed
## 6 20
            186
                    77
                                        1
                                            male
                                                         right handed
##
                   Education Only.child Village...town House...block.of.flats
## 1 college/bachelor degree
                                                                block of flats
                                               village
                                     no
## 2 college/bachelor degree
                                                   city
                                                                block of flats
                                     no
## 3
            secondary school
                                                   city
                                                                block of flats
                                     no
## 4 college/bachelor degree
                                    yes
                                                   city
                                                                house/bungalow
                                                                house/bungalow
            secondary school
                                     no
                                               village
## 6
            secondary school
                                                                block of flats
                                     no
                                                   city
str(demo_trans)
## 'data.frame': 1010 obs. of 10 variables:
                            : num 20 19 20 22 20 20 20 19 18 19 ...
## $ Age
## $ Height
                                  163 163 176 172 170 186 177 184 166 174 ...
## $ Weight
                            : num
                                  48 58 67 59 59 77 50 90 55 60 ...
## $ Number.of.siblings
                                   1 2 2 1 1 1 1 1 1 3 ...
                            : int
## $ Gender
                            : Factor w/ 3 levels "", "female", "male": 2 2 2 2
2 3 2 3 2 2 ...
## $ Left...right.handed
                            : Factor w/ 3 levels "","left handed",...: 3 3 3 3
3 3 3 3 3 ...
                            : Factor w/ 7 levels "", "college/bachelor degree"
## $ Education
,..: 2 2 7 2 7 7 7 2 7 7 ...
                            : Factor w/ 3 levels "", "no", "yes": 2 2 2 3 2 2 2
## $ Only.child
2 2 2 ...
## $ Village...town
                            : Factor w/ 3 levels "", "city", "village": 3 2 2 2
3 2 3 2 2 2 ...
## $ House...block.of.flats: Factor w/ 3 levels "", "block of flats",..: 2 2
2 3 3 2 3 3 3 2 ...
```

```
demo trans$Gender = as.integer(demo trans$Gender)
demo trans$Gender <- ifelse(test=demo trans$Gender == 2, yes="Female", no="Ma</pre>
demo trans$Gender = as.factor(demo trans$Gender)
demo trans$Left...right.handed = as.integer(demo trans$Left...right.handed)
demo_trans$Left...right.handed <- ifelse(test=demo_trans$Left...right.handed</pre>
== 3, yes="left handed", no="right handed")
demo trans$Left...right.handed = as.factor(demo trans$Left...right.handed)
demo trans$Only.child = as.integer(demo trans$Only.child)
demo_trans$Only.child <- ifelse(test=demo_trans$Only.child == 2, yes="no", no</pre>
="yes")
demo trans$Only.child = as.factor(demo trans$Only.child)
demo_trans$Village...town = as.integer(demo_trans$Village...town)
demo trans$Village...town <- ifelse(test=demo trans$Village...town == 3, yes=</pre>
"city", no="village")
demo trans$Village...town = as.factor(demo trans$Village...town)
demo_trans$House...block.of.flats = as.integer(demo_trans$House...block.of.fl
ats)
demo_trans$House...block.of.flats = ifelse(test = demo_trans$House...block.of
.flats == 2, yes = "block of flats", no = "house/bungalow")
demo trans$House...block.of.flats = as.factor(demo trans$House...block.of.fla
ts)
str(demo trans)
## 'data.frame': 1010 obs. of 10 variables:
## $ Age
                            : num 20 19 20 22 20 20 20 19 18 19 ...
## $ Height
                            : num 163 163 176 172 170 186 177 184 166 174 ...
## $ Weight
                            : num 48 58 67 59 59 77 50 90 55 60 ...
## $ Number.of.siblings
                            : int 1221111113...
## $ Gender
                            : Factor w/ 2 levels "Female", "Male": 1 1 1 1 1 2
1 2 1 1 ...
## $ Left...right.handed : Factor w/ 2 levels "left handed",..: 1 1 1 1 1
1 1 1 1 1 ...
                            : Factor w/ 7 levels "", "college/bachelor degree"
## $ Education
,..: 2 2 7 2 7 7 7 2 7 7 ...
## $ Only.child
                            : Factor w/ 2 levels "no", "yes": 1 1 1 2 1 1 1 1
1 1 ...
## $ Village...town : Factor w/ 2 levels "city", "village": 1 2 2 2 1
2 1 2 2 2 ...
## $ House...block.of.flats: Factor w/ 2 levels "block of flats",..: 1 1 1 2
2 1 2 2 2 1 ...
# Simple Logistic
logistic simple <- glm(Left...right.handed ~ Gender, data=demo trans, family=</pre>
```

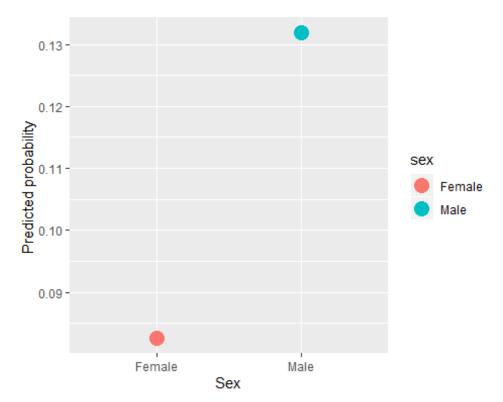
```
"binomial")
summary(logistic_simple)
##
## Call:
## glm(formula = Left...right.handed ~ Gender, family = "binomial",
##
       data = demo_trans)
##
## Deviance Residuals:
      Min
                      Median
                 10
                                   3Q
                                           Max
## -0.5319 -0.5319 -0.4153 -0.4153
                                         2.2331
##
## Coefficients:
##
               Estimate Std. Error z value Pr(>|z|)
                         0.1492 -16.139 <2e-16 ***
## (Intercept) -2.4071
## GenderMale
                 0.5228
                            0.2078
                                     2.516
                                             0.0119 *
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## (Dispersion parameter for binomial family taken to be 1)
##
       Null deviance: 669.75 on 1009 degrees of freedom
##
## Residual deviance: 663.42 on 1008 degrees of freedom
## AIC: 667.42
##
## Number of Fisher Scoring iterations: 5
## Now calculate the overall "Pseudo R-squared" and its p-value
## NOTE: Since we are doing Logistic regression...
## Null devaiance = 2*(0 - LogLikelihood(null model))
                 = -2*LogLikihood(null model)
## Residual deviance = 2*(0 - LogLikelihood(proposed model))
                     = -2*LogLikelihood(proposed model)
##
11.null <- logistic simple$null.deviance/-2</pre>
11.proposed <- logistic simple$deviance/-2</pre>
ll.null
## [1] -334.8764
11.proposed
## [1] -331.7111
## McFadden's Pseudo R^2 = [ LL(Null) - LL(Proposed) ] / LL(Null)
(ll.null - ll.proposed) / ll.null
## [1] 0.009452093
## chi-square value = 2*(LL(Proposed) - LL(Null))
## p-value = 1 - pchisq(chi-square value, df = 2-1)
1 - pchisq(2*(ll.proposed - ll.null), df=1)
```

```
## [1] 0.01186745

1 - pchisq((logistic_simple$null.deviance - logistic_simple$deviance), df=1)
## [1] 0.01186745

demo_p =data.frame(probab_demo=logistic_simple$fitted.values,sex=demo_trans$G ender)

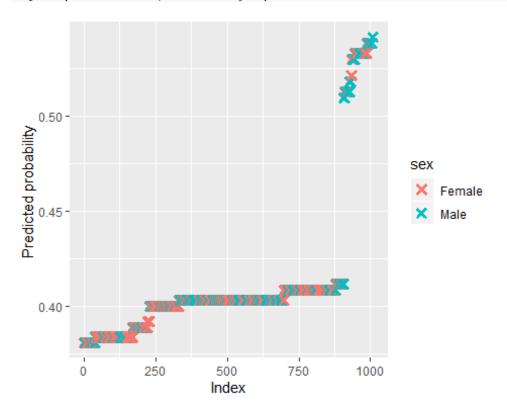
ggplot(data=demo_p, aes(x=sex, y=probab_demo)) +
    geom_point(aes(color=sex), size=5) +
    xlab("Sex") +
    ylab("Predicted probability ")
```



```
## Since there are only two probabilities (one for females and one for males)
## we can use a table to summarize the predicted probabilities.
xtabs(~ probab_demo + sex, data=demo_p)
##
                       sex
## probab_demo
                        Female Male
##
     0.0826306913996698
                            593
##
     0.13189448441247
                                417
logistic <- glm(Gender ~ Left...right.handed + House...block.of.flats + Villa</pre>
ge...town + Only.child, data=demo trans, family="binomial")
summary(logistic)
```

```
##
## Call:
## glm(formula = Gender ~ Left...right.handed + House...block.of.flats +
       Village...town + Only.child, family = "binomial", data = demo_trans)
##
## Deviance Residuals:
                      Median
##
       Min
                 10
                                   30
                                           Max
## -1.2434 -1.0160 -0.9841
                               1.3479
                                         1.3892
## Coefficients:
                                         Estimate Std. Error z value Pr(>|z|)
##
                                                     0.18677 -1.916
## (Intercept)
                                         -0.35782
                                                                       0.0554
## Left...right.handedright handed
                                          0.52365
                                                     0.20788
                                                               2.519
                                                                       0.0118
## House...block.of.flatshouse/bungalow -0.01203
                                                     0.16237
                                                              -0.074
                                                                       0.9409
## Village...townvillage
                                         -0.03439
                                                     0.17496
                                                              -0.197
                                                                       0.8442
## Only.childyes
                                                                       0.5842
                                         -0.08106
                                                     0.14811
                                                              -0.547
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## (Dispersion parameter for binomial family taken to be 1)
##
       Null deviance: 1369.3
                              on 1009
                                       degrees of freedom
##
## Residual deviance: 1362.6
                              on 1005
                                       degrees of freedom
## AIC: 1372.6
##
## Number of Fisher Scoring iterations: 4
## Now calculate the overall "Pseudo R-squared" and its p-value
11.null <- logistic$null.deviance/-2</pre>
11.proposed <- logistic$deviance/-2</pre>
## McFadden's Pseudo R^2 = [ LL(Null) - LL(Proposed) ] / LL(Null)
(ll.null - ll.proposed) / ll.null
## [1] 0.00488038
## The p-value for the R^2
1 - pchisq(2*(11.proposed - 11.null), df=(length(logistic$coefficients)-1))
## [1] 0.1536276
## now we can plot the data
predicted.data <- data.frame(probability.of.hd=logistic$fitted.values,sex=dem</pre>
o trans$Gender)
predicted.data <- predicted.data[order(predicted.data$probability.of.hd, decr
easing=FALSE),
predicted.data$rank <- 1:nrow(predicted.data)</pre>
ggplot(data=predicted.data, aes(x=rank, y=probability.of.hd)) +
 geom point(aes(color=sex), alpha=1, shape=4, stroke=2) +
```

```
xlab("Index") +
ylab("Predicted probability ")
```



```
library(regclass)
## Warning: package 'regclass' was built under R version 3.6.3
## Loading required package: bestglm
## Warning: package 'bestglm' was built under R version 3.6.3
## Loading required package: VGAM
## Warning: package 'VGAM' was built under R version 3.6.3
## Loading required package: stats4
## Loading required package: splines
##
## Attaching package: 'VGAM'
## The following object is masked from 'package:survey':
##
       calibrate
##
## The following objects are masked from 'package:boot':
##
       logit, simplex
##
```

```
## The following object is masked from 'package:car':
##
##
       logit
## The following objects are masked from 'package:psych':
##
##
       fisherz, logistic, logit
## Loading required package: rpart
## Loading required package: randomForest
## randomForest 4.6-14
## Type rfNews() to see new features/changes/bug fixes.
##
## Attaching package: 'randomForest'
## The following object is masked from 'package:psych':
##
       outlier
##
## The following object is masked from 'package:dplyr':
##
##
       combine
## The following object is masked from 'package:gridExtra':
##
##
       combine
## The following object is masked from 'package:ggplot2':
##
##
       margin
## The following object is masked from 'package:outliers':
##
##
       outlier
## Important regclass change from 1.3:
## All functions that had a . in the name now have an _
## all.correlations -> all_correlations, cor.demo -> cor_demo, etc.
##
## Attaching package: 'regclass'
## The following object is masked from 'package:lattice':
##
##
       qq
library(caret)
## Warning: package 'caret' was built under R version 3.6.3
```

```
##
## Attaching package: 'caret'
## The following object is masked from 'package:VGAM':
##
##
       predictors
## The following object is masked from 'package:survival':
##
##
       cluster
library(e1071)
## Warning: package 'e1071' was built under R version 3.6.3
confusion_matrix(logistic)
##
                 Predicted Female Predicted Male Total
## Actual Female
                               544
                                                     593
## Actual Male
                                                55
                                                     417
                               362
## Total
                               906
                                               104
                                                    1010
pdata <- predict(logistic simple, newdata=demo trans, type="response" )</pre>
pdata
                        2
                                   3
                                               4
                                                          5
                                                                      6
##
            1
7
## 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.082630
69
            8
                        9
                                                         12
##
                                  10
                                              11
                                                                     13
14
## 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.082630
69
##
           15
                       16
                                  17
                                              18
                                                         19
                                                                     20
21
## 0.08263069 0.13189448 0.08263069 0.08263069 0.13189448 0.13189448 0.131894
48
##
           22
                       23
                                  24
                                              25
                                                         26
                                                                     27
28
## 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.082630
69
##
           29
                       30
                                  31
                                              32
                                                         33
                                                                     34
35
## 0.13189448 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.131894
48
                       37
                                              39
                                                         40
                                                                     41
##
           36
                                  38
42
## 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.131894
48
##
           43
                       44
                                  45
                                              46
                                                         47
                                                                     48
49
## 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 0.082630
```

| 69 ## 50 51 52 53 54 55 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08 |
|--|
| 56 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 |
| 69 ## 57 58 59 60 61 62 63 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 |
| ## 6.08263069 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.1318948 0.1318948 0.1318948 0.08263069 0.13189448 |
| 63 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.1 |
| ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.131894 |
| ## 64 65 66 67 68 69 ## 0.13189448 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 ## 71 72 73 74 75 76 ## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.13189 |
| ## 0.13189448 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 ## 71 72 73 74 75 76 ## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 ## 78 79 80 81 82 83 ## 85 86 87 88 89 90 ## 85 86 87 88 89 90 ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 ## 92 93 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 99 100 101 102 103 104 1 105 ## 99 100 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 ## 99 100 101 102 103 104 1 |
| ## 0.13189448 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 ## 71 72 73 74 75 76 77 ## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 ## 78 79 80 81 82 83 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 ## 85 86 87 88 89 90 91 ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 98 ## 92 93 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 99 100 101 102 103 104 1 105 ## 99 100 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.08263069 0.13189448 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.1318948 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.1318948 0.1318948 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.1318948 0 |
| ## 71 72 73 74 75 76 ## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.13189448 0.1318948 |
| ## 71 72 73 74 75 76 ## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 ## 78 79 80 81 82 83 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 ## 85 86 87 88 89 90 ## 90 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 ## 92 93 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 99 100 101 102 103 104 1 |
| ## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 ## 85 86 87 88 89 90 91 |
| ## 78 79 80 81 82 83 84 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.082630 ## 85 86 87 88 89 90 ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.082630 ## 92 93 94 95 96 97 ## 0.08263069 0.08263069 0.13189448 0.1318948 0.1318948 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.1318948 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.1318948 |
| ## 78 79 80 81 82 83 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.082630 ## 85 86 87 88 89 90 ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 99 100 101 101 102 103 104 1 05 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 |
| 84 ## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.082630 69 ## 85 86 87 88 89 90 91 ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 98 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 99 100 101 102 103 103 104 1 05 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.1318948 |
| ## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 ## 85 86 87 88 89 90 91 ## 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 98 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.1318948 ## 99 100 101 102 103 104 1 105 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.131894 |
| 69 ## 85 86 87 88 89 90 90 91 91 91 90 <t< td=""></t<> |
| 91 |
| ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 ## 92 93 94 95 96 97 98 |
| 69 ## 92 93 94 95 96 97 98 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 48 ## 99 100 101 102 103 104 1 05 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.131894 |
| ## 92 93 94 95 96 97 98 ## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 ## 99 100 101 102 103 104 1 05 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.131894 |
| 98 ## 0.08263069 0.08263069 0.13189448 0.1318948 0.1318948 0.1318948 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189448 0.13189 0.13189 0.1318948 0.13189 0.13189 0.13189 0.13189 0.13189 0.13189 0.13189 0.131 |
| 48 ## 99 100 101 102 103 104 1 05 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.131894 |
| ## 99 100 101 102 103 104 1 05 |
| 05 ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.131894 |
| ## 0.13189448 0.08263069 0.08263069 0.13189448 0.08263069 0.13189448 0.131894 |
| |
| 48 |
| ## 106 107 108 109 110 111 1 |
| 12 |
| ## 0.13189448 0.13189448 0.08263069 0.08263069 0.13189448 0.13189448 0.082630 |
| ## 113 114 115 116 117 118 1 |
| 19 |
| ## 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.131894 |
| 48 |
| ## 120 121 122 123 124 125 1 26 |
| ## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.13189448 0.082630 |
| 69 |
| ## 127 128 129 130 131 132 1 |
| ## A 00262060 A 00262060 A 00262060 A 00262060 A 00262060 A 12100440 A 002620 |
| ## 0.08263069 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.082630 |
| ## 134 135 136 137 138 139 1 |

| 40 | | | | | | | |
|----------|------------|--------------|------------|------------|------------|------------|----------|
| 40 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.082630 |
| 69 ## | 141 | 142 | 143 | 144 | 145 | 146 | 1 |
| 47 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.131894 |
| 48 ## | 148 | 149 | 150 | 151 | 152 | 153 | 1 |
| 54 ## | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| 69 ## | 155 | 156 | 157 | 158 | 159 | 160 | 1 |
| 61 ## | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.131894 |
| 48 ## | 162 | 163 | 164 | 165 | 166 | 167 | 1 |
| 68 ## | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| 48 ## | 169 | 170 | 171 | 172 | 173 | 174 | 1 |
| 75 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.131894 |
| 48 ## | 176 | 177 | 178 | 179 | 180 | 181 | 1 |
| 82 ## | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.131894 |
| 48 ## | 183 | 184 | 185 | 186 | 187 | 188 | 1 |
| 89 ## | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| 69 ## | 190 | 191 | 192 | 193 | 194 | 195 | 1 |
| 96 ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.131894 |
| 48 ## | 197 | 198 | 199 | 200 | 201 | 202 | 2 |
| 03 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.131894 |
| 48 ## | 204 | 205 | 206 | 207 | 208 | 209 | 2 |
| 10 ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| 48 ## | 211 | 212 | 213 | 214 | 215 | 216 | 2 |
| 17 ## | | | 0.13189448 | | | | 0.082630 |
| 69 ## | 218 | 219 | 220 | 221 | 222 | 223 | 2 |
| 24 | | | 0.13189448 | | | | |
| | | 5 _ 6 5 1 10 | 5.25205110 | | | | 3.002000 |

| 69 | | | | | | | |
|----------|------------|------------|------------|------------|------------|------------|----------|
| ## 31 | 225 | 226 | 227 | 228 | 229 | 230 | 2 |
| ## 69 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 38 | 232 | 233 | 234 | 235 | 236 | 237 | 2 |
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 45 | 239 | 240 | 241 | 242 | 243 | 244 | 2 |
| ## 69 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 52 | 246 | 247 | 248 | 249 | 250 | 251 | 2 |
| ## 69 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 59 | 253 | 254 | 255 | 256 | 257 | 258 | 2 |
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 66 | 260 | 261 | 262 | 263 | 264 | 265 | 2 |
| ## 69 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 73 | 267 | 268 | 269 | 270 | 271 | 272 | 2 |
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 80 | 274 | 275 | 276 | 277 | 278 | 279 | 2 |
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 87 | 281 | 282 | 283 | 284 | 285 | 286 | 2 |
| ## 69 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.082630 |
| ## 94 | 288 | 289 | 290 | 291 | 292 | 293 | 2 |
| ## 69 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| ## 01 | 295 | 296 | 297 | 298 | 299 | 300 | 3 |
| ## 69 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 08 | 302 | 303 | 304 | 305 | 306 | 307 | 3 |
| ## 69 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## | 309 | 310 | 311 | 312 | 313 | 314 | 3 |

| 15 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.131894 |
|----------------|------------|------------|------------|------------|------------|------------|----------|
| 48 ## | 316 | 317 | 318 | 319 | 320 | 321 | 3 |
| 22 ## | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| 69 ## | 323 | 324 | 325 | 326 | 327 | 328 | 3 |
| 29 ## | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| 48 ## | 330 | 331 | 332 | 333 | 334 | 335 | 3 |
| 36 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.131894 |
| 48 ## | 337 | 338 | 339 | 340 | 341 | 342 | 3 |
| 43 ## | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| 69 ## | 344 | 345 | 346 | 347 | 348 | 349 | 3 |
| 50 ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.082630 |
| 69 ## 57 | 351 | 352 | 353 | 354 | 355 | 356 | 3 |
| ## 48 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.131894 |
| ## 64 | 358 | 359 | 360 | 361 | 362 | 363 | 3 |
| ## 69 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 71 | 365 | 366 | 367 | 368 | 369 | 370 | 3 |
| ## 69 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 78 | 372 | 373 | 374 | 375 | 376 | 377 | 3 |
| | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 85 | 379 | 380 | 381 | 382 | 383 | 384 | 3 |
| ## 69 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 92 | 386 | 387 | 388 | 389 | 390 | 391 | 3 |
| | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 99 | 393 | 394 | 395 | 396 | 397 | 398 | 3 |
| | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.082630 |

| 69 ## | 400 | 401 | 402 | 403 | 404 | 405 | 4 |
|----------|--------------------|--------------------|------------|------------|--------------------|------------|----------|
| 06 | | | | | | | |
| ## 69 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.082630 |
| ## 13 | 407 | 408 | 409 | 410 | 411 | 412 | 4 |
| ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| 69 ## | 414 | 415 | 416 | 417 | 418 | 419 | 4 |
| 20 ## | Δ 1318ΩΛΛ Ω | Δ 13189///8 | 0 08263069 | 0 08263069 | Ω 13189///8 | 0.08263069 | 0 082630 |
| 69 | | | | | | | |
| ## 27 | 421 | 422 | 423 | 424 | 425 | 426 | 4 |
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## | 428 | 429 | 430 | 431 | 432 | 433 | 4 |
| 34 ## | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| 69 ## | 435 | 436 | 437 | 438 | 439 | 440 | 4 |
| 41 | | | | | | | |
| ## 69 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 48 | 442 | 443 | 444 | 445 | 446 | 447 | 4 |
| ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| 69 ## | 449 | 450 | 451 | 452 | 453 | 454 | 4 |
| 55 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.082630 |
| 69 | | | | | | | |
| ## 62 | 456 | 457 | 458 | 459 | 460 | 461 | 4 |
| ## 48 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.131894 |
| ## | 463 | 464 | 465 | 466 | 467 | 468 | 4 |
| 69 ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| 69 ## | 470 | 471 | 472 | 473 | 474 | 475 | 4 |
| 76 | | | | | | 0.13189448 | |
| 69 | 0.13169446 | | | | | | 0.082030 |
| ## 83 | 477 | 478 | 479 | 480 | 481 | 482 | 4 |
| | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.131894 |
| ## | 484 | 485 | 486 | 487 | 488 | 489 | 4 |

| 90 | | | | | | | |
|----------------|------------|------------|------------|------------|------------|-------------------|----------|
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 97 | 491 | 492 | 493 | 494 | 495 | 496 | 4 |
| ## 69 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 04 | 498 | 499 | 500 | 501 | 502 | 503 | 5 |
| ## 69 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 11 | 505 | 506 | 507 | 508 | 509 | 510 | 5 |
| ## 48 | 0.08263069 | | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | |
| ## 18 | 512 | 513 | 514 | 515 | 516 | 517 | 5 |
| ## 69 | | | | | | 0.13189448 | |
| ## 25 | 519 | 520 | 521 | 522 | 523 | 524 | 5 |
| ## 69 | | | | | | 0.13189448 | |
| ## 32 | 526 | 527 | 528 | 529 | 530 | 531 | 5 |
| ## 48 | | | | | | 0.08263069 | |
| ## 39 ## | 533 | 534 | 535 | 536 | 537 | 538 0.13189448 | 5 |
| ## 69 ## | 540 | 541 | 542 | 543 | 544 | 545 | 5 |
| 46 ## | 0.13189448 | | | | | 0.13189448 | |
| 48 ## | 547 | 548 | 549 | 550 | 551 | 552 | 5 |
| 53 | | | | | | 0.08263069 | |
| 69 ## | 554 | 555 | 556 | 557 | 558 | 559 | 5 |
| 60 | | | | | | 0.08263069 | |
| 69 ## | 561 | 562 | 563 | 564 | 565 | 566 | 5 |
| 67 ## | | | | | | 0.08263069 | |
| 69 ## | 568 | 569 | 570 | 571 | 572 | 573 | 5 |
| 74 ## | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.131894 |
| | | | | | | | |

| 48 ## | 575 | 576 | 577 | 578 | 579 | 580 | 5 |
|----------------|------------|------------|------------|------------|------------|------------|----------|
| 81 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.131894 |
| 48 ## 88 | 582 | 583 | 584 | 585 | 586 | 587 | 5 |
| ## 69 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 95 | 589 | 590 | 591 | 592 | 593 | 594 | 5 |
| ## 48 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.131894 |
| ## 02 | 596 | 597 | 598 | 599 | 600 | 601 | 6 |
| ## 69 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.082630 |
| ## 09 | 603 | 604 | 605 | 606 | 607 | 608 | 6 |
| ## 48 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.131894 |
| ## 16 | 610 | 611 | 612 | 613 | 614 | 615 | 6 |
| ## 48 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| ## 23 | 617 | 618 | 619 | 620 | 621 | 622 | 6 |
| ## 69 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 30 | 624 | 625 | 626 | 627 | 628 | 629 | 6 |
| ## 69 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## 37 | 631 | 632 | 633 | 634 | 635 | 636 | 6 |
| ## 48 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| ## 44 | 638 | 639 | 640 | 641 | 642 | 643 | 6 |
| ## 69 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 51 | 645 | 646 | 647 | 648 | 649 | 650 | 6 |
| ## 48 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.131894 |
| ## 58 | 652 | 653 | 654 | 655 | 656 | 657 | 6 |
| ## 69 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.082630 |
| ## | 659 | 660 | 661 | 662 | 663 | 664 | 6 |

```
65
## 0.13189448 0.13189448 0.08263069 0.08263069 0.08263069 0.13189448 0.082630
69
       666 667 668 669 670 671
##
72
## 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.08263069 0.082630
               674
                       675 676 677 678 6
##
       673
79
## 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.082630
69
##
       680
               681 682 683 684
                                                685
                                                         6
86
## 0.08263069 0.08263069 0.08263069 0.13189448 0.08263069 0.08263069 0.082630
69
               688
                       689
                                690 691
                                                 692
##
       687
93
## 0.13189448 0.13189448 0.08263069 0.13189448 0.13189448 0.08263069 0.131894
48
##
       694 695 696 697 698 699 7
00
## 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.082630
69
                                                 706 7
##
       701
               702
                   703 704
                                         705
07
## 0.08263069 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.131894
48
       708 709 710 711 712 713 7
##
14
## 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.082630
69
               716 717 718 719 720 7
##
       715
21
## 0.08263069 0.13189448 0.13189448 0.08263069 0.08263069 0.13189448 0.082630
69
       722 723 724 725 726 727 7
##
28
## 0.08263069 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.131894
48
##
       729
               730
                   731 732 733
                                                 734
## 0.08263069 0.13189448 0.08263069 0.08263069 0.08263069 0.08263069 0.082630
69
       736 737 738 739 740 741 7
##
42
## 0.08263069 0.08263069 0.08263069 0.13189448 0.13189448 0.13189448 0.082630
69
                       745 746 747
##
       743
               744
                                                 748 7
## 0.13189448 0.13189448 0.13189448 0.13189448 0.08263069 0.08263069 0.082630
```

| 69 ## | 750 | 751 | 752 | 753 | 754 | 755 | 7 |
|----------|------------|------------|------------|------------|------------|------------|----------|
| 56 ## | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| 69 ## | 757 | 758 | 759 | 760 | 761 | 762 | 7 |
| 63 ## | 0 13189448 | 0 08263069 | 0 13189448 | 0 13189448 | 0 08263069 | 0.13189448 | 0 131894 |
| 48 | | | | | | | |
| ## 70 | 764 | 765 | 766 | 767 | 768 | 769 | 7 |
| ## 69 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 77 | 771 | 772 | 773 | 774 | 775 | 776 | 7 |
| ## 48 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.131894 |
| ## | 778 | 779 | 780 | 781 | 782 | 783 | 7 |
| 84 ## | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| 48 ## | 785 | 786 | 787 | 788 | 789 | 790 | 7 |
| 91 ## | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.082630 |
| 69 ## | 792 | 793 | 794 | 795 | 796 | 797 | 7 |
| 98 | | | | | | | |
| ## 48 | | | | | | 0.13189448 | |
| ## 05 | 799 | 800 | 801 | 802 | 803 | 804 | 8 |
| ## 69 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 12 | 806 | 807 | 808 | 809 | 810 | 811 | 8 |
| | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.131894 |
| ## | 813 | 814 | 815 | 816 | 817 | 818 | 8 |
| 19 ## | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.131894 |
| 48 ## | 820 | 821 | 822 | 823 | 824 | 825 | 8 |
| 26 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| 69 | | | | | | | |
| ## 33 | 827 | 828 | 829 | 830 | 831 | 832 | 8 |
| ## 69 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| ## | 834 | 835 | 836 | 837 | 838 | 839 | 8 |

| | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.082630 |
|----------|------------|------------|------------|------------|------------|------------|----------|
| 69 ## | 841 | 842 | 843 | 844 | 845 | 846 | 8 |
| 47 ## | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| 69 ## | 848 | 849 | 850 | 851 | 852 | 853 | 8 |
| 54 | 0.08263069 | | 0.08263069 | | | | |
| ## 69 | 0.00_000 | | | | | | |
| ## 61 | 855 | 856 | 857 | 858 | 859 | 860 | 8 |
| ## 48 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.131894 |
| ## 68 | 862 | 863 | 864 | 865 | 866 | 867 | 8 |
| ## 69 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.082630 |
| ## | 869 | 870 | 871 | 872 | 873 | 874 | 8 |
| 75 ## | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.082630 |
| 69 ## | 876 | 877 | 878 | 879 | 880 | 881 | 8 |
| 82 ## | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.082630 |
| 69 ## | 883 | 884 | 885 | 886 | 887 | 888 | 8 |
| 89 ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| 69 ## | 890 | 891 | 892 | 893 | 894 | 895 | 8 |
| 96 | | | | | | | |
| ## 48 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.131894 |
| ## 03 | 897 | 898 | 899 | 900 | 901 | 902 | 9 |
| ## 48 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.08263069 | 0.131894 |
| ## 10 | 904 | 905 | 906 | 907 | 908 | 909 | 9 |
| | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.082630 |
| ## | 911 | 912 | 913 | 914 | 915 | 916 | 9 |
| | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.131894 |
| 48 ## | 918 | 919 | 920 | 921 | 922 | 923 | 9 |
| 24 ## | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| | | | | | | | |

| 69 ## | 925 | 926 | 927 | 928 | 929 | 930 | 9 |
|----------|------------|------------|---------------------|------------|---------------------|------------|----------|
| 31 ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.082630 |
| 69 ## | 932 | 933 | 934 | 935 | 936 | 937 | 9 |
| 38 | | | | | | | |
| ## 69 | 0.13189448 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.08263069 | 0.082630 |
| ## 45 | 939 | 940 | 941 | 942 | 943 | 944 | 9 |
| ## 69 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.082630 |
| ## | 946 | 947 | 948 | 949 | 950 | 951 | 9 |
| 52 ## | 0.13189448 | 0.13189448 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.131894 |
| 48 ## | 953 | 954 | 955 | 956 | 957 | 958 | 9 |
| 59 ## | 0 13189448 | 0 08263069 | 0 08263069 | 0 08263069 | 0 13189 <u>44</u> 8 | 0.13189448 | 0 082630 |
| 69 | | | | | | | |
| ## 66 | 960 | 961 | 962 | 963 | 964 | 965 | 9 |
| ## 69 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 73 | 967 | 968 | 969 | 970 | 971 | 972 | 9 |
| ## 69 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.13189448 | 0.082630 |
| ## | 974 | 975 | 976 | 977 | 978 | 979 | 9 |
| 80 ## | 0.08263069 | 0.08263069 | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.131894 |
| 48 ## | 981 | 982 | 983 | 984 | 985 | 986 | 9 |
| 87 ## | 0 08263069 | 0 08263069 | 0 13189 <i>11</i> 8 | 0 08263069 | 0 08263069 | 0.08263069 | 0 082630 |
| 69 | | | | | | | |
| ## 94 | 988 | 989 | 990 | 991 | 992 | 993 | 9 |
| ## 69 | 0.13189448 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.13189448 | 0.082630 |
| ## 01 | 995 | 996 | 997 | 998 | 999 | 1000 | 10 |
| ## | 0.08263069 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.13189448 | 0.082630 |
| 69 ## | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 10 |
| 08 ## | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.08263069 | 0.13189448 | 0.082630 |
| 69 | | | | | | | |

```
##
                1009
                                      1010
## 0.08263069 0.13189448
demo_trans$Gender
##
           [1] Female Female Female Female Male Female Male
                                                                                                                              Female Fema
le
##
         [11] Female Female Female Female Male
                                                                                                   Female Female Male
                                                                                                                                            Male
##
         [21] Male
                                Male
                                              Female Female Female Female Female Male
                                                                                                                                            Fema
le
                                                                                     Female Female Male
##
         [31] Male
                                Female Female Male
                                                                                                                              Female Fema
le
##
         [41] Female Male
                                             Female Female Male
                                                                                                   Female Female Female
le
##
          [51] Female Female Female Female Female Female Female Male
##
         [61] Male
                                Male
                                             Male
                                                           Male
                                                                        Female Male
                                                                                                   Male
                                                                                                                 Female Female Fema
le
##
         [71] Male
                                Male
                                             Female Male
                                                                        Male
                                                                                      Male
                                                                                                   Male
                                                                                                                 Female Female Fema
le
##
                                           Female Female Female Male
                                                                                                                Female Female Fema
         [81] Female Male
                                                                                                   Male
le
##
         [91] Female Female Female Male
                                                                        Male
                                                                                      Male
                                                                                                   Male
                                                                                                                 Male
                                                                                                                              Male
                                                                                                                                            Fema
le
##
                                                                        Male
                                                                                      Male
                                                                                                                 Female Female Male
       [101] Female Male
                                             Female Male
                                                                                                   Male
##
       [111] Male
                                Female Female Female Female Female Female Male
                                                                                                                                            Fema
le
                                             Female Female Male
                                                                                      Female Female Female Female
##
       [121] Male
                                Male
le
                                             Female Female Male
##
       [131] Female Male
                                                                                                   Male
                                                                                                                 Male
                                                                                                                              Female Fema
le
##
       [141] Female Female Male
                                                           Female Male
                                                                                      Female Male
                                                                                                                 Male
                                                                                                                              Male
                                                                                                                                            Male
       [151] Female Male
                                             Male
                                                           Female Male
                                                                                      Female Male
                                                                                                                 Male
                                                                                                                              Female Male
##
       [161] Male
                                Female Male
                                                                        Male
                                                                                      Female Female Male
                                                                                                                              Female Fema
                                                           Male
le
##
       [171] Male
                                Male
                                              Male
                                                           Male
                                                                        Male
                                                                                      Female Male
                                                                                                                 Male
                                                                                                                              Female Male
##
       [181] Male
                                Male
                                              Female Male
                                                                        Female Female Female Female Female
le
       [191] Female Female Female Male
                                                                        Male
                                                                                      Male
                                                                                                   Female Female Male
                                                                                                                                            Male
##
##
       [201] Male
                                Male
                                             Male
                                                           Female Female Male
                                                                                                                 Female Female Male
                                                           Female Female Male
                                                                                                   Female Female Male
##
       [211] Male
                                Female Male
                                                                                                                                            Male
       [221] Male
                                Male
                                              Female Female Male
                                                                                     Male
                                                                                                   Male
                                                                                                                 Female Female Male
##
       [231] Female Fem
le
##
                                Female Female Female Female Male
                                                                                                                Female Female Fema
       [241] Male
le
       [251] Female Female Female Female Female Female Male
##
                                                                                                                              Female Male
                                Female Female Female Female Female Female Female Female Female
##
       [261] Male
le
##
       [271] Female Male Female Female Female Female Male
                                                                                                                                            Fema
le
```

```
##
   [281] Female Male
                      Female Male
                                   Male
                                         Female Female Male
   [291] Female Male
                      Female Female Female Male
                                                      Male
                                                             Female Fema
##
le
                      Female Female Female Female Female Female Female
##
   [301] Female Male
le
               Female Male
                            Female Male
                                         Male
                                                Female Male
                                                             Female Fema
##
   [311] Male
le
                                                Female Female Male
##
   [321] Male
               Female Female Male Female Male
                                                                    Fema
le
##
   [331] Female Male
                      Female Female Male
                                                Male
                                                      Male
                                                             Female Fema
le
                      Female Female Female Male
##
   [341] Female Male
                                                      Male
                                                             Male
                                                                    Fema
le
##
   [351] Male
               Female Male
                            Female Female Male
                                                Male
                                                      Male
                                                             Male
                                                                    Fema
le
##
   [361] Female Female Female Male
                                         Male
                                                Male
                                                      Male
                                                             Female Male
##
   [371] Female Female Male
                            Male
                                   Female Female Female Female Male
   [381] Female Female Female Male
                                                Female Female Female
##
                                   Female Male
le
##
   [391] Male
               Female Female Male
                                   Male
                                         Male
                                                Female Female Female Fema
le
   [401] Male
               Female Male
                            Male
                                  Female Female Female Female Female
##
le
##
   [411] Male
               Female Female Male
                                   Male
                                         Female Female Male
                                                             Female Fema
le
##
   [421] Female Female Female Female Female Female Male
                                                             Female Fema
le
##
   [431] Female Male
                      Male
                            Female Male
                                         Female Male
                                                       Female Female Male
   [441] Female Female Female Female Female Male
                                                       Female Female Fema
##
le
               Male
                      Female Female Female Male
                                                             Female Fema
##
   [451] Male
                                                      Male
le
##
   [461] Male
               Male
                      Female Female Female Male
                                                       Female Female Male
                      Male
                            Male
                                   Male
                                         Female Female Male
##
   [471] Female Male
le
                            Female Female Female Female Male
##
   [481] Female Male
                      Male
                                                                    Fema
le
##
   [491] Female Female Female Male
                                   Female Female Female Female Male
   [501] Female Female Male
                            Female Female Male
                                                Male Female Male
##
                                                                    Fema
le
                                                Male
                                                       Female Female Male
##
   [511] Male
               Male
                      Female Male
                                   Male
                                         Male
##
   [521] Female Female Female Male
                                   Female Female Male
                                                       Female Male
                                                                    Male
   [531] Female Male
                      Female Male
                                   Female Male
                                                Female Male
                                                             Female Male
##
   [541] Male
               Female Male
                            Male
                                   Male
                                         Male
                                                Male
                                                       Male
                                                             Female Fema
le
##
   [551] Female Female Female Male
                                         Female Female Female Fema
le
##
   [561] Female Male
                                   Male
                                         Female Female Male
                                                             Female Fema
                      Male
                            Male
le
## [571] Male Male Female Male Female Female Male Female Male
```

```
[581] Male Female Male
                                                      Male
                                                                   Female Male
                                                                                            Male
                                                                                                         Female Female Fema
le
##
       [591] Male
                              Female Female Male
                                                                               Male
                                                                                            Male
                                                                                                        Male
                                                                                                                     Male
                                                                                                                                  Male
       [601] Female Female Male
                                                       Female Female Male
                                                                                            Male
                                                                                                         Female Male
                                                                                                                                  Male
##
       [611] Male
                              Female Male
                                                       Female Female Male
                                                                                            Male
                                                                                                         Female Female Male
##
       [621] Male
                              Male
                                          Female Male
                                                                 Female Female Female Male
le
##
                                                       Male
                                                                   Female Female Male
                                                                                                        Male
       [631] Female Female Male
                                                                                                                     Female Male
       [641] Female Male
                                                       Female Female Male
##
                                          Male
                                                                                            Male
                                                                                                         Female Female Fema
le
##
       [651] Male
                              Male
                                          Male
                                                       Female Male
                                                                                Female Female Male
                                                                                                                                  Male
       [661] Female Female Female Male
                                                                   Female Female Male
##
                                                                                                                     Male
                                                                                                                                  Male
##
       [671] Female Fem
le
##
       [681] Female Female Male
                                                       Female Female Male
                                                                                                        Male
                                                                                                                     Female Male
                                                       Female Male Female Female Female Female
##
       [691] Male
                             Female Male
le
##
       [701] Female Female Male
                                                      Male
                                                                   Female Female Male
                                                                                                        Female Male
                                                                                                                                  Fema
le
##
       [711] Female Female Female Female Male
                                                                                            Male
                                                                                                         Female Female Male
       [721] Female Female Female Female Male
                                                                                            Male
                                                                                                        Male
                                                                                                                     Female Male
       [731] Female Female Female Female Female Female Female Male
                                                                                                                                  Male
       [741] Male
                              Female Male
                                                      Male
                                                                   Male
                                                                                Male
                                                                                            Female Female Male
##
       [751] Female Female Female Male
                                                                                Female Male
                                                                                                         Female Male
                                                                                                                                  Male
       [761] Female Male
                                          Male
                                                      Male
                                                                   Female Male
                                                                                            Female Male
                                                                                                                     Male
                                                                                                                                  Fema
le
##
       [771] Female Male
                                          Female Female Female Male
                                                                                                                     Female Fema
                                                                                                        Male
le
##
                              Female Female Male
                                                                   Male
                                                                                Male
                                                                                            Male
                                                                                                        Male
                                                                                                                     Female Male
       [781] Male
##
       [791] Female Female Male
                                                      Male
                                                                   Male
                                                                                Female Male
                                                                                                        Male
                                                                                                                     Female Male
       [801] Male
                              Female Female Female Female Male
                                                                                                                     Male
##
                                                                                                        Male
                                                                                                                                  Male
##
       [811] Male
                              Male
                                          Female Male
                                                                   Female Male
                                                                                            Male
                                                                                                        Male
                                                                                                                     Male
                                                                                                                                  Fema
le
##
      [821] Female Male
                                          Female Male Female Female Female Male
                                                                                                                                  Fema
le
##
       [831] Female Female Female Male
                                                                                                                     Female Fema
                                                                   Male
                                                                               Male
                                                                                            Male
                                                                                                        Male
le
##
      [841] Female Male
                                          Female Female Male
                                                                               Female Female Male
                                                                                                                                  Fema
le
##
       [851] Female Male
                                          Male
                                                       Female Male
                                                                                Male
                                                                                            Female Male
                                                                                                                     Male
                                                                                                                                  Male
       [861] Male
                                                                                                         Female Male
##
                              Female Male
                                                       Male
                                                                   Male
                                                                                Female Male
                                                                                                                                  Fema
le
##
       [871] Female Male
                                          Male
                                                      Male
                                                                   Female Female Male
                                                                                                        Male
                                                                                                                     Male
                                                                                                                                  Male
       [881] Female Female Female Female Female Male
##
                                                                                                        Male
                                                                                                                     Female Fema
le
##
       [891] Male
                              Male
                                          Male
                                                       Female Female Male
                                                                                            Male
                                                                                                        Male
                                                                                                                     Female Male
##
       [901] Male
                              Female Male
                                                       Male
                                                                   Female Male
                                                                                            Female Female Male
                                                                                                                                  Fema
le
##
       [911] Female Female Female Female Female Male
                                                                                                         Male
                                                                                                                     Female Fema
le
```

```
[921] Female Male
                      Female Female Female Male Female Female Female
le
                                          Female Female Female Female
##
   [931] Female Male
                      Female Female Male
le
##
   [941] Male
                Female Male
                             Female Female Male
                                                 Male
                                                        Female Female Fema
le
##
   [951] Male
                Male
                      Male
                             Female Female Male
                                                        Male
                                                              Female Fema
le
##
   [961] Female Male
                      Female Male
                                    Male
                                          Female Female Male
                                                              Male
                                                                     Male
##
   [971] Male
                Male
                      Female Female Female Female Male
                                                              Female Male
##
   [981] Female Female Male
                             Female Female Female Male
                                                              Male
                                                                     Fema
le
  [991] Male
                Male
                             Female Female Male
                                                        Female Male
                                                                     Male
                      Male
## [1001] Female Female Male
                             Female Male
                                          Female Male
                                                        Female Female Male
## Levels: Female Male
pdataF <- as.factor(ifelse(test=as.numeric(pdata>0.1) == 0, yes="Female", no=
"Male"))
pdataF
##
     [1] Female Female Female Female Male
                                                 Female Male
                                                              Female Fema
le
##
    [11] Female Female Female Female Male
                                                 Female Female Male
                                                                     Male
##
                Male
                      Female Female Female Female Female Male
    [21] Male
                                                                     Fema
le
##
    [31] Male
                Female Female Male
                                          Female Female Male
                                                              Female Fema
le
##
    [41] Female Male
                      Female Female Male
                                                 Female Female Female
le
##
    [51] Female Female Female Female Female Female Female Male
                                                        Female Female Fema
##
    [61] Male
                Male
                      Male
                             Male
                                    Female Male
                                                 Male
le
##
    [71] Male
                Male
                      Female Male
                                    Male
                                                 Male
                                                        Female Female Fema
                                          Male
le
##
                      Female Female Male
                                                        Female Female Fema
    [81] Female Male
                                                 Male
le
##
    [91] Female Female Female Male
                                                 Male
                                    Male
                                          Male
                                                        Male
                                                              Male
                                                                     Fema
le
##
   [101] Female Male
                      Female Male
                                    Male
                                          Male
                                                 Male
                                                        Female Female Male
                Female Female Female Female Female Female Male
##
   [111] Male
                                                                     Fema
le
##
   [121] Male
                      Female Female Male
                                          Female Female Female Female
               Male
le
##
   [131] Female Male
                      Female Female Male
                                                              Female Fema
                                                 Male
                                                        Male
le
                             Female Male
                                          Female Male
##
   [141] Female Female Male
                                                        Male
                                                              Male
                                                                     Male
   [151] Female Male
                      Male
                             Female Male
                                          Female Male
                                                        Male
                                                              Female Male
##
##
   [161] Male
                Female Male
                             Male
                                    Male
                                          Female Female Male
                                                              Female Fema
le
## [171] Male
               Male
                      Male
                             Male
                                   Male
                                          Female Male
                                                        Male
                                                              Female Male
```

```
[181] Male
                                              Male
                                                                 Female Male Female Female Female Female Female
le
##
          [191] Female Female Female Male
                                                                                                        Male
                                                                                                                           Male
                                                                                                                                               Female Female Male
                                                                                                                                                                                                         Male
                                              Male
                                                                 Male
                                                                                     Female Female Male
                                                                                                                                                                  Female Female Male
##
           [201] Male
##
          [211] Male
                                              Female Male
                                                                                     Female Female Male
                                                                                                                                               Female Female Male
                                              Male
                                                                  Female Female Male
                                                                                                                           Male
                                                                                                                                               Male
                                                                                                                                                                  Female Female Male
##
           [221] Male
          [231] Female Fem
le
##
                                              Female Female Female Female Male Female Fema
          [241] Male
le
##
          [251] Female Female Female Female Female Female Male
                                                                                                                                                                                      Female Male
                                              Female Female Female Female Female Female Female Female
##
           [261] Male
le
##
          [271] Female Male
                                                                 Female Female Female Female Male
                                                                                                                                                                                                         Fema
le
                                                                                                        Male
                                                                                                                            Female Female Male
##
          [281] Female Male
                                                                 Female Male
                                                                                                                                                                                                         Male
##
           [291] Female Male
                                                                 Female Female Female Male
                                                                                                                                                                  Male
                                                                                                                                                                                      Female Fema
le
##
          [301] Female Male
                                                                 Female Female Female Female Female Female Female
le
##
          [311] Male
                                              Female Male
                                                                                    Female Male
                                                                                                                           Male
                                                                                                                                               Female Male
                                                                                                                                                                                     Female Fema
le
          [321] Male Female Female Male Female Male
##
                                                                                                                                               Female Female Male
                                                                                                                                                                                                         Fema
le
##
         [331] Female Male
                                                                 Female Female Male
                                                                                                                                               Male
                                                                                                                                                                  Male
                                                                                                                                                                                     Female Fema
le
##
                                                                 Female Female Female Male
                                                                                                                                                                                     Male
          [341] Female Male
                                                                                                                                                                  Male
                                                                                                                                                                                                         Fema
le
##
                                              Female Male
                                                                                     Female Female Male
                                                                                                                                                                  Male
                                                                                                                                                                                     Male
          [351] Male
                                                                                                                                               Male
                                                                                                                                                                                                         Fema
le
           [361] Female Female Female Male
                                                                                                                                               Male
                                                                                                                                                                  Male
                                                                                                                                                                                      Female Male
##
                                                                                                                            Male
           [371] Female Female Male
                                                                                    Male
                                                                                                        Female Female Female Female Male
##
          [381] Female Female Female Male
                                                                                                        Female Male
                                                                                                                                               Female Female Female Fema
le
##
                                                                                                                                               Female Female Female Fema
          [391] Male
                                              Female Female Male
                                                                                                        Male
                                                                                                                            Male
le
##
                                                                                                    Female Female Female Female Female
          [401] Male
                                              Female Male
                                                                                    Male
le
## [411] Male
                                              Female Female Male
                                                                                                        Male
                                                                                                                            Female Female Male
                                                                                                                                                                                     Female Fema
le
##
          [421] Female Female Female Female Female Female Male
                                                                                                                                                                                     Female Fema
le
##
          [431] Female Male
                                                                 Male
                                                                                     Female Male
                                                                                                                            Female Male
                                                                                                                                                                  Female Female Male
          [441] Female Female Female Female Female Male
                                                                                                                                                                  Female Female Fema
##
le
##
          [451] Male
                                              Male
                                                                 Female Female Female Male
                                                                                                                                                                  Male
                                                                                                                                                                                      Female Fema
le
                                                                  Female Female Female Male
                                                                                                                                                                  Female Female Male
##
          [461] Male
                                              Male
##
          [471] Female Male
                                                                 Male
                                                                                    Male
                                                                                                        Male
                                                                                                                            Female Female Male
                                                                                                                                                                                                         Fema
le
```

```
[481] Female Male Male Female Female Female Female Male
le
##
      [491] Female Female Female Male
                                                                 Female Female Female Female Male
       [501] Female Female Male
                                                    Female Female Male
                                                                                         Male
                                                                                                     Female Male
le
##
       [511] Male
                                                                 Male
                                                                             Male
                                                                                         Male
                                                                                                     Female Female Male
                            Male
                                         Female Male
      [521] Female Female Female Male
                                                                Female Female Male
                                                                                                     Female Male
       [531] Female Male
                                         Female Male
                                                                Female Male
                                                                                         Female Male
                                                                                                                 Female Male
      [541] Male
                            Female Male
                                                    Male
                                                                 Male
                                                                             Male
                                                                                         Male
                                                                                                     Male
                                                                                                                 Female Fema
le
      [551] Female Fem
##
le
## [561] Female Male
                                                                            Female Female Male
                                        Male
                                                    Male
                                                                 Male
                                                                                                                 Female Fema
le
##
      [571] Male
                             Male
                                        Female Male
                                                                 Female Female Male
                                                                                                     Female Female Male
                                                                Female Male Female Female Female
##
     [581] Male
                            Female Male
                                                    Male
le
##
      [591] Male
                             Female Female Male
                                                                             Male
                                                                                         Male
                                                                                                    Male
                                                                                                                 Male
                                                                                                                             Male
##
      [601] Female Female Male
                                                     Female Female Male
                                                                                         Male
                                                                                                     Female Male
                                                                                                                             Male
      [611] Male
                            Female Male
                                                     Female Female Male
                                                                                         Male
                                                                                                     Female Female Male
##
      [621] Male
                            Male
                                        Female Male Female Female Female Male
le
       [631] Female Female Male
                                                    Male
                                                                Female Female Male
                                                                                                     Male
                                                                                                                 Female Male
                                                     Female Female Male
##
      [641] Female Male
                                        Male
                                                                                         Male
                                                                                                     Female Female Fema
le
##
       [651] Male
                             Male
                                        Male
                                                     Female Male
                                                                             Female Female Male
                                                                                                                             Male
      [661] Female Female Female Male
                                                                Female Female Male
##
                                                                                                                             Male
      [671] Female Female Female Male
                                                                            Female Female Female Fema
##
le
##
     [681] Female Female Male
                                                     Female Female Male Male
                                                                                                                 Female Male
##
                                                    Female Male Female Female Female Female
      [691] Male Female Male
le
##
      [701] Female Female Male
                                                    Male
                                                                 Female Female Male Female Male
                                                                                                                             Fema
le
##
      [711] Female Female Female Female Male
                                                                                                     Female Female Male
                                                                                         Male
      [721] Female Female Female Female Male
                                                                                         Male
                                                                                                    Male
                                                                                                                 Female Male
      [731] Female Female Female Female Female Female Female Male
##
##
      [741] Male
                             Female Male
                                                    Male
                                                                 Male
                                                                             Male
                                                                                         Female Female Male
      [751] Female Female Female Male
                                                                             Female Male
                                                                                                     Female Male
                                                                                                                             Male
##
      [761] Female Male
                                        Male
                                                    Male
                                                                 Female Male
                                                                                         Female Male
                                                                                                                 Male
                                                                                                                             Fema
le
##
      [771] Female Male
                                        Female Female Female Male
                                                                                                                 Female Fema
le
                                                                                                                 Female Male
##
       [781] Male
                             Female Female Male
                                                                 Male
                                                                             Male
                                                                                         Male
                                                                                                     Male
                                                                                                                 Female Male
##
       [791] Female Female Male
                                                    Male
                                                                 Male
                                                                             Female Male
                                                                                                     Male
##
      [801] Male
                             Female Female Female Female Male
                                                                                                     Male
                                                                                                                 Male
                                                                                                                             Male
##
      [811] Male
                            Male Female Male Female Male
                                                                                         Male
                                                                                                     Male
                                                                                                                 Male
                                                                                                                             Fema
le
##
       [821] Female Male
                                        Female Male Female Female Female Male
                                                                                                                             Fema
le
```

```
[831] Female Female Female Male
                                    Male
                                           Male
                                                  Male
                                                         Male
                                                                Female Fema
le
##
   [841] Female Male
                       Female Female Male
                                           Female Female Male
                                                                       Fema
le
##
    [851] Female Male
                       Male
                              Female Male
                                           Male
                                                  Female Male
                                                                Male
                                                                       Male
##
                              Male
                                    Male
                                           Female Male
                                                         Female Male
    [861] Male
                Female Male
                                                                       Fema
le
                                     Female Female Male
                                                                Male
##
    [871] Female Male
                       Male
                              Male
                                                         Male
                                                                       Male
    [881] Female Female Female Female Female Male
##
                                                         Male
                                                                Female Fema
le
                                                  Male
##
   [891] Male
                Male
                       Male
                              Female Female Male
                                                         Male
                                                                Female Male
   [901] Male
                                     Female Male
                                                  Female Female Male
##
                Female Male
                              Male
                                                                       Fema
le
##
   [911] Female Female Female Female Female Male
                                                         Male
                                                                Female Fema
le
                       Female Female Female Male
##
   [921] Female Male
                                                         Female Female Fema
le
                                           Female Female Female Female
##
   [931] Female Male
                       Female Female Male
le
##
   [941] Male
                Female Male
                              Female Female Male
                                                  Male
                                                         Female Female Fema
le
   [951] Male
                Male
                       Male
                              Female Female Male
                                                         Male
                                                                Female Fema
##
le
##
    [961] Female Male
                       Female Male
                                    Male
                                           Female Female Male
                                                                Male
                                                                       Male
                Male
                       Female Female Female Female Male
   [971] Male
                                                                Female Male
##
   [981] Female Female Male
                              Female Female Female Male
                                                                Male
                                                                       Fema
le
## [991] Male
                Male
                       Male
                              Female Female Male
                                                         Female Male
                                                                       Male
## [1001] Female Female Male
                              Female Male
                                           Female Male
                                                         Female Female Male
## Levels: Female Male
confusionMatrix(factor(pdata,levels = 1:2), factor(demo trans$Gender,levels =
1:2))
## Confusion Matrix and Statistics
##
##
            Reference
## Prediction 1 2
##
           100
           2 0 0
##
##
##
                 Accuracy : NaN
##
                   95% CI : (NA, NA)
##
      No Information Rate: NA
      P-Value [Acc > NIR] : NA
##
##
##
                    Kappa: NaN
##
##
   Mcnemar's Test P-Value : NA
##
```

```
##
                              NA
               Sensitivity:
               Specificity:
##
                              NA
##
            Pos Pred Value :
                              NA
##
            Neg Pred Value :
                              NA
##
                Prevalence : NaN
##
            Detection Rate : NaN
      Detection Prevalence : NaN
##
##
         Balanced Accuracy: NA
##
          'Positive' Class : 1
##
##
```

@Conclusion: .. This data set is a numerical data set so, we cannot perform logistic regression on this data. Logistic Regression can be performed on classified data, still we tried performing logistic regression on our Gender data, the confusion matrix is coming 0 and the AIB is coming very high which is not significant.