

# 810 Team Project

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2/24/2021

```
library(data.table)
library(ggplot2)
library(ggthemes)
library(glmnet)
```

```
## Loading required package: Matrix
```

```
## Loaded glmnet 4.1
```

```
theme_set(theme_bw())
library(MASS)
library(rpart)
library(rpart.plot)
library(randomForest)
```

```
## randomForest 4.6-14
```

```
## Type rfNews() to see new features/changes/bug fixes.
```

```
##
```

```
## Attaching package: 'randomForest'
```

```
## The following object is masked from 'package:ggplot2':
```

```
##
```

```
##      margin
```

```
library(caret)
```

```
## Loading required package: lattice
```

```
library(e1071)
library(tree)
library(ISLR)
library(party)
```

```
## Loading required package: grid
```

```
## Loading required package: mvtnorm
```

```

## Loading required package: modeltools

## Loading required package: stats4

## Loading required package: strucchange

## Loading required package: zoo

##
## Attaching package: 'zoo'

## The following objects are masked from 'package:base':
##
##      as.Date, as.Date.numeric

## Loading required package: sandwich

library(tidymodels)

## Registered S3 method overwritten by 'cli':
##   method      from
##   print.tree tree

## -- Attaching packages ----- tidymodels 0.1.2 --

## v broom      0.7.5      v recipes      0.1.15
## v dials      0.0.9      v rsample      0.0.9
## v dplyr      1.0.4      v tibble      3.0.6
## v infer      0.5.4      v tidyr       1.1.2
## v modeldata  0.1.0      v tune        0.1.2
## v parsnip    0.1.5      v workflows   0.2.1
## v purrr      0.3.4      v yardstick   0.0.7

## -- Conflicts ----- tidymodels_conflicts() --
## x dplyr::between()      masks data.table::between()
## x dplyr::combine()      masks randomForest::combine()
## x purrr::discard()      masks scales::discard()
## x tidyr::expand()       masks Matrix::expand()
## x dplyr::filter()       masks stats::filter()
## x dplyr::first()        masks data.table::first()
## x parsnip::fit()        masks party::fit(), modeltools::fit()
## x dplyr::lag()          masks stats::lag()
## x dplyr::last()         masks data.table::last()
## x purrr::lift()         masks caret::lift()
## x randomForest::margin() masks ggplot2::margin()
## x tidyr::pack()         masks Matrix::pack()
## x tune::parameters()    masks dials::parameters(), modeltools::parameters()
## x rsample::permutations() masks e1071::permutations()
## x yardstick::precision() masks caret::precision()
## x dials::prune()        masks rpart::prune()
## x yardstick::recall()   masks caret::recall()

```

```
## x dplyr::select()           masks MASS::select()
## x yardstick::sensitivity() masks caret::sensitivity()
## x yardstick::specificity() masks caret::specificity()
## x recipes::step()          masks stats::step()
## x purrr::transpose()       masks data.table::transpose()
## x tune::tune()             masks e1071::tune()
## x tidyr::unpack()          masks Matrix::unpack()
## x recipes::update()        masks stats4::update(), Matrix::update(), stats::update()
```

```
library(caTools)
```

```
data <- fread("C:/Users/boli0/Downloads/train.csv")
str(data)
```

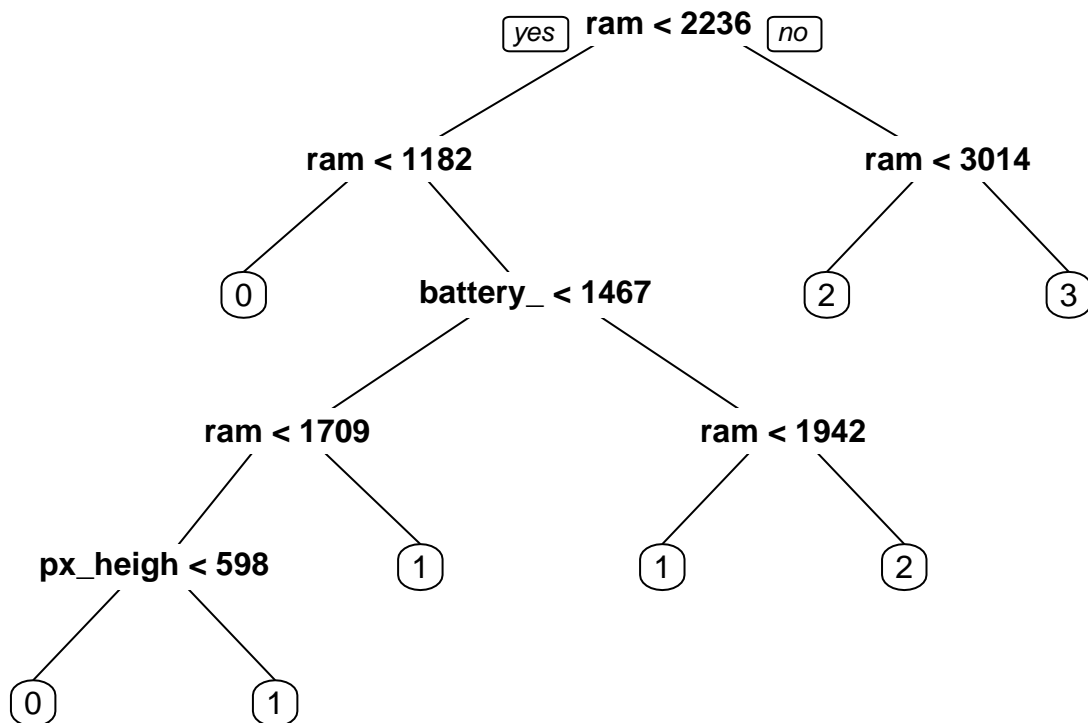
```
## Classes 'data.table' and 'data.frame':  2000 obs. of  21 variables:
## $ battery_power: int  842 1021 563 615 1821 1859 1821 1954 1445 509 ...
## $ blue          : int  0 1 1 1 1 0 0 0 1 1 ...
## $ clock_speed   : num  2.2 0.5 0.5 2.5 1.2 0.5 1.7 0.5 0.5 0.6 ...
## $ dual_sim      : int  0 1 1 0 0 1 0 1 0 1 ...
## $ fc            : int  1 0 2 0 13 3 4 0 0 2 ...
## $ four_g        : int  0 1 1 0 1 0 1 0 0 1 ...
## $ int_memory    : int  7 53 41 10 44 22 10 24 53 9 ...
## $ m_dep         : num  0.6 0.7 0.9 0.8 0.6 0.7 0.8 0.8 0.7 0.1 ...
## $ mobile_wt     : int  188 136 145 131 141 164 139 187 174 93 ...
## $ n_cores       : int  2 3 5 6 2 1 8 4 7 5 ...
## $ pc            : int  2 6 6 9 14 7 10 0 14 15 ...
## $ px_height     : int  20 905 1263 1216 1208 1004 381 512 386 1137 ...
## $ px_width      : int  756 1988 1716 1786 1212 1654 1018 1149 836 1224 ...
## $ ram           : int  2549 2631 2603 2769 1411 1067 3220 700 1099 513 ...
## $ sc_h          : int  9 17 11 16 8 17 13 16 17 19 ...
## $ sc_w          : int  7 3 2 8 2 1 8 3 1 10 ...
## $ talk_time     : int  19 7 9 11 15 10 18 5 20 12 ...
## $ three_g       : int  0 1 1 1 1 1 1 1 1 1 ...
## $ touch_screen  : int  0 1 1 0 1 0 0 1 0 0 ...
## $ wifi          : int  1 0 0 0 0 0 1 1 0 0 ...
## $ price_range   : int  1 2 2 2 1 1 3 0 0 0 ...
## - attr(*, ".internal.selfref")=<externalptr>
```

```
data$price_range <- as.factor(data$price_range)
```

```
set.seed(810)
split = sample.split(data$price_range, SplitRatio = 0.7)
data_train = subset(data, split == TRUE)
data_test = subset(data, split == FALSE)
y_test <- data_test[,price_range]
```

```
# 1-1. Build single classification decision tree
```

```
fit = rpart(price_range ~ ., method = "class", data = data_train, control = rpart.control(minsplit = 1) ,
prp(fit)
```



```
print(fit)
```

```
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1050 0 (0.250000000 0.250000000 0.250000000 0.250000000)
## 2) ram< 2235.5 727 377 0 (0.481430536 0.416781293 0.101788171 0.000000000)
## 4) ram< 1182 337 41 0 (0.878338279 0.121661721 0.000000000 0.000000000) *
## 5) ram>=1182 390 128 1 (0.138461538 0.671794872 0.189743590 0.000000000)
## 10) battery_power< 1466.5 249 68 1 (0.216867470 0.726907631 0.056224900 0.000000000)
## 20) ram< 1708.5 123 53 1 (0.430894309 0.569105691 0.000000000 0.000000000)
## 40) px_height< 598 61 17 0 (0.721311475 0.278688525 0.000000000 0.000000000) *
## 41) px_height>=598 62 9 1 (0.145161290 0.854838710 0.000000000 0.000000000) *
## 21) ram>=1708.5 126 15 1 (0.007936508 0.880952381 0.111111111 0.000000000) *
## 11) battery_power>=1466.5 141 60 1 (0.000000000 0.574468085 0.425531915 0.000000000)
## 22) ram< 1941.5 110 30 1 (0.000000000 0.727272727 0.272727273 0.000000000) *
## 23) ram>=1941.5 31 1 2 (0.000000000 0.032258065 0.967741935 0.000000000) *
## 3) ram>=2235.5 673 323 3 (0.000000000 0.069836553 0.410104012 0.520059435)
## 6) ram< 3013.5 318 98 2 (0.000000000 0.147798742 0.691823899 0.160377358) *
## 7) ram>=3013.5 355 56 3 (0.000000000 0.000000000 0.157746479 0.842253521) *
```

```
summary(fit)
```

```

## Call:
## rpart(formula = price_range ~ ., data = data_train, method = "class",
##       parms = list(split = "information"), control = rpart.control(minsplit = 1))
## n= 1400
##
##          CP nsplit rel error   xerror   xstd
## 1 0.3333333      0 1.0000000 1.0495238 0.01458632
## 2 0.1980952      1 0.6666667 0.6676190 0.01781740
## 3 0.1609523      2 0.4685714 0.4771429 0.01708226
## 4 0.0138095      3 0.3076190 0.3257143 0.01531097
## 5 0.0128571      5 0.2800000 0.3038095 0.01494703
## 6 0.0100000      7 0.2542857 0.2752381 0.01442290
##
## Variable importance
##          ram battery_power   px_height   px_width   sc_w
##          78           7           5           2           2
##   int_memory   mobile_wt           fc           pc   dual_sim
##          2           1           1           1           1
##
## Node number 1: 1400 observations,   complexity param=0.3333333
##   predicted class=0   expected loss=0.75   P(node) =1
##   class counts:   350   350   350   350
##   probabilities: 0.250 0.250 0.250 0.250
##   left son=2 (727 obs) right son=3 (673 obs)
##   Primary splits:
##     ram < 2235.5 to the left,   improve=650.760600, (0 missing)
##     battery_power < 1332.5 to the left,   improve= 37.065280, (0 missing)
##     px_width < 1630.5 to the left,   improve= 25.439830, (0 missing)
##     px_height < 1212 to the left,   improve= 18.147350, (0 missing)
##     mobile_wt < 104.5 to the left,   improve= 9.566532, (0 missing)
##   Surrogate splits:
##     px_height < 280.5 to the right,   agree=0.549, adj=0.062, (0 split)
##     battery_power < 1721.5 to the left,   agree=0.534, adj=0.031, (0 split)
##     sc_w < 10.5 to the left,   agree=0.534, adj=0.031, (0 split)
##     fc < 13.5 to the left,   agree=0.528, adj=0.018, (0 split)
##     int_memory < 42.5 to the left,   agree=0.528, adj=0.018, (0 split)
##
## Node number 2: 727 observations,   complexity param=0.1980952
##   predicted class=0   expected loss=0.5185695   P(node) =0.5192857
##   class counts:   350   303   74   0
##   probabilities: 0.481 0.417 0.102 0.000
##   left son=4 (337 obs) right son=5 (390 obs)
##   Primary splits:
##     ram < 1182 to the left,   improve=231.36100, (0 missing)
##     battery_power < 1455 to the left,   improve= 47.93258, (0 missing)
##     px_height < 639.5 to the left,   improve= 33.61836, (0 missing)
##     px_width < 1144.5 to the left,   improve= 29.33494, (0 missing)
##     mobile_wt < 186.5 to the left,   improve= 4.38501, (0 missing)
##   Surrogate splits:
##     px_width < 684.5 to the left,   agree=0.567, adj=0.065, (0 split)
##     pc < 1.5 to the left,   agree=0.557, adj=0.045, (0 split)
##     mobile_wt < 100.5 to the left,   agree=0.556, adj=0.042, (0 split)
##     px_height < 286.5 to the left,   agree=0.554, adj=0.039, (0 split)
##     int_memory < 6.5 to the left,   agree=0.550, adj=0.030, (0 split)

```

```

##
## Node number 3: 673 observations,      complexity param=0.1609524
## predicted class=3 expected loss=0.4799406 P(node) =0.4807143
## class counts:      0    47   276   350
## probabilities: 0.000 0.070 0.410 0.520
## left son=6 (318 obs) right son=7 (355 obs)
## Primary splits:
## ram < 3013.5 to the left, improve=180.93670, (0 missing)
## battery_power < 1352.5 to the left, improve= 46.75949, (0 missing)
## px_width < 1283 to the left, improve= 31.47901, (0 missing)
## px_height < 955 to the left, improve= 24.86811, (0 missing)
## int_memory < 10.5 to the left, improve= 7.02468, (0 missing)
## Surrogate splits:
## battery_power < 589 to the left, agree=0.548, adj=0.044, (0 split)
## sc_h < 18.5 to the right, agree=0.544, adj=0.035, (0 split)
## int_memory < 4.5 to the left, agree=0.541, adj=0.028, (0 split)
## px_width < 1074 to the left, agree=0.541, adj=0.028, (0 split)
## dual_sim < 0.5 to the left, agree=0.536, adj=0.019, (0 split)
##
## Node number 4: 337 observations
## predicted class=0 expected loss=0.1216617 P(node) =0.2407143
## class counts: 296 41 0 0
## probabilities: 0.878 0.122 0.000 0.000
##
## Node number 5: 390 observations,      complexity param=0.01380952
## predicted class=1 expected loss=0.3282051 P(node) =0.2785714
## class counts: 54 262 74 0
## probabilities: 0.138 0.672 0.190 0.000
## left son=10 (249 obs) right son=11 (141 obs)
## Primary splits:
## battery_power < 1466.5 to the left, improve=57.255060, (0 missing)
## ram < 1508.5 to the left, improve=47.743900, (0 missing)
## px_height < 674.5 to the left, improve=31.980610, (0 missing)
## px_width < 1113.5 to the left, improve=29.405230, (0 missing)
## n_cores < 4.5 to the left, improve= 3.540274, (0 missing)
## Surrogate splits:
## px_height < 1639.5 to the left, agree=0.649, adj=0.028, (0 split)
## talk_time < 3.5 to the right, agree=0.646, adj=0.021, (0 split)
## px_width < 530.5 to the right, agree=0.644, adj=0.014, (0 split)
## ram < 1203.5 to the right, agree=0.641, adj=0.007, (0 split)
##
## Node number 6: 318 observations
## predicted class=2 expected loss=0.3081761 P(node) =0.2271429
## class counts: 0 47 220 51
## probabilities: 0.000 0.148 0.692 0.160
##
## Node number 7: 355 observations
## predicted class=3 expected loss=0.1577465 P(node) =0.2535714
## class counts: 0 0 56 299
## probabilities: 0.000 0.000 0.158 0.842
##
## Node number 10: 249 observations,      complexity param=0.01285714
## predicted class=1 expected loss=0.2730924 P(node) =0.1778571
## class counts: 54 181 14 0

```

```

##      probabilities: 0.217 0.727 0.056 0.000
##      left son=20 (123 obs) right son=21 (126 obs)
##      Primary splits:
##          ram          < 1708.5 to the left,  improve=46.820460, (0 missing)
##          px_width     < 1479.5 to the left,  improve=24.350920, (0 missing)
##          px_height    < 736      to the left,  improve=20.883800, (0 missing)
##          battery_power < 1027.5 to the left,  improve=15.672300, (0 missing)
##          sc_h         < 11.5    to the right, improve= 6.621616, (0 missing)
##      Surrogate splits:
##          sc_w         < 4.5      to the left,  agree=0.574, adj=0.138, (0 split)
##          px_width     < 1779    to the right, agree=0.570, adj=0.130, (0 split)
##          battery_power < 558     to the left,  agree=0.558, adj=0.106, (0 split)
##          blue         < 0.5      to the left,  agree=0.554, adj=0.098, (0 split)
##          mobile_wt    < 161.5   to the right, agree=0.554, adj=0.098, (0 split)
##
##      Node number 11: 141 observations,      complexity param=0.01380952
##      predicted class=1 expected loss=0.4255319 P(node) =0.1007143
##      class counts:      0      81      60      0
##      probabilities: 0.000 0.574 0.426 0.000
##      left son=22 (110 obs) right son=23 (31 obs)
##      Primary splits:
##          ram          < 1941.5 to the left,  improve=27.291620, (0 missing)
##          px_height    < 696      to the left,  improve=13.931310, (0 missing)
##          px_width     < 1240    to the left,  improve=12.786660, (0 missing)
##          battery_power < 1990    to the left,  improve= 2.607385, (0 missing)
##          int_memory   < 47.5    to the left,  improve= 2.351360, (0 missing)
##
##      Node number 20: 123 observations,      complexity param=0.01285714
##      predicted class=1 expected loss=0.4308943 P(node) =0.08785714
##      class counts:      53      70      0      0
##      probabilities: 0.431 0.569 0.000 0.000
##      left son=40 (61 obs) right son=41 (62 obs)
##      Primary splits:
##          px_height    < 598      to the left,  improve=22.302360, (0 missing)
##          px_width     < 994.5    to the left,  improve=19.697840, (0 missing)
##          battery_power < 1027.5 to the left,  improve=19.114670, (0 missing)
##          ram          < 1515.5 to the left,  improve= 5.609121, (0 missing)
##          pc           < 3.5      to the left,  improve= 4.698548, (0 missing)
##      Surrogate splits:
##          px_width     < 1085    to the left,  agree=0.667, adj=0.328, (0 split)
##          battery_power < 919     to the left,  agree=0.626, adj=0.246, (0 split)
##          clock_speed  < 1.65    to the right, agree=0.610, adj=0.213, (0 split)
##          dual_sim     < 0.5      to the right, agree=0.593, adj=0.180, (0 split)
##          four_g       < 0.5      to the right, agree=0.585, adj=0.164, (0 split)
##
##      Node number 21: 126 observations
##      predicted class=1 expected loss=0.1190476 P(node) =0.09
##      class counts:      1     111     14      0
##      probabilities: 0.008 0.881 0.111 0.000
##
##      Node number 22: 110 observations
##      predicted class=1 expected loss=0.2727273 P(node) =0.07857143
##      class counts:      0      80      30      0
##      probabilities: 0.000 0.727 0.273 0.000

```

```
##
## Node number 23: 31 observations
##   predicted class=2   expected loss=0.03225806   P(node) =0.02214286
##   class counts:      0      1      30      0
##   probabilities: 0.000 0.032 0.968 0.000
##
## Node number 40: 61 observations
##   predicted class=0   expected loss=0.2786885   P(node) =0.04357143
##   class counts:      44      17      0      0
##   probabilities: 0.721 0.279 0.000 0.000
##
## Node number 41: 62 observations
##   predicted class=1   expected loss=0.1451613   P(node) =0.04428571
##   class counts:       9      53      0      0
##   probabilities: 0.145 0.855 0.000 0.000
```

```
# 1-2. Single classification tree's confusion matrix and accuracy score
# Accuracy score is 0.775.
```

```
fit.pred = predict(fit, newdata = data_test, type = "class")

cm <- table(observed = y_test, predicted = fit.pred)

cm
```

```
##           predicted
## observed    0    1    2    3
##           0 139  11    0    0
##           1  33  99  18    0
##           2   0  24  94  32
##           3   0   0  17 133
```

```
test_accuary <- mean(fit.pred == y_test)

test_accuary
```

```
## [1] 0.775
```

```
# 2-1. Build decision tree while cp = 0.01000000
```

```
# Accuracy score is 0.775.
```

```
fit_cp = rpart(price_range ~ ., method = "class", data = data_train, control = rpart.control(minsplit = 1,
```

```
fit_cp.pred = predict(fit_cp, newdata = data_test, type = "class")
```

```
test_accuary_cp <- mean(fit_cp.pred == y_test)
```

```
test_accuary_cp
```

```
## [1] 0.775
```

```
# 3-1. Bagging and random forest
```

```
set.seed(810)
```



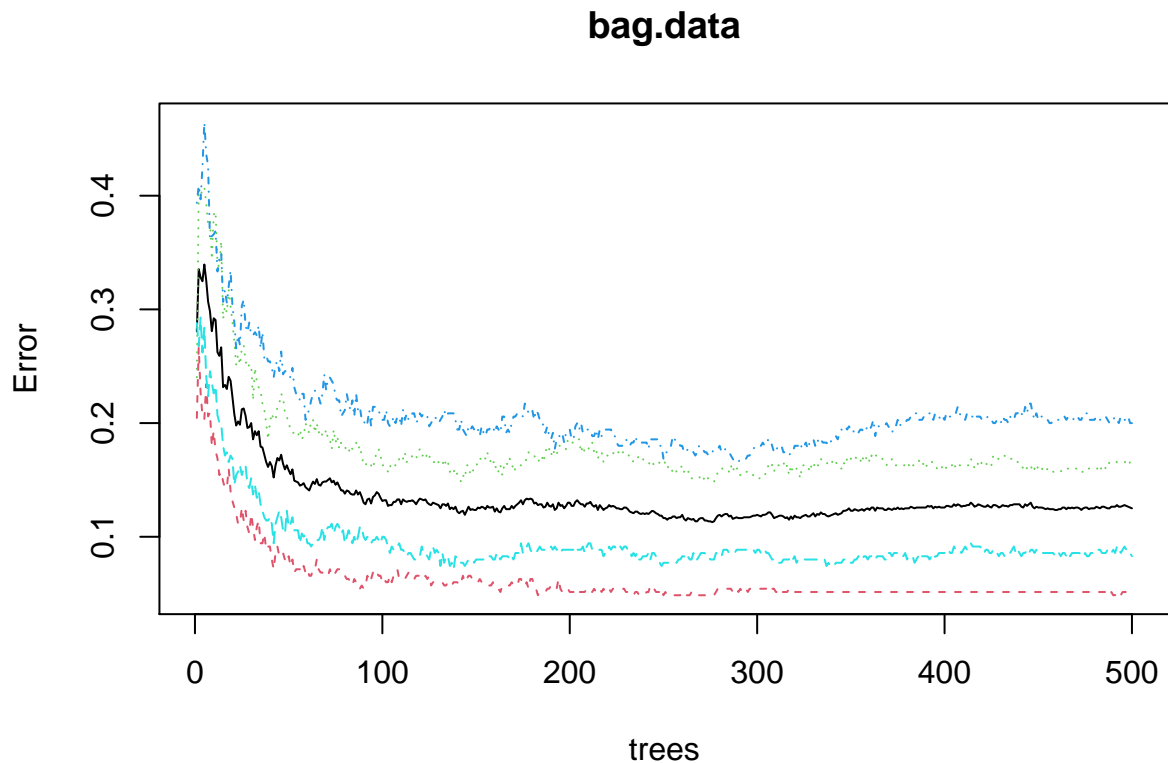
```
bag.data <- randomForest(price_range ~., data = data_train, mtry = 20, importance = TRUE, proximity = TRUE)
print(bag.data)
```

```
##
## Call:
## randomForest(formula = price_range ~ ., data = data_train, mtry = 20, importance = TRUE, proximity = TRUE)
##           Type of random forest: classification
##           Number of trees: 500
## No. of variables tried at each split: 4
##
##           OOB estimate of error rate: 12.5%
## Confusion matrix:
##      0   1   2   3 class.error
## 0 332  18   0   0 0.05142857
## 1   31 292  27   0 0.16571429
## 2    0  38 280  32 0.20000000
## 3    0   0  29 321 0.08285714
```

```
summary(bag.data)
```

```
##              Length Class Mode
## call              6 -none- call
## type              1 -none- character
## predicted         1400 factor numeric
## err.rate          2500 -none- numeric
## confusion          20 -none- numeric
## votes             5600 matrix numeric
## oob.times          1400 -none- numeric
## classes            4 -none- character
## importance          120 -none- numeric
## importanceSD        100 -none- numeric
## localImportance      0 -none- NULL
## proximity          1960000 -none- numeric
## ntree              1 -none- numeric
## mtry              1 -none- numeric
## forest            14 -none- list
## y                 1400 factor numeric
## test              0 -none- NULL
## inbag             0 -none- NULL
## terms             3 terms call
```

```
plot(bag.data)
```



```
bag.pred = predict(bag.data, newdata = data_test, type = "class")
test_accuary_bag <- mean(bag.pred == y_test)
test_accuary_bag
```

```
## [1] 0.8766667
```

```
# 3-2. Random Forest using sqrt(p)
set.seed(810)
```

```
rFM.data <- randomForest(price_range ~., data = data_train, mytry = sqrt(20), importance = TRUE, proxim
print(rFM.data)
```

```
##
## Call:
## randomForest(formula = price_range ~ ., data = data_train, mytry = sqrt(20), importance = TRUE
##           Type of random forest: classification
##           Number of trees: 500
## No. of variables tried at each split: 4
##
##           OOB estimate of  error rate: 12.5%
## Confusion matrix:
```

```
##      0      1      2      3 class.error
## 0 332  18      0      0  0.05142857
## 1  31 292  27      0  0.16571429
## 2   0  38 280  32  0.20000000
## 3   0   0  29 321  0.08285714
```

```
rFM.pred = predict(rFM.data, newdata = data_test, type = "class")

test_accuary_rFM <- mean(rFM.pred == y_test)

test_accuary_rFM
```

```
## [1] 0.8766667
```

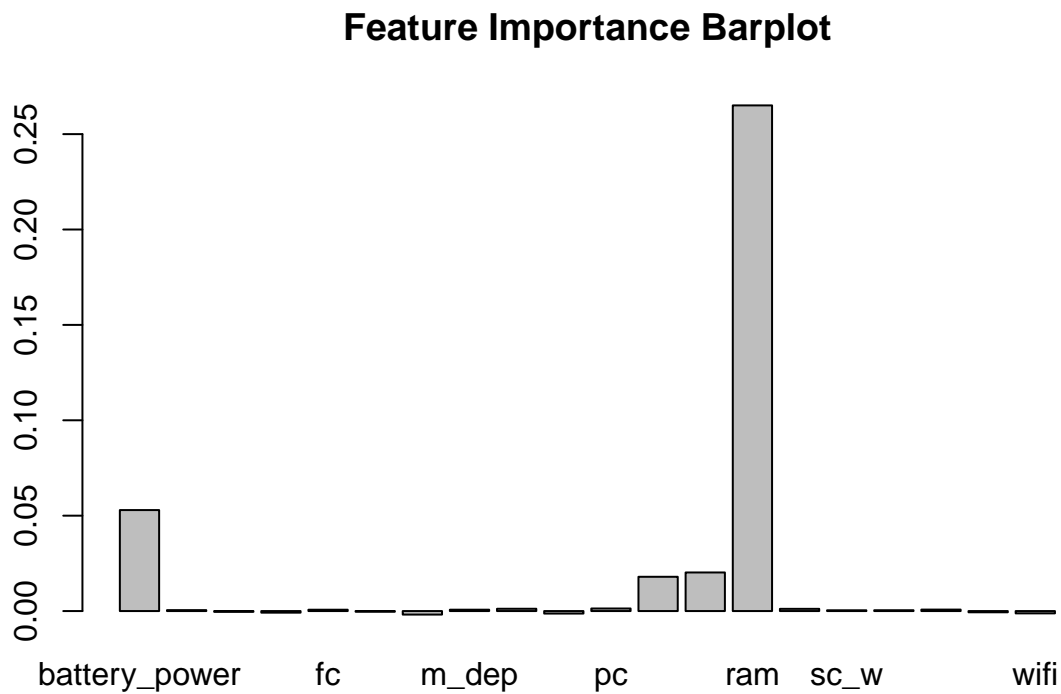
```
# 3-3. Random Forest Feature Importance Chart
importance(rFM.data)
```

```
##              0              1              2              3
## battery_power 20.315411783 27.2379966 26.4401697 21.5151653
## blue          -0.773113710  0.8468215 -0.7073670  1.4176344
## clock_speed   0.533121152 -0.3671219 -0.7728101  0.4665967
## dual_sim      0.595019450 -1.5371078 -0.7097531  0.1566308
## fc            2.071522629  0.7702305  0.2715627  1.3583059
## four_g        0.003579781 -0.7306292 -0.8808096  0.4838791
## int_memory     0.973175286 -1.7237171 -0.2883716  2.0023658
## m_dep         -0.336016603  0.7072096  2.5705845  0.9633760
## mobile_wt      2.920799362  1.0412852  2.8427143  3.3301351
## n_cores        0.472187817 -1.4146974  0.8289692 -0.8697330
## pc             0.502259046  1.3638927  1.0315031  2.0575466
## px_height     13.119968698 11.7476663 11.5917891  4.8043727
## px_width      13.093223962 12.5467641 12.1803913 14.2371085
## ram           102.087642597 66.7879289 66.1242760 88.9441201
## sc_h          -0.927416275  1.1550124  1.0891801  4.7737409
## sc_w           1.803773936  0.4275465  1.0901982  0.2938217
## talk_time      1.171421641  0.3951997 -1.7808425 -0.9969937
## three_g        0.596874983  1.9031053 -0.7952348 -0.7090051
## touch_screen   1.512810378 -1.2257074 -0.6652268  0.4574472
## wifi          -0.399894416 -2.3434997 -0.9525469  0.1612621
##              MeanDecreaseAccuracy MeanDecreaseGini
## battery_power 39.7358388      80.225757
## blue          0.4227329       7.758244
## clock_speed   -0.2034133      30.559829
## dual_sim      -0.8404799       7.088138
## fc            2.0314417      25.895901
## four_g        -0.6001848       6.831351
## int_memory     0.3850182      37.835172
## m_dep         2.0599851      26.501218
## mobile_wt      5.0122442      42.575186
## n_cores       -0.4607087      23.864487
## pc            2.5056751      30.772854
## px_height     21.1807316      58.704324
## px_width      24.4945606      61.587355
## ram           97.3703194     497.722544
```

```
## sc_h          3.1999096      29.263808
## sc_w          1.7398295      29.691844
## talk_time     -0.6067494      32.351650
## three_g       0.3531520       6.014255
## touch_screen  -0.1479079       6.822819
## wifi          -2.0292120       7.140585
```

```
# 3-4. Random Forest Feature Importance Barplot
```

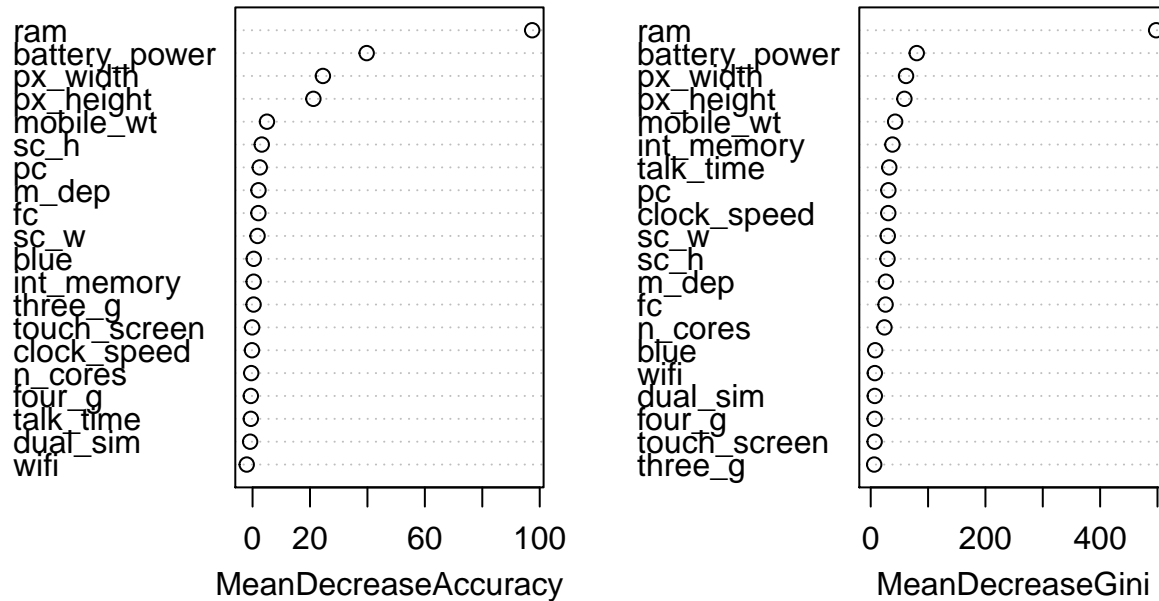
```
barplot(rFM.data$importance[,2], main = "Feature Importance Barplot")
```



```
# 3-5. Random Forest Feature Importance ScatterPlot
```

```
varImpPlot(rFM.data, sort = TRUE, n.var = nrow(rFM.data$importance), main = "Feature Importance ScatterPlot")
```

## Feature Importance ScatterPlot



```
# 4-1. Classification trees cross-validation
fit = rpart(price_range ~ .,method = "class", data = data_train,control = rpart.control(minsplit = 1) ,

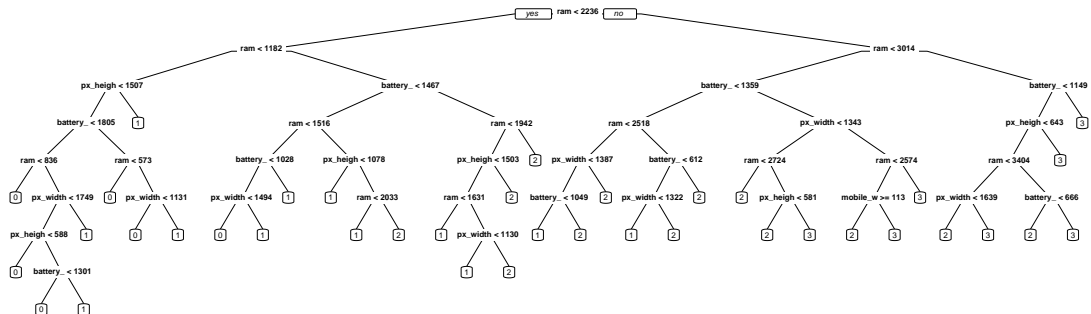
tr.control = trainControl(method = "cv", number = 3)
cp.grid = expand.grid(.cp = (0:10)*0.01)
tr = train(price_range ~., data = data_train, method = "rpart", trControl = tr.control, tuneGrid = cp.g
tr

## CART
##
## 1400 samples
## 20 predictor
## 4 classes: '0', '1', '2', '3'
##
## No pre-processing
## Resampling: Cross-Validated (3 fold)
## Summary of sample sizes: 935, 932, 933
## Resampling results across tuning parameters:
##
##   cp    Accuracy  Kappa
## 0.00  0.8193017  0.7590748
## 0.01  0.7957578  0.7276725
## 0.02  0.7521253  0.6695256
## 0.03  0.7457150  0.6609786
## 0.04  0.7457150  0.6609786
## 0.05  0.7457150  0.6609786
```

```
## 0.06 0.7457150 0.6609786
## 0.07 0.7457150 0.6609786
## 0.08 0.7457150 0.6609786
## 0.09 0.7457150 0.6609786
## 0.10 0.7457150 0.6609786
##
## Accuracy was used to select the optimal model using the largest value.
## The final value used for the model was cp = 0.
```

#### # 4-2. Plot best tree

```
best.tree = tr$finalModel
prp(best.tree)
```



#### # 4-3. Best tree accuracy score is

```
best.tree.pred = predict(best.tree, newdata = data_test)
test_accuary_cv <- mean(best.tree.pred == y_test)

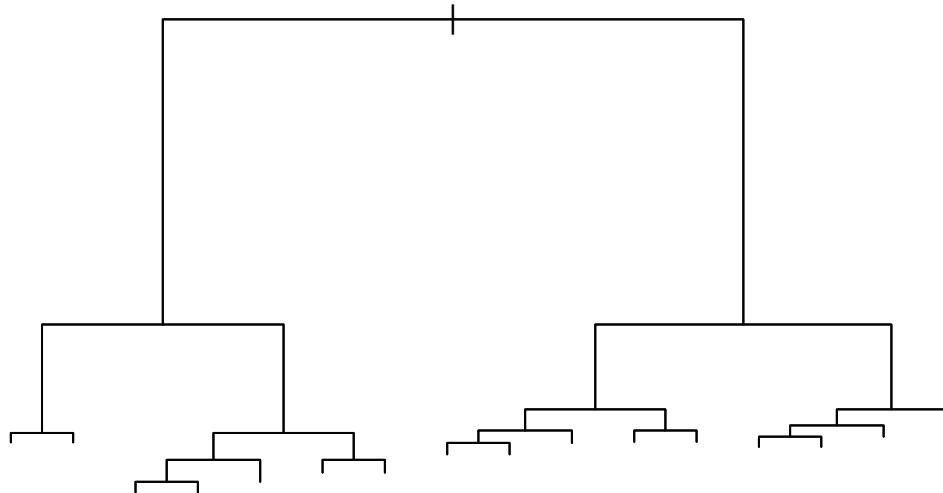
test_accuary_cv
```

```
## [1] 0.1408333
```

#### # 5. Classification tree, textbook method

```
tree.data = tree(price_range ~., data = data_train)

plot(tree.data)
```



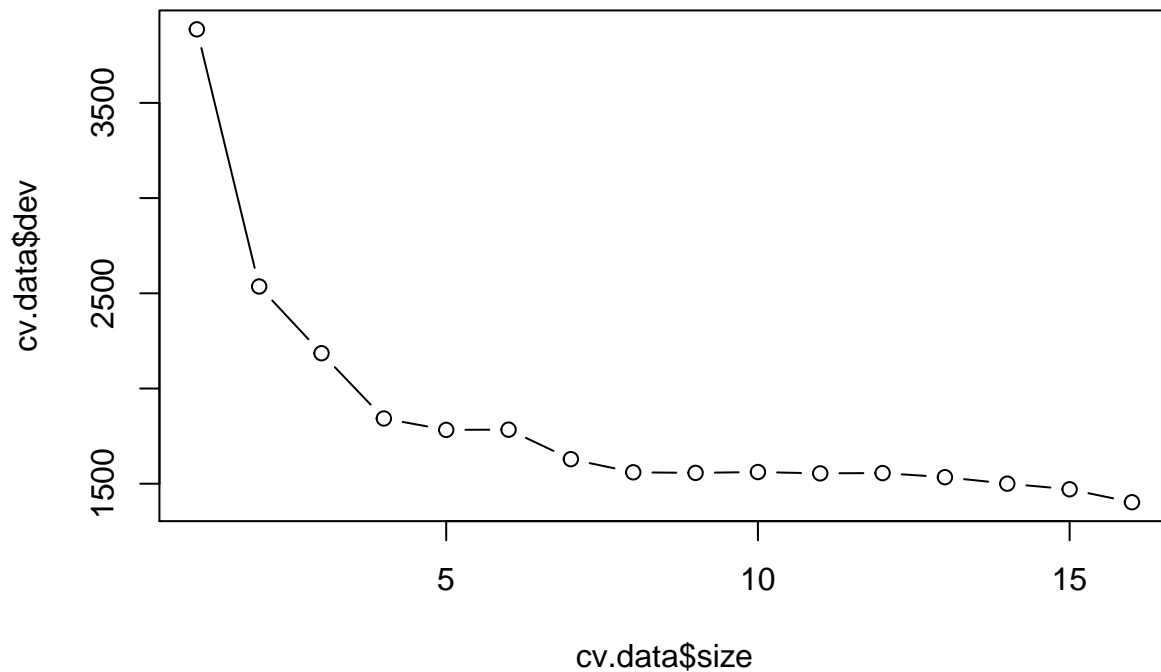
```
tree.pred = predict(tree.data, data_test, type = "class")
table(tree.pred, data_test$price_range)
```

```
##
## tree.pred  0   1   2   3
##           0 139  33   0   0
##           1  11 111  41   0
##           2   0   6  76  11
##           3   0   0  33 139
```

```
set.seed(810)

cv.data = cv.tree(tree.data)

plot(cv.data$size, cv.data$dev, type = "b")
```



```
cv.data
```

```
## $size
## [1] 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
##
## $dev
## [1] 1402.683 1470.788 1500.265 1534.336 1555.897 1554.345 1561.259 1556.844
## [9] 1559.950 1628.919 1783.879 1782.755 1842.543 2185.217 2535.742 3886.251
##
## $k
## [1] -Inf 40.06300 43.23335 44.60473 48.00002 48.44745
## [7] 49.03944 52.90116 54.58324 68.65486 90.19778 93.64093
## [13] 114.51011 361.87340 462.72196 1301.52118
##
## $method
## [1] "deviance"
##
## attr(,"class")
## [1] "prune" "tree.sequence"
```

```
prune.data = prune.misclass(tree.data, best = 16)

tree.pred = predict(prune.data, data_test, type = "class")

test_accuary_prune <- mean(tree.pred == y_test)
```



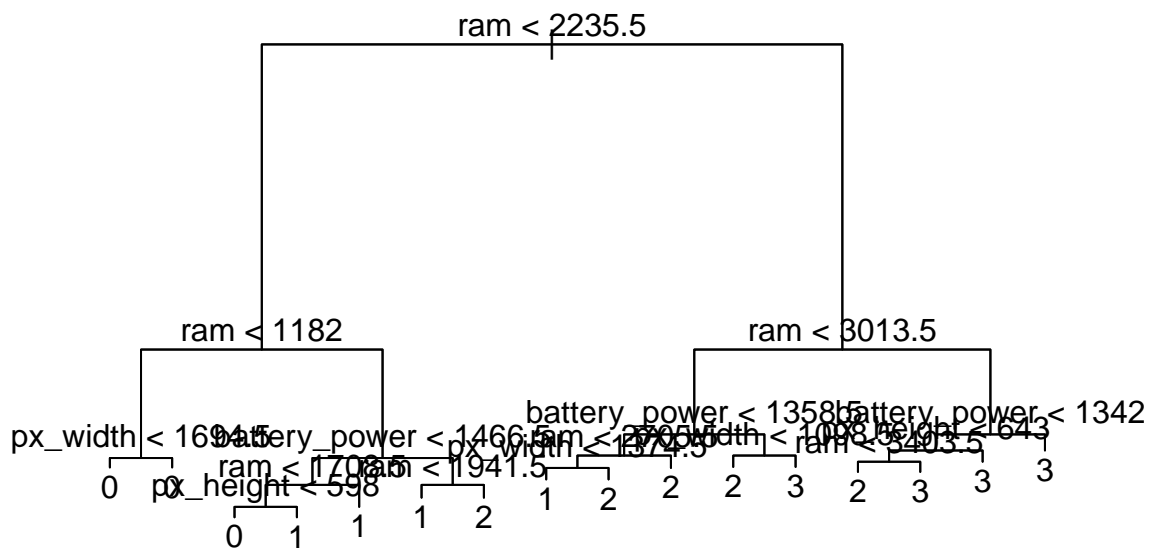
```
test_accuary_prune
```

```
## [1] 0.775
```

```
table(tree.pred, data_test$price_range)
```

```
##  
## tree.pred  0   1   2   3  
##           0 139  33   0   0  
##           1  11 111  41   0  
##           2   0   6  76  11  
##           3   0   0  33 139
```

```
plot(prune.data);text(prune.data, pretty = 0)
```



```
# 6. Boosting and bagging
```

```
library(adabag)
```

```
## Loading required package: foreach
```

```
##
```

```
## Attaching package: 'foreach'
```

```

## The following objects are masked from 'package:purrr':
##
##   accumulate, when

## Loading required package: doParallel

## Loading required package: iterators

## Loading required package: parallel

data.adaboost <- boosting(price_range ~., data = data_train, mfinal = 10, control = rpart.control(maxdepth = 10))
data.adaboost

## $formula
## price_range ~ .
##
## $trees
## $trees[[1]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1028 3 (0.24714286 0.24857143 0.23857143 0.26571429)
##   2) ram< 2069 663 317 0 (0.52187029 0.41478130 0.06334842 0.00000000) *
##   3) ram>=2069 737 365 3 (0.00000000 0.09905020 0.39620081 0.50474898) *
##
## $trees[[2]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1016 2 (0.24071429 0.23571429 0.27428571 0.24928571)
##   2) ram< 2046 646 309 0 (0.52167183 0.39938080 0.07894737 0.00000000) *
##   3) ram>=2046 754 405 3 (0.00000000 0.09549072 0.44164456 0.46286472) *
##
## $trees[[3]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1012 0 (0.277142857 0.233571429 0.262857143 0.226428571)
##   2) ram< 1346 438 80 0 (0.817351598 0.175799087 0.006849315 0.000000000) *
##   3) ram>=1346 962 597 2 (0.031185031 0.259875260 0.379417879 0.329521830) *
##
## $trees[[4]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##

```

```

## 1) root 1400 1028 2 (0.250000000 0.245000000 0.265714286 0.239285714)
## 2) ram< 1302.5 384 62 0 (0.838541667 0.158854167 0.002604167 0.000000000) *
## 3) ram>=1302.5 1016 645 2 (0.027559055 0.277559055 0.365157480 0.329724409) *
##
## $trees[[5]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1030 1 (0.243571429 0.264285714 0.229285714 0.262857143)
## 2) ram< 2366 806 452 1 (0.423076923 0.439205955 0.136476427 0.001240695) *
## 3) ram>=2366 594 227 3 (0.000000000 0.026936027 0.355218855 0.617845118) *
##
## $trees[[6]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1017 3 (0.24214286 0.23357143 0.25071429 0.27357143)
## 2) ram< 2049 643 304 0 (0.52721617 0.40435459 0.06842924 0.000000000) *
## 3) ram>=2049 757 374 3 (0.00000000 0.08850727 0.40554822 0.50594452) *
##
## $trees[[7]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1023 3 (0.245000000 0.25285714 0.23285714 0.26928571)
## 2) ram< 2171.5 694 351 0 (0.49423631 0.43083573 0.07492795 0.000000000) *
## 3) ram>=2171.5 706 329 3 (0.00000000 0.07790368 0.38810198 0.53399433) *
##
## $trees[[8]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1028 0 (0.265714286 0.241428571 0.239285714 0.253571429)
## 2) ram< 1276 389 51 0 (0.868894602 0.125964010 0.005141388 0.000000000) *
## 3) ram>=1276 1011 656 3 (0.033630069 0.285855589 0.329376855 0.351137488) *
##
## $trees[[9]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1028 0 (0.265714286 0.247142857 0.239285714 0.247857143)
## 2) ram< 1264.5 389 50 0 (0.871465296 0.125964010 0.002570694 0.000000000) *
## 3) ram>=1264.5 1011 664 3 (0.032640950 0.293768546 0.330365974 0.343224530) *
##

```

```

## $trees[[10]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1026 1 (0.25214286 0.26714286 0.24642857 0.23428571)
##   2) ram< 2178.5 732 379 0 (0.48224044 0.44262295 0.07513661 0.00000000) *
##   3) ram>=2178.5 668 340 3 (0.00000000 0.07485030 0.43413174 0.49101796) *
##
##
## $weights
## [1] 0.002000003 0.002000003 0.002000003 0.002000003 0.002000003 0.002000003
## [7] 0.002000003 0.002000003 0.002000003 0.002000003
##
## $votes
##           [,1]      [,2]      [,3]      [,4]
## [1,] 0.000000000 0.000000000 0.004000005 0.016000021
## [2,] 0.000000000 0.000000000 0.004000005 0.016000021
## [3,] 0.000000000 0.000000000 0.004000005 0.016000021
## [4,] 0.010000013 0.002000003 0.004000005 0.004000005
## [5,] 0.018000024 0.002000003 0.000000000 0.000000000
## [6,] 0.018000024 0.002000003 0.000000000 0.000000000
## [7,] 0.000000000 0.000000000 0.004000005 0.016000021
## [8,] 0.000000000 0.000000000 0.004000005 0.016000021
## [9,] 0.010000013 0.002000003 0.004000005 0.004000005
## [10,] 0.000000000 0.000000000 0.004000005 0.016000021
## [11,] 0.018000024 0.002000003 0.000000000 0.000000000
## [12,] 0.018000024 0.002000003 0.000000000 0.000000000
## [13,] 0.000000000 0.000000000 0.004000005 0.016000021
## [14,] 0.000000000 0.002000003 0.004000005 0.014000019
## [15,] 0.010000013 0.002000003 0.004000005 0.004000005
## [16,] 0.018000024 0.002000003 0.000000000 0.000000000
## [17,] 0.000000000 0.000000000 0.004000005 0.016000021
## [18,] 0.000000000 0.000000000 0.004000005 0.016000021
## [19,] 0.000000000 0.000000000 0.004000005 0.016000021
## [20,] 0.000000000 0.000000000 0.004000005 0.016000021
## [21,] 0.000000000 0.002000003 0.004000005 0.014000019
## [22,] 0.000000000 0.000000000 0.004000005 0.016000021
## [23,] 0.018000024 0.002000003 0.000000000 0.000000000
## [24,] 0.012000016 0.002000003 0.002000003 0.004000005
## [25,] 0.000000000 0.000000000 0.004000005 0.016000021
## [26,] 0.000000000 0.000000000 0.004000005 0.016000021
## [27,] 0.004000005 0.002000003 0.004000005 0.010000013
## [28,] 0.000000000 0.000000000 0.004000005 0.016000021
## [29,] 0.010000013 0.002000003 0.004000005 0.004000005
## [30,] 0.010000013 0.002000003 0.004000005 0.004000005
## [31,] 0.018000024 0.002000003 0.000000000 0.000000000
## [32,] 0.018000024 0.002000003 0.000000000 0.000000000
## [33,] 0.000000000 0.000000000 0.004000005 0.016000021
## [34,] 0.016000021 0.002000003 0.000000000 0.002000003
## [35,] 0.000000000 0.000000000 0.004000005 0.016000021
## [36,] 0.006000008 0.002000003 0.004000005 0.008000011
## [37,] 0.006000008 0.002000003 0.004000005 0.008000011

```

[illegible]

##	[92,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[93,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[94,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[95,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[96,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[97,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[98,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[99,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[100,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[101,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[102,]	0.012000016	0.002000003	0.002000003	0.004000005
##	[103,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[104,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[105,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[106,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[107,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[108,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[109,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[110,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[111,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[112,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[113,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[114,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[115,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[116,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[117,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[118,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[119,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[120,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[121,]	0.006000008	0.002000003	0.004000005	0.008000011
##	[122,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[123,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[124,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[125,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[126,]	0.002000003	0.002000003	0.004000005	0.012000016
##	[127,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[128,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[129,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[130,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[131,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[132,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[133,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[134,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[135,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[136,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[137,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[138,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[139,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[140,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[141,]	0.000000000			

[illegible]

[illegible]



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[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

##	[1226,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1227,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1228,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1229,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[1230,]	0.006000008	0.002000003	0.004000005	0.008000011
##	[1231,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1232,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1233,]	0.002000003	0.002000003	0.004000005	0.012000016
##	[1234,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1235,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1236,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1237,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1238,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1239,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1240,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[1241,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1242,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1243,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1244,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1245,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1246,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1247,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1248,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1249,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1250,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1251,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[1252,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1253,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1254,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1255,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1256,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[1257,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1258,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1259,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1260,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1261,]	0.014000019	0.002000003	0.000000000	0.004000005
##	[1262,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[1263,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1264,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[1265,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1266,]	0.012000016	0.002000003	0.002000003	0.004000005
##	[1267,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1268,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1269,]	0.006000008	0.002000003	0.004000005	0.008000011
##	[1270,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[1271,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[1272,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[1273,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[1274,]	0.018000024	0.002000003	0.00000000	

[illegible]

[illegible]

```

## [1388,] 0.000000000 0.002000003 0.004000005 0.014000019
## [1389,] 0.000000000 0.000000000 0.004000005 0.016000021
## [1390,] 0.000000000 0.002000003 0.004000005 0.014000019
## [1391,] 0.010000013 0.002000003 0.004000005 0.004000005
## [1392,] 0.010000013 0.002000003 0.004000005 0.004000005
## [1393,] 0.000000000 0.000000000 0.004000005 0.016000021
## [1394,] 0.000000000 0.000000000 0.004000005 0.016000021
## [1395,] 0.000000000 0.000000000 0.004000005 0.016000021
## [1396,] 0.018000024 0.002000003 0.000000000 0.000000000
## [1397,] 0.010000013 0.002000003 0.004000005 0.004000005
## [1398,] 0.000000000 0.000000000 0.004000005 0.016000021
## [1399,] 0.018000024 0.002000003 0.000000000 0.000000000
## [1400,] 0.000000000 0.000000000 0.004000005 0.016000021
##
## $prob
##      [,1] [,2] [,3] [,4]
## [1,] 0.0 0.0 0.2 0.8
## [2,] 0.0 0.0 0.2 0.8
## [3,] 0.0 0.0 0.2 0.8
## [4,] 0.5 0.1 0.2 0.2
## [5,] 0.9 0.1 0.0 0.0
## [6,] 0.9 0.1 0.0 0.0
## [7,] 0.0 0.0 0.2 0.8
## [8,] 0.0 0.0 0.2 0.8
## [9,] 0.5 0.1 0.2 0.2
## [10,] 0.0 0.0 0.2 0.8
## [11,] 0.9 0.1 0.0 0.0
## [12,] 0.9 0.1 0.0 0.0
## [13,] 0.0 0.0 0.2 0.8
## [14,] 0.0 0.1 0.2 0.7
## [15,] 0.5 0.1 0.2 0.2
## [16,] 0.9 0.1 0.0 0.0
## [17,] 0.0 0.0 0.2 0.8
## [18,] 0.0 0.0 0.2 0.8
## [19,] 0.0 0.0 0.2 0.8
## [20,] 0.0 0.0 0.2 0.8
## [21,] 0.0 0.1 0.2 0.7
## [22,] 0.0 0.0 0.2 0.8
## [23,] 0.9 0.1 0.0 0.0
## [24,] 0.6 0.1 0.1 0.2
## [25,] 0.0 0.0 0.2 0.8
## [26,] 0.0 0.0 0.2 0.8
## [27,] 0.2 0.1 0.2 0.5
## [28,] 0.0 0.0 0.2 0.8
## [29,] 0.5 0.1 0.2 0.2
## [30,] 0.5 0.1 0.2 0.2
## [31,] 0.9 0.1 0.0 0.0
## [32,] 0.9 0.1 0.0 0.0
## [33,] 0.0 0.0 0.2 0.8
## [34,] 0.8 0.1 0.0 0.1
## [35,] 0.0 0.0 0.2 0.8
## [36,] 0.3 0.1 0.2 0.4
## [37,] 0.3 0.1 0.2 0.4
## [38,] 0.5 0.1 0.2 0.2

```

##	[39,]	0.0	0.0	0.2	0.8
##	[40,]	0.0	0.0	0.2	0.8
##	[41,]	0.0	0.0	0.2	0.8
##	[42,]	0.5	0.1	0.2	0.2
##	[43,]	0.9	0.1	0.0	0.0
##	[44,]	0.9	0.1	0.0	0.0
##	[45,]	0.2	0.1	0.2	0.5
##	[46,]	0.0	0.0	0.2	0.8
##	[47,]	0.0	0.0	0.2	0.8
##	[48,]	0.0	0.0	0.2	0.8
##	[49,]	0.0	0.0	0.2	0.8
##	[50,]	0.9	0.1	0.0	0.0
##	[51,]	0.0	0.0	0.2	0.8
##	[52,]	0.0	0.0	0.2	0.8
##	[53,]	0.9	0.1	0.0	0.0
##	[54,]	0.0	0.0	0.2	0.8
##	[55,]	0.9	0.1	0.0	0.0
##	[56,]	0.5	0.1	0.2	0.2
##	[57,]	0.0	0.0	0.2	0.8
##	[58,]	0.5	0.1	0.2	0.2
##	[59,]	0.0	0.0	0.2	0.8
##	[60,]	0.0	0.0	0.2	0.8
##	[61,]	0.5	0.1	0.2	0.2
##	[62,]	0.4	0.1	0.2	0.3
##	[63,]	0.9	0.1	0.0	0.0
##	[64,]	0.9	0.1	0.0	0.0
##	[65,]	0.0	0.0	0.2	0.8
##	[66,]	0.0	0.1	0.2	0.7
##	[67,]	0.0	0.0	0.2	0.8
##	[68,]	0.5	0.1	0.2	0.2
##	[69,]	0.5	0.1	0.2	0.2
##	[70,]	0.9	0.1	0.0	0.0
##	[71,]	0.5	0.1	0.2	0.2
##	[72,]	0.5	0.1	0.2	0.2
##	[73,]	0.5	0.1	0.2	0.2
##	[74,]	0.0	0.0	0.2	0.8
##	[75,]	0.6	0.1	0.1	0.2
##	[76,]	0.0	0.0	0.2	0.8
##	[77,]	0.9	0.1	0.0	0.0
##	[78,]	0.9	0.1	0.0	0.0
##	[79,]	0.5	0.1	0.2	0.2
##	[80,]	0.0	0.0	0.2	0.8
##	[81,]	0.0	0.0	0.2	0.8
##	[82,]	0.5	0.1	0.2	0.2
##	[83,]	0.0	0.1	0.2	0.7
##	[84,]	0.9	0.1	0.0	0.0
##	[85,]	0.0	0.0	0.2	0.8
##	[86,]	0.0	0.0	0.2	0.8
##	[87,]	0.0	0.0	0.2	0.8
##	[88,]	0.5	0.1	0.2	0.2
##	[89,]	0.0	0.0	0.2	0.8
##	[90,]	0.0	0.0	0.2	0.8
##	[91,]	0.0	0.0	0.2	0.8
##	[92,]	0.0	0.0	0.2	0.8

##	[93,]	0.0	0.0	0.2	0.8
##	[94,]	0.0	0.0	0.2	0.8
##	[95,]	0.5	0.1	0.2	0.2
##	[96,]	0.0	0.0	0.2	0.8
##	[97,]	0.9	0.1	0.0	0.0
##	[98,]	0.0	0.1	0.2	0.7
##	[99,]	0.0	0.0	0.2	0.8
##	[100,]	0.9	0.1	0.0	0.0
##	[101,]	0.5	0.1	0.2	0.2
##	[102,]	0.6	0.1	0.1	0.2
##	[103,]	0.9	0.1	0.0	0.0
##	[104,]	0.0	0.0	0.2	0.8
##	[105,]	0.9	0.1	0.0	0.0
##	[106,]	0.0	0.0	0.2	0.8
##	[107,]	0.0	0.1	0.2	0.7
##	[108,]	0.0	0.0	0.2	0.8
##	[109,]	0.0	0.1	0.2	0.7
##	[110,]	0.5	0.1	0.2	0.2
##	[111,]	0.5	0.1	0.2	0.2
##	[112,]	0.9	0.1	0.0	0.0
##	[113,]	0.0	0.0	0.2	0.8
##	[114,]	0.9	0.1	0.0	0.0
##	[115,]	0.0	0.0	0.2	0.8
##	[116,]	0.0	0.0	0.2	0.8
##	[117,]	0.9	0.1	0.0	0.0
##	[118,]	0.0	0.1	0.2	0.7
##	[119,]	0.0	0.0	0.2	0.8
##	[120,]	0.2	0.1	0.2	0.5
##	[121,]	0.3	0.1	0.2	0.4
##	[122,]	0.0	0.0	0.2	0.8
##	[123,]	0.5	0.1	0.2	0.2
##	[124,]	0.0	0.0	0.2	0.8
##	[125,]	0.0	0.0	0.2	0.8
##	[126,]	0.1	0.1	0.2	0.6
##	[127,]	0.9	0.1	0.0	0.0
##	[128,]	0.0	0.0	0.2	0.8
##	[129,]	0.0	0.0	0.2	0.8
##	[130,]	0.5	0.1	0.2	0.2
##	[131,]	0.5	0.1	0.2	0.2
##	[132,]	0.9	0.1	0.0	0.0
##	[133,]	0.0	0.1	0.2	0.7
##	[134,]	0.0	0.0	0.2	0.8
##	[135,]	0.0	0.0	0.2	0.8
##	[136,]	0.9	0.1	0.0	0.0
##	[137,]	0.0	0.0	0.2	0.8
##	[138,]	0.0	0.0	0.2	0.8
##	[139,]	0.0	0.0	0.2	0.8
##	[140,]	0.0	0.1	0.2	0.7
##	[141,]	0.0	0.0	0.2	0.8
##	[142,]	0.0	0.0	0.2	0.8
##	[143,]	0.5	0.1	0.2	0.2
##	[144,]	0.7	0.1	0.0	0.2
##	[145,]	0.9	0.1	0.0	0.0
##	[146,]	0.9	0.1	0.0	0.0



```

## [147,] 0.0 0.0 0.2 0.8
## [148,] 0.0 0.0 0.2 0.8
## [149,] 0.0 0.1 0.2 0.7
## [150,] 0.0 0.0 0.2 0.8
## [151,] 0.0 0.0 0.2 0.8
## [152,] 0.9 0.1 0.0 0.0
## [153,] 0.9 0.1 0.0 0.0
## [154,] 0.0 0.0 0.2 0.8
## [155,] 0.0 0.0 0.2 0.8
## [156,] 0.0 0.0 0.2 0.8
## [157,] 0.0 0.0 0.2 0.8
## [158,] 0.0 0.0 0.2 0.8
## [159,] 0.0 0.0 0.2 0.8
## [160,] 0.0 0.0 0.2 0.8
## [161,] 0.0 0.0 0.2 0.8
## [162,] 0.9 0.1 0.0 0.0
## [163,] 0.0 0.1 0.2 0.7
## [164,] 0.0 0.0 0.2 0.8
## [165,] 0.9 0.1 0.0 0.0
## [166,] 0.5 0.1 0.2 0.2
## [167,] 0.0 0.0 0.2 0.8
## [168,] 0.9 0.1 0.0 0.0
## [169,] 0.0 0.0 0.2 0.8
## [170,] 0.0 0.0 0.2 0.8
## [171,] 0.5 0.1 0.2 0.2
## [172,] 0.0 0.0 0.2 0.8
## [173,] 0.0 0.0 0.2 0.8
## [174,] 0.5 0.1 0.2 0.2
## [175,] 0.5 0.1 0.2 0.2
## [176,] 0.9 0.1 0.0 0.0
## [177,] 0.0 0.0 0.2 0.8
## [178,] 0.0 0.0 0.2 0.8
## [179,] 0.9 0.1 0.0 0.0
## [180,] 0.9 0.1 0.0 0.0
## [181,] 0.5 0.1 0.2 0.2
## [182,] 0.0 0.0 0.2 0.8
## [183,] 0.9 0.1 0.0 0.0
## [184,] 0.5 0.1 0.2 0.2
## [185,] 0.9 0.1 0.0 0.0
## [186,] 0.0 0.0 0.2 0.8
## [187,] 0.9 0.1 0.0 0.0
## [188,] 0.0 0.0 0.2 0.8
## [189,] 0.0 0.0 0.2 0.8
## [190,] 0.9 0.1 0.0 0.0
## [191,] 0.0 0.0 0.2 0.8
## [192,] 0.5 0.1 0.2 0.2
## [193,] 0.0 0.0 0.2 0.8
## [194,] 0.0 0.0 0.2 0.8
## [195,] 0.5 0.1 0.2 0.2
## [196,] 0.9 0.1 0.0 0.0
## [197,] 0.0 0.0 0.2 0.8
## [198,] 0.9 0.1 0.0 0.0
## [199,] 0.5 0.1 0.2 0.2
## [200,] 0.0 0.1 0.2 0.7

```

##	[201,]	0.5	0.1	0.2	0.2
##	[202,]	0.0	0.0	0.2	0.8
##	[203,]	0.0	0.0	0.2	0.8
##	[204,]	0.0	0.0	0.2	0.8
##	[205,]	0.9	0.1	0.0	0.0
##	[206,]	0.9	0.1	0.0	0.0
##	[207,]	0.5	0.1	0.2	0.2
##	[208,]	0.0	0.0	0.2	0.8
##	[209,]	0.9	0.1	0.0	0.0
##	[210,]	0.5	0.1	0.2	0.2
##	[211,]	0.0	0.0	0.2	0.8
##	[212,]	0.9	0.1	0.0	0.0
##	[213,]	0.9	0.1	0.0	0.0
##	[214,]	0.0	0.0	0.2	0.8
##	[215,]	0.9	0.1	0.0	0.0
##	[216,]	0.5	0.1	0.2	0.2
##	[217,]	0.0	0.0	0.2	0.8
##	[218,]	0.5	0.1	0.2	0.2
##	[219,]	0.0	0.0	0.2	0.8
##	[220,]	0.9	0.1	0.0	0.0
##	[221,]	0.0	0.0	0.2	0.8
##	[222,]	0.0	0.0	0.2	0.8
##	[223,]	0.9	0.1	0.0	0.0
##	[224,]	0.9	0.1	0.0	0.0
##	[225,]	0.5	0.1	0.2	0.2
##	[226,]	0.9	0.1	0.0	0.0
##	[227,]	0.0	0.0	0.2	0.8
##	[228,]	0.9	0.1	0.0	0.0
##	[229,]	0.9	0.1	0.0	0.0
##	[230,]	0.9	0.1	0.0	0.0
##	[231,]	0.0	0.0	0.2	0.8
##	[232,]	0.0	0.0	0.2	0.8
##	[233,]	0.5	0.1	0.2	0.2
##	[234,]	0.2	0.1	0.2	0.5
##	[235,]	0.9	0.1	0.0	0.0
##	[236,]	0.5	0.1	0.2	0.2
##	[237,]	0.9	0.1	0.0	0.0
##	[238,]	0.0	0.0	0.2	0.8
##	[239,]	0.0	0.0	0.2	0.8
##	[240,]	0.9	0.1	0.0	0.0
##	[241,]	0.2	0.1	0.2	0.5
##	[242,]	0.0	0.0	0.2	0.8
##	[243,]	0.9	0.1	0.0	0.0
##	[244,]	0.9	0.1	0.0	0.0
##	[245,]	0.0	0.0	0.2	0.8
##	[246,]	0.0	0.0	0.2	0.8
##	[247,]	0.0	0.0	0.2	0.8
##	[248,]	0.0	0.0	0.2	0.8
##	[249,]	0.0	0.0	0.2	0.8
##	[250,]	0.0	0.0	0.2	0.8
##	[251,]	0.0	0.0	0.2	0.8
##	[252,]	0.0	0.0	0.2	0.8
##	[253,]	0.0	0.1	0.2	0.7
##	[254,]	0.9	0.1	0.0	0.0

##	[255,]	0.0	0.0	0.2	0.8
##	[256,]	0.8	0.1	0.0	0.1
##	[257,]	0.9	0.1	0.0	0.0
##	[258,]	0.0	0.0	0.2	0.8
##	[259,]	0.0	0.0	0.2	0.8
##	[260,]	0.5	0.1	0.2	0.2
##	[261,]	0.9	0.1	0.0	0.0
##	[262,]	0.0	0.0	0.2	0.8
##	[263,]	0.0	0.0	0.2	0.8
##	[264,]	0.0	0.0	0.2	0.8
##	[265,]	0.0	0.1	0.2	0.7
##	[266,]	0.0	0.0	0.2	0.8
##	[267,]	0.0	0.0	0.2	0.8
##	[268,]	0.9	0.1	0.0	0.0
##	[269,]	0.0	0.0	0.2	0.8
##	[270,]	0.9	0.1	0.0	0.0
##	[271,]	0.9	0.1	0.0	0.0
##	[272,]	0.0	0.0	0.2	0.8
##	[273,]	0.0	0.1	0.2	0.7
##	[274,]	0.0	0.0	0.2	0.8
##	[275,]	0.0	0.1	0.2	0.7
##	[276,]	0.0	0.0	0.2	0.8
##	[277,]	0.0	0.0	0.2	0.8
##	[278,]	0.0	0.0	0.2	0.8
##	[279,]	0.2	0.1	0.2	0.5
##	[280,]	0.0	0.0	0.2	0.8
##	[281,]	0.0	0.0	0.2	0.8
##	[282,]	0.5	0.1	0.2	0.2
##	[283,]	0.5	0.1	0.2	0.2
##	[284,]	0.0	0.0	0.2	0.8
##	[285,]	0.0	0.0	0.2	0.8
##	[286,]	0.0	0.0	0.2	0.8
##	[287,]	0.5	0.1	0.2	0.2
##	[288,]	0.0	0.0	0.2	0.8
##	[289,]	0.0	0.0	0.2	0.8
##	[290,]	0.5	0.1	0.2	0.2
##	[291,]	0.0	0.0	0.2	0.8
##	[292,]	0.0	0.1	0.2	0.7
##	[293,]	0.9	0.1	0.0	0.0
##	[294,]	0.0	0.0	0.2	0.8
##	[295,]	0.9	0.1	0.0	0.0
##	[296,]	0.0	0.0	0.2	0.8
##	[297,]	0.0	0.1	0.2	0.7
##	[298,]	0.5	0.1	0.2	0.2
##	[299,]	0.9	0.1	0.0	0.0
##	[300,]	0.5	0.1	0.2	0.2
##	[301,]	0.0	0.0	0.2	0.8
##	[302,]	0.2	0.1	0.2	0.5
##	[303,]	0.9	0.1	0.0	0.0
##	[304,]	0.0	0.0	0.2	0.8
##	[305,]	0.0	0.0	0.2	0.8
##	[306,]	0.9	0.1	0.0	0.0
##	[307,]	0.5	0.1	0.2	0.2
##	[308,]	0.5	0.1	0.2	0.2

```

## [309,] 0.0 0.0 0.2 0.8
## [310,] 0.7 0.1 0.0 0.2
## [311,] 0.9 0.1 0.0 0.0
## [312,] 0.0 0.0 0.2 0.8
## [313,] 0.9 0.1 0.0 0.0
## [314,] 0.9 0.1 0.0 0.0
## [315,] 0.0 0.0 0.2 0.8
## [316,] 0.9 0.1 0.0 0.0
## [317,] 0.9 0.1 0.0 0.0
## [318,] 0.0 0.0 0.2 0.8
## [319,] 0.5 0.1 0.2 0.2
## [320,] 0.0 0.0 0.2 0.8
## [321,] 0.5 0.1 0.2 0.2
## [322,] 0.6 0.1 0.1 0.2
## [323,] 0.0 0.0 0.2 0.8
## [324,] 0.0 0.1 0.2 0.7
## [325,] 0.5 0.1 0.2 0.2
## [326,] 0.9 0.1 0.0 0.0
## [327,] 0.9 0.1 0.0 0.0
## [328,] 0.0 0.0 0.2 0.8
## [329,] 0.9 0.1 0.0 0.0
## [330,] 0.9 0.1 0.0 0.0
## [331,] 0.5 0.1 0.2 0.2
## [332,] 0.0 0.0 0.2 0.8
## [333,] 0.0 0.0 0.2 0.8
## [334,] 0.5 0.1 0.2 0.2
## [335,] 0.0 0.1 0.2 0.7
## [336,] 0.0 0.0 0.2 0.8
## [337,] 0.0 0.0 0.2 0.8
## [338,] 0.0 0.0 0.2 0.8
## [339,] 0.9 0.1 0.0 0.0
## [340,] 0.0 0.0 0.2 0.8
## [341,] 0.9 0.1 0.0 0.0
## [342,] 0.0 0.0 0.2 0.8
## [343,] 0.5 0.1 0.2 0.2
## [344,] 0.9 0.1 0.0 0.0
## [345,] 0.0 0.0 0.2 0.8
## [346,] 0.2 0.1 0.2 0.5
## [347,] 0.9 0.1 0.0 0.0
## [348,] 0.4 0.1 0.2 0.3
## [349,] 0.9 0.1 0.0 0.0
## [350,] 0.0 0.0 0.2 0.8
## [351,] 0.5 0.1 0.2 0.2
## [352,] 0.0 0.0 0.2 0.8
## [353,] 0.0 0.0 0.2 0.8
## [354,] 0.9 0.1 0.0 0.0
## [355,] 0.0 0.0 0.2 0.8
## [356,] 0.9 0.1 0.0 0.0
## [357,] 0.9 0.1 0.0 0.0
## [358,] 0.6 0.1 0.1 0.2
## [359,] 0.0 0.0 0.2 0.8
## [360,] 0.5 0.1 0.2 0.2
## [361,] 0.0 0.0 0.2 0.8
## [362,] 0.0 0.0 0.2 0.8

```

##	[363,]	0.2	0.1	0.2	0.5
##	[364,]	0.0	0.0	0.2	0.8
##	[365,]	0.5	0.1	0.2	0.2
##	[366,]	0.0	0.0	0.2	0.8
##	[367,]	0.0	0.0	0.2	0.8
##	[368,]	0.0	0.0	0.2	0.8
##	[369,]	0.0	0.0	0.2	0.8
##	[370,]	0.5	0.1	0.2	0.2
##	[371,]	0.0	0.0	0.2	0.8
##	[372,]	0.0	0.0	0.2	0.8
##	[373,]	0.0	0.0	0.2	0.8
##	[374,]	0.0	0.0	0.2	0.8
##	[375,]	0.0	0.0	0.2	0.8
##	[376,]	0.0	0.1	0.2	0.7
##	[377,]	0.0	0.0	0.2	0.8
##	[378,]	0.0	0.0	0.2	0.8
##	[379,]	0.0	0.0	0.2	0.8
##	[380,]	0.9	0.1	0.0	0.0
##	[381,]	0.0	0.0	0.2	0.8
##	[382,]	0.5	0.1	0.2	0.2
##	[383,]	0.9	0.1	0.0	0.0
##	[384,]	0.0	0.0	0.2	0.8
##	[385,]	0.5	0.1	0.2	0.2
##	[386,]	0.5	0.1	0.2	0.2
##	[387,]	0.0	0.0	0.2	0.8
##	[388,]	0.9	0.1	0.0	0.0
##	[389,]	0.5	0.1	0.2	0.2
##	[390,]	0.9	0.1	0.0	0.0
##	[391,]	0.9	0.1	0.0	0.0
##	[392,]	0.0	0.0	0.2	0.8
##	[393,]	0.0	0.0	0.2	0.8
##	[394,]	0.9	0.1	0.0	0.0
##	[395,]	0.5	0.1	0.2	0.2
##	[396,]	0.5	0.1	0.2	0.2
##	[397,]	0.0	0.0	0.2	0.8
##	[398,]	0.9	0.1	0.0	0.0
##	[399,]	0.9	0.1	0.0	0.0
##	[400,]	0.0	0.0	0.2	0.8
##	[401,]	0.0	0.0	0.2	0.8
##	[402,]	0.0	0.0	0.2	0.8
##	[403,]	0.0	0.0	0.2	0.8
##	[404,]	0.9	0.1	0.0	0.0
##	[405,]	0.0	0.0	0.2	0.8
##	[406,]	0.0	0.0	0.2	0.8
##	[407,]	0.9	0.1	0.0	0.0
##	[408,]	0.9	0.1	0.0	0.0
##	[409,]	0.0	0.0	0.2	0.8
##	[410,]	0.0	0.0	0.2	0.8
##	[411,]	0.0	0.0	0.2	0.8
##	[412,]	0.9	0.1	0.0	0.0
##	[413,]	0.0	0.0	0.2	0.8
##	[414,]	0.6	0.1	0.1	0.2
##	[415,]	0.9	0.1	0.0	0.0
##	[416,]	0.0	0.0	0.2	0.8

```

## [417,] 0.0 0.0 0.2 0.8
## [418,] 0.9 0.1 0.0 0.0
## [419,] 0.0 0.0 0.2 0.8
## [420,] 0.9 0.1 0.0 0.0
## [421,] 0.9 0.1 0.0 0.0
## [422,] 0.9 0.1 0.0 0.0
## [423,] 0.0 0.0 0.2 0.8
## [424,] 0.9 0.1 0.0 0.0
## [425,] 0.5 0.1 0.2 0.2
## [426,] 0.9 0.1 0.0 0.0
## [427,] 0.0 0.0 0.2 0.8
## [428,] 0.9 0.1 0.0 0.0
## [429,] 0.0 0.0 0.2 0.8
## [430,] 0.0 0.1 0.2 0.7
## [431,] 0.0 0.0 0.2 0.8
## [432,] 0.6 0.1 0.1 0.2
## [433,] 0.0 0.0 0.2 0.8
## [434,] 0.0 0.0 0.2 0.8
## [435,] 0.5 0.1 0.2 0.2
## [436,] 0.0 0.0 0.2 0.8
## [437,] 0.9 0.1 0.0 0.0
## [438,] 0.5 0.1 0.2 0.2
## [439,] 0.0 0.1 0.2 0.7
## [440,] 0.9 0.1 0.0 0.0
## [441,] 0.9 0.1 0.0 0.0
## [442,] 0.9 0.1 0.0 0.0
## [443,] 0.5 0.1 0.2 0.2
## [444,] 0.0 0.0 0.2 0.8
## [445,] 0.0 0.0 0.2 0.8
## [446,] 0.5 0.1 0.2 0.2
## [447,] 0.0 0.0 0.2 0.8
## [448,] 0.0 0.1 0.2 0.7
## [449,] 0.9 0.1 0.0 0.0
## [450,] 0.5 0.1 0.2 0.2
## [451,] 0.0 0.0 0.2 0.8
## [452,] 0.5 0.1 0.2 0.2
## [453,] 0.0 0.0 0.2 0.8
## [454,] 0.0 0.1 0.2 0.7
## [455,] 0.0 0.0 0.2 0.8
## [456,] 0.9 0.1 0.0 0.0
## [457,] 0.0 0.0 0.2 0.8
## [458,] 0.5 0.1 0.2 0.2
## [459,] 0.5 0.1 0.2 0.2
## [460,] 0.9 0.1 0.0 0.0
## [461,] 0.9 0.1 0.0 0.0
## [462,] 0.5 0.1 0.2 0.2
## [463,] 0.9 0.1 0.0 0.0
## [464,] 0.9 0.1 0.0 0.0
## [465,] 0.9 0.1 0.0 0.0
## [466,] 0.0 0.0 0.2 0.8
## [467,] 0.0 0.0 0.2 0.8
## [468,] 0.5 0.1 0.2 0.2
## [469,] 0.9 0.1 0.0 0.0
## [470,] 0.5 0.1 0.2 0.2

```

```

## [471,] 0.9 0.1 0.0 0.0
## [472,] 0.0 0.0 0.2 0.8
## [473,] 0.0 0.0 0.2 0.8
## [474,] 0.0 0.0 0.2 0.8
## [475,] 0.0 0.0 0.2 0.8
## [476,] 0.0 0.0 0.2 0.8
## [477,] 0.2 0.1 0.2 0.5
## [478,] 0.9 0.1 0.0 0.0
## [479,] 0.9 0.1 0.0 0.0
## [480,] 0.0 0.0 0.2 0.8
## [481,] 0.0 0.0 0.2 0.8
## [482,] 0.7 0.1 0.0 0.2
## [483,] 0.0 0.0 0.2 0.8
## [484,] 0.0 0.1 0.2 0.7
## [485,] 0.9 0.1 0.0 0.0
## [486,] 0.0 0.0 0.2 0.8
## [487,] 0.9 0.1 0.0 0.0
## [488,] 0.0 0.0 0.2 0.8
## [489,] 0.0 0.0 0.2 0.8
## [490,] 0.0 0.0 0.2 0.8
## [491,] 0.9 0.1 0.0 0.0
## [492,] 0.0 0.0 0.2 0.8
## [493,] 0.9 0.1 0.0 0.0
## [494,] 0.5 0.1 0.2 0.2
## [495,] 0.0 0.0 0.2 0.8
## [496,] 0.9 0.1 0.0 0.0
## [497,] 0.0 0.0 0.2 0.8
## [498,] 0.0 0.0 0.2 0.8
## [499,] 0.9 0.1 0.0 0.0
## [500,] 0.0 0.0 0.2 0.8
## [501,] 0.0 0.0 0.2 0.8
## [502,] 0.9 0.1 0.0 0.0
## [503,] 0.5 0.1 0.2 0.2
## [504,] 0.9 0.1 0.0 0.0
## [505,] 0.5 0.1 0.2 0.2
## [506,] 0.9 0.1 0.0 0.0
## [507,] 0.9 0.1 0.0 0.0
## [508,] 0.0 0.0 0.2 0.8
## [509,] 0.0 0.0 0.2 0.8
## [510,] 0.0 0.0 0.2 0.8
## [511,] 0.0 0.0 0.2 0.8
## [512,] 0.0 0.0 0.2 0.8
## [513,] 0.0 0.1 0.2 0.7
## [514,] 0.0 0.0 0.2 0.8
## [515,] 0.0 0.0 0.2 0.8
## [516,] 0.9 0.1 0.0 0.0
## [517,] 0.0 0.0 0.2 0.8
## [518,] 0.0 0.0 0.2 0.8
## [519,] 0.9 0.1 0.0 0.0
## [520,] 0.0 0.1 0.2 0.7
## [521,] 0.6 0.1 0.1 0.2
## [522,] 0.9 0.1 0.0 0.0
## [523,] 0.0 0.0 0.2 0.8
## [524,] 0.9 0.1 0.0 0.0

```

```

## [525,] 0.0 0.0 0.2 0.8
## [526,] 0.9 0.1 0.0 0.0
## [527,] 0.9 0.1 0.0 0.0
## [528,] 0.9 0.1 0.0 0.0
## [529,] 0.0 0.0 0.2 0.8
## [530,] 0.5 0.1 0.2 0.2
## [531,] 0.5 0.1 0.2 0.2
## [532,] 0.0 0.0 0.2 0.8
## [533,] 0.2 0.1 0.2 0.5
## [534,] 0.0 0.0 0.2 0.8
## [535,] 0.0 0.0 0.2 0.8
## [536,] 0.9 0.1 0.0 0.0
## [537,] 0.9 0.1 0.0 0.0
## [538,] 0.5 0.1 0.2 0.2
## [539,] 0.0 0.0 0.2 0.8
## [540,] 0.0 0.0 0.2 0.8
## [541,] 0.9 0.1 0.0 0.0
## [542,] 0.0 0.0 0.2 0.8
## [543,] 0.0 0.0 0.2 0.8
## [544,] 0.9 0.1 0.0 0.0
## [545,] 0.1 0.1 0.2 0.6
## [546,] 0.9 0.1 0.0 0.0
## [547,] 0.0 0.0 0.2 0.8
## [548,] 0.0 0.0 0.2 0.8
## [549,] 0.0 0.0 0.2 0.8
## [550,] 0.0 0.0 0.2 0.8
## [551,] 0.0 0.0 0.2 0.8
## [552,] 0.5 0.1 0.2 0.2
## [553,] 0.9 0.1 0.0 0.0
## [554,] 0.0 0.0 0.2 0.8
## [555,] 0.5 0.1 0.2 0.2
## [556,] 0.9 0.1 0.0 0.0
## [557,] 0.0 0.0 0.2 0.8
## [558,] 0.5 0.1 0.2 0.2
## [559,] 0.6 0.1 0.1 0.2
## [560,] 0.0 0.0 0.2 0.8
## [561,] 0.0 0.0 0.2 0.8
## [562,] 0.0 0.0 0.2 0.8
## [563,] 0.0 0.0 0.2 0.8
## [564,] 0.7 0.1 0.0 0.2
## [565,] 0.9 0.1 0.0 0.0
## [566,] 0.5 0.1 0.2 0.2
## [567,] 0.9 0.1 0.0 0.0
## [568,] 0.0 0.0 0.2 0.8
## [569,] 0.0 0.0 0.2 0.8
## [570,] 0.5 0.1 0.2 0.2
## [571,] 0.9 0.1 0.0 0.0
## [572,] 0.0 0.0 0.2 0.8
## [573,] 0.0 0.0 0.2 0.8
## [574,] 0.5 0.1 0.2 0.2
## [575,] 0.0 0.0 0.2 0.8
## [576,] 0.0 0.0 0.2 0.8
## [577,] 0.0 0.0 0.2 0.8
## [578,] 0.0 0.0 0.2 0.8

```



##	[579,]	0.0	0.0	0.2	0.8
##	[580,]	0.0	0.0	0.2	0.8
##	[581,]	0.0	0.0	0.2	0.8
##	[582,]	0.0	0.0	0.2	0.8
##	[583,]	0.0	0.0	0.2	0.8
##	[584,]	0.0	0.0	0.2	0.8
##	[585,]	0.0	0.0	0.2	0.8
##	[586,]	0.0	0.0	0.2	0.8
##	[587,]	0.0	0.0	0.2	0.8
##	[588,]	0.0	0.0	0.2	0.8
##	[589,]	0.0	0.1	0.2	0.7
##	[590,]	0.0	0.0	0.2	0.8
##	[591,]	0.9	0.1	0.0	0.0
##	[592,]	0.9	0.1	0.0	0.0
##	[593,]	0.0	0.0	0.2	0.8
##	[594,]	0.9	0.1	0.0	0.0
##	[595,]	0.9	0.1	0.0	0.0
##	[596,]	0.0	0.0	0.2	0.8
##	[597,]	0.5	0.1	0.2	0.2
##	[598,]	0.9	0.1	0.0	0.0
##	[599,]	0.0	0.1	0.2	0.7
##	[600,]	0.5	0.1	0.2	0.2
##	[601,]	0.0	0.0	0.2	0.8
##	[602,]	0.0	0.1	0.2	0.7
##	[603,]	0.6	0.1	0.1	0.2
##	[604,]	0.0	0.0	0.2	0.8
##	[605,]	0.2	0.1	0.2	0.5
##	[606,]	0.5	0.1	0.2	0.2
##	[607,]	0.0	0.0	0.2	0.8
##	[608,]	0.9	0.1	0.0	0.0
##	[609,]	0.0	0.0	0.2	0.8
##	[610,]	0.0	0.0	0.2	0.8
##	[611,]	0.5	0.1	0.2	0.2
##	[612,]	0.0	0.0	0.2	0.8
##	[613,]	0.0	0.0	0.2	0.8
##	[614,]	0.0	0.0	0.2	0.8
##	[615,]	0.0	0.1	0.2	0.7
##	[616,]	0.9	0.1	0.0	0.0
##	[617,]	0.7	0.1	0.0	0.2
##	[618,]	0.9	0.1	0.0	0.0
##	[619,]	0.9	0.1	0.0	0.0
##	[620,]	0.0	0.0	0.2	0.8
##	[621,]	0.0	0.0	0.2	0.8
##	[622,]	0.0	0.0	0.2	0.8
##	[623,]	0.0	0.0	0.2	0.8
##	[624,]	0.5	0.1	0.2	0.2
##	[625,]	0.0	0.0	0.2	0.8
##	[626,]	0.0	0.0	0.2	0.8
##	[627,]	0.9	0.1	0.0	0.0
##	[628,]	0.5	0.1	0.2	0.2
##	[629,]	0.5	0.1	0.2	0.2
##	[630,]	0.0	0.0	0.2	0.8
##	[631,]	0.0	0.0	0.2	0.8
##	[632,]	0.6	0.1	0.1	0.2

##	[633,]	0.0	0.0	0.2	0.8
##	[634,]	0.5	0.1	0.2	0.2
##	[635,]	0.9	0.1	0.0	0.0
##	[636,]	0.0	0.0	0.2	0.8
##	[637,]	0.5	0.1	0.2	0.2
##	[638,]	0.0	0.0	0.2	0.8
##	[639,]	0.9	0.1	0.0	0.0
##	[640,]	0.0	0.0	0.2	0.8
##	[641,]	0.9	0.1	0.0	0.0
##	[642,]	0.9	0.1	0.0	0.0
##	[643,]	0.5	0.1	0.2	0.2
##	[644,]	0.9	0.1	0.0	0.0
##	[645,]	0.0	0.0	0.2	0.8
##	[646,]	0.0	0.0	0.2	0.8
##	[647,]	0.9	0.1	0.0	0.0
##	[648,]	0.5	0.1	0.2	0.2
##	[649,]	0.0	0.0	0.2	0.8
##	[650,]	0.0	0.0	0.2	0.8
##	[651,]	0.2	0.1	0.2	0.5
##	[652,]	0.5	0.1	0.2	0.2
##	[653,]	0.0	0.0	0.2	0.8
##	[654,]	0.9	0.1	0.0	0.0
##	[655,]	0.0	0.0	0.2	0.8
##	[656,]	0.0	0.0	0.2	0.8
##	[657,]	0.0	0.0	0.2	0.8
##	[658,]	0.0	0.0	0.2	0.8
##	[659,]	0.0	0.0	0.2	0.8
##	[660,]	0.0	0.0	0.2	0.8
##	[661,]	0.0	0.0	0.2	0.8
##	[662,]	0.0	0.0	0.2	0.8
##	[663,]	0.9	0.1	0.0	0.0
##	[664,]	0.5	0.1	0.2	0.2
##	[665,]	0.9	0.1	0.0	0.0
##	[666,]	0.0	0.0	0.2	0.8
##	[667,]	0.9	0.1	0.0	0.0
##	[668,]	0.1	0.1	0.2	0.6
##	[669,]	0.5	0.1	0.2	0.2
##	[670,]	0.5	0.1	0.2	0.2
##	[671,]	0.8	0.1	0.0	0.1
##	[672,]	0.5	0.1	0.2	0.2
##	[673,]	0.0	0.0	0.2	0.8
##	[674,]	0.0	0.0	0.2	0.8
##	[675,]	0.9	0.1	0.0	0.0
##	[676,]	0.0	0.0	0.2	0.8
##	[677,]	0.0	0.0	0.2	0.8
##	[678,]	0.0	0.0	0.2	0.8
##	[679,]	0.5	0.1	0.2	0.2
##	[680,]	0.9	0.1	0.0	0.0
##	[681,]	0.5	0.1	0.2	0.2
##	[682,]	0.6	0.1	0.1	0.2
##	[683,]	0.9	0.1	0.0	0.0
##	[684,]	0.0	0.0	0.2	0.8
##	[685,]	0.9	0.1	0.0	0.0
##	[686,]	0.9	0.1	0.0	0.0

##	[687,]	0.0	0.0	0.2	0.8
##	[688,]	0.5	0.1	0.2	0.2
##	[689,]	0.9	0.1	0.0	0.0
##	[690,]	0.0	0.0	0.2	0.8
##	[691,]	0.0	0.0	0.2	0.8
##	[692,]	0.9	0.1	0.0	0.0
##	[693,]	0.9	0.1	0.0	0.0
##	[694,]	0.9	0.1	0.0	0.0
##	[695,]	0.0	0.0	0.2	0.8
##	[696,]	0.0	0.0	0.2	0.8
##	[697,]	0.5	0.1	0.2	0.2
##	[698,]	0.5	0.1	0.2	0.2
##	[699,]	0.5	0.1	0.2	0.2
##	[700,]	0.5	0.1	0.2	0.2
##	[701,]	0.9	0.1	0.0	0.0
##	[702,]	0.9	0.1	0.0	0.0
##	[703,]	0.0	0.0	0.2	0.8
##	[704,]	0.0	0.0	0.2	0.8
##	[705,]	0.0	0.0	0.2	0.8
##	[706,]	0.0	0.0	0.2	0.8
##	[707,]	0.5	0.1	0.2	0.2
##	[708,]	0.9	0.1	0.0	0.0
##	[709,]	0.9	0.1	0.0	0.0
##	[710,]	0.0	0.0	0.2	0.8
##	[711,]	0.0	0.0	0.2	0.8
##	[712,]	0.9	0.1	0.0	0.0
##	[713,]	0.9	0.1	0.0	0.0
##	[714,]	0.5	0.1	0.2	0.2
##	[715,]	0.9	0.1	0.0	0.0
##	[716,]	0.5	0.1	0.2	0.2
##	[717,]	0.0	0.0	0.2	0.8
##	[718,]	0.5	0.1	0.2	0.2
##	[719,]	0.9	0.1	0.0	0.0
##	[720,]	0.9	0.1	0.0	0.0
##	[721,]	0.9	0.1	0.0	0.0
##	[722,]	0.5	0.1	0.2	0.2
##	[723,]	0.0	0.0	0.2	0.8
##	[724,]	0.0	0.1	0.2	0.7
##	[725,]	0.0	0.0	0.2	0.8
##	[726,]	0.9	0.1	0.0	0.0
##	[727,]	0.9	0.1	0.0	0.0
##	[728,]	0.0	0.0	0.2	0.8
##	[729,]	0.5	0.1	0.2	0.2
##	[730,]	0.9	0.1	0.0	0.0
##	[731,]	0.0	0.0	0.2	0.8
##	[732,]	0.5	0.1	0.2	0.2
##	[733,]	0.9	0.1	0.0	0.0
##	[734,]	0.0	0.0	0.2	0.8
##	[735,]	0.0	0.0	0.2	0.8
##	[736,]	0.0	0.0	0.2	0.8
##	[737,]	0.5	0.1	0.2	0.2
##	[738,]	0.0	0.0	0.2	0.8
##	[739,]	0.5	0.1	0.2	0.2
##	[740,]	0.9	0.1	0.0	0.0

```

## [741,] 0.0 0.1 0.2 0.7
## [742,] 0.0 0.0 0.2 0.8
## [743,] 0.5 0.1 0.2 0.2
## [744,] 0.0 0.0 0.2 0.8
## [745,] 0.9 0.1 0.0 0.0
## [746,] 0.0 0.0 0.2 0.8
## [747,] 0.9 0.1 0.0 0.0
## [748,] 0.9 0.1 0.0 0.0
## [749,] 0.9 0.1 0.0 0.0
## [750,] 0.9 0.1 0.0 0.0
## [751,] 0.0 0.0 0.2 0.8
## [752,] 0.9 0.1 0.0 0.0
## [753,] 0.0 0.0 0.2 0.8
## [754,] 0.9 0.1 0.0 0.0
## [755,] 0.9 0.1 0.0 0.0
## [756,] 0.0 0.0 0.2 0.8
## [757,] 0.5 0.1 0.2 0.2
## [758,] 0.5 0.1 0.2 0.2
## [759,] 0.2 0.1 0.2 0.5
## [760,] 0.0 0.0 0.2 0.8
## [761,] 0.0 0.0 0.2 0.8
## [762,] 0.5 0.1 0.2 0.2
## [763,] 0.9 0.1 0.0 0.0
## [764,] 0.0 0.1 0.2 0.7
## [765,] 0.0 0.1 0.2 0.7
## [766,] 0.9 0.1 0.0 0.0
## [767,] 0.9 0.1 0.0 0.0
## [768,] 0.5 0.1 0.2 0.2
## [769,] 0.0 0.0 0.2 0.8
## [770,] 0.8 0.1 0.0 0.1
## [771,] 0.9 0.1 0.0 0.0
## [772,] 0.0 0.0 0.2 0.8
## [773,] 0.5 0.1 0.2 0.2
## [774,] 0.9 0.1 0.0 0.0
## [775,] 0.0 0.0 0.2 0.8
## [776,] 0.0 0.0 0.2 0.8
## [777,] 0.0 0.0 0.2 0.8
## [778,] 0.0 0.0 0.2 0.8
## [779,] 0.0 0.0 0.2 0.8
## [780,] 0.0 0.0 0.2 0.8
## [781,] 0.9 0.1 0.0 0.0
## [782,] 0.0 0.0 0.2 0.8
## [783,] 0.0 0.0 0.2 0.8
## [784,] 0.0 0.0 0.2 0.8
## [785,] 0.0 0.0 0.2 0.8
## [786,] 0.0 0.0 0.2 0.8
## [787,] 0.2 0.1 0.2 0.5
## [788,] 0.0 0.1 0.2 0.7
## [789,] 0.9 0.1 0.0 0.0
## [790,] 0.0 0.0 0.2 0.8
## [791,] 0.7 0.1 0.0 0.2
## [792,] 0.2 0.1 0.2 0.5
## [793,] 0.0 0.1 0.2 0.7
## [794,] 0.9 0.1 0.0 0.0

```

```

## [795,] 0.0 0.0 0.2 0.8
## [796,] 0.9 0.1 0.0 0.0
## [797,] 0.0 0.0 0.2 0.8
## [798,] 0.0 0.0 0.2 0.8
## [799,] 0.0 0.0 0.2 0.8
## [800,] 0.2 0.1 0.2 0.5
## [801,] 0.0 0.1 0.2 0.7
## [802,] 0.0 0.0 0.2 0.8
## [803,] 0.5 0.1 0.2 0.2
## [804,] 0.5 0.1 0.2 0.2
## [805,] 0.5 0.1 0.2 0.2
## [806,] 0.5 0.1 0.2 0.2
## [807,] 0.0 0.0 0.2 0.8
## [808,] 0.5 0.1 0.2 0.2
## [809,] 0.0 0.0 0.2 0.8
## [810,] 0.9 0.1 0.0 0.0
## [811,] 0.0 0.1 0.2 0.7
## [812,] 0.9 0.1 0.0 0.0
## [813,] 0.0 0.0 0.2 0.8
## [814,] 0.0 0.0 0.2 0.8
## [815,] 0.0 0.1 0.2 0.7
## [816,] 0.5 0.1 0.2 0.2
## [817,] 0.0 0.0 0.2 0.8
## [818,] 0.9 0.1 0.0 0.0
## [819,] 0.6 0.1 0.1 0.2
## [820,] 0.0 0.0 0.2 0.8
## [821,] 0.9 0.1 0.0 0.0
## [822,] 0.0 0.0 0.2 0.8
## [823,] 0.0 0.0 0.2 0.8
## [824,] 0.0 0.0 0.2 0.8
## [825,] 0.0 0.0 0.2 0.8
## [826,] 0.0 0.0 0.2 0.8
## [827,] 0.0 0.0 0.2 0.8
## [828,] 0.9 0.1 0.0 0.0
## [829,] 0.0 0.0 0.2 0.8
## [830,] 0.9 0.1 0.0 0.0
## [831,] 0.9 0.1 0.0 0.0
## [832,] 0.9 0.1 0.0 0.0
## [833,] 0.2 0.1 0.2 0.5
## [834,] 0.0 0.0 0.2 0.8
## [835,] 0.9 0.1 0.0 0.0
## [836,] 0.0 0.0 0.2 0.8
## [837,] 0.9 0.1 0.0 0.0
## [838,] 0.0 0.0 0.2 0.8
## [839,] 0.9 0.1 0.0 0.0
## [840,] 0.5 0.1 0.2 0.2
## [841,] 0.0 0.1 0.2 0.7
## [842,] 0.0 0.0 0.2 0.8
## [843,] 0.5 0.1 0.2 0.2
## [844,] 0.0 0.0 0.2 0.8
## [845,] 0.9 0.1 0.0 0.0
## [846,] 0.0 0.0 0.2 0.8
## [847,] 0.5 0.1 0.2 0.2
## [848,] 0.0 0.0 0.2 0.8

```

##	[849,]	0.5	0.1	0.2	0.2
##	[850,]	0.5	0.1	0.2	0.2
##	[851,]	0.0	0.0	0.2	0.8
##	[852,]	0.9	0.1	0.0	0.0
##	[853,]	0.0	0.1	0.2	0.7
##	[854,]	0.9	0.1	0.0	0.0
##	[855,]	0.0	0.0	0.2	0.8
##	[856,]	0.9	0.1	0.0	0.0
##	[857,]	0.0	0.0	0.2	0.8
##	[858,]	0.5	0.1	0.2	0.2
##	[859,]	0.0	0.0	0.2	0.8
##	[860,]	0.2	0.1	0.2	0.5
##	[861,]	0.5	0.1	0.2	0.2
##	[862,]	0.0	0.0	0.2	0.8
##	[863,]	0.0	0.0	0.2	0.8
##	[864,]	0.9	0.1	0.0	0.0
##	[865,]	0.5	0.1	0.2	0.2
##	[866,]	0.0	0.0	0.2	0.8
##	[867,]	0.0	0.0	0.2	0.8
##	[868,]	0.9	0.1	0.0	0.0
##	[869,]	0.9	0.1	0.0	0.0
##	[870,]	0.9	0.1	0.0	0.0
##	[871,]	0.0	0.0	0.2	0.8
##	[872,]	0.0	0.0	0.2	0.8
##	[873,]	0.9	0.1	0.0	0.0
##	[874,]	0.9	0.1	0.0	0.0
##	[875,]	0.9	0.1	0.0	0.0
##	[876,]	0.2	0.1	0.2	0.5
##	[877,]	0.0	0.0	0.2	0.8
##	[878,]	0.9	0.1	0.0	0.0
##	[879,]	0.0	0.0	0.2	0.8
##	[880,]	0.5	0.1	0.2	0.2
##	[881,]	0.9	0.1	0.0	0.0
##	[882,]	0.0	0.0	0.2	0.8
##	[883,]	0.9	0.1	0.0	0.0
##	[884,]	0.0	0.0	0.2	0.8
##	[885,]	0.0	0.1	0.2	0.7
##	[886,]	0.0	0.0	0.2	0.8
##	[887,]	0.9	0.1	0.0	0.0
##	[888,]	0.9	0.1	0.0	0.0
##	[889,]	0.0	0.0	0.2	0.8
##	[890,]	0.0	0.0	0.2	0.8
##	[891,]	0.5	0.1	0.2	0.2
##	[892,]	0.0	0.0	0.2	0.8
##	[893,]	0.5	0.1	0.2	0.2
##	[894,]	0.9	0.1	0.0	0.0
##	[895,]	0.0	0.0	0.2	0.8
##	[896,]	0.9	0.1	0.0	0.0
##	[897,]	0.0	0.0	0.2	0.8
##	[898,]	0.9	0.1	0.0	0.0
##	[899,]	0.0	0.0	0.2	0.8
##	[900,]	0.0	0.0	0.2	0.8
##	[901,]	0.6	0.1	0.1	0.2
##	[902,]	0.9	0.1	0.0	0.0

##	[903,]	0.0	0.0	0.2	0.8
##	[904,]	0.9	0.1	0.0	0.0
##	[905,]	0.7	0.1	0.0	0.2
##	[906,]	0.0	0.0	0.2	0.8
##	[907,]	0.5	0.1	0.2	0.2
##	[908,]	0.0	0.0	0.2	0.8
##	[909,]	0.5	0.1	0.2	0.2
##	[910,]	0.9	0.1	0.0	0.0
##	[911,]	0.0	0.0	0.2	0.8
##	[912,]	0.5	0.1	0.2	0.2
##	[913,]	0.9	0.1	0.0	0.0
##	[914,]	0.0	0.0	0.2	0.8
##	[915,]	0.7	0.1	0.0	0.2
##	[916,]	0.0	0.0	0.2	0.8
##	[917,]	0.0	0.1	0.2	0.7
##	[918,]	0.0	0.0	0.2	0.8
##	[919,]	0.0	0.0	0.2	0.8
##	[920,]	0.9	0.1	0.0	0.0
##	[921,]	0.0	0.0	0.2	0.8
##	[922,]	0.9	0.1	0.0	0.0
##	[923,]	0.0	0.0	0.2	0.8
##	[924,]	0.2	0.1	0.2	0.5
##	[925,]	0.5	0.1	0.2	0.2
##	[926,]	0.5	0.1	0.2	0.2
##	[927,]	0.0	0.0	0.2	0.8
##	[928,]	0.2	0.1	0.2	0.5
##	[929,]	0.0	0.0	0.2	0.8
##	[930,]	0.2	0.1	0.2	0.5
##	[931,]	0.0	0.0	0.2	0.8
##	[932,]	0.9	0.1	0.0	0.0
##	[933,]	0.9	0.1	0.0	0.0
##	[934,]	0.0	0.0	0.2	0.8
##	[935,]	0.0	0.0	0.2	0.8
##	[936,]	0.5	0.1	0.2	0.2
##	[937,]	0.5	0.1	0.2	0.2
##	[938,]	0.5	0.1	0.2	0.2
##	[939,]	0.5	0.1	0.2	0.2
##	[940,]	0.0	0.0	0.2	0.8
##	[941,]	0.2	0.1	0.2	0.5
##	[942,]	0.9	0.1	0.0	0.0
##	[943,]	0.9	0.1	0.0	0.0
##	[944,]	0.5	0.1	0.2	0.2
##	[945,]	0.6	0.1	0.1	0.2
##	[946,]	0.5	0.1	0.2	0.2
##	[947,]	0.0	0.0	0.2	0.8
##	[948,]	0.0	0.0	0.2	0.8
##	[949,]	0.0	0.0	0.2	0.8
##	[950,]	0.0	0.0	0.2	0.8
##	[951,]	0.5	0.1	0.2	0.2
##	[952,]	0.0	0.1	0.2	0.7
##	[953,]	0.5	0.1	0.2	0.2
##	[954,]	0.0	0.0	0.2	0.8
##	[955,]	0.5	0.1	0.2	0.2
##	[956,]	0.0	0.0	0.2	0.8

##	[957,]	0.0	0.0	0.2	0.8
##	[958,]	0.0	0.0	0.2	0.8
##	[959,]	0.9	0.1	0.0	0.0
##	[960,]	0.0	0.0	0.2	0.8
##	[961,]	0.0	0.0	0.2	0.8
##	[962,]	0.7	0.1	0.0	0.2
##	[963,]	0.0	0.0	0.2	0.8
##	[964,]	0.0	0.0	0.2	0.8
##	[965,]	0.0	0.1	0.2	0.7
##	[966,]	0.5	0.1	0.2	0.2
##	[967,]	0.5	0.1	0.2	0.2
##	[968,]	0.0	0.0	0.2	0.8
##	[969,]	0.5	0.1	0.2	0.2
##	[970,]	0.9	0.1	0.0	0.0
##	[971,]	0.9	0.1	0.0	0.0
##	[972,]	0.9	0.1	0.0	0.0
##	[973,]	0.0	0.0	0.2	0.8
##	[974,]	0.5	0.1	0.2	0.2
##	[975,]	0.9	0.1	0.0	0.0
##	[976,]	0.9	0.1	0.0	0.0
##	[977,]	0.0	0.0	0.2	0.8
##	[978,]	0.9	0.1	0.0	0.0
##	[979,]	0.0	0.0	0.2	0.8
##	[980,]	0.0	0.0	0.2	0.8
##	[981,]	0.5	0.1	0.2	0.2
##	[982,]	0.6	0.1	0.1	0.2
##	[983,]	0.9	0.1	0.0	0.0
##	[984,]	0.5	0.1	0.2	0.2
##	[985,]	0.0	0.0	0.2	0.8
##	[986,]	0.9	0.1	0.0	0.0
##	[987,]	0.7	0.1	0.0	0.2
##	[988,]	0.0	0.0	0.2	0.8
##	[989,]	0.0	0.0	0.2	0.8
##	[990,]	0.0	0.0	0.2	0.8
##	[991,]	0.5	0.1	0.2	0.2
##	[992,]	0.2	0.1	0.2	0.5
##	[993,]	0.9	0.1	0.0	0.0
##	[994,]	0.9	0.1	0.0	0.0
##	[995,]	0.9	0.1	0.0	0.0
##	[996,]	0.0	0.0	0.2	0.8
##	[997,]	0.9	0.1	0.0	0.0
##	[998,]	0.9	0.1	0.0	0.0
##	[999,]	0.5	0.1	0.2	0.2
##	[1000,]	0.9	0.1	0.0	0.0
##	[1001,]	0.5	0.1	0.2	0.2
##	[1002,]	0.0	0.0	0.2	0.8
##	[1003,]	0.9	0.1	0.0	0.0
##	[1004,]	0.9	0.1	0.0	0.0
##	[1005,]	0.0	0.1	0.2	0.7
##	[1006,]	0.9	0.1	0.0	0.0
##	[1007,]	0.5	0.1	0.2	0.2
##	[1008,]	0.2	0.1	0.2	0.5
##	[1009,]	0.9	0.1	0.0	0.0
##	[1010,]	0.9	0.1	0.0	0.0



```

## [1011,] 0.0 0.0 0.2 0.8
## [1012,] 0.5 0.1 0.2 0.2
## [1013,] 0.5 0.1 0.2 0.2
## [1014,] 0.5 0.1 0.2 0.2
## [1015,] 0.0 0.0 0.2 0.8
## [1016,] 0.0 0.0 0.2 0.8
## [1017,] 0.9 0.1 0.0 0.0
## [1018,] 0.5 0.1 0.2 0.2
## [1019,] 0.9 0.1 0.0 0.0
## [1020,] 0.0 0.0 0.2 0.8
## [1021,] 0.5 0.1 0.2 0.2
## [1022,] 0.9 0.1 0.0 0.0
## [1023,] 0.0 0.0 0.2 0.8
## [1024,] 0.9 0.1 0.0 0.0
## [1025,] 0.0 0.1 0.2 0.7
## [1026,] 0.9 0.1 0.0 0.0
## [1027,] 0.0 0.1 0.2 0.7
## [1028,] 0.0 0.0 0.2 0.8
## [1029,] 0.5 0.1 0.2 0.2
## [1030,] 0.2 0.1 0.2 0.5
## [1031,] 0.2 0.1 0.2 0.5
## [1032,] 0.5 0.1 0.2 0.2
## [1033,] 0.0 0.0 0.2 0.8
## [1034,] 0.0 0.0 0.2 0.8
## [1035,] 0.0 0.0 0.2 0.8
## [1036,] 0.9 0.1 0.0 0.0
## [1037,] 0.5 0.1 0.2 0.2
## [1038,] 0.2 0.1 0.2 0.5
## [1039,] 0.0 0.0 0.2 0.8
## [1040,] 0.6 0.1 0.1 0.2
## [1041,] 0.5 0.1 0.2 0.2
## [1042,] 0.9 0.1 0.0 0.0
## [1043,] 0.0 0.1 0.2 0.7
## [1044,] 0.0 0.0 0.2 0.8
## [1045,] 0.0 0.0 0.2 0.8
## [1046,] 0.5 0.1 0.2 0.2
## [1047,] 0.0 0.0 0.2 0.8
## [1048,] 0.0 0.0 0.2 0.8
## [1049,] 0.2 0.1 0.2 0.5
## [1050,] 0.0 0.0 0.2 0.8
## [1051,] 0.9 0.1 0.0 0.0
## [1052,] 0.9 0.1 0.0 0.0
## [1053,] 0.0 0.1 0.2 0.7
## [1054,] 0.0 0.0 0.2 0.8
## [1055,] 0.9 0.1 0.0 0.0
## [1056,] 0.0 0.1 0.2 0.7
## [1057,] 0.9 0.1 0.0 0.0
## [1058,] 0.6 0.1 0.1 0.2
## [1059,] 0.9 0.1 0.0 0.0
## [1060,] 0.9 0.1 0.0 0.0
## [1061,] 0.0 0.0 0.2 0.8
## [1062,] 0.2 0.1 0.2 0.5
## [1063,] 0.5 0.1 0.2 0.2
## [1064,] 0.0 0.0 0.2 0.8

```

```

## [1065,] 0.5 0.1 0.2 0.2
## [1066,] 0.5 0.1 0.2 0.2
## [1067,] 0.0 0.0 0.2 0.8
## [1068,] 0.0 0.1 0.2 0.7
## [1069,] 0.0 0.1 0.2 0.7
## [1070,] 0.0 0.1 0.2 0.7
## [1071,] 0.0 0.0 0.2 0.8
## [1072,] 0.0 0.0 0.2 0.8
## [1073,] 0.5 0.1 0.2 0.2
## [1074,] 0.9 0.1 0.0 0.0
## [1075,] 0.0 0.0 0.2 0.8
## [1076,] 0.0 0.0 0.2 0.8
## [1077,] 0.5 0.1 0.2 0.2
## [1078,] 0.5 0.1 0.2 0.2
## [1079,] 0.9 0.1 0.0 0.0
## [1080,] 0.5 0.1 0.2 0.2
## [1081,] 0.0 0.0 0.2 0.8
## [1082,] 0.5 0.1 0.2 0.2
## [1083,] 0.9 0.1 0.0 0.0
## [1084,] 0.0 0.0 0.2 0.8
## [1085,] 0.0 0.0 0.2 0.8
## [1086,] 0.9 0.1 0.0 0.0
## [1087,] 0.0 0.0 0.2 0.8
## [1088,] 0.5 0.1 0.2 0.2
## [1089,] 0.0 0.0 0.2 0.8
## [1090,] 0.0 0.0 0.2 0.8
## [1091,] 0.9 0.1 0.0 0.0
## [1092,] 0.5 0.1 0.2 0.2
## [1093,] 0.0 0.0 0.2 0.8
## [1094,] 0.0 0.0 0.2 0.8
## [1095,] 0.0 0.0 0.2 0.8
## [1096,] 0.0 0.1 0.2 0.7
## [1097,] 0.0 0.1 0.2 0.7
## [1098,] 0.5 0.1 0.2 0.2
## [1099,] 0.2 0.1 0.2 0.5
## [1100,] 0.9 0.1 0.0 0.0
## [1101,] 0.0 0.0 0.2 0.8
## [1102,] 0.0 0.0 0.2 0.8
## [1103,] 0.0 0.1 0.2 0.7
## [1104,] 0.0 0.1 0.2 0.7
## [1105,] 0.0 0.1 0.2 0.7
## [1106,] 0.0 0.0 0.2 0.8
## [1107,] 0.9 0.1 0.0 0.0
## [1108,] 0.9 0.1 0.0 0.0
## [1109,] 0.0 0.0 0.2 0.8
## [1110,] 0.9 0.1 0.0 0.0
## [1111,] 0.0 0.0 0.2 0.8
## [1112,] 0.0 0.0 0.2 0.8
## [1113,] 0.9 0.1 0.0 0.0
## [1114,] 0.0 0.0 0.2 0.8
## [1115,] 0.9 0.1 0.0 0.0
## [1116,] 0.3 0.1 0.2 0.4
## [1117,] 0.9 0.1 0.0 0.0
## [1118,] 0.9 0.1 0.0 0.0

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```

## [1119,] 0.9 0.1 0.0 0.0
## [1120,] 0.9 0.1 0.0 0.0
## [1121,] 0.9 0.1 0.0 0.0
## [1122,] 0.0 0.0 0.2 0.8
## [1123,] 0.5 0.1 0.2 0.2
## [1124,] 0.5 0.1 0.2 0.2
## [1125,] 0.0 0.0 0.2 0.8
## [1126,] 0.0 0.0 0.2 0.8
## [1127,] 0.0 0.1 0.2 0.7
## [1128,] 0.5 0.1 0.2 0.2
## [1129,] 0.0 0.0 0.2 0.8
## [1130,] 0.9 0.1 0.0 0.0
## [1131,] 0.0 0.0 0.2 0.8
## [1132,] 0.0 0.0 0.2 0.8
## [1133,] 0.9 0.1 0.0 0.0
## [1134,] 0.0 0.0 0.2 0.8
## [1135,] 0.0 0.0 0.2 0.8
## [1136,] 0.5 0.1 0.2 0.2
## [1137,] 0.0 0.0 0.2 0.8
## [1138,] 0.0 0.0 0.2 0.8
## [1139,] 0.0 0.0 0.2 0.8
## [1140,] 0.0 0.0 0.2 0.8
## [1141,] 0.0 0.0 0.2 0.8
## [1142,] 0.0 0.0 0.2 0.8
## [1143,] 0.0 0.0 0.2 0.8
## [1144,] 0.0 0.0 0.2 0.8
## [1145,] 0.0 0.0 0.2 0.8
## [1146,] 0.5 0.1 0.2 0.2
## [1147,] 0.0 0.0 0.2 0.8
## [1148,] 0.5 0.1 0.2 0.2
## [1149,] 0.9 0.1 0.0 0.0
## [1150,] 0.5 0.1 0.2 0.2
## [1151,] 0.9 0.1 0.0 0.0
## [1152,] 0.0 0.0 0.2 0.8
## [1153,] 0.0 0.0 0.2 0.8
## [1154,] 0.5 0.1 0.2 0.2
## [1155,] 0.9 0.1 0.0 0.0
## [1156,] 0.5 0.1 0.2 0.2
## [1157,] 0.9 0.1 0.0 0.0
## [1158,] 0.5 0.1 0.2 0.2
## [1159,] 0.5 0.1 0.2 0.2
## [1160,] 0.0 0.0 0.2 0.8
## [1161,] 0.0 0.0 0.2 0.8
## [1162,] 0.0 0.0 0.2 0.8
## [1163,] 0.0 0.0 0.2 0.8
## [1164,] 0.5 0.1 0.2 0.2
## [1165,] 0.0 0.1 0.2 0.7
## [1166,] 0.9 0.1 0.0 0.0
## [1167,] 0.5 0.1 0.2 0.2
## [1168,] 0.0 0.0 0.2 0.8
## [1169,] 0.5 0.1 0.2 0.2
## [1170,] 0.9 0.1 0.0 0.0
## [1171,] 0.5 0.1 0.2 0.2
## [1172,] 0.9 0.1 0.0 0.0

```

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## [1173,] 0.0 0.0 0.2 0.8
## [1174,] 0.9 0.1 0.0 0.0
## [1175,] 0.0 0.1 0.2 0.7
## [1176,] 0.0 0.0 0.2 0.8
## [1177,] 0.0 0.1 0.2 0.7
## [1178,] 0.9 0.1 0.0 0.0
## [1179,] 0.5 0.1 0.2 0.2
## [1180,] 0.0 0.0 0.2 0.8
## [1181,] 0.5 0.1 0.2 0.2
## [1182,] 0.5 0.1 0.2 0.2
## [1183,] 0.5 0.1 0.2 0.2
## [1184,] 0.0 0.0 0.2 0.8
## [1185,] 0.5 0.1 0.2 0.2
## [1186,] 0.0 0.0 0.2 0.8
## [1187,] 0.5 0.1 0.2 0.2
## [1188,] 0.5 0.1 0.2 0.2
## [1189,] 0.0 0.0 0.2 0.8
## [1190,] 0.0 0.0 0.2 0.8
## [1191,] 0.5 0.1 0.2 0.2
## [1192,] 0.0 0.1 0.2 0.7
## [1193,] 0.0 0.0 0.2 0.8
## [1194,] 0.0 0.0 0.2 0.8
## [1195,] 0.0 0.0 0.2 0.8
## [1196,] 0.9 0.1 0.0 0.0
## [1197,] 0.0 0.0 0.2 0.8
## [1198,] 0.0 0.0 0.2 0.8
## [1199,] 0.5 0.1 0.2 0.2
## [1200,] 0.0 0.0 0.2 0.8
## [1201,] 0.0 0.0 0.2 0.8
## [1202,] 0.5 0.1 0.2 0.2
## [1203,] 0.0 0.0 0.2 0.8
## [1204,] 0.0 0.0 0.2 0.8
## [1205,] 0.9 0.1 0.0 0.0
## [1206,] 0.0 0.0 0.2 0.8
## [1207,] 0.9 0.1 0.0 0.0
## [1208,] 0.0 0.0 0.2 0.8
## [1209,] 0.0 0.0 0.2 0.8
## [1210,] 0.0 0.0 0.2 0.8
## [1211,] 0.0 0.0 0.2 0.8
## [1212,] 0.0 0.0 0.2 0.8
## [1213,] 0.7 0.1 0.0 0.2
## [1214,] 0.0 0.0 0.2 0.8
## [1215,] 0.5 0.1 0.2 0.2
## [1216,] 0.0 0.0 0.2 0.8
## [1217,] 0.0 0.0 0.2 0.8
## [1218,] 0.0 0.0 0.2 0.8
## [1219,] 0.9 0.1 0.0 0.0
## [1220,] 0.0 0.0 0.2 0.8
## [1221,] 0.0 0.0 0.2 0.8
## [1222,] 0.0 0.0 0.2 0.8
## [1223,] 0.9 0.1 0.0 0.0
## [1224,] 0.0 0.0 0.2 0.8
## [1225,] 0.0 0.0 0.2 0.8
## [1226,] 0.0 0.0 0.2 0.8

```

```

## [1227,] 0.5 0.1 0.2 0.2
## [1228,] 0.5 0.1 0.2 0.2
## [1229,] 0.0 0.1 0.2 0.7
## [1230,] 0.3 0.1 0.2 0.4
## [1231,] 0.0 0.0 0.2 0.8
## [1232,] 0.9 0.1 0.0 0.0
## [1233,] 0.1 0.1 0.2 0.6
## [1234,] 0.0 0.0 0.2 0.8
## [1235,] 0.9 0.1 0.0 0.0
## [1236,] 0.0 0.0 0.2 0.8
## [1237,] 0.9 0.1 0.0 0.0
## [1238,] 0.0 0.0 0.2 0.8
## [1239,] 0.5 0.1 0.2 0.2
## [1240,] 0.0 0.1 0.2 0.7
## [1241,] 0.0 0.0 0.2 0.8
## [1242,] 0.9 0.1 0.0 0.0
## [1243,] 0.0 0.0 0.2 0.8
## [1244,] 0.0 0.0 0.2 0.8
## [1245,] 0.9 0.1 0.0 0.0
## [1246,] 0.0 0.0 0.2 0.8
## [1247,] 0.9 0.1 0.0 0.0
## [1248,] 0.9 0.1 0.0 0.0
## [1249,] 0.0 0.0 0.2 0.8
## [1250,] 0.5 0.1 0.2 0.2
## [1251,] 0.0 0.1 0.2 0.7
## [1252,] 0.0 0.0 0.2 0.8
## [1253,] 0.0 0.0 0.2 0.8
## [1254,] 0.0 0.0 0.2 0.8
## [1255,] 0.9 0.1 0.0 0.0
## [1256,] 0.2 0.1 0.2 0.5
## [1257,] 0.5 0.1 0.2 0.2
## [1258,] 0.5 0.1 0.2 0.2
## [1259,] 0.5 0.1 0.2 0.2
## [1260,] 0.0 0.0 0.2 0.8
## [1261,] 0.7 0.1 0.0 0.2
## [1262,] 0.0 0.1 0.2 0.7
## [1263,] 0.9 0.1 0.0 0.0
## [1264,] 0.0 0.1 0.2 0.7
## [1265,] 0.5 0.1 0.2 0.2
## [1266,] 0.6 0.1 0.1 0.2
## [1267,] 0.5 0.1 0.2 0.2
## [1268,] 0.9 0.1 0.0 0.0
## [1269,] 0.3 0.1 0.2 0.4
## [1270,] 0.9 0.1 0.0 0.0
## [1271,] 0.2 0.1 0.2 0.5
## [1272,] 0.0 0.0 0.2 0.8
## [1273,] 0.5 0.1 0.2 0.2
## [1274,] 0.9 0.1 0.0 0.0
## [1275,] 0.9 0.1 0.0 0.0
## [1276,] 0.0 0.0 0.2 0.8
## [1277,] 0.5 0.1 0.2 0.2
## [1278,] 0.2 0.1 0.2 0.5
## [1279,] 0.0 0.0 0.2 0.8
## [1280,] 0.5 0.1 0.2 0.2

```

```

## [1281,] 0.0 0.0 0.2 0.8
## [1282,] 0.0 0.0 0.2 0.8
## [1283,] 0.0 0.0 0.2 0.8
## [1284,] 0.9 0.1 0.0 0.0
## [1285,] 0.5 0.1 0.2 0.2
## [1286,] 0.5 0.1 0.2 0.2
## [1287,] 0.0 0.0 0.2 0.8
## [1288,] 0.0 0.0 0.2 0.8
## [1289,] 0.5 0.1 0.2 0.2
## [1290,] 0.5 0.1 0.2 0.2
## [1291,] 0.3 0.1 0.2 0.4
## [1292,] 0.9 0.1 0.0 0.0
## [1293,] 0.0 0.0 0.2 0.8
## [1294,] 0.0 0.0 0.2 0.8
## [1295,] 0.5 0.1 0.2 0.2
## [1296,] 0.0 0.0 0.2 0.8
## [1297,] 0.5 0.1 0.2 0.2
## [1298,] 0.0 0.0 0.2 0.8
## [1299,] 0.9 0.1 0.0 0.0
## [1300,] 0.0 0.0 0.2 0.8
## [1301,] 0.9 0.1 0.0 0.0
## [1302,] 0.0 0.0 0.2 0.8
## [1303,] 0.9 0.1 0.0 0.0
## [1304,] 0.9 0.1 0.0 0.0
## [1305,] 0.9 0.1 0.0 0.0
## [1306,] 0.0 0.0 0.2 0.8
## [1307,] 0.0 0.0 0.2 0.8
## [1308,] 0.9 0.1 0.0 0.0
## [1309,] 0.9 0.1 0.0 0.0
## [1310,] 0.9 0.1 0.0 0.0
## [1311,] 0.0 0.0 0.2 0.8
## [1312,] 0.0 0.0 0.2 0.8
## [1313,] 0.6 0.1 0.1 0.2
## [1314,] 0.9 0.1 0.0 0.0
## [1315,] 0.9 0.1 0.0 0.0
## [1316,] 0.0 0.0 0.2 0.8
## [1317,] 0.5 0.1 0.2 0.2
## [1318,] 0.0 0.0 0.2 0.8
## [1319,] 0.9 0.1 0.0 0.0
## [1320,] 0.0 0.0 0.2 0.8
## [1321,] 0.9 0.1 0.0 0.0
## [1322,] 0.1 0.1 0.2 0.6
## [1323,] 0.9 0.1 0.0 0.0
## [1324,] 0.0 0.0 0.2 0.8
## [1325,] 0.9 0.1 0.0 0.0
## [1326,] 0.9 0.1 0.0 0.0
## [1327,] 0.0 0.0 0.2 0.8
## [1328,] 0.9 0.1 0.0 0.0
## [1329,] 0.0 0.0 0.2 0.8
## [1330,] 0.9 0.1 0.0 0.0
## [1331,] 0.0 0.0 0.2 0.8
## [1332,] 0.0 0.0 0.2 0.8
## [1333,] 0.9 0.1 0.0 0.0
## [1334,] 0.9 0.1 0.0 0.0

```

```

## [1335,] 0.0 0.0 0.2 0.8
## [1336,] 0.0 0.0 0.2 0.8
## [1337,] 0.5 0.1 0.2 0.2
## [1338,] 0.0 0.0 0.2 0.8
## [1339,] 0.9 0.1 0.0 0.0
## [1340,] 0.0 0.1 0.2 0.7
## [1341,] 0.9 0.1 0.0 0.0
## [1342,] 0.9 0.1 0.0 0.0
## [1343,] 0.0 0.0 0.2 0.8
## [1344,] 0.9 0.1 0.0 0.0
## [1345,] 0.0 0.0 0.2 0.8
## [1346,] 0.0 0.0 0.2 0.8
## [1347,] 0.0 0.0 0.2 0.8
## [1348,] 0.5 0.1 0.2 0.2
## [1349,] 0.5 0.1 0.2 0.2
## [1350,] 0.5 0.1 0.2 0.2
## [1351,] 0.9 0.1 0.0 0.0
## [1352,] 0.5 0.1 0.2 0.2
## [1353,] 0.5 0.1 0.2 0.2
## [1354,] 0.5 0.1 0.2 0.2
## [1355,] 0.0 0.0 0.2 0.8
## [1356,] 0.5 0.1 0.2 0.2
## [1357,] 0.0 0.1 0.2 0.7
## [1358,] 0.0 0.0 0.2 0.8
## [1359,] 0.2 0.1 0.2 0.5
## [1360,] 0.9 0.1 0.0 0.0
## [1361,] 0.5 0.1 0.2 0.2
## [1362,] 0.0 0.1 0.2 0.7
## [1363,] 0.5 0.1 0.2 0.2
## [1364,] 0.0 0.0 0.2 0.8
## [1365,] 0.9 0.1 0.0 0.0
## [1366,] 0.3 0.1 0.2 0.4
## [1367,] 0.5 0.1 0.2 0.2
## [1368,] 0.0 0.0 0.2 0.8
## [1369,] 0.9 0.1 0.0 0.0
## [1370,] 0.0 0.0 0.2 0.8
## [1371,] 0.5 0.1 0.2 0.2
## [1372,] 0.5 0.1 0.2 0.2
## [1373,] 0.0 0.0 0.2 0.8
## [1374,] 0.9 0.1 0.0 0.0
## [1375,] 0.0 0.0 0.2 0.8
## [1376,] 0.5 0.1 0.2 0.2
## [1377,] 0.0 0.1 0.2 0.7
## [1378,] 0.9 0.1 0.0 0.0
## [1379,] 0.0 0.0 0.2 0.8
## [1380,] 0.2 0.1 0.2 0.5
## [1381,] 0.0 0.0 0.2 0.8
## [1382,] 0.9 0.1 0.0 0.0
## [1383,] 0.0 0.1 0.2 0.7
## [1384,] 0.5 0.1 0.2 0.2
## [1385,] 0.5 0.1 0.2 0.2
## [1386,] 0.5 0.1 0.2 0.2
## [1387,] 0.7 0.1 0.0 0.2
## [1388,] 0.0 0.1 0.2 0.7

```

```

## [1389,] 0.0 0.0 0.2 0.8
## [1390,] 0.0 0.1 0.2 0.7
## [1391,] 0.5 0.1 0.2 0.2
## [1392,] 0.5 0.1 0.2 0.2
## [1393,] 0.0 0.0 0.2 0.8
## [1394,] 0.0 0.0 0.2 0.8
## [1395,] 0.0 0.0 0.2 0.8
## [1396,] 0.9 0.1 0.0 0.0
## [1397,] 0.5 0.1 0.2 0.2
## [1398,] 0.0 0.0 0.2 0.8
## [1399,] 0.9 0.1 0.0 0.0
## [1400,] 0.0 0.0 0.2 0.8
##
## $class
## [1] "3" "3" "3" "0" "0" "0" "3" "3" "0" "3" "0" "0" "3" "3" "0" "0" "3" "3"
## [19] "3" "3" "3" "3" "0" "0" "3" "3" "3" "3" "0" "0" "0" "0" "3" "0" "3" "3"
## [37] "3" "0" "3" "3" "3" "0" "0" "0" "3" "3" "3" "3" "3" "0" "3" "3" "0" "3"
## [55] "0" "0" "3" "0" "3" "3" "0" "0" "0" "0" "3" "3" "3" "0" "0" "0" "0" "0"
## [73] "0" "3" "0" "3" "0" "0" "0" "3" "3" "0" "3" "0" "3" "3" "3" "0" "3" "3"
## [91] "3" "3" "3" "3" "0" "3" "0" "3" "3" "0" "0" "0" "0" "3" "0" "3" "3" "3"
## [109] "3" "0" "0" "0" "3" "0" "3" "3" "0" "3" "3" "3" "3" "3" "0" "3" "3" "3"
## [127] "0" "3" "3" "0" "0" "0" "3" "3" "3" "0" "3" "3" "3" "3" "3" "3" "0" "0"
## [145] "0" "0" "3" "3" "3" "3" "3" "0" "0" "3" "3" "3" "3" "3" "3" "3" "0"
## [163] "3" "3" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0" "0" "0" "3" "3" "0" "0"
## [181] "0" "3" "0" "0" "0" "3" "0" "3" "3" "0" "3" "0" "3" "3" "0" "0" "3" "0"
## [199] "0" "3" "0" "3" "3" "3" "0" "0" "0" "3" "0" "0" "3" "0" "0" "3" "0" "0"
## [217] "3" "0" "3" "0" "3" "3" "0" "0" "0" "0" "3" "0" "0" "0" "3" "3" "0" "3"
## [235] "0" "0" "0" "3" "3" "0" "3" "3" "0" "0" "3" "3" "3" "3" "3" "3" "3" "3"
## [253] "3" "0" "3" "0" "0" "3" "3" "0" "0" "3" "3" "3" "3" "3" "3" "0" "3" "0"
## [271] "0" "3" "3" "3" "3" "3" "3" "3" "3" "3" "3" "0" "0" "3" "3" "3" "0" "3"
## [289] "3" "0" "3" "3" "0" "3" "0" "3" "3" "0" "0" "0" "3" "3" "0" "3" "3" "0"
## [307] "0" "0" "3" "0" "0" "3" "0" "0" "3" "0" "0" "3" "0" "3" "0" "0" "3" "3"
## [325] "0" "0" "0" "3" "0" "0" "0" "3" "3" "0" "3" "3" "3" "3" "0" "3" "0" "3"
## [343] "0" "0" "3" "3" "0" "0" "0" "3" "0" "3" "3" "0" "3" "0" "0" "0" "3" "0"
## [361] "3" "3" "3" "3" "0" "3" "3" "3" "3" "0" "3" "3" "3" "3" "3" "3" "3" "3"
## [379] "3" "0" "3" "0" "0" "3" "0" "0" "3" "0" "0" "0" "0" "3" "3" "0" "0" "0"
## [397] "3" "0" "0" "3" "3" "3" "3" "0" "3" "3" "0" "0" "3" "3" "3" "0" "3" "0"
## [415] "0" "3" "3" "0" "3" "0" "0" "0" "3" "0" "0" "0" "3" "0" "3" "3" "3" "0"
## [433] "3" "3" "0" "3" "0" "0" "3" "0" "0" "0" "0" "3" "3" "0" "3" "3" "0" "0"
## [451] "3" "0" "3" "3" "3" "0" "3" "0" "0" "0" "0" "0" "0" "0" "0" "3" "3" "0"
## [469] "0" "0" "0" "3" "3" "3" "3" "3" "3" "0" "0" "3" "3" "0" "3" "3" "0" "3"
## [487] "0" "3" "3" "3" "0" "3" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0" "0" "0"
## [505] "0" "0" "0" "3" "3" "3" "3" "3" "3" "3" "0" "3" "3" "0" "3" "0" "0"
## [523] "3" "0" "3" "0" "0" "0" "3" "0" "0" "3" "3" "3" "3" "0" "0" "0" "3" "3"
## [541] "0" "3" "3" "0" "3" "0" "3" "3" "3" "3" "3" "0" "0" "3" "0" "0" "3" "0"
## [559] "0" "3" "3" "3" "3" "0" "0" "0" "0" "3" "3" "0" "0" "3" "3" "0" "3" "3"
## [577] "3" "3" "3" "3" "3" "3" "3" "3" "3" "3" "3" "3" "3" "3" "0" "0" "3" "0"
## [595] "0" "3" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0" "3" "0" "3" "3" "0" "3"
## [613] "3" "3" "3" "0" "0" "0" "0" "3" "3" "3" "3" "0" "3" "3" "0" "0" "0" "3"
## [631] "3" "0" "3" "0" "0" "3" "0" "3" "0" "3" "0" "0" "0" "0" "3" "3" "0" "0"
## [649] "3" "3" "3" "0" "3" "0" "3" "3" "3" "3" "3" "3" "3" "3" "0" "0" "0" "3"
## [667] "0" "3" "0" "0" "0" "0" "3" "3" "0" "3" "3" "3" "0" "0" "0" "0" "0" "3"
## [685] "0" "0" "3" "0" "0" "3" "3" "0" "0" "0" "3" "3" "0" "0" "0" "0" "0" "0"
## [703] "3" "3" "3" "3" "0" "0" "0" "3" "3" "0" "0" "0" "0" "0" "0" "3" "0" "0"

```



```

## [721] "0" "0" "3" "3" "3" "0" "0" "3" "0" "0" "3" "0" "0" "3" "3" "3" "0" "3"
## [739] "0" "0" "3" "3" "0" "3" "0" "3" "0" "0" "0" "0" "3" "0" "3" "0" "0" "3"
## [757] "0" "0" "3" "3" "3" "0" "0" "3" "3" "0" "0" "0" "3" "0" "0" "3" "0" "0"
## [775] "3" "3" "3" "3" "3" "3" "0" "3" "3" "3" "3" "3" "3" "3" "0" "3" "0" "3"
## [793] "3" "0" "3" "0" "3" "3" "3" "3" "3" "3" "0" "0" "0" "0" "3" "0" "3" "0"
## [811] "3" "0" "3" "3" "3" "0" "3" "0" "0" "3" "0" "3" "3" "3" "3" "3" "3" "0"
## [829] "3" "0" "0" "0" "3" "3" "0" "3" "0" "3" "0" "0" "3" "3" "0" "3" "0" "3"
## [847] "0" "3" "0" "0" "3" "0" "3" "0" "3" "0" "3" "0" "3" "3" "0" "3" "3" "0"
## [865] "0" "3" "3" "0" "0" "0" "3" "3" "0" "0" "0" "3" "3" "0" "3" "0" "0" "3"
## [883] "0" "3" "3" "3" "0" "0" "3" "3" "0" "3" "0" "0" "3" "0" "3" "0" "3" "3"
## [901] "0" "0" "3" "0" "0" "3" "0" "3" "0" "0" "3" "0" "0" "3" "0" "3" "3" "3"
## [919] "3" "0" "3" "0" "3" "3" "0" "0" "3" "3" "3" "3" "3" "0" "0" "3" "3" "0"
## [937] "0" "0" "0" "3" "3" "0" "0" "0" "0" "0" "3" "3" "3" "3" "0" "3" "0" "3"
## [955] "0" "3" "3" "3" "0" "3" "3" "0" "3" "3" "3" "0" "0" "3" "0" "0" "0" "0"
## [973] "3" "0" "0" "0" "3" "0" "3" "3" "0" "0" "0" "0" "3" "0" "0" "3" "3" "3"
## [991] "0" "3" "0" "0" "0" "3" "0" "0" "0" "0" "0" "3" "0" "0" "3" "0" "0" "3"
## [1009] "0" "0" "3" "0" "0" "0" "3" "3" "0" "0" "0" "3" "0" "0" "3" "0" "3" "0"
## [1027] "3" "3" "0" "3" "3" "0" "3" "3" "3" "0" "0" "3" "3" "0" "0" "0" "3" "3"
## [1045] "3" "0" "3" "3" "3" "3" "0" "0" "3" "3" "0" "3" "0" "0" "0" "0" "3" "3"
## [1063] "0" "3" "0" "0" "3" "3" "3" "3" "3" "3" "0" "0" "3" "3" "0" "0" "0" "0"
## [1081] "3" "0" "0" "3" "3" "0" "3" "0" "3" "3" "0" "0" "3" "3" "3" "3" "3" "0"
## [1099] "3" "0" "3" "3" "3" "3" "3" "3" "0" "0" "3" "0" "3" "3" "0" "3" "0" "3"
## [1117] "0" "0" "0" "0" "0" "3" "0" "0" "3" "3" "3" "0" "3" "0" "3" "3" "0" "3"
## [1135] "3" "0" "3" "3" "3" "3" "3" "3" "3" "3" "3" "0" "3" "0" "0" "0" "0" "3"
## [1153] "3" "0" "0" "0" "0" "0" "0" "3" "3" "3" "3" "0" "3" "0" "0" "3" "0" "0"
## [1171] "0" "0" "3" "0" "3" "3" "3" "0" "0" "3" "0" "0" "0" "3" "0" "3" "0" "0"
## [1189] "3" "3" "0" "3" "3" "3" "3" "0" "3" "3" "0" "3" "3" "0" "3" "3" "0" "3"
## [1207] "0" "3" "3" "3" "3" "3" "0" "3" "0" "3" "3" "3" "0" "3" "3" "3" "0" "3"
## [1225] "3" "3" "0" "0" "3" "3" "3" "0" "3" "3" "0" "3" "0" "3" "0" "3" "3" "0"
## [1243] "3" "3" "0" "3" "0" "0" "3" "0" "3" "3" "3" "3" "0" "3" "0" "0" "0" "3"
## [1261] "0" "3" "0" "3" "0" "0" "0" "0" "3" "0" "3" "3" "0" "0" "0" "3" "0" "3"
## [1279] "3" "0" "3" "3" "3" "0" "0" "0" "3" "3" "0" "0" "3" "0" "3" "3" "0" "3"
## [1297] "0" "3" "0" "3" "0" "3" "0" "0" "0" "3" "3" "0" "0" "0" "3" "3" "0" "0"
## [1315] "0" "3" "0" "3" "0" "3" "0" "3" "0" "3" "0" "0" "3" "0" "3" "0" "3" "3"
## [1333] "0" "0" "3" "3" "0" "3" "0" "3" "0" "0" "3" "0" "3" "3" "3" "0" "0" "0"
## [1351] "0" "0" "0" "0" "3" "0" "3" "3" "3" "0" "0" "3" "0" "3" "0" "3" "0" "3"
## [1369] "0" "3" "0" "0" "3" "0" "3" "0" "3" "0" "3" "3" "3" "0" "3" "0" "0" "0"
## [1387] "0" "3" "3" "3" "0" "0" "3" "3" "3" "0" "0" "3" "0" "3"
##
## $importance
## battery_power      blue  clock_speed      dual_sim      fc
##           0           0           0           0           0
##      four_g  int_memory      m_dep      mobile_wt      n_cores
##           0           0           0           0           0
##           pc  px_height      px_width      ram      sc_h
##           0           0           0          100           0
##      sc_w  talk_time      three_g  touch_screen      wifi
##           0           0           0           0           0
##
## $terms
## price_range ~ battery_power + blue + clock_speed + dual_sim +
##      fc + four_g + int_memory + m_dep + mobile_wt + n_cores +
##      pc + px_height + px_width + ram + sc_h + sc_w + talk_time +
##      three_g + touch_screen + wifi

```

```

## attr("variables")
## list(price_range, battery_power, blue, clock_speed, dual_sim,
##      fc, four_g, int_memory, m_dep, mobile_wt, n_cores, pc, px_height,
##      px_width, ram, sc_h, sc_w, talk_time, three_g, touch_screen,
##      wifi)
## attr("factors")
##      battery_power blue clock_speed dual_sim fc four_g int_memory
## price_range      0  0      0      0 0  0      0
## battery_power    1  0      0      0 0  0      0
## blue             0  1      0      0 0  0      0
## clock_speed      0  0      1      0 0  0      0
## dual_sim         0  0      0      1 0  0      0
## fc               0  0      0      0 1  0      0
## four_g           0  0      0      0 0  1      0
## int_memory       0  0      0      0 0  0      1
## m_dep            0  0      0      0 0  0      0
## mobile_wt        0  0      0      0 0  0      0
## n_cores          0  0      0      0 0  0      0
## pc               0  0      0      0 0  0      0
## px_height        0  0      0      0 0  0      0
## px_width         0  0      0      0 0  0      0
## ram              0  0      0      0 0  0      0
## sc_h             0  0      0      0 0  0      0
## sc_w             0  0      0      0 0  0      0
## talk_time        0  0      0      0 0  0      0
## three_g          0  0      0      0 0  0      0
## touch_screen     0  0      0      0 0  0      0
## wifi             0  0      0      0 0  0      0
##      m_dep mobile_wt n_cores pc px_height px_width ram sc_h sc_w
## price_range      0      0      0 0      0      0 0  0  0
## battery_power    0      0      0 0      0      0 0  0  0
## blue             0      0      0 0      0      0 0  0  0
## clock_speed      0      0      0 0      0      0 0  0  0
## dual_sim         0      0      0 0      0      0 0  0  0
## fc               0      0      0 0      0      0 0  0  0
## four_g           0      0      0 0      0      0 0  0  0
## int_memory       0      0      0 0      0      0 0  0  0
## m_dep            1      0      0 0      0      0 0  0  0
## mobile_wt        0      1      0 0      0      0 0  0  0
## n_cores          0      0      1 0      0      0 0  0  0
## pc               0      0      0 1      0      0 0  0  0
## px_height        0      0      0 0      1      0 0  0  0
## px_width         0      0      0 0      0      1 0  0  0
## ram              0      0      0 0      0      0 1  0  0
## sc_h             0      0      0 0      0      0 0  1  0
## sc_w             0      0      0 0      0      0 0  0  1
## talk_time        0      0      0 0      0      0 0  0  0
## three_g          0      0      0 0      0      0 0  0  0
## touch_screen     0      0      0 0      0      0 0  0  0
## wifi             0      0      0 0      0      0 0  0  0
##      talk_time three_g touch_screen wifi
## price_range      0      0      0  0
## battery_power    0      0      0  0
## blue             0      0      0  0

```

```

## clock_speed      0      0      0      0
## dual_sim         0      0      0      0
## fc               0      0      0      0
## four_g           0      0      0      0
## int_memory       0      0      0      0
## m_dep            0      0      0      0
## mobile_wt        0      0      0      0
## n_cores          0      0      0      0
## pc               0      0      0      0
## px_height        0      0      0      0
## px_width         0      0      0      0
## ram              0      0      0      0
## sc_h             0      0      0      0
## sc_w             0      0      0      0
## talk_time        1      0      0      0
## three_g          0      1      0      0
## touch_screen     0      0      1      0
## wifi             0      0      0      1
## attr("term.labels")
## [1] "battery_power" "blue" "clock_speed" "dual_sim"
## [5] "fc" "four_g" "int_memory" "m_dep"
## [9] "mobile_wt" "n_cores" "pc" "px_height"
## [13] "px_width" "ram" "sc_h" "sc_w"
## [17] "talk_time" "three_g" "touch_screen" "wifi"
## attr("order")
## [1] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
## attr("intercept")
## [1] 1
## attr("response")
## [1] 1
## attr(".Environment")
## <environment: R_GlobalEnv>
## attr("predvars")
## list(price_range, battery_power, blue, clock_speed, dual_sim,
##      fc, four_g, int_memory, m_dep, mobile_wt, n_cores, pc, px_height,
##      px_width, ram, sc_h, sc_w, talk_time, three_g, touch_screen,
##      wifi)
## attr("dataClasses")
## price_range battery_power blue clock_speed dual_sim
## "factor" "numeric" "numeric" "numeric" "numeric"
## fc four_g int_memory m_dep mobile_wt
## "numeric" "numeric" "numeric" "numeric" "numeric"
## n_cores pc px_height px_width ram
## "numeric" "numeric" "numeric" "numeric" "numeric"
## sc_h sc_w talk_time three_g touch_screen
## "numeric" "numeric" "numeric" "numeric" "numeric"
## wifi
## "numeric"
##
## $call
## boosting(formula = price_range ~ ., data = data_train, mfinal = 10,
## control = rpart.control(maxdepth = 1))
##
## attr("vardep.summary")

```

```
## 0 1 2 3
## 350 350 350 350
## attr("class")
## [1] "boosting"
```

```
data.predboosting <- predict.boosting(data.adaboost, newdata = data_test)
data.predboosting
```

```
## $formula
## price_range ~ .
##
## $votes
##           [,1]      [,2]      [,3]      [,4]
## [1,] 0.000000000 0.000000000 0.004000005 0.016000021
## [2,] 0.000000000 0.000000000 0.004000005 0.016000021
## [3,] 0.018000024 0.002000003 0.000000000 0.000000000
## [4,] 0.018000024 0.002000003 0.000000000 0.000000000
## [5,] 0.000000000 0.000000000 0.004000005 0.016000021
## [6,] 0.010000013 0.002000003 0.004000005 0.004000005
## [7,] 0.000000000 0.000000000 0.004000005 0.016000021
## [8,] 0.000000000 0.000000000 0.004000005 0.016000021
## [9,] 0.000000000 0.000000000 0.004000005 0.016000021
## [10,] 0.000000000 0.000000000 0.004000005 0.016000021
## [11,] 0.018000024 0.002000003 0.000000000 0.000000000
## [12,] 0.018000024 0.002000003 0.000000000 0.000000000
## [13,] 0.004000005 0.002000003 0.004000005 0.010000013
## [14,] 0.000000000 0.000000000 0.004000005 0.016000021
## [15,] 0.000000000 0.002000003 0.004000005 0.014000019
## [16,] 0.000000000 0.000000000 0.004000005 0.016000021
## [17,] 0.018000024 0.002000003 0.000000000 0.000000000
## [18,] 0.000000000 0.000000000 0.004000005 0.016000021
## [19,] 0.006000008 0.002000003 0.004000005 0.008000011
## [20,] 0.000000000 0.002000003 0.004000005 0.014000019
## [21,] 0.018000024 0.002000003 0.000000000 0.000000000
## [22,] 0.010000013 0.002000003 0.004000005 0.004000005
## [23,] 0.000000000 0.000000000 0.004000005 0.016000021
## [24,] 0.000000000 0.000000000 0.004000005 0.016000021
## [25,] 0.010000013 0.002000003 0.004000005 0.004000005
## [26,] 0.018000024 0.002000003 0.000000000 0.000000000
## [27,] 0.000000000 0.000000000 0.004000005 0.016000021
## [28,] 0.000000000 0.000000000 0.004000005 0.016000021
## [29,] 0.000000000 0.002000003 0.004000005 0.014000019
## [30,] 0.000000000 0.000000000 0.004000005 0.016000021
## [31,] 0.018000024 0.002000003 0.000000000 0.000000000
## [32,] 0.018000024 0.002000003 0.000000000 0.000000000
## [33,] 0.000000000 0.000000000 0.004000005 0.016000021
## [34,] 0.000000000 0.000000000 0.004000005 0.016000021
## [35,] 0.010000013 0.002000003 0.004000005 0.004000005
## [36,] 0.000000000 0.000000000 0.004000005 0.016000021
## [37,] 0.000000000 0.000000000 0.004000005 0.016000021
## [38,] 0.000000000 0.002000003 0.004000005 0.014000019
## [39,] 0.000000000 0.000000000 0.004000005 0.016000021
## [40,] 0.000000000 0.000000000 0.004000005 0.016000021
## [41,] 0.000000000 0.000000000 0.004000005 0.016000021
```

##	[42,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[43,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[44,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[45,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[46,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[47,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[48,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[49,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[50,]	0.006000008	0.002000003	0.004000005	0.008000011
##	[51,]	0.010000013	0.002000003	0.004000005	0.004000000
##	[52,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[53,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[54,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[55,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[56,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[57,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[58,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[59,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[60,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[61,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[62,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[63,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[64,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[65,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[66,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[67,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[68,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[69,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[70,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[71,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[72,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[73,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[74,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[75,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[76,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[77,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[78,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[79,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[80,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[81,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[82,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[83,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[84,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[85,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[86,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[87,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[88,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[89,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[90,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[91,]	0.000000000	0.000000000	0.004000005	0.01600002

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

##	[366,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[367,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[368,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[369,]	0.006000008	0.002000003	0.004000005	0.008000011
##	[370,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[371,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[372,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[373,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[374,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[375,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[376,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[377,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[378,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[379,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[380,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[381,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[382,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[383,]	0.016000021	0.002000003	0.000000000	0.002000003
##	[384,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[385,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[386,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[387,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[388,]	0.012000016	0.002000003	0.002000003	0.004000005
##	[389,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[390,]	0.004000005	0.002000003	0.004000005	0.010000013
##	[391,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[392,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[393,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[394,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[395,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[396,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[397,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[398,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[399,]	0.010000013	0.002000003	0.004000005	0.004000005
##	[400,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[401,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[402,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[403,]	0.012000016	0.002000003	0.002000003	0.004000005
##	[404,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[405,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[406,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[407,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[408,]	0.000000000	0.002000003	0.004000005	0.014000019
##	[409,]	0.018000024	0.002000003	0.000000000	0.000000000
##	[410,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[411,]	0.014000019	0.002000003	0.000000000	0.004000005
##	[412,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[413,]	0.000000000	0.000000000	0.004000005	0.016000021
##	[414,]	0.012000016	0.002000003	0.002000003	0.004000005
##	[415,]	0.018000			

[illegible]

[illegible]

[illegible]

```

## [582,] 0.000000000 0.000000000 0.004000005 0.016000021
## [583,] 0.000000000 0.000000000 0.004000005 0.016000021
## [584,] 0.018000024 0.002000003 0.000000000 0.000000000
## [585,] 0.014000019 0.002000003 0.000000000 0.004000005
## [586,] 0.010000013 0.002000003 0.004000005 0.004000005
## [587,] 0.018000024 0.002000003 0.000000000 0.000000000
## [588,] 0.000000000 0.000000000 0.004000005 0.016000021
## [589,] 0.000000000 0.000000000 0.004000005 0.016000021
## [590,] 0.000000000 0.000000000 0.004000005 0.016000021
## [591,] 0.010000013 0.002000003 0.004000005 0.004000005
## [592,] 0.000000000 0.000000000 0.004000005 0.016000021
## [593,] 0.018000024 0.002000003 0.000000000 0.000000000
## [594,] 0.018000024 0.002000003 0.000000000 0.000000000
## [595,] 0.018000024 0.002000003 0.000000000 0.000000000
## [596,] 0.000000000 0.000000000 0.004000005 0.016000021
## [597,] 0.010000013 0.002000003 0.004000005 0.004000005
## [598,] 0.018000024 0.002000003 0.000000000 0.000000000
## [599,] 0.018000024 0.002000003 0.000000000 0.000000000
## [600,] 0.000000000 0.000000000 0.004000005 0.016000021
##
## $prob
##      [,1] [,2] [,3] [,4]
## [1,] 0.0 0.0 0.2 0.8
## [2,] 0.0 0.0 0.2 0.8
## [3,] 0.9 0.1 0.0 0.0
## [4,] 0.9 0.1 0.0 0.0
## [5,] 0.0 0.0 0.2 0.8
## [6,] 0.5 0.1 0.2 0.2
## [7,] 0.0 0.0 0.2 0.8
## [8,] 0.0 0.0 0.2 0.8
## [9,] 0.0 0.0 0.2 0.8
## [10,] 0.0 0.0 0.2 0.8
## [11,] 0.9 0.1 0.0 0.0
## [12,] 0.9 0.1 0.0 0.0
## [13,] 0.2 0.1 0.2 0.5
## [14,] 0.0 0.0 0.2 0.8
## [15,] 0.0 0.1 0.2 0.7
## [16,] 0.0 0.0 0.2 0.8
## [17,] 0.9 0.1 0.0 0.0
## [18,] 0.0 0.0 0.2 0.8
## [19,] 0.3 0.1 0.2 0.4
## [20,] 0.0 0.1 0.2 0.7
## [21,] 0.9 0.1 0.0 0.0
## [22,] 0.5 0.1 0.2 0.2
## [23,] 0.0 0.0 0.2 0.8
## [24,] 0.0 0.0 0.2 0.8
## [25,] 0.5 0.1 0.2 0.2
## [26,] 0.9 0.1 0.0 0.0
## [27,] 0.0 0.0 0.2 0.8
## [28,] 0.0 0.0 0.2 0.8
## [29,] 0.0 0.1 0.2 0.7
## [30,] 0.0 0.0 0.2 0.8
## [31,] 0.9 0.1 0.0 0.0
## [32,] 0.9 0.1 0.0 0.0

```

##	[33,]	0.0	0.0	0.2	0.8
##	[34,]	0.0	0.0	0.2	0.8
##	[35,]	0.5	0.1	0.2	0.2
##	[36,]	0.0	0.0	0.2	0.8
##	[37,]	0.0	0.0	0.2	0.8
##	[38,]	0.0	0.1	0.2	0.7
##	[39,]	0.0	0.0	0.2	0.8
##	[40,]	0.0	0.0	0.2	0.8
##	[41,]	0.0	0.0	0.2	0.8
##	[42,]	0.0	0.1	0.2	0.7
##	[43,]	0.0	0.0	0.2	0.8
##	[44,]	0.2	0.1	0.2	0.5
##	[45,]	0.9	0.1	0.0	0.0
##	[46,]	0.9	0.1	0.0	0.0
##	[47,]	0.9	0.1	0.0	0.0
##	[48,]	0.9	0.1	0.0	0.0
##	[49,]	0.0	0.0	0.2	0.8
##	[50,]	0.3	0.1	0.2	0.4
##	[51,]	0.5	0.1	0.2	0.2
##	[52,]	0.5	0.1	0.2	0.2
##	[53,]	0.0	0.0	0.2	0.8
##	[54,]	0.0	0.1	0.2	0.7
##	[55,]	0.5	0.1	0.2	0.2
##	[56,]	0.0	0.0	0.2	0.8
##	[57,]	0.5	0.1	0.2	0.2
##	[58,]	0.0	0.0	0.2	0.8
##	[59,]	0.5	0.1	0.2	0.2
##	[60,]	0.0	0.0	0.2	0.8
##	[61,]	0.0	0.0	0.2	0.8
##	[62,]	0.2	0.1	0.2	0.5
##	[63,]	0.9	0.1	0.0	0.0
##	[64,]	0.0	0.0	0.2	0.8
##	[65,]	0.9	0.1	0.0	0.0
##	[66,]	0.5	0.1	0.2	0.2
##	[67,]	0.9	0.1	0.0	0.0
##	[68,]	0.0	0.0	0.2	0.8
##	[69,]	0.9	0.1	0.0	0.0
##	[70,]	0.0	0.0	0.2	0.8
##	[71,]	0.0	0.0	0.2	0.8
##	[72,]	0.5	0.1	0.2	0.2
##	[73,]	0.0	0.1	0.2	0.7
##	[74,]	0.9	0.1	0.0	0.0
##	[75,]	0.2	0.1	0.2	0.5
##	[76,]	0.9	0.1	0.0	0.0
##	[77,]	0.0	0.0	0.2	0.8
##	[78,]	0.9	0.1	0.0	0.0
##	[79,]	0.9	0.1	0.0	0.0
##	[80,]	0.5	0.1	0.2	0.2
##	[81,]	0.9	0.1	0.0	0.0
##	[82,]	0.9	0.1	0.0	0.0
##	[83,]	0.0	0.1	0.2	0.7
##	[84,]	0.9	0.1	0.0	0.0
##	[85,]	0.0	0.0	0.2	0.8
##	[86,]	0.5	0.1	0.2	0.2



```

## [87,] 0.0 0.1 0.2 0.7
## [88,] 0.0 0.0 0.2 0.8
## [89,] 0.0 0.0 0.2 0.8
## [90,] 0.9 0.1 0.0 0.0
## [91,] 0.0 0.0 0.2 0.8
## [92,] 0.9 0.1 0.0 0.0
## [93,] 0.9 0.1 0.0 0.0
## [94,] 0.9 0.1 0.0 0.0
## [95,] 0.9 0.1 0.0 0.0
## [96,] 0.0 0.0 0.2 0.8
## [97,] 0.6 0.1 0.1 0.2
## [98,] 0.0 0.0 0.2 0.8
## [99,] 0.0 0.0 0.2 0.8
## [100,] 0.5 0.1 0.2 0.2
## [101,] 0.0 0.0 0.2 0.8
## [102,] 0.0 0.0 0.2 0.8
## [103,] 0.9 0.1 0.0 0.0
## [104,] 0.9 0.1 0.0 0.0
## [105,] 0.9 0.1 0.0 0.0
## [106,] 0.0 0.0 0.2 0.8
## [107,] 0.9 0.1 0.0 0.0
## [108,] 0.9 0.1 0.0 0.0
## [109,] 0.0 0.0 0.2 0.8
## [110,] 0.0 0.0 0.2 0.8
## [111,] 0.0 0.0 0.2 0.8
## [112,] 0.0 0.0 0.2 0.8
## [113,] 0.0 0.0 0.2 0.8
## [114,] 0.0 0.0 0.2 0.8
## [115,] 0.9 0.1 0.0 0.0
## [116,] 0.0 0.0 0.2 0.8
## [117,] 0.0 0.0 0.2 0.8
## [118,] 0.0 0.0 0.2 0.8
## [119,] 0.0 0.0 0.2 0.8
## [120,] 0.0 0.0 0.2 0.8
## [121,] 0.0 0.1 0.2 0.7
## [122,] 0.0 0.0 0.2 0.8
## [123,] 0.5 0.1 0.2 0.2
## [124,] 0.0 0.0 0.2 0.8
## [125,] 0.9 0.1 0.0 0.0
## [126,] 0.0 0.0 0.2 0.8
## [127,] 0.9 0.1 0.0 0.0
## [128,] 0.9 0.1 0.0 0.0
## [129,] 0.9 0.1 0.0 0.0
## [130,] 0.5 0.1 0.2 0.2
## [131,] 0.0 0.0 0.2 0.8
## [132,] 0.5 0.1 0.2 0.2
## [133,] 0.0 0.1 0.2 0.7
## [134,] 0.0 0.0 0.2 0.8
## [135,] 0.9 0.1 0.0 0.0
## [136,] 0.0 0.0 0.2 0.8
## [137,] 0.0 0.1 0.2 0.7
## [138,] 0.9 0.1 0.0 0.0
## [139,] 0.0 0.0 0.2 0.8
## [140,] 0.5 0.1 0.2 0.2

```

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## [141,] 0.9 0.1 0.0 0.0
## [142,] 0.0 0.0 0.2 0.8
## [143,] 0.0 0.0 0.2 0.8
## [144,] 0.9 0.1 0.0 0.0
## [145,] 0.0 0.0 0.2 0.8
## [146,] 0.0 0.0 0.2 0.8
## [147,] 0.0 0.1 0.2 0.7
## [148,] 0.9 0.1 0.0 0.0
## [149,] 0.0 0.1 0.2 0.7
## [150,] 0.0 0.0 0.2 0.8
## [151,] 0.9 0.1 0.0 0.0
## [152,] 0.5 0.1 0.2 0.2
## [153,] 0.0 0.0 0.2 0.8
## [154,] 0.9 0.1 0.0 0.0
## [155,] 0.9 0.1 0.0 0.0
## [156,] 0.5 0.1 0.2 0.2
## [157,] 0.0 0.0 0.2 0.8
## [158,] 0.0 0.0 0.2 0.8
## [159,] 0.0 0.0 0.2 0.8
## [160,] 0.0 0.0 0.2 0.8
## [161,] 0.0 0.1 0.2 0.7
## [162,] 0.5 0.1 0.2 0.2
## [163,] 0.0 0.0 0.2 0.8
## [164,] 0.5 0.1 0.2 0.2
## [165,] 0.7 0.1 0.0 0.2
## [166,] 0.0 0.1 0.2 0.7
## [167,] 0.0 0.0 0.2 0.8
## [168,] 0.9 0.1 0.0 0.0
## [169,] 0.9 0.1 0.0 0.0
## [170,] 0.0 0.0 0.2 0.8
## [171,] 0.0 0.0 0.2 0.8
## [172,] 0.9 0.1 0.0 0.0
## [173,] 0.9 0.1 0.0 0.0
## [174,] 0.9 0.1 0.0 0.0
## [175,] 0.9 0.1 0.0 0.0
## [176,] 0.0 0.0 0.2 0.8
## [177,] 0.0 0.0 0.2 0.8
## [178,] 0.0 0.0 0.2 0.8
## [179,] 0.0 0.0 0.2 0.8
## [180,] 0.2 0.1 0.2 0.5
## [181,] 0.9 0.1 0.0 0.0
## [182,] 0.5 0.1 0.2 0.2
## [183,] 0.0 0.0 0.2 0.8
## [184,] 0.0 0.0 0.2 0.8
## [185,] 0.0 0.0 0.2 0.8
## [186,] 0.0 0.0 0.2 0.8
## [187,] 0.0 0.0 0.2 0.8
## [188,] 0.6 0.1 0.1 0.2
## [189,] 0.9 0.1 0.0 0.0
## [190,] 0.0 0.0 0.2 0.8
## [191,] 0.2 0.1 0.2 0.5
## [192,] 0.5 0.1 0.2 0.2
## [193,] 0.0 0.0 0.2 0.8
## [194,] 0.5 0.1 0.2 0.2

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## [195,] 0.5 0.1 0.2 0.2
## [196,] 0.9 0.1 0.0 0.0
## [197,] 0.0 0.0 0.2 0.8
## [198,] 0.9 0.1 0.0 0.0
## [199,] 0.9 0.1 0.0 0.0
## [200,] 0.0 0.0 0.2 0.8
## [201,] 0.0 0.0 0.2 0.8
## [202,] 0.9 0.1 0.0 0.0
## [203,] 0.0 0.0 0.2 0.8
## [204,] 0.0 0.1 0.2 0.7
## [205,] 0.0 0.0 0.2 0.8
## [206,] 0.5 0.1 0.2 0.2
## [207,] 0.0 0.1 0.2 0.7
## [208,] 0.5 0.1 0.2 0.2
## [209,] 0.0 0.0 0.2 0.8
## [210,] 0.9 0.1 0.0 0.0
## [211,] 0.5 0.1 0.2 0.2
## [212,] 0.9 0.1 0.0 0.0
## [213,] 0.0 0.0 0.2 0.8
## [214,] 0.2 0.1 0.2 0.5
## [215,] 0.0 0.1 0.2 0.7
## [216,] 0.9 0.1 0.0 0.0
## [217,] 0.0 0.0 0.2 0.8
## [218,] 0.0 0.0 0.2 0.8
## [219,] 0.0 0.0 0.2 0.8
## [220,] 0.9 0.1 0.0 0.0
## [221,] 0.0 0.0 0.2 0.8
## [222,] 0.0 0.0 0.2 0.8
## [223,] 0.5 0.1 0.2 0.2
## [224,] 0.9 0.1 0.0 0.0
## [225,] 0.0 0.0 0.2 0.8
## [226,] 0.5 0.1 0.2 0.2
## [227,] 0.0 0.0 0.2 0.8
## [228,] 0.5 0.1 0.2 0.2
## [229,] 0.5 0.1 0.2 0.2
## [230,] 0.0 0.0 0.2 0.8
## [231,] 0.5 0.1 0.2 0.2
## [232,] 0.0 0.0 0.2 0.8
## [233,] 0.0 0.0 0.2 0.8
## [234,] 0.9 0.1 0.0 0.0
## [235,] 0.0 0.0 0.2 0.8
## [236,] 0.0 0.0 0.2 0.8
## [237,] 0.0 0.1 0.2 0.7
## [238,] 0.9 0.1 0.0 0.0
## [239,] 0.5 0.1 0.2 0.2
## [240,] 0.2 0.1 0.2 0.5
## [241,] 0.0 0.0 0.2 0.8
## [242,] 0.0 0.0 0.2 0.8
## [243,] 0.0 0.0 0.2 0.8
## [244,] 0.9 0.1 0.0 0.0
## [245,] 0.5 0.1 0.2 0.2
## [246,] 0.0 0.0 0.2 0.8
## [247,] 0.9 0.1 0.0 0.0
## [248,] 0.9 0.1 0.0 0.0

```

```

## [249,] 0.9 0.1 0.0 0.0
## [250,] 0.5 0.1 0.2 0.2
## [251,] 0.2 0.1 0.2 0.5
## [252,] 0.9 0.1 0.0 0.0
## [253,] 0.0 0.0 0.2 0.8
## [254,] 0.0 0.0 0.2 0.8
## [255,] 0.5 0.1 0.2 0.2
## [256,] 0.0 0.0 0.2 0.8
## [257,] 0.5 0.1 0.2 0.2
## [258,] 0.9 0.1 0.0 0.0
## [259,] 0.0 0.0 0.2 0.8
## [260,] 0.9 0.1 0.0 0.0
## [261,] 0.0 0.0 0.2 0.8
## [262,] 0.0 0.0 0.2 0.8
## [263,] 0.5 0.1 0.2 0.2
## [264,] 0.5 0.1 0.2 0.2
## [265,] 0.0 0.0 0.2 0.8
## [266,] 0.9 0.1 0.0 0.0
## [267,] 0.0 0.0 0.2 0.8
## [268,] 0.0 0.1 0.2 0.7
## [269,] 0.3 0.1 0.2 0.4
## [270,] 0.5 0.1 0.2 0.2
## [271,] 0.9 0.1 0.0 0.0
## [272,] 0.9 0.1 0.0 0.0
## [273,] 0.9 0.1 0.0 0.0
## [274,] 0.5 0.1 0.2 0.2
## [275,] 0.9 0.1 0.0 0.0
## [276,] 0.0 0.0 0.2 0.8
## [277,] 0.0 0.0 0.2 0.8
## [278,] 0.5 0.1 0.2 0.2
## [279,] 0.0 0.0 0.2 0.8
## [280,] 0.9 0.1 0.0 0.0
## [281,] 0.9 0.1 0.0 0.0
## [282,] 0.2 0.1 0.2 0.5
## [283,] 0.0 0.0 0.2 0.8
## [284,] 0.0 0.0 0.2 0.8
## [285,] 0.9 0.1 0.0 0.0
## [286,] 0.0 0.0 0.2 0.8
## [287,] 0.0 0.0 0.2 0.8
## [288,] 0.9 0.1 0.0 0.0
## [289,] 0.5 0.1 0.2 0.2
## [290,] 0.0 0.0 0.2 0.8
## [291,] 0.9 0.1 0.0 0.0
## [292,] 0.0 0.0 0.2 0.8
## [293,] 0.5 0.1 0.2 0.2
## [294,] 0.0 0.0 0.2 0.8
## [295,] 0.9 0.1 0.0 0.0
## [296,] 0.9 0.1 0.0 0.0
## [297,] 0.0 0.0 0.2 0.8
## [298,] 0.0 0.0 0.2 0.8
## [299,] 0.9 0.1 0.0 0.0
## [300,] 0.9 0.1 0.0 0.0
## [301,] 0.0 0.0 0.2 0.8
## [302,] 0.0 0.0 0.2 0.8

```

```

## [303,] 0.0 0.0 0.2 0.8
## [304,] 0.5 0.1 0.2 0.2
## [305,] 0.0 0.0 0.2 0.8
## [306,] 0.9 0.1 0.0 0.0
## [307,] 0.5 0.1 0.2 0.2
## [308,] 0.5 0.1 0.2 0.2
## [309,] 0.0 0.0 0.2 0.8
## [310,] 0.9 0.1 0.0 0.0
## [311,] 0.2 0.1 0.2 0.5
## [312,] 0.5 0.1 0.2 0.2
## [313,] 0.0 0.0 0.2 0.8
## [314,] 0.3 0.1 0.2 0.4
## [315,] 0.5 0.1 0.2 0.2
## [316,] 0.0 0.0 0.2 0.8
## [317,] 0.0 0.0 0.2 0.8
## [318,] 0.1 0.1 0.2 0.6
## [319,] 0.0 0.0 0.2 0.8
## [320,] 0.9 0.1 0.0 0.0
## [321,] 0.9 0.1 0.0 0.0
## [322,] 0.5 0.1 0.2 0.2
## [323,] 0.0 0.0 0.2 0.8
## [324,] 0.5 0.1 0.2 0.2
## [325,] 0.9 0.1 0.0 0.0
## [326,] 0.5 0.1 0.2 0.2
## [327,] 0.0 0.0 0.2 0.8
## [328,] 0.5 0.1 0.2 0.2
## [329,] 0.0 0.0 0.2 0.8
## [330,] 0.5 0.1 0.2 0.2
## [331,] 0.9 0.1 0.0 0.0
## [332,] 0.5 0.1 0.2 0.2
## [333,] 0.9 0.1 0.0 0.0
## [334,] 0.0 0.0 0.2 0.8
## [335,] 0.0 0.0 0.2 0.8
## [336,] 0.0 0.1 0.2 0.7
## [337,] 0.0 0.0 0.2 0.8
## [338,] 0.0 0.0 0.2 0.8
## [339,] 0.5 0.1 0.2 0.2
## [340,] 0.0 0.0 0.2 0.8
## [341,] 0.0 0.0 0.2 0.8
## [342,] 0.0 0.0 0.2 0.8
## [343,] 0.0 0.0 0.2 0.8
## [344,] 0.9 0.1 0.0 0.0
## [345,] 0.0 0.0 0.2 0.8
## [346,] 0.9 0.1 0.0 0.0
## [347,] 0.0 0.0 0.2 0.8
## [348,] 0.0 0.1 0.2 0.7
## [349,] 0.5 0.1 0.2 0.2
## [350,] 0.0 0.0 0.2 0.8
## [351,] 0.0 0.0 0.2 0.8
## [352,] 0.0 0.0 0.2 0.8
## [353,] 0.0 0.0 0.2 0.8
## [354,] 0.0 0.0 0.2 0.8
## [355,] 0.0 0.0 0.2 0.8
## [356,] 0.5 0.1 0.2 0.2

```

```

## [357,] 0.0 0.0 0.2 0.8
## [358,] 0.9 0.1 0.0 0.0
## [359,] 0.0 0.0 0.2 0.8
## [360,] 0.0 0.0 0.2 0.8
## [361,] 0.0 0.0 0.2 0.8
## [362,] 0.9 0.1 0.0 0.0
## [363,] 0.0 0.0 0.2 0.8
## [364,] 0.0 0.0 0.2 0.8
## [365,] 0.5 0.1 0.2 0.2
## [366,] 0.9 0.1 0.0 0.0
## [367,] 0.0 0.0 0.2 0.8
## [368,] 0.0 0.0 0.2 0.8
## [369,] 0.3 0.1 0.2 0.4
## [370,] 0.9 0.1 0.0 0.0
## [371,] 0.0 0.0 0.2 0.8
## [372,] 0.5 0.1 0.2 0.2
## [373,] 0.0 0.0 0.2 0.8
## [374,] 0.0 0.0 0.2 0.8
## [375,] 0.9 0.1 0.0 0.0
## [376,] 0.0 0.0 0.2 0.8
## [377,] 0.0 0.0 0.2 0.8
## [378,] 0.9 0.1 0.0 0.0
## [379,] 0.5 0.1 0.2 0.2
## [380,] 0.9 0.1 0.0 0.0
## [381,] 0.9 0.1 0.0 0.0
## [382,] 0.0 0.0 0.2 0.8
## [383,] 0.8 0.1 0.0 0.1
## [384,] 0.0 0.0 0.2 0.8
## [385,] 0.0 0.0 0.2 0.8
## [386,] 0.0 0.0 0.2 0.8
## [387,] 0.5 0.1 0.2 0.2
## [388,] 0.6 0.1 0.1 0.2
## [389,] 0.0 0.1 0.2 0.7
## [390,] 0.2 0.1 0.2 0.5
## [391,] 0.9 0.1 0.0 0.0
## [392,] 0.9 0.1 0.0 0.0
## [393,] 0.0 0.0 0.2 0.8
## [394,] 0.0 0.0 0.2 0.8
## [395,] 0.9 0.1 0.0 0.0
## [396,] 0.0 0.0 0.2 0.8
## [397,] 0.0 0.0 0.2 0.8
## [398,] 0.9 0.1 0.0 0.0
## [399,] 0.5 0.1 0.2 0.2
## [400,] 0.9 0.1 0.0 0.0
## [401,] 0.9 0.1 0.0 0.0
## [402,] 0.0 0.0 0.2 0.8
## [403,] 0.6 0.1 0.1 0.2
## [404,] 0.0 0.0 0.2 0.8
## [405,] 0.0 0.0 0.2 0.8
## [406,] 0.9 0.1 0.0 0.0
## [407,] 0.0 0.0 0.2 0.8
## [408,] 0.0 0.1 0.2 0.7
## [409,] 0.9 0.1 0.0 0.0
## [410,] 0.0 0.0 0.2 0.8

```

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## [411,] 0.7 0.1 0.0 0.2
## [412,] 0.0 0.0 0.2 0.8
## [413,] 0.0 0.0 0.2 0.8
## [414,] 0.6 0.1 0.1 0.2
## [415,] 0.9 0.1 0.0 0.0
## [416,] 0.5 0.1 0.2 0.2
## [417,] 0.5 0.1 0.2 0.2
## [418,] 0.9 0.1 0.0 0.0
## [419,] 0.9 0.1 0.0 0.0
## [420,] 0.9 0.1 0.0 0.0
## [421,] 0.9 0.1 0.0 0.0
## [422,] 0.0 0.0 0.2 0.8
## [423,] 0.0 0.1 0.2 0.7
## [424,] 0.9 0.1 0.0 0.0
## [425,] 0.7 0.1 0.0 0.2
## [426,] 0.9 0.1 0.0 0.0
## [427,] 0.9 0.1 0.0 0.0
## [428,] 0.9 0.1 0.0 0.0
## [429,] 0.0 0.0 0.2 0.8
## [430,] 0.0 0.0 0.2 0.8
## [431,] 0.9 0.1 0.0 0.0
## [432,] 0.9 0.1 0.0 0.0
## [433,] 0.0 0.0 0.2 0.8
## [434,] 0.5 0.1 0.2 0.2
## [435,] 0.9 0.1 0.0 0.0
## [436,] 0.0 0.0 0.2 0.8
## [437,] 0.9 0.1 0.0 0.0
## [438,] 0.0 0.1 0.2 0.7
## [439,] 0.9 0.1 0.0 0.0
## [440,] 0.0 0.0 0.2 0.8
## [441,] 0.5 0.1 0.2 0.2
## [442,] 0.5 0.1 0.2 0.2
## [443,] 0.0 0.0 0.2 0.8
## [444,] 0.0 0.0 0.2 0.8
## [445,] 0.0 0.0 0.2 0.8
## [446,] 0.0 0.0 0.2 0.8
## [447,] 0.0 0.1 0.2 0.7
## [448,] 0.9 0.1 0.0 0.0
## [449,] 0.0 0.0 0.2 0.8
## [450,] 0.0 0.0 0.2 0.8
## [451,] 0.0 0.0 0.2 0.8
## [452,] 0.0 0.0 0.2 0.8
## [453,] 0.0 0.0 0.2 0.8
## [454,] 0.9 0.1 0.0 0.0
## [455,] 0.6 0.1 0.1 0.2
## [456,] 0.9 0.1 0.0 0.0
## [457,] 0.9 0.1 0.0 0.0
## [458,] 0.0 0.1 0.2 0.7
## [459,] 0.6 0.1 0.1 0.2
## [460,] 0.0 0.1 0.2 0.7
## [461,] 0.9 0.1 0.0 0.0
## [462,] 0.0 0.0 0.2 0.8
## [463,] 0.5 0.1 0.2 0.2
## [464,] 0.0 0.0 0.2 0.8

```

```

## [465,] 0.5 0.1 0.2 0.2
## [466,] 0.5 0.1 0.2 0.2
## [467,] 0.0 0.1 0.2 0.7
## [468,] 0.5 0.1 0.2 0.2
## [469,] 0.0 0.0 0.2 0.8
## [470,] 0.5 0.1 0.2 0.2
## [471,] 0.9 0.1 0.0 0.0
## [472,] 0.5 0.1 0.2 0.2
## [473,] 0.0 0.0 0.2 0.8
## [474,] 0.0 0.0 0.2 0.8
## [475,] 0.0 0.0 0.2 0.8
## [476,] 0.9 0.1 0.0 0.0
## [477,] 0.0 0.0 0.2 0.8
## [478,] 0.0 0.0 0.2 0.8
## [479,] 0.0 0.0 0.2 0.8
## [480,] 0.0 0.1 0.2 0.7
## [481,] 0.9 0.1 0.0 0.0
## [482,] 0.0 0.0 0.2 0.8
## [483,] 0.5 0.1 0.2 0.2
## [484,] 0.0 0.0 0.2 0.8
## [485,] 0.9 0.1 0.0 0.0
## [486,] 0.0 0.0 0.2 0.8
## [487,] 0.5 0.1 0.2 0.2
## [488,] 0.9 0.1 0.0 0.0
## [489,] 0.5 0.1 0.2 0.2
## [490,] 0.0 0.0 0.2 0.8
## [491,] 0.9 0.1 0.0 0.0
## [492,] 0.5 0.1 0.2 0.2
## [493,] 0.5 0.1 0.2 0.2
## [494,] 0.5 0.1 0.2 0.2
## [495,] 0.0 0.0 0.2 0.8
## [496,] 0.0 0.0 0.2 0.8
## [497,] 0.5 0.1 0.2 0.2
## [498,] 0.0 0.0 0.2 0.8
## [499,] 0.9 0.1 0.0 0.0
## [500,] 0.9 0.1 0.0 0.0
## [501,] 0.9 0.1 0.0 0.0
## [502,] 0.0 0.0 0.2 0.8
## [503,] 0.9 0.1 0.0 0.0
## [504,] 0.0 0.1 0.2 0.7
## [505,] 0.9 0.1 0.0 0.0
## [506,] 0.9 0.1 0.0 0.0
## [507,] 0.5 0.1 0.2 0.2
## [508,] 0.5 0.1 0.2 0.2
## [509,] 0.6 0.1 0.1 0.2
## [510,] 0.9 0.1 0.0 0.0
## [511,] 0.9 0.1 0.0 0.0
## [512,] 0.9 0.1 0.0 0.0
## [513,] 0.9 0.1 0.0 0.0
## [514,] 0.0 0.0 0.2 0.8
## [515,] 0.5 0.1 0.2 0.2
## [516,] 0.5 0.1 0.2 0.2
## [517,] 0.9 0.1 0.0 0.0
## [518,] 0.0 0.0 0.2 0.8

```



```

## [519,] 0.9 0.1 0.0 0.0
## [520,] 0.0 0.0 0.2 0.8
## [521,] 0.0 0.0 0.2 0.8
## [522,] 0.0 0.1 0.2 0.7
## [523,] 0.9 0.1 0.0 0.0
## [524,] 0.0 0.0 0.2 0.8
## [525,] 0.0 0.1 0.2 0.7
## [526,] 0.0 0.0 0.2 0.8
## [527,] 0.5 0.1 0.2 0.2
## [528,] 0.0 0.0 0.2 0.8
## [529,] 0.9 0.1 0.0 0.0
## [530,] 0.0 0.0 0.2 0.8
## [531,] 0.2 0.1 0.2 0.5
## [532,] 0.0 0.0 0.2 0.8
## [533,] 0.9 0.1 0.0 0.0
## [534,] 0.0 0.0 0.2 0.8
## [535,] 0.5 0.1 0.2 0.2
## [536,] 0.0 0.0 0.2 0.8
## [537,] 0.9 0.1 0.0 0.0
## [538,] 0.0 0.0 0.2 0.8
## [539,] 0.0 0.0 0.2 0.8
## [540,] 0.9 0.1 0.0 0.0
## [541,] 0.0 0.0 0.2 0.8
## [542,] 0.5 0.1 0.2 0.2
## [543,] 0.9 0.1 0.0 0.0
## [544,] 0.9 0.1 0.0 0.0
## [545,] 0.0 0.0 0.2 0.8
## [546,] 0.0 0.0 0.2 0.8
## [547,] 0.0 0.0 0.2 0.8
## [548,] 0.9 0.1 0.0 0.0
## [549,] 0.9 0.1 0.0 0.0
## [550,] 0.0 0.0 0.2 0.8
## [551,] 0.9 0.1 0.0 0.0
## [552,] 0.0 0.0 0.2 0.8
## [553,] 0.9 0.1 0.0 0.0
## [554,] 0.0 0.0 0.2 0.8
## [555,] 0.9 0.1 0.0 0.0
## [556,] 0.0 0.0 0.2 0.8
## [557,] 0.5 0.1 0.2 0.2
## [558,] 0.0 0.0 0.2 0.8
## [559,] 0.0 0.0 0.2 0.8
## [560,] 0.0 0.1 0.2 0.7
## [561,] 0.0 0.0 0.2 0.8
## [562,] 0.5 0.1 0.2 0.2
## [563,] 0.5 0.1 0.2 0.2
## [564,] 0.5 0.1 0.2 0.2
## [565,] 0.9 0.1 0.0 0.0
## [566,] 0.0 0.0 0.2 0.8
## [567,] 0.5 0.1 0.2 0.2
## [568,] 0.9 0.1 0.0 0.0
## [569,] 0.0 0.0 0.2 0.8
## [570,] 0.0 0.0 0.2 0.8
## [571,] 0.5 0.1 0.2 0.2
## [572,] 0.0 0.1 0.2 0.7

```

```

## [573,] 0.0 0.0 0.2 0.8
## [574,] 0.9 0.1 0.0 0.0
## [575,] 0.0 0.0 0.2 0.8
## [576,] 0.5 0.1 0.2 0.2
## [577,] 0.6 0.1 0.1 0.2
## [578,] 0.0 0.0 0.2 0.8
## [579,] 0.5 0.1 0.2 0.2
## [580,] 0.0 0.0 0.2 0.8
## [581,] 0.0 0.0 0.2 0.8
## [582,] 0.0 0.0 0.2 0.8
## [583,] 0.0 0.0 0.2 0.8
## [584,] 0.9 0.1 0.0 0.0
## [585,] 0.7 0.1 0.0 0.2
## [586,] 0.5 0.1 0.2 0.2
## [587,] 0.9 0.1 0.0 0.0
## [588,] 0.0 0.0 0.2 0.8
## [589,] 0.0 0.0 0.2 0.8
## [590,] 0.0 0.0 0.2 0.8
## [591,] 0.5 0.1 0.2 0.2
## [592,] 0.0 0.0 0.2 0.8
## [593,] 0.9 0.1 0.0 0.0
## [594,] 0.9 0.1 0.0 0.0
## [595,] 0.9 0.1 0.0 0.0
## [596,] 0.0 0.0 0.2 0.8
## [597,] 0.5 0.1 0.2 0.2
## [598,] 0.9 0.1 0.0 0.0
## [599,] 0.9 0.1 0.0 0.0
## [600,] 0.0 0.0 0.2 0.8
##
## $class
## [1] "3" "3" "0" "0" "3" "0" "3" "3" "3" "3" "0" "0" "3" "3" "3" "3" "0" "3"
## [19] "3" "3" "0" "0" "3" "3" "0" "0" "3" "3" "3" "3" "0" "0" "3" "3" "0" "3"
## [37] "3" "3" "3" "3" "3" "3" "3" "3" "0" "0" "0" "0" "3" "3" "0" "0" "3" "3"
## [55] "0" "3" "0" "3" "0" "3" "3" "3" "0" "3" "0" "0" "0" "3" "0" "3" "3" "0"
## [73] "3" "0" "3" "0" "3" "0" "0" "0" "0" "0" "3" "0" "3" "0" "3" "3" "3" "0"
## [91] "3" "0" "0" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0" "0" "0" "3" "0" "0"
## [109] "3" "3" "3" "3" "3" "3" "0" "3" "3" "3" "3" "3" "3" "3" "0" "3" "0" "3"
## [127] "0" "0" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0" "3" "0" "0" "3" "3" "0"
## [145] "3" "3" "3" "0" "3" "3" "0" "0" "3" "0" "0" "0" "3" "3" "3" "3" "3" "0"
## [163] "3" "0" "0" "3" "3" "0" "0" "3" "3" "0" "0" "0" "0" "3" "3" "3" "3" "3"
## [181] "0" "0" "3" "3" "3" "3" "3" "0" "0" "3" "3" "0" "3" "0" "0" "0" "3" "0"
## [199] "0" "3" "3" "0" "3" "3" "3" "0" "3" "0" "3" "0" "0" "0" "3" "3" "3" "0"
## [217] "3" "3" "3" "0" "3" "3" "0" "0" "3" "0" "3" "0" "0" "3" "0" "3" "3" "0"
## [235] "3" "3" "3" "0" "0" "3" "3" "3" "3" "0" "0" "3" "0" "0" "0" "0" "3" "0"
## [253] "3" "3" "0" "3" "0" "0" "3" "0" "3" "3" "0" "0" "3" "0" "3" "3" "3" "0"
## [271] "0" "0" "0" "0" "0" "3" "3" "0" "3" "0" "0" "3" "3" "3" "0" "3" "3" "0"
## [289] "0" "3" "0" "3" "0" "3" "0" "0" "3" "3" "0" "0" "3" "3" "3" "0" "3" "0"
## [307] "0" "0" "3" "0" "3" "0" "3" "3" "0" "3" "3" "3" "3" "0" "0" "0" "3" "0"
## [325] "0" "0" "3" "0" "3" "0" "0" "0" "0" "3" "3" "3" "3" "3" "0" "3" "3" "3"
## [343] "3" "0" "3" "0" "3" "3" "0" "3" "3" "3" "3" "3" "3" "0" "3" "0" "3" "3"
## [361] "3" "0" "3" "3" "0" "0" "3" "3" "3" "0" "3" "0" "3" "3" "0" "3" "3" "0"
## [379] "0" "0" "0" "3" "0" "3" "3" "3" "0" "0" "3" "3" "0" "0" "3" "3" "0" "3"
## [397] "3" "0" "0" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0" "3" "0" "3" "3" "0"
## [415] "0" "0" "0" "0" "0" "0" "0" "3" "3" "0" "0" "0" "0" "0" "3" "3" "0" "0"

```

```
## [433] "3" "0" "0" "3" "0" "3" "0" "3" "0" "0" "3" "3" "3" "3" "3" "0" "3" "3"
## [451] "3" "3" "3" "0" "0" "0" "0" "3" "0" "3" "0" "3" "0" "3" "0" "0" "3" "0"
## [469] "3" "0" "0" "0" "3" "3" "3" "0" "3" "3" "3" "3" "0" "3" "0" "3" "0" "3"
## [487] "0" "0" "0" "3" "0" "0" "0" "0" "3" "3" "0" "3" "0" "0" "0" "3" "0" "3"
## [505] "0" "0" "0" "0" "0" "0" "0" "0" "3" "0" "0" "0" "3" "0" "3" "3" "3"
## [523] "0" "3" "3" "3" "0" "3" "0" "3" "3" "3" "0" "3" "0" "3" "0" "3" "3" "0"
## [541] "3" "0" "0" "0" "3" "3" "3" "0" "0" "3" "0" "3" "0" "3" "0" "3" "0" "3"
## [559] "3" "3" "3" "0" "0" "0" "0" "3" "0" "0" "3" "3" "0" "3" "3" "0" "3" "0"
## [577] "0" "3" "0" "3" "3" "3" "3" "0" "0" "0" "0" "3" "3" "3" "0" "3" "0" "0"
## [595] "0" "3" "0" "0" "0" "3"
##
## $confusion
##           Observed Class
## Predicted Class  0    1    2    3
##                0 150 115   21    0
##                3   0  35 129 150
##
## $error
## [1] 0.5
```

```
data.boostcv <- boosting.cv(price_range ~., v = 10, data = data_train, mfinal = 10, control = rpart.con
```

```
## i:  1 Sun Feb 28 23:14:45 2021
## i:  2 Sun Feb 28 23:14:48 2021
## i:  3 Sun Feb 28 23:14:50 2021
## i:  4 Sun Feb 28 23:14:52 2021
## i:  5 Sun Feb 28 23:14:55 2021
## i:  6 Sun Feb 28 23:14:57 2021
## i:  7 Sun Feb 28 23:14:59 2021
## i:  8 Sun Feb 28 23:15:02 2021
## i:  9 Sun Feb 28 23:15:04 2021
## i: 10 Sun Feb 28 23:15:06 2021
```

```
data.boostcv
```

```
## $class
## [1] "3" "3" "3" "0" "0" "0" "3" "3" "0" "3" "0" "0" "3" "3" "0" "0" "3" "3"
## [19] "3" "3" "1" "3" "0" "0" "3" "3" "0" "3" "0" "0" "0" "0" "3" "0" "3" "0"
## [37] "0" "0" "3" "3" "3" "1" "0" "0" "0" "3" "3" "3" "3" "0" "3" "3" "0" "3"
## [55] "0" "0" "3" "0" "3" "3" "1" "1" "0" "0" "3" "3" "3" "0" "0" "0" "0" "1"
## [73] "0" "3" "0" "3" "0" "0" "0" "3" "3" "1" "3" "0" "3" "3" "3" "0" "3" "3"
## [91] "3" "3" "3" "3" "0" "3" "0" "3" "3" "0" "0" "1" "0" "3" "0" "3" "3" "3"
## [109] "3" "0" "0" "0" "3" "0" "3" "3" "0" "3" "3" "2" "1" "3" "0" "3" "3" "0"
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```

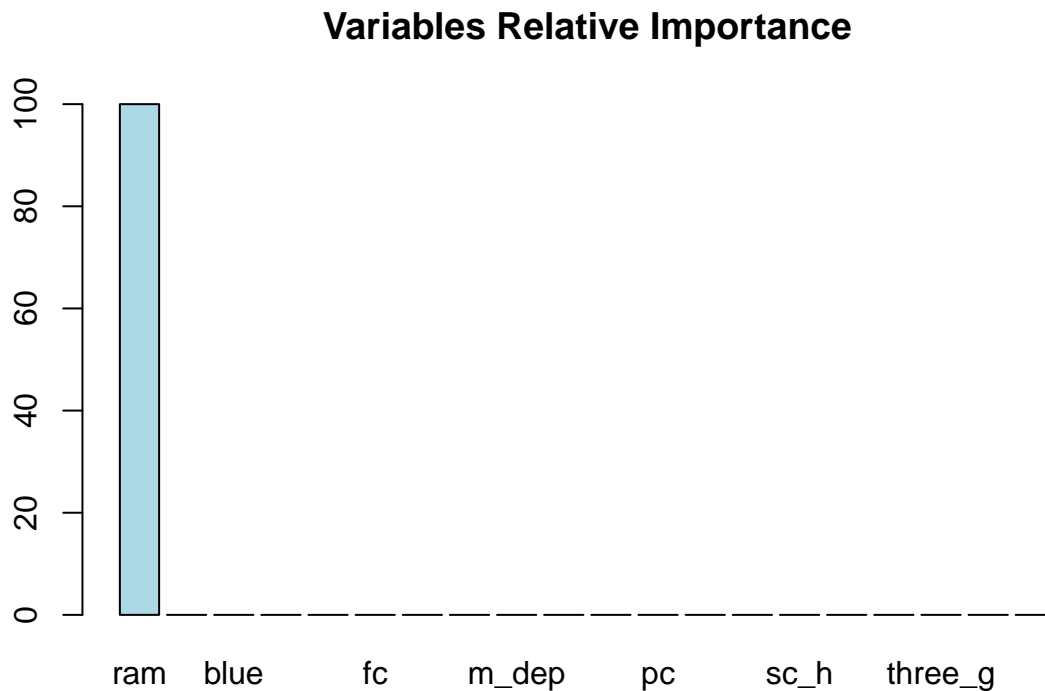
```

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## [505] "0" "0" "0" "3" "3" "3" "3" "3" "3" "3" "3" "0" "3" "3" "0" "2" "0" "0"
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## [1081] "3" "1" "0" "3" "3" "0" "3" "0" "3" "3" "0" "1" "3" "3" "3" "3" "3" "0"
## [1099] "0" "0" "3" "3" "3" "3" "3" "3" "0" "0" "3" "0" "3" "3" "0" "3" "0" "0"
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## [1171] "0" "0" "3" "0" "0" "3" "0" "0" "0" "3" "0" "1" "0" "3" "0" "3" "0" "0"
## [1189] "3" "3" "0" "1" "3" "3" "3" "0" "3" "3" "0" "3" "3" "1" "3" "3" "0" "3"
## [1207] "0" "3" "3" "3" "3" "3" "0" "3" "0" "3" "3" "3" "0" "3" "3" "3" "0" "3"
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## [1243] "3" "3" "0" "3" "0" "0" "3" "0" "1" "3" "3" "3" "0" "0" "0" "0" "0" "3"
## [1261] "0" "1" "0" "3" "0" "0" "0" "0" "0" "0" "1" "3" "0" "0" "0" "3" "0" "0"

```

```
## [1279] "3" "0" "3" "3" "3" "0" "0" "0" "3" "3" "0" "0" "1" "0" "3" "3" "0" "3"
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## [1315] "0" "3" "0" "3" "0" "3" "0" "1" "0" "3" "0" "0" "3" "0" "3" "0" "3" "3"
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## [1351] "0" "1" "0" "0" "3" "0" "0" "3" "0" "0" "0" "1" "0" "3" "0" "0" "0" "3"
## [1369] "0" "3" "0" "1" "3" "0" "3" "0" "0" "0" "3" "2" "3" "0" "3" "0" "0" "0"
## [1387] "0" "3" "3" "2" "0" "1" "3" "3" "3" "0" "0" "3" "0" "3"
##
## $confusion
##           Observed Class
## Predicted Class  0    1    2    3
##           0 345 259  59    0
##           1   5  35  15    1
##           2   0   9   7    0
##           3   0  47 269 349
##
## $error
## [1] 0.4742857
```

```
barplot(data.adaboost$imp[order(data.adaboost$imp, decreasing = TRUE)], ylim = c(0, 100), main = "Variables Relative Importance")
```



```
data.bagging <- bagging(price_range ~., data = data_train, mfinal = 10, control = rpart.control(maxdepth = 10))
data.bagging
```

```
## $formula
```

```

## price_range ~ .
##
## $trees
## $trees[[1]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1043 0 (0.25500000 0.24785714 0.25285714 0.24428571)
##   2) ram< 2370 797  440 0 (0.44792974 0.42283563 0.12923463 0.00000000) *
##   3) ram>=2370 603  261 3 (0.00000000 0.01658375 0.41625207 0.56716418) *
##
## $trees[[2]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1028 3 (0.239285714 0.240000000 0.255000000 0.265714286)
##   2) ram< 2711.5 905  570 0 (0.370165746 0.370165746 0.248618785 0.011049724) *
##   3) ram>=2711.5 495  133 3 (0.000000000 0.002020202 0.266666667 0.731313131) *
##
## $trees[[3]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1039 0 (0.257857143 0.238571429 0.255714286 0.247857143)
##   2) ram< 1455 452  103 0 (0.772123894 0.219026549 0.008849558 0.000000000) *
##   3) ram>=1455 948  594 2 (0.012658228 0.247890295 0.373417722 0.366033755) *
##
## $trees[[4]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1024 1 (0.2485714 0.2685714 0.2500000 0.2328571)
##   2) ram< 2052.5 698  350 0 (0.4985673 0.4283668 0.0730659 0.0000000) *
##   3) ram>=2052.5 702  376 3 (0.0000000 0.1096866 0.4259259 0.4643875) *
##
## $trees[[5]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1005 2 (0.23857143 0.24071429 0.28214286 0.23857143)
##   2) ram< 2050.5 625  291 0 (0.53440000 0.41920000 0.04640000 0.00000000) *
##   3) ram>=2050.5 775  409 2 (0.00000000 0.09677419 0.47225806 0.43096774) *
##
## $trees[[6]]

```

```

## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1034 2 (0.24785714 0.25428571 0.26142857 0.23642857)
##   2) ram< 2164.5 712 365 0 (0.48735955 0.42837079 0.08426966 0.00000000) *
##   3) ram>=2164.5 688 357 3 (0.00000000 0.07412791 0.44476744 0.48110465) *
##
## $trees[[7]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1030 2 (0.2585714 0.2421429 0.2642857 0.2350000)
##   2) ram< 1894.5 626 264 0 (0.5782748 0.3817891 0.0399361 0.0000000) *
##   3) ram>=1894.5 774 429 2 (0.0000000 0.1291990 0.4457364 0.4250646) *
##
## $trees[[8]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1031 2 (0.24571429 0.25000000 0.26357143 0.24071429)
##   2) ram< 1305.5 377 60 0 (0.84084881 0.15384615 0.00530504 0.00000000) *
##   3) ram>=1305.5 1023 656 2 (0.02639296 0.28543500 0.35874878 0.32942326) *
##
## $trees[[9]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1035 3 (0.252142857 0.244285714 0.242857143 0.260714286)
##   2) ram< 2310.5 752 399 0 (0.469414894 0.416223404 0.113031915 0.001329787) *
##   3) ram>=2310.5 648 284 3 (0.000000000 0.044753086 0.393518519 0.561728395) *
##
## $trees[[10]]
## n= 1400
##
## node), split, n, loss, yval, (yprob)
##      * denotes terminal node
##
## 1) root 1400 1033 1 (0.25071429 0.26214286 0.23428571 0.25285714)
##   2) ram< 2360 790 439 0 (0.44430380 0.43291139 0.12278481 0.00000000) *
##   3) ram>=2360 610 256 3 (0.00000000 0.04098361 0.37868852 0.58032787) *
##
##
## $votes
##      [,1] [,2] [,3] [,4]
## [1,]    1    0    4    5
## [2,]    1    0    4    5

```

##	[3,]	0	0	4	6
##	[4,]	9	0	1	0
##	[5,]	10	0	0	0
##	[6,]	10	0	0	0
##	[7,]	0	0	4	6
##	[8,]	0	0	4	6
##	[9,]	8	0	2	0
##	[10,]	1	0	4	5
##	[11,]	10	0	0	0
##	[12,]	10	0	0	0
##	[13,]	0	0	4	6
##	[14,]	3	0	4	3
##	[15,]	9	0	1	0
##	[16,]	10	0	0	0
##	[17,]	1	0	4	5
##	[18,]	0	0	4	6
##	[19,]	0	0	4	6
##	[20,]	0	0	4	6
##	[21,]	4	0	4	2
##	[22,]	0	0	4	6
##	[23,]	10	0	0	0
##	[24,]	9	0	1	0
##	[25,]	0	0	4	6
##	[26,]	0	0	4	6
##	[27,]	5	0	4	1
##	[28,]	1	0	4	5
##	[29,]	8	0	2	0
##	[30,]	8	0	2	0
##	[31,]	10	0	0	0
##	[32,]	10	0	0	0
##	[33,]	0	0	4	6
##	[34,]	10	0	0	0
##	[35,]	0	0	4	6
##	[36,]	5	0	4	1
##	[37,]	5	0	4	1
##	[38,]	9	0	1	0
##	[39,]	0	0	4	6
##	[40,]	1	0	4	5
##	[41,]	0	0	4	6
##	[42,]	8	0	2	0
##	[43,]	10	0	0	0
##	[44,]	10	0	0	0
##	[45,]	5	0	4	1
##	[46,]	0	0	4	6
##	[47,]	0	0	4	6
##	[48,]	0	0	4	6
##	[49,]	0	0	4	6
##	[50,]	10	0	0	0
##	[51,]	0	0	4	6
##	[52,]	0	0	4	6
##	[53,]	10	0	0	0
##	[54,]	0	0	4	6
##	[55,]	10	0	0	0
##	[56,]	8	0	2	0



##	[57,]	0	0	4	6
##	[58,]	8	0	2	0
##	[59,]	0	0	4	6
##	[60,]	1	0	4	5
##	[61,]	7	0	3	0
##	[62,]	7	0	3	0
##	[63,]	10	0	0	0
##	[64,]	10	0	0	0
##	[65,]	0	0	4	6
##	[66,]	3	0	4	3
##	[67,]	0	0	4	6
##	[68,]	7	0	3	0
##	[69,]	9	0	1	0
##	[70,]	10	0	0	0
##	[71,]	8	0	2	0
##	[72,]	9	0	1	0
##	[73,]	8	0	2	0
##	[74,]	1	0	4	5
##	[75,]	9	0	1	0
##	[76,]	1	0	4	5
##	[77,]	10	0	0	0
##	[78,]	10	0	0	0
##	[79,]	8	0	2	0
##	[80,]	1	0	4	5
##	[81,]	0	0	4	6
##	[82,]	7	0	3	0
##	[83,]	4	0	4	2
##	[84,]	10	0	0	0
##	[85,]	0	0	4	6
##	[86,]	0	0	4	6
##	[87,]	0	0	4	6
##	[88,]	7	0	3	0
##	[89,]	1	0	4	5
##	[90,]	0	0	4	6
##	[91,]	0	0	4	6
##	[92,]	0	0	4	6
##	[93,]	0	0	4	6
##	[94,]	0	0	4	6
##	[95,]	8	0	2	0
##	[96,]	0	0	4	6
##	[97,]	10	0	0	0
##	[98,]	4	0	4	2
##	[99,]	0	0	4	6
##	[100,]	10	0	0	0
##	[101,]	9	0	1	0
##	[102,]	9	0	1	0
##	[103,]	10	0	0	0
##	[104,]	0	0	4	6
##	[105,]	10	0	0	0
##	[106,]	0	0	4	6
##	[107,]	4	0	4	2
##	[108,]	0	0	4	6
##	[109,]	3	0	4	3
##	[110,]	9	0	1	0

##	[111,]	9	0	1	0
##	[112,]	10	0	0	0
##	[113,]	0	0	4	6
##	[114,]	10	0	0	0
##	[115,]	0	0	4	6
##	[116,]	0	0	4	6
##	[117,]	10	0	0	0
##	[118,]	3	0	4	3
##	[119,]	0	0	4	6
##	[120,]	5	0	4	1
##	[121,]	7	0	3	0
##	[122,]	1	0	4	5
##	[123,]	8	0	2	0
##	[124,]	0	0	4	6
##	[125,]	0	0	4	6
##	[126,]	4	0	4	2
##	[127,]	10	0	0	0
##	[128,]	1	0	4	5
##	[129,]	0	0	4	6
##	[130,]	8	0	2	0
##	[131,]	8	0	2	0
##	[132,]	10	0	0	0
##	[133,]	3	0	4	3
##	[134,]	0	0	4	6
##	[135,]	0	0	4	6
##	[136,]	10	0	0	0
##	[137,]	0	0	4	6
##	[138,]	0	0	4	6
##	[139,]	1	0	4	5
##	[140,]	4	0	4	2
##	[141,]	0	0	4	6
##	[142,]	0	0	4	6
##	[143,]	8	0	2	0
##	[144,]	10	0	0	0
##	[145,]	10	0	0	0
##	[146,]	10	0	0	0
##	[147,]	1	0	4	5
##	[148,]	1	0	4	5
##	[149,]	4	0	4	2
##	[150,]	0	0	4	6
##	[151,]	0	0	4	6
##	[152,]	10	0	0	0
##	[153,]	10	0	0	0
##	[154,]	0	0	4	6
##	[155,]	0	0	4	6
##	[156,]	0	0	4	6
##	[157,]	1	0	4	5
##	[158,]	1	0	4	5
##	[159,]	0	0	4	6
##	[160,]	0	0	4	6
##	[161,]	0	0	4	6
##	[162,]	10	0	0	0
##	[163,]	4	0	4	2
##	[164,]	0	0	4	6

##	[165,]	10	0	0	0
##	[166,]	8	0	2	0
##	[167,]	0	0	4	6
##	[168,]	10	0	0	0
##	[169,]	0	0	4	6
##	[170,]	0	0	4	6
##	[171,]	8	0	2	0
##	[172,]	0	0	4	6
##	[173,]	0	0	4	6
##	[174,]	8	0	2	0
##	[175,]	8	0	2	0
##	[176,]	10	0	0	0
##	[177,]	0	0	4	6
##	[178,]	1	0	4	5
##	[179,]	10	0	0	0
##	[180,]	10	0	0	0
##	[181,]	8	0	2	0
##	[182,]	0	0	4	6
##	[183,]	10	0	0	0
##	[184,]	7	0	3	0
##	[185,]	10	0	0	0
##	[186,]	0	0	4	6
##	[187,]	10	0	0	0
##	[188,]	1	0	4	5
##	[189,]	1	0	4	5
##	[190,]	10	0	0	0
##	[191,]	0	0	4	6
##	[192,]	8	0	2	0
##	[193,]	1	0	4	5
##	[194,]	0	0	4	6
##	[195,]	8	0	2	0
##	[196,]	10	0	0	0
##	[197,]	0	0	4	6
##	[198,]	10	0	0	0
##	[199,]	7	0	3	0
##	[200,]	3	0	4	3
##	[201,]	8	0	2	0
##	[202,]	0	0	4	6
##	[203,]	0	0	4	6
##	[204,]	0	0	4	6
##	[205,]	10	0	0	0
##	[206,]	10	0	0	0
##	[207,]	8	0	2	0
##	[208,]	0	0	4	6
##	[209,]	10	0	0	0
##	[210,]	8	0	2	0
##	[211,]	0	0	4	6
##	[212,]	10	0	0	0
##	[213,]	10	0	0	0
##	[214,]	0	0	4	6
##	[215,]	10	0	0	0
##	[216,]	8	0	2	0
##	[217,]	0	0	4	6
##	[218,]	8	0	2	0

##	[219,]	0	0	4	6
##	[220,]	10	0	0	0
##	[221,]	0	0	4	6
##	[222,]	0	0	4	6
##	[223,]	10	0	0	0
##	[224,]	10	0	0	0
##	[225,]	8	0	2	0
##	[226,]	10	0	0	0
##	[227,]	0	0	4	6
##	[228,]	10	0	0	0
##	[229,]	10	0	0	0
##	[230,]	10	0	0	0
##	[231,]	0	0	4	6
##	[232,]	0	0	4	6
##	[233,]	8	0	2	0
##	[234,]	5	0	4	1
##	[235,]	10	0	0	0
##	[236,]	8	0	2	0
##	[237,]	10	0	0	0
##	[238,]	0	0	4	6
##	[239,]	0	0	4	6
##	[240,]	10	0	0	0
##	[241,]	5	0	4	1
##	[242,]	0	0	4	6
##	[243,]	10	0	0	0
##	[244,]	10	0	0	0
##	[245,]	0	0	4	6
##	[246,]	0	0	4	6
##	[247,]	0	0	4	6
##	[248,]	0	0	4	6
##	[249,]	1	0	4	5
##	[250,]	1	0	4	5
##	[251,]	1	0	4	5
##	[252,]	0	0	4	6
##	[253,]	4	0	4	2
##	[254,]	10	0	0	0
##	[255,]	0	0	4	6
##	[256,]	10	0	0	0
##	[257,]	10	0	0	0
##	[258,]	0	0	4	6
##	[259,]	0	0	4	6
##	[260,]	8	0	2	0
##	[261,]	10	0	0	0
##	[262,]	0	0	4	6
##	[263,]	1	0	4	5
##	[264,]	0	0	4	6
##	[265,]	4	0	4	2
##	[266,]	0	0	4	6
##	[267,]	1	0	4	5
##	[268,]	10	0	0	0
##	[269,]	1	0	4	5
##	[270,]	10	0	0	0
##	[271,]	10	0	0	0
##	[272,]	0	0	4	6

##	[273,]	3	0	4	3
##	[274,]	0	0	4	6
##	[275,]	2	0	4	4
##	[276,]	0	0	4	6
##	[277,]	0	0	4	6
##	[278,]	0	0	4	6
##	[279,]	5	0	4	1
##	[280,]	0	0	4	6
##	[281,]	0	0	4	6
##	[282,]	9	0	1	0
##	[283,]	8	0	2	0
##	[284,]	1	0	4	5
##	[285,]	0	0	4	6
##	[286,]	0	0	4	6
##	[287,]	8	0	2	0
##	[288,]	1	0	4	5
##	[289,]	0	0	4	6
##	[290,]	7	0	3	0
##	[291,]	0	0	4	6
##	[292,]	4	0	4	2
##	[293,]	10	0	0	0
##	[294,]	0	0	4	6
##	[295,]	10	0	0	0
##	[296,]	1	0	4	5
##	[297,]	3	0	4	3
##	[298,]	8	0	2	0
##	[299,]	10	0	0	0
##	[300,]	8	0	2	0
##	[301,]	1	0	4	5
##	[302,]	5	0	4	1
##	[303,]	10	0	0	0
##	[304,]	0	0	4	6
##	[305,]	0	0	4	6
##	[306,]	10	0	0	0
##	[307,]	8	0	2	0
##	[308,]	8	0	2	0
##	[309,]	0	0	4	6
##	[310,]	10	0	0	0
##	[311,]	10	0	0	0
##	[312,]	0	0	4	6
##	[313,]	10	0	0	0
##	[314,]	10	0	0	0
##	[315,]	0	0	4	6
##	[316,]	10	0	0	0
##	[317,]	10	0	0	0
##	[318,]	1	0	4	5
##	[319,]	7	0	3	0
##	[320,]	0	0	4	6
##	[321,]	7	0	3	0
##	[322,]	9	0	1	0
##	[323,]	1	0	4	5
##	[324,]	3	0	4	3
##	[325,]	8	0	2	0
##	[326,]	10	0	0	0

##	[327,]	10	0	0	0
##	[328,]	0	0	4	6
##	[329,]	10	0	0	0
##	[330,]	10	0	0	0
##	[331,]	8	0	2	0
##	[332,]	0	0	4	6
##	[333,]	0	0	4	6
##	[334,]	8	0	2	0
##	[335,]	3	0	4	3
##	[336,]	0	0	4	6
##	[337,]	0	0	4	6
##	[338,]	0	0	4	6
##	[339,]	10	0	0	0
##	[340,]	0	0	4	6
##	[341,]	10	0	0	0
##	[342,]	0	0	4	6
##	[343,]	8	0	2	0
##	[344,]	10	0	0	0
##	[345,]	0	0	4	6
##	[346,]	5	0	4	1
##	[347,]	10	0	0	0
##	[348,]	7	0	3	0
##	[349,]	10	0	0	0
##	[350,]	0	0	4	6
##	[351,]	7	0	3	0
##	[352,]	1	0	4	5
##	[353,]	0	0	4	6
##	[354,]	10	0	0	0
##	[355,]	0	0	4	6
##	[356,]	10	0	0	0
##	[357,]	10	0	0	0
##	[358,]	9	0	1	0
##	[359,]	1	0	4	5
##	[360,]	7	0	3	0
##	[361,]	0	0	4	6
##	[362,]	0	0	4	6
##	[363,]	5	0	4	1
##	[364,]	0	0	4	6
##	[365,]	8	0	2	0
##	[366,]	0	0	4	6
##	[367,]	0	0	4	6
##	[368,]	0	0	4	6
##	[369,]	0	0	4	6
##	[370,]	9	0	1	0
##	[371,]	0	0	4	6
##	[372,]	0	0	4	6
##	[373,]	0	0	4	6
##	[374,]	1	0	4	5
##	[375,]	0	0	4	6
##	[376,]	3	0	4	3
##	[377,]	1	0	4	5
##	[378,]	0	0	4	6
##	[379,]	0	0	4	6
##	[380,]	10	0	0	0

##	[381,]	0	0	4	6
##	[382,]	8	0	2	0
##	[383,]	10	0	0	0
##	[384,]	0	0	4	6
##	[385,]	8	0	2	0
##	[386,]	8	0	2	0
##	[387,]	0	0	4	6
##	[388,]	10	0	0	0
##	[389,]	9	0	1	0
##	[390,]	10	0	0	0
##	[391,]	10	0	0	0
##	[392,]	1	0	4	5
##	[393,]	0	0	4	6
##	[394,]	10	0	0	0
##	[395,]	8	0	2	0
##	[396,]	7	0	3	0
##	[397,]	0	0	4	6
##	[398,]	10	0	0	0
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##	[400,]	0	0	4	6
##	[401,]	0	0	4	6
##	[402,]	0	0	4	6
##	[403,]	0	0	4	6
##	[404,]	10	0	0	0
##	[405,]	0	0	4	6
##	[406,]	0	0	4	6
##	[407,]	10	0	0	0
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##	[410,]	0	0	4	6
##	[411,]	0	0	4	6
##	[412,]	10	0	0	0
##	[413,]	0	0	4	6
##	[414,]	9	0	1	0
##	[415,]	10	0	0	0
##	[416,]	0	0	4	6
##	[417,]	0	0	4	6
##	[418,]	10	0	0	0
##	[419,]	0	0	4	6
##	[420,]	10	0	0	0
##	[421,]	10	0	0	0
##	[422,]	10	0	0	0
##	[423,]	0	0	4	6
##	[424,]	10	0	0	0
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##	[426,]	10	0	0	0
##	[427,]	1	0	4	5
##	[428,]	10	0	0	0
##	[429,]	0	0	4	6
##	[430,]	4	0	4	2
##	[431,]	0	0	4	6
##	[432,]	10	0	0	0
##	[433,]	0	0	4	6
##	[434,]	0	0	4	6

##	[435,]	8	0	2	0
##	[436,]	0	0	4	6
##	[437,]	10	0	0	0
##	[438,]	9	0	1	0
##	[439,]	3	0	4	3
##	[440,]	10	0	0	0
##	[441,]	10	0	0	0
##	[442,]	10	0	0	0
##	[443,]	8	0	2	0
##	[444,]	0	0	4	6
##	[445,]	0	0	4	6
##	[446,]	9	0	1	0
##	[447,]	0	0	4	6
##	[448,]	4	0	4	2
##	[449,]	10	0	0	0
##	[450,]	7	0	3	0
##	[451,]	0	0	4	6
##	[452,]	7	0	3	0
##	[453,]	0	0	4	6
##	[454,]	4	0	4	2
##	[455,]	1	0	4	5
##	[456,]	10	0	0	0
##	[457,]	0	0	4	6
##	[458,]	8	0	2	0
##	[459,]	8	0	2	0
##	[460,]	10	0	0	0
##	[461,]	10	0	0	0
##	[462,]	8	0	2	0
##	[463,]	10	0	0	0
##	[464,]	10	0	0	0
##	[465,]	10	0	0	0
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##	[467,]	0	0	4	6
##	[468,]	8	0	2	0
##	[469,]	10	0	0	0
##	[470,]	9	0	1	0
##	[471,]	10	0	0	0
##	[472,]	0	0	4	6
##	[473,]	0	0	4	6
##	[474,]	1	0	4	5
##	[475,]	0	0	4	6
##	[476,]	1	0	4	5
##	[477,]	5	0	4	1
##	[478,]	10	0	0	0
##	[479,]	10	0	0	0
##	[480,]	0	0	4	6
##	[481,]	1	0	4	5
##	[482,]	10	0	0	0
##	[483,]	0	0	4	6
##	[484,]	4	0	4	2
##	[485,]	10	0	0	0
##	[486,]	0	0	4	6
##	[487,]	10	0	0	0
##	[488,]	0	0	4	6



##	[489,]	0	0	4	6
##	[490,]	0	0	4	6
##	[491,]	10	0	0	0
##	[492,]	0	0	4	6
##	[493,]	10	0	0	0
##	[494,]	9	0	1	0
##	[495,]	0	0	4	6
##	[496,]	10	0	0	0
##	[497,]	1	0	4	5
##	[498,]	0	0	4	6
##	[499,]	10	0	0	0
##	[500,]	0	0	4	6
##	[501,]	0	0	4	6
##	[502,]	10	0	0	0
##	[503,]	7	0	3	0
##	[504,]	10	0	0	0
##	[505,]	7	0	3	0
##	[506,]	10	0	0	0
##	[507,]	10	0	0	0
##	[508,]	0	0	4	6
##	[509,]	1	0	4	5
##	[510,]	0	0	4	6
##	[511,]	0	0	4	6
##	[512,]	1	0	4	5
##	[513,]	4	0	4	2
##	[514,]	0	0	4	6
##	[515,]	0	0	4	6
##	[516,]	10	0	0	0
##	[517,]	0	0	4	6
##	[518,]	0	0	4	6
##	[519,]	10	0	0	0
##	[520,]	4	0	4	2
##	[521,]	10	0	0	0
##	[522,]	10	0	0	0
##	[523,]	0	0	4	6
##	[524,]	10	0	0	0
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##	[526,]	10	0	0	0
##	[527,]	10	0	0	0
##	[528,]	10	0	0	0
##	[529,]	0	0	4	6
##	[530,]	9	0	1	0
##	[531,]	7	0	3	0
##	[532,]	0	0	4	6
##	[533,]	5	0	4	1
##	[534,]	0	0	4	6
##	[535,]	1	0	4	5
##	[536,]	10	0	0	0
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##	[539,]	0	0	4	6
##	[540,]	1	0	4	5
##	[541,]	10	0	0	0
##	[542,]	0	0	4	6

##	[543,]	1	0	4	5
##	[544,]	10	0	0	0
##	[545,]	4	0	4	2
##	[546,]	10	0	0	0
##	[547,]	0	0	4	6
##	[548,]	0	0	4	6
##	[549,]	1	0	4	5
##	[550,]	0	0	4	6
##	[551,]	0	0	4	6
##	[552,]	8	0	2	0
##	[553,]	10	0	0	0
##	[554,]	0	0	4	6
##	[555,]	8	0	2	0
##	[556,]	10	0	0	0
##	[557,]	0	0	4	6
##	[558,]	7	0	3	0
##	[559,]	9	0	1	0
##	[560,]	0	0	4	6
##	[561,]	0	0	4	6
##	[562,]	0	0	4	6
##	[563,]	0	0	4	6
##	[564,]	10	0	0	0
##	[565,]	10	0	0	0
##	[566,]	8	0	2	0
##	[567,]	10	0	0	0
##	[568,]	0	0	4	6
##	[569,]	0	0	4	6
##	[570,]	9	0	1	0
##	[571,]	10	0	0	0
##	[572,]	0	0	4	6
##	[573,]	0	0	4	6
##	[574,]	9	0	1	0
##	[575,]	1	0	4	5
##	[576,]	0	0	4	6
##	[577,]	1	0	4	5
##	[578,]	0	0	4	6
##	[579,]	0	0	4	6
##	[580,]	1	0	4	5
##	[581,]	0	0	4	6
##	[582,]	0	0	4	6
##	[583,]	0	0	4	6
##	[584,]	0	0	4	6
##	[585,]	0	0	4	6
##	[586,]	0	0	4	6
##	[587,]	1	0	4	5
##	[588,]	0	0	4	6
##	[589,]	4	0	4	2
##	[590,]	0	0	4	6
##	[591,]	10	0	0	0
##	[592,]	10	0	0	0
##	[593,]	0	0	4	6
##	[594,]	10	0	0	0
##	[595,]	10	0	0	0
##	[596,]	0	0	4	6

##	[597,]	7	0	3	0
##	[598,]	10	0	0	0
##	[599,]	3	0	4	3
##	[600,]	9	0	1	0
##	[601,]	0	0	4	6
##	[602,]	3	0	4	3
##	[603,]	9	0	1	0
##	[604,]	0	0	4	6
##	[605,]	5	0	4	1
##	[606,]	8	0	2	0
##	[607,]	0	0	4	6
##	[608,]	10	0	0	0
##	[609,]	1	0	4	5
##	[610,]	0	0	4	6
##	[611,]	7	0	3	0
##	[612,]	0	0	4	6
##	[613,]	0	0	4	6
##	[614,]	0	0	4	6
##	[615,]	3	0	4	3
##	[616,]	10	0	0	0
##	[617,]	10	0	0	0
##	[618,]	10	0	0	0
##	[619,]	10	0	0	0
##	[620,]	1	0	4	5
##	[621,]	0	0	4	6
##	[622,]	1	0	4	5
##	[623,]	0	0	4	6
##	[624,]	9	0	1	0
##	[625,]	0	0	4	6
##	[626,]	0	0	4	6
##	[627,]	10	0	0	0
##	[628,]	8	0	2	0
##	[629,]	7	0	3	0
##	[630,]	0	0	4	6
##	[631,]	0	0	4	6
##	[632,]	9	0	1	0
##	[633,]	0	0	4	6
##	[634,]	7	0	3	0
##	[635,]	10	0	0	0
##	[636,]	0	0	4	6
##	[637,]	8	0	2	0
##	[638,]	0	0	4	6
##	[639,]	10	0	0	0
##	[640,]	0	0	4	6
##	[641,]	10	0	0	0
##	[642,]	10	0	0	0
##	[643,]	8	0	2	0
##	[644,]	10	0	0	0
##	[645,]	0	0	4	6
##	[646,]	0	0	4	6
##	[647,]	10	0	0	0
##	[648,]	9	0	1	0
##	[649,]	0	0	4	6
##	[650,]	1	0	4	5

##	[651,]	5	0	4	1
##	[652,]	7	0	3	0
##	[653,]	0	0	4	6
##	[654,]	10	0	0	0
##	[655,]	0	0	4	6
##	[656,]	1	0	4	5
##	[657,]	0	0	4	6
##	[658,]	0	0	4	6
##	[659,]	0	0	4	6
##	[660,]	0	0	4	6
##	[661,]	1	0	4	5
##	[662,]	0	0	4	6
##	[663,]	10	0	0	0
##	[664,]	8	0	2	0
##	[665,]	10	0	0	0
##	[666,]	0	0	4	6
##	[667,]	10	0	0	0
##	[668,]	4	0	4	2
##	[669,]	8	0	2	0
##	[670,]	9	0	1	0
##	[671,]	10	0	0	0
##	[672,]	8	0	2	0
##	[673,]	0	0	4	6
##	[674,]	0	0	4	6
##	[675,]	10	0	0	0
##	[676,]	0	0	4	6
##	[677,]	1	0	4	5
##	[678,]	0	0	4	6
##	[679,]	8	0	2	0
##	[680,]	10	0	0	0
##	[681,]	8	0	2	0
##	[682,]	9	0	1	0
##	[683,]	10	0	0	0
##	[684,]	0	0	4	6
##	[685,]	10	0	0	0
##	[686,]	10	0	0	0
##	[687,]	0	0	4	6
##	[688,]	9	0	1	0
##	[689,]	10	0	0	0
##	[690,]	0	0	4	6
##	[691,]	0	0	4	6
##	[692,]	10	0	0	0
##	[693,]	10	0	0	0
##	[694,]	10	0	0	0
##	[695,]	0	0	4	6
##	[696,]	0	0	4	6
##	[697,]	7	0	3	0
##	[698,]	8	0	2	0
##	[699,]	8	0	2	0
##	[700,]	9	0	1	0
##	[701,]	10	0	0	0
##	[702,]	10	0	0	0
##	[703,]	0	0	4	6
##	[704,]	0	0	4	6

##	[705,]	0	0	4	6
##	[706,]	0	0	4	6
##	[707,]	8	0	2	0
##	[708,]	10	0	0	0
##	[709,]	10	0	0	0
##	[710,]	1	0	4	5
##	[711,]	1	0	4	5
##	[712,]	10	0	0	0
##	[713,]	10	0	0	0
##	[714,]	8	0	2	0
##	[715,]	10	0	0	0
##	[716,]	9	0	1	0
##	[717,]	0	0	4	6
##	[718,]	8	0	2	0
##	[719,]	10	0	0	0
##	[720,]	10	0	0	0
##	[721,]	10	0	0	0
##	[722,]	8	0	2	0
##	[723,]	1	0	4	5
##	[724,]	4	0	4	2
##	[725,]	0	0	4	6
##	[726,]	10	0	0	0
##	[727,]	10	0	0	0
##	[728,]	0	0	4	6
##	[729,]	9	0	1	0
##	[730,]	10	0	0	0
##	[731,]	1	0	4	5
##	[732,]	7	0	3	0
##	[733,]	10	0	0	0
##	[734,]	0	0	4	6
##	[735,]	0	0	4	6
##	[736,]	0	0	4	6
##	[737,]	8	0	2	0
##	[738,]	1	0	4	5
##	[739,]	9	0	1	0
##	[740,]	10	0	0	0
##	[741,]	4	0	4	2
##	[742,]	1	0	4	5
##	[743,]	9	0	1	0
##	[744,]	0	0	4	6
##	[745,]	10	0	0	0
##	[746,]	0	0	4	6
##	[747,]	10	0	0	0
##	[748,]	10	0	0	0
##	[749,]	10	0	0	0
##	[750,]	10	0	0	0
##	[751,]	0	0	4	6
##	[752,]	10	0	0	0
##	[753,]	1	0	4	5
##	[754,]	10	0	0	0
##	[755,]	10	0	0	0
##	[756,]	0	0	4	6
##	[757,]	8	0	2	0
##	[758,]	8	0	2	0

##	[759,]	4	0	4	2
##	[760,]	1	0	4	5
##	[761,]	1	0	4	5
##	[762,]	8	0	2	0
##	[763,]	10	0	0	0
##	[764,]	4	0	4	2
##	[765,]	4	0	4	2
##	[766,]	10	0	0	0
##	[767,]	10	0	0	0
##	[768,]	8	0	2	0
##	[769,]	1	0	4	5
##	[770,]	10	0	0	0
##	[771,]	10	0	0	0
##	[772,]	0	0	4	6
##	[773,]	8	0	2	0
##	[774,]	10	0	0	0
##	[775,]	0	0	4	6
##	[776,]	0	0	4	6
##	[777,]	0	0	4	6
##	[778,]	0	0	4	6
##	[779,]	0	0	4	6
##	[780,]	0	0	4	6
##	[781,]	10	0	0	0
##	[782,]	1	0	4	5
##	[783,]	1	0	4	5
##	[784,]	0	0	4	6
##	[785,]	0	0	4	6
##	[786,]	1	0	4	5
##	[787,]	5	0	4	1
##	[788,]	4	0	4	2
##	[789,]	10	0	0	0
##	[790,]	1	0	4	5
##	[791,]	10	0	0	0
##	[792,]	5	0	4	1
##	[793,]	4	0	4	2
##	[794,]	10	0	0	0
##	[795,]	0	0	4	6
##	[796,]	10	0	0	0
##	[797,]	0	0	4	6
##	[798,]	1	0	4	5
##	[799,]	0	0	4	6
##	[800,]	5	0	4	1
##	[801,]	3	0	4	3
##	[802,]	1	0	4	5
##	[803,]	8	0	2	0
##	[804,]	9	0	1	0
##	[805,]	7	0	3	0
##	[806,]	8	0	2	0
##	[807,]	0	0	4	6
##	[808,]	9	0	1	0
##	[809,]	0	0	4	6
##	[810,]	10	0	0	0
##	[811,]	4	0	4	2
##	[812,]	10	0	0	0

##	[813,]	1	0	4	5
##	[814,]	0	0	4	6
##	[815,]	2	0	4	4
##	[816,]	8	0	2	0
##	[817,]	0	0	4	6
##	[818,]	10	0	0	0
##	[819,]	9	0	1	0
##	[820,]	0	0	4	6
##	[821,]	10	0	0	0
##	[822,]	0	0	4	6
##	[823,]	1	0	4	5
##	[824,]	0	0	4	6
##	[825,]	0	0	4	6
##	[826,]	0	0	4	6
##	[827,]	0	0	4	6
##	[828,]	10	0	0	0
##	[829,]	0	0	4	6
##	[830,]	10	0	0	0
##	[831,]	10	0	0	0
##	[832,]	10	0	0	0
##	[833,]	5	0	4	1
##	[834,]	0	0	4	6
##	[835,]	10	0	0	0
##	[836,]	0	0	4	6
##	[837,]	10	0	0	0
##	[838,]	0	0	4	6
##	[839,]	10	0	0	0
##	[840,]	9	0	1	0
##	[841,]	4	0	4	2
##	[842,]	1	0	4	5
##	[843,]	8	0	2	0
##	[844,]	0	0	4	6
##	[845,]	10	0	0	0
##	[846,]	1	0	4	5
##	[847,]	8	0	2	0
##	[848,]	1	0	4	5
##	[849,]	7	0	3	0
##	[850,]	8	0	2	0
##	[851,]	0	0	4	6
##	[852,]	10	0	0	0
##	[853,]	3	0	4	3
##	[854,]	10	0	0	0
##	[855,]	0	0	4	6
##	[856,]	10	0	0	0
##	[857,]	0	0	4	6
##	[858,]	8	0	2	0
##	[859,]	0	0	4	6
##	[860,]	5	0	4	1
##	[861,]	8	0	2	0
##	[862,]	0	0	4	6
##	[863,]	1	0	4	5
##	[864,]	10	0	0	0
##	[865,]	7	0	3	0
##	[866,]	1	0	4	5

##	[867,]	0	0	4	6
##	[868,]	10	0	0	0
##	[869,]	10	0	0	0
##	[870,]	10	0	0	0
##	[871,]	1	0	4	5
##	[872,]	0	0	4	6
##	[873,]	10	0	0	0
##	[874,]	10	0	0	0
##	[875,]	10	0	0	0
##	[876,]	5	0	4	1
##	[877,]	0	0	4	6
##	[878,]	10	0	0	0
##	[879,]	1	0	4	5
##	[880,]	8	0	2	0
##	[881,]	10	0	0	0
##	[882,]	1	0	4	5
##	[883,]	10	0	0	0
##	[884,]	1	0	4	5
##	[885,]	4	0	4	2
##	[886,]	0	0	4	6
##	[887,]	10	0	0	0
##	[888,]	10	0	0	0
##	[889,]	0	0	4	6
##	[890,]	0	0	4	6
##	[891,]	7	0	3	0
##	[892,]	0	0	4	6
##	[893,]	8	0	2	0
##	[894,]	10	0	0	0
##	[895,]	0	0	4	6
##	[896,]	10	0	0	0
##	[897,]	0	0	4	6
##	[898,]	10	0	0	0
##	[899,]	1	0	4	5
##	[900,]	0	0	4	6
##	[901,]	9	0	1	0
##	[902,]	10	0	0	0
##	[903,]	1	0	4	5
##	[904,]	10	0	0	0
##	[905,]	10	0	0	0
##	[906,]	0	0	4	6
##	[907,]	7	0	3	0
##	[908,]	1	0	4	5
##	[909,]	7	0	3	0
##	[910,]	10	0	0	0
##	[911,]	0	0	4	6
##	[912,]	7	0	3	0
##	[913,]	10	0	0	0
##	[914,]	0	0	4	6
##	[915,]	10	0	0	0
##	[916,]	1	0	4	5
##	[917,]	2	0	4	4
##	[918,]	0	0	4	6
##	[919,]	1	0	4	5
##	[920,]	10	0	0	0



##	[921,]	0	0	4	6
##	[922,]	10	0	0	0
##	[923,]	0	0	4	6
##	[924,]	5	0	4	1
##	[925,]	9	0	1	0
##	[926,]	8	0	2	0
##	[927,]	0	0	4	6
##	[928,]	5	0	4	1
##	[929,]	0	0	4	6
##	[930,]	5	0	4	1
##	[931,]	0	0	4	6
##	[932,]	10	0	0	0
##	[933,]	10	0	0	0
##	[934,]	0	0	4	6
##	[935,]	0	0	4	6
##	[936,]	8	0	2	0
##	[937,]	8	0	2	0
##	[938,]	8	0	2	0
##	[939,]	8	0	2	0
##	[940,]	0	0	4	6
##	[941,]	5	0	4	1
##	[942,]	10	0	0	0
##	[943,]	10	0	0	0
##	[944,]	7	0	3	0
##	[945,]	9	0	1	0
##	[946,]	8	0	2	0
##	[947,]	0	0	4	6
##	[948,]	1	0	4	5
##	[949,]	0	0	4	6
##	[950,]	0	0	4	6
##	[951,]	8	0	2	0
##	[952,]	4	0	4	2
##	[953,]	9	0	1	0
##	[954,]	1	0	4	5
##	[955,]	8	0	2	0
##	[956,]	0	0	4	6
##	[957,]	0	0	4	6
##	[958,]	0	0	4	6
##	[959,]	10	0	0	0
##	[960,]	0	0	4	6
##	[961,]	0	0	4	6
##	[962,]	10	0	0	0
##	[963,]	0	0	4	6
##	[964,]	0	0	4	6
##	[965,]	3	0	4	3
##	[966,]	8	0	2	0
##	[967,]	9	0	1	0
##	[968,]	1	0	4	5
##	[969,]	8	0	2	0
##	[970,]	10	0	0	0
##	[971,]	10	0	0	0
##	[972,]	10	0	0	0
##	[973,]	0	0	4	6
##	[974,]	8	0	2	0

##	[975,]	10	0	0	0
##	[976,]	10	0	0	0
##	[977,]	1	0	4	5
##	[978,]	10	0	0	0
##	[979,]	1	0	4	5
##	[980,]	0	0	4	6
##	[981,]	8	0	2	0
##	[982,]	9	0	1	0
##	[983,]	10	0	0	0
##	[984,]	8	0	2	0
##	[985,]	1	0	4	5
##	[986,]	10	0	0	0
##	[987,]	10	0	0	0
##	[988,]	0	0	4	6
##	[989,]	1	0	4	5
##	[990,]	0	0	4	6
##	[991,]	8	0	2	0
##	[992,]	4	0	4	2
##	[993,]	10	0	0	0
##	[994,]	10	0	0	0
##	[995,]	10	0	0	0
##	[996,]	0	0	4	6
##	[997,]	10	0	0	0
##	[998,]	10	0	0	0
##	[999,]	9	0	1	0
##	[1000,]	10	0	0	0
##	[1001,]	8	0	2	0
##	[1002,]	0	0	4	6
##	[1003,]	10	0	0	0
##	[1004,]	10	0	0	0
##	[1005,]	4	0	4	2
##	[1006,]	10	0	0	0
##	[1007,]	8	0	2	0
##	[1008,]	5	0	4	1
##	[1009,]	10	0	0	0
##	[1010,]	10	0	0	0
##	[1011,]	0	0	4	6
##	[1012,]	8	0	2	0
##	[1013,]	9	0	1	0
##	[1014,]	9	0	1	0
##	[1015,]	0	0	4	6
##	[1016,]	0	0	4	6
##	[1017,]	10	0	0	0
##	[1018,]	9	0	1	0
##	[1019,]	10	0	0	0
##	[1020,]	0	0	4	6
##	[1021,]	8	0	2	0
##	[1022,]	10	0	0	0
##	[1023,]	1	0	4	5
##	[1024,]	10	0	0	0
##	[1025,]	4	0	4	2
##	[1026,]	10	0	0	0
##	[1027,]	3	0	4	3
##	[1028,]	1	0	4	5

## [1029,]	8	0	2	0
## [1030,]	5	0	4	1
## [1031,]	5	0	4	1
## [1032,]	8	0	2	0
## [1033,]	0	0	4	6
## [1034,]	0	0	4	6
## [1035,]	0	0	4	6
## [1036,]	10	0	0	0
## [1037,]	8	0	2	0
## [1038,]	5	0	4	1
## [1039,]	0	0	4	6
## [1040,]	9	0	1	0
## [1041,]	9	0	1	0
## [1042,]	10	0	0	0
## [1043,]	4	0	4	2
## [1044,]	0	0	4	6
## [1045,]	0	0	4	6
## [1046,]	8	0	2	0
## [1047,]	0	0	4	6
## [1048,]	0	0	4	6
## [1049,]	5	0	4	1
## [1050,]	1	0	4	5
## [1051,]	10	0	0	0
## [1052,]	10	0	0	0
## [1053,]	4	0	4	2
## [1054,]	0	0	4	6
## [1055,]	10	0	0	0
## [1056,]	4	0	4	2
## [1057,]	10	0	0	0
## [1058,]	10	0	0	0
## [1059,]	10	0	0	0
## [1060,]	10	0	0	0
## [1061,]	0	0	4	6
## [1062,]	5	0	4	1
## [1063,]	7	0	3	0
## [1064,]	1	0	4	5
## [1065,]	8	0	2	0
## [1066,]	9	0	1	0
## [1067,]	0	0	4	6
## [1068,]	4	0	4	2
## [1069,]	4	0	4	2
## [1070,]	4	0	4	2
## [1071,]	0	0	4	6
## [1072,]	2	0	4	4
## [1073,]	7	0	3	0
## [1074,]	10	0	0	0
## [1075,]	0	0	4	6
## [1076,]	0	0	4	6
## [1077,]	9	0	1	0
## [1078,]	7	0	3	0
## [1079,]	10	0	0	0
## [1080,]	9	0	1	0
## [1081,]	0	0	4	6
## [1082,]	9	0	1	0

## [1083,]	10	0	0	0
## [1084,]	0	0	4	6
## [1085,]	0	0	4	6
## [1086,]	10	0	0	0
## [1087,]	0	0	4	6
## [1088,]	8	0	2	0
## [1089,]	1	0	4	5
## [1090,]	1	0	4	5
## [1091,]	10	0	0	0
## [1092,]	8	0	2	0
## [1093,]	0	0	4	6
## [1094,]	1	0	4	5
## [1095,]	1	0	4	5
## [1096,]	4	0	4	2
## [1097,]	3	0	4	3
## [1098,]	9	0	1	0
## [1099,]	5	0	4	1
## [1100,]	10	0	0	0
## [1101,]	0	0	4	6
## [1102,]	0	0	4	6
## [1103,]	4	0	4	2
## [1104,]	4	0	4	2
## [1105,]	3	0	4	3
## [1106,]	1	0	4	5
## [1107,]	10	0	0	0
## [1108,]	10	0	0	0
## [1109,]	0	0	4	6
## [1110,]	10	0	0	0
## [1111,]	0	0	4	6
## [1112,]	0	0	4	6
## [1113,]	10	0	0	0
## [1114,]	0	0	4	6
## [1115,]	10	0	0	0
## [1116,]	6	0	4	0
## [1117,]	10	0	0	0
## [1118,]	10	0	0	0
## [1119,]	10	0	0	0
## [1120,]	10	0	0	0
## [1121,]	10	0	0	0
## [1122,]	0	0	4	6
## [1123,]	8	0	2	0
## [1124,]	8	0	2	0
## [1125,]	0	0	4	6
## [1126,]	0	0	4	6
## [1127,]	3	0	4	3
## [1128,]	8	0	2	0
## [1129,]	0	0	4	6
## [1130,]	10	0	0	0
## [1131,]	0	0	4	6
## [1132,]	0	0	4	6
## [1133,]	10	0	0	0
## [1134,]	0	0	4	6
## [1135,]	1	0	4	5
## [1136,]	9	0	1	0

## [1137,]	0	0	4	6
## [1138,]	0	0	4	6
## [1139,]	1	0	4	5
## [1140,]	0	0	4	6
## [1141,]	1	0	4	5
## [1142,]	0	0	4	6
## [1143,]	0	0	4	6
## [1144,]	0	0	4	6
## [1145,]	1	0	4	5
## [1146,]	8	0	2	0
## [1147,]	0	0	4	6
## [1148,]	7	0	3	0
## [1149,]	10	0	0	0
## [1150,]	8	0	2	0
## [1151,]	10	0	0	0
## [1152,]	0	0	4	6
## [1153,]	0	0	4	6
## [1154,]	8	0	2	0
## [1155,]	10	0	0	0
## [1156,]	8	0	2	0
## [1157,]	10	0	0	0
## [1158,]	8	0	2	0
## [1159,]	8	0	2	0
## [1160,]	1	0	4	5
## [1161,]	0	0	4	6
## [1162,]	0	0	4	6
## [1163,]	0	0	4	6
## [1164,]	8	0	2	0
## [1165,]	4	0	4	2
## [1166,]	10	0	0	0
## [1167,]	8	0	2	0
## [1168,]	0	0	4	6
## [1169,]	9	0	1	0
## [1170,]	10	0	0	0
## [1171,]	8	0	2	0
## [1172,]	10	0	0	0
## [1173,]	0	0	4	6
## [1174,]	10	0	0	0
## [1175,]	4	0	4	2
## [1176,]	0	0	4	6
## [1177,]	4	0	4	2
## [1178,]	10	0	0	0
## [1179,]	8	0	2	0
## [1180,]	1	0	4	5
## [1181,]	8	0	2	0
## [1182,]	8	0	2	0
## [1183,]	7	0	3	0
## [1184,]	0	0	4	6
## [1185,]	8	0	2	0
## [1186,]	0	0	4	6
## [1187,]	8	0	2	0
## [1188,]	8	0	2	0
## [1189,]	0	0	4	6
## [1190,]	0	0	4	6

## [1191,]	8	0	2	0
## [1192,]	3	0	4	3
## [1193,]	0	0	4	6
## [1194,]	0	0	4	6
## [1195,]	0	0	4	6
## [1196,]	10	0	0	0
## [1197,]	0	0	4	6
## [1198,]	0	0	4	6
## [1199,]	8	0	2	0
## [1200,]	0	0	4	6
## [1201,]	1	0	4	5
## [1202,]	8	0	2	0
## [1203,]	0	0	4	6
## [1204,]	0	0	4	6
## [1205,]	10	0	0	0
## [1206,]	0	0	4	6
## [1207,]	10	0	0	0
## [1208,]	0	0	4	6
## [1209,]	0	0	4	6
## [1210,]	0	0	4	6
## [1211,]	1	0	4	5
## [1212,]	1	0	4	5
## [1213,]	10	0	0	0
## [1214,]	1	0	4	5
## [1215,]	7	0	3	0
## [1216,]	1	0	4	5
## [1217,]	0	0	4	6
## [1218,]	0	0	4	6
## [1219,]	10	0	0	0
## [1220,]	0	0	4	6
## [1221,]	0	0	4	6
## [1222,]	0	0	4	6
## [1223,]	10	0	0	0
## [1224,]	0	0	4	6
## [1225,]	1	0	4	5
## [1226,]	0	0	4	6
## [1227,]	8	0	2	0
## [1228,]	9	0	1	0
## [1229,]	3	0	4	3
## [1230,]	7	0	3	0
## [1231,]	0	0	4	6
## [1232,]	10	0	0	0
## [1233,]	4	0	4	2
## [1234,]	0	0	4	6
## [1235,]	10	0	0	0
## [1236,]	0	0	4	6
## [1237,]	10	0	0	0
## [1238,]	0	0	4	6
## [1239,]	9	0	1	0
## [1240,]	4	0	4	2
## [1241,]	0	0	4	6
## [1242,]	10	0	0	0
## [1243,]	0	0	4	6
## [1244,]	0	0	4	6

## [1245,]	10	0	0	0
## [1246,]	0	0	4	6
## [1247,]	10	0	0	0
## [1248,]	10	0	0	0
## [1249,]	0	0	4	6
## [1250,]	8	0	2	0
## [1251,]	4	0	4	2
## [1252,]	0	0	4	6
## [1253,]	0	0	4	6
## [1254,]	1	0	4	5
## [1255,]	10	0	0	0
## [1256,]	5	0	4	1
## [1257,]	8	0	2	0
## [1258,]	8	0	2	0
## [1259,]	7	0	3	0
## [1260,]	0	0	4	6
## [1261,]	10	0	0	0
## [1262,]	4	0	4	2
## [1263,]	10	0	0	0
## [1264,]	3	0	4	3
## [1265,]	7	0	3	0
## [1266,]	9	0	1	0
## [1267,]	8	0	2	0
## [1268,]	10	0	0	0
## [1269,]	5	0	4	1
## [1270,]	10	0	0	0
## [1271,]	5	0	4	1
## [1272,]	0	0	4	6
## [1273,]	8	0	2	0
## [1274,]	10	0	0	0
## [1275,]	10	0	0	0
## [1276,]	0	0	4	6
## [1277,]	7	0	3	0
## [1278,]	5	0	4	1
## [1279,]	1	0	4	5
## [1280,]	7	0	3	0
## [1281,]	1	0	4	5
## [1282,]	0	0	4	6
## [1283,]	0	0	4	6
## [1284,]	10	0	0	0
## [1285,]	9	0	1	0
## [1286,]	8	0	2	0
## [1287,]	0	0	4	6
## [1288,]	1	0	4	5
## [1289,]	8	0	2	0
## [1290,]	8	0	2	0
## [1291,]	6	0	4	0
## [1292,]	10	0	0	0
## [1293,]	1	0	4	5
## [1294,]	0	0	4	6
## [1295,]	8	0	2	0
## [1296,]	0	0	4	6
## [1297,]	8	0	2	0
## [1298,]	0	0	4	6

## [1299,]	10	0	0	0
## [1300,]	0	0	4	6
## [1301,]	10	0	0	0
## [1302,]	0	0	4	6
## [1303,]	10	0	0	0
## [1304,]	10	0	0	0
## [1305,]	10	0	0	0
## [1306,]	0	0	4	6
## [1307,]	0	0	4	6
## [1308,]	10	0	0	0
## [1309,]	10	0	0	0
## [1310,]	10	0	0	0
## [1311,]	0	0	4	6
## [1312,]	0	0	4	6
## [1313,]	9	0	1	0
## [1314,]	10	0	0	0
## [1315,]	10	0	0	0
## [1316,]	1	0	4	5
## [1317,]	9	0	1	0
## [1318,]	1	0	4	5
## [1319,]	10	0	0	0
## [1320,]	0	0	4	6
## [1321,]	10	0	0	0
## [1322,]	4	0	4	2
## [1323,]	10	0	0	0
## [1324,]	0	0	4	6
## [1325,]	10	0	0	0
## [1326,]	10	0	0	0
## [1327,]	2	0	4	4
## [1328,]	10	0	0	0
## [1329,]	0	0	4	6
## [1330,]	10	0	0	0
## [1331,]	0	0	4	6
## [1332,]	0	0	4	6
## [1333,]	10	0	0	0
## [1334,]	10	0	0	0
## [1335,]	0	0	4	6
## [1336,]	0	0	4	6
## [1337,]	7	0	3	0
## [1338,]	1	0	4	5
## [1339,]	10	0	0	0
## [1340,]	4	0	4	2
## [1341,]	10	0	0	0
## [1342,]	10	0	0	0
## [1343,]	0	0	4	6
## [1344,]	10	0	0	0
## [1345,]	0	0	4	6
## [1346,]	1	0	4	5
## [1347,]	1	0	4	5
## [1348,]	8	0	2	0
## [1349,]	7	0	3	0
## [1350,]	8	0	2	0
## [1351,]	10	0	0	0
## [1352,]	8	0	2	0



```

## [1353,]      8      0      2      0
## [1354,]      7      0      3      0
## [1355,]      1      0      4      5
## [1356,]      8      0      2      0
## [1357,]      4      0      4      2
## [1358,]      1      0      4      5
## [1359,]      5      0      4      1
## [1360,]     10      0      0      0
## [1361,]      8      0      2      0
## [1362,]      3      0      4      3
## [1363,]      7      0      3      0
## [1364,]      0      0      4      6
## [1365,]     10      0      0      0
## [1366,]      6      0      4      0
## [1367,]      8      0      2      0
## [1368,]      0      0      4      6
## [1369,]     10      0      0      0
## [1370,]      1      0      4      5
## [1371,]      9      0      1      0
## [1372,]      8      0      2      0
## [1373,]      1      0      4      5
## [1374,]     10      0      0      0
## [1375,]      1      0      4      5
## [1376,]      7      0      3      0
## [1377,]      4      0      4      2
## [1378,]     10      0      0      0
## [1379,]      0      0      4      6
## [1380,]      5      0      4      1
## [1381,]      0      0      4      6
## [1382,]     10      0      0      0
## [1383,]      3      0      4      3
## [1384,]      8      0      2      0
## [1385,]      8      0      2      0
## [1386,]      7      0      3      0
## [1387,]     10      0      0      0
## [1388,]      3      0      4      3
## [1389,]      0      0      4      6
## [1390,]      4      0      4      2
## [1391,]      8      0      2      0
## [1392,]      9      0      1      0
## [1393,]      1      0      4      5
## [1394,]      0      0      4      6
## [1395,]      0      0      4      6
## [1396,]     10      0      0      0
## [1397,]      7      0      3      0
## [1398,]      0      0      4      6
## [1399,]     10      0      0      0
## [1400,]      0      0      4      6
##
## $prob
##      [,1] [,2] [,3] [,4]
## [1,]  0.1   0  0.4  0.5
## [2,]  0.1   0  0.4  0.5
## [3,]  0.0   0  0.4  0.6

```

##	[4,]	0.9	0	0.1	0.0
##	[5,]	1.0	0	0.0	0.0
##	[6,]	1.0	0	0.0	0.0
##	[7,]	0.0	0	0.4	0.6
##	[8,]	0.0	0	0.4	0.6
##	[9,]	0.8	0	0.2	0.0
##	[10,]	0.1	0	0.4	0.5
##	[11,]	1.0	0	0.0	0.0
##	[12,]	1.0	0	0.0	0.0
##	[13,]	0.0	0	0.4	0.6
##	[14,]	0.3	0	0.4	0.3
##	[15,]	0.9	0	0.1	0.0
##	[16,]	1.0	0	0.0	0.0
##	[17,]	0.1	0	0.4	0.5
##	[18,]	0.0	0	0.4	0.6
##	[19,]	0.0	0	0.4	0.6
##	[20,]	0.0	0	0.4	0.6
##	[21,]	0.4	0	0.4	0.2
##	[22,]	0.0	0	0.4	0.6
##	[23,]	1.0	0	0.0	0.0
##	[24,]	0.9	0	0.1	0.0
##	[25,]	0.0	0	0.4	0.6
##	[26,]	0.0	0	0.4	0.6
##	[27,]	0.5	0	0.4	0.1
##	[28,]	0.1	0	0.4	0.5
##	[29,]	0.8	0	0.2	0.0
##	[30,]	0.8	0	0.2	0.0
##	[31,]	1.0	0	0.0	0.0
##	[32,]	1.0	0	0.0	0.0
##	[33,]	0.0	0	0.4	0.6
##	[34,]	1.0	0	0.0	0.0
##	[35,]	0.0	0	0.4	0.6
##	[36,]	0.5	0	0.4	0.1
##	[37,]	0.5	0	0.4	0.1
##	[38,]	0.9	0	0.1	0.0
##	[39,]	0.0	0	0.4	0.6
##	[40,]	0.1	0	0.4	0.5
##	[41,]	0.0	0	0.4	0.6
##	[42,]	0.8	0	0.2	0.0
##	[43,]	1.0	0	0.0	0.0
##	[44,]	1.0	0	0.0	0.0
##	[45,]	0.5	0	0.4	0.1
##	[46,]	0.0	0	0.4	0.6
##	[47,]	0.0	0	0.4	0.6
##	[48,]	0.0	0	0.4	0.6
##	[49,]	0.0	0	0.4	0.6
##	[50,]	1.0	0	0.0	0.0
##	[51,]	0.0	0	0.4	0.6
##	[52,]	0.0	0	0.4	0.6
##	[53,]	1.0	0	0.0	0.0
##	[54,]	0.0	0	0.4	0.6
##	[55,]	1.0	0	0.0	0.0
##	[56,]	0.8	0	0.2	0.0
##	[57,]	0.0	0	0.4	0.6

##	[58,]	0.8	0	0.2	0.0
##	[59,]	0.0	0	0.4	0.6
##	[60,]	0.1	0	0.4	0.5
##	[61,]	0.7	0	0.3	0.0
##	[62,]	0.7	0	0.3	0.0
##	[63,]	1.0	0	0.0	0.0
##	[64,]	1.0	0	0.0	0.0
##	[65,]	0.0	0	0.4	0.6
##	[66,]	0.3	0	0.4	0.3
##	[67,]	0.0	0	0.4	0.6
##	[68,]	0.7	0	0.3	0.0
##	[69,]	0.9	0	0.1	0.0
##	[70,]	1.0	0	0.0	0.0
##	[71,]	0.8	0	0.2	0.0
##	[72,]	0.9	0	0.1	0.0
##	[73,]	0.8	0	0.2	0.0
##	[74,]	0.1	0	0.4	0.5
##	[75,]	0.9	0	0.1	0.0
##	[76,]	0.1	0	0.4	0.5
##	[77,]	1.0	0	0.0	0.0
##	[78,]	1.0	0	0.0	0.0
##	[79,]	0.8	0	0.2	0.0
##	[80,]	0.1	0	0.4	0.5
##	[81,]	0.0	0	0.4	0.6
##	[82,]	0.7	0	0.3	0.0
##	[83,]	0.4	0	0.4	0.2
##	[84,]	1.0	0	0.0	0.0
##	[85,]	0.0	0	0.4	0.6
##	[86,]	0.0	0	0.4	0.6
##	[87,]	0.0	0	0.4	0.6
##	[88,]	0.7	0	0.3	0.0
##	[89,]	0.1	0	0.4	0.5
##	[90,]	0.0	0	0.4	0.6
##	[91,]	0.0	0	0.4	0.6
##	[92,]	0.0	0	0.4	0.6
##	[93,]	0.0	0	0.4	0.6
##	[94,]	0.0	0	0.4	0.6
##	[95,]	0.8	0	0.2	0.0
##	[96,]	0.0	0	0.4	0.6
##	[97,]	1.0	0	0.0	0.0
##	[98,]	0.4	0	0.4	0.2
##	[99,]	0.0	0	0.4	0.6
##	[100,]	1.0	0	0.0	0.0
##	[101,]	0.9	0	0.1	0.0
##	[102,]	0.9	0	0.1	0.0
##	[103,]	1.0	0	0.0	0.0
##	[104,]	0.0	0	0.4	0.6
##	[105,]	1.0	0	0.0	0.0
##	[106,]	0.0	0	0.4	0.6
##	[107,]	0.4	0	0.4	0.2
##	[108,]	0.0	0	0.4	0.6
##	[109,]	0.3	0	0.4	0.3
##	[110,]	0.9	0	0.1	0.0
##	[111,]	0.9	0	0.1	0.0

##	[112,]	1.0	0	0.0	0.0
##	[113,]	0.0	0	0.4	0.6
##	[114,]	1.0	0	0.0	0.0
##	[115,]	0.0	0	0.4	0.6
##	[116,]	0.0	0	0.4	0.6
##	[117,]	1.0	0	0.0	0.0
##	[118,]	0.3	0	0.4	0.3
##	[119,]	0.0	0	0.4	0.6
##	[120,]	0.5	0	0.4	0.1
##	[121,]	0.7	0	0.3	0.0
##	[122,]	0.1	0	0.4	0.5
##	[123,]	0.8	0	0.2	0.0
##	[124,]	0.0	0	0.4	0.6
##	[125,]	0.0	0	0.4	0.6
##	[126,]	0.4	0	0.4	0.2
##	[127,]	1.0	0	0.0	0.0
##	[128,]	0.1	0	0.4	0.5
##	[129,]	0.0	0	0.4	0.6
##	[130,]	0.8	0	0.2	0.0
##	[131,]	0.8	0	0.2	0.0
##	[132,]	1.0	0	0.0	0.0
##	[133,]	0.3	0	0.4	0.3
##	[134,]	0.0	0	0.4	0.6
##	[135,]	0.0	0	0.4	0.6
##	[136,]	1.0	0	0.0	0.0
##	[137,]	0.0	0	0.4	0.6
##	[138,]	0.0	0	0.4	0.6
##	[139,]	0.1	0	0.4	0.5
##	[140,]	0.4	0	0.4	0.2
##	[141,]	0.0	0	0.4	0.6
##	[142,]	0.0	0	0.4	0.6
##	[143,]	0.8	0	0.2	0.0
##	[144,]	1.0	0	0.0	0.0
##	[145,]	1.0	0	0.0	0.0
##	[146,]	1.0	0	0.0	0.0
##	[147,]	0.1	0	0.4	0.5
##	[148,]	0.1	0	0.4	0.5
##	[149,]	0.4	0	0.4	0.2
##	[150,]	0.0	0	0.4	0.6
##	[151,]	0.0	0	0.4	0.6
##	[152,]	1.0	0	0.0	0.0
##	[153,]	1.0	0	0.0	0.0
##	[154,]	0.0	0	0.4	0.6
##	[155,]	0.0	0	0.4	0.6
##	[156,]	0.0	0	0.4	0.6
##	[157,]	0.1	0	0.4	0.5
##	[158,]	0.1	0	0.4	0.5
##	[159,]	0.0	0	0.4	0.6
##	[160,]	0.0	0	0.4	0.6
##	[161,]	0.0	0	0.4	0.6
##	[162,]	1.0	0	0.0	0.0
##	[163,]	0.4	0	0.4	0.2
##	[164,]	0.0	0	0.4	0.6
##	[165,]	1.0	0	0.0	0.0

##	[166,]	0.8	0	0.2	0.0
##	[167,]	0.0	0	0.4	0.6
##	[168,]	1.0	0	0.0	0.0
##	[169,]	0.0	0	0.4	0.6
##	[170,]	0.0	0	0.4	0.6
##	[171,]	0.8	0	0.2	0.0
##	[172,]	0.0	0	0.4	0.6
##	[173,]	0.0	0	0.4	0.6
##	[174,]	0.8	0	0.2	0.0
##	[175,]	0.8	0	0.2	0.0
##	[176,]	1.0	0	0.0	0.0
##	[177,]	0.0	0	0.4	0.6
##	[178,]	0.1	0	0.4	0.5
##	[179,]	1.0	0	0.0	0.0
##	[180,]	1.0	0	0.0	0.0
##	[181,]	0.8	0	0.2	0.0
##	[182,]	0.0	0	0.4	0.6
##	[183,]	1.0	0	0.0	0.0
##	[184,]	0.7	0	0.3	0.0
##	[185,]	1.0	0	0.0	0.0
##	[186,]	0.0	0	0.4	0.6
##	[187,]	1.0	0	0.0	0.0
##	[188,]	0.1	0	0.4	0.5
##	[189,]	0.1	0	0.4	0.5
##	[190,]	1.0	0	0.0	0.0
##	[191,]	0.0	0	0.4	0.6
##	[192,]	0.8	0	0.2	0.0
##	[193,]	0.1	0	0.4	0.5
##	[194,]	0.0	0	0.4	0.6
##	[195,]	0.8	0	0.2	0.0
##	[196,]	1.0	0	0.0	0.0
##	[197,]	0.0	0	0.4	0.6
##	[198,]	1.0	0	0.0	0.0
##	[199,]	0.7	0	0.3	0.0
##	[200,]	0.3	0	0.4	0.3
##	[201,]	0.8	0	0.2	0.0
##	[202,]	0.0	0	0.4	0.6
##	[203,]	0.0	0	0.4	0.6
##	[204,]	0.0	0	0.4	0.6
##	[205,]	1.0	0	0.0	0.0
##	[206,]	1.0	0	0.0	0.0
##	[207,]	0.8	0	0.2	0.0
##	[208,]	0.0	0	0.4	0.6
##	[209,]	1.0	0	0.0	0.0
##	[210,]	0.8	0	0.2	0.0
##	[211,]	0.0	0	0.4	0.6
##	[212,]	1.0	0	0.0	0.0
##	[213,]	1.0	0	0.0	0.0
##	[214,]	0.0	0	0.4	0.6
##	[215,]	1.0	0	0.0	0.0
##	[216,]	0.8	0	0.2	0.0
##	[217,]	0.0	0	0.4	0.6
##	[218,]	0.8	0	0.2	0.0
##	[219,]	0.0	0	0.4	0.6

##	[220,]	1.0	0	0.0	0.0
##	[221,]	0.0	0	0.4	0.6
##	[222,]	0.0	0	0.4	0.6
##	[223,]	1.0	0	0.0	0.0
##	[224,]	1.0	0	0.0	0.0
##	[225,]	0.8	0	0.2	0.0
##	[226,]	1.0	0	0.0	0.0
##	[227,]	0.0	0	0.4	0.6
##	[228,]	1.0	0	0.0	0.0
##	[229,]	1.0	0	0.0	0.0
##	[230,]	1.0	0	0.0	0.0
##	[231,]	0.0	0	0.4	0.6
##	[232,]	0.0	0	0.4	0.6
##	[233,]	0.8	0	0.2	0.0
##	[234,]	0.5	0	0.4	0.1
##	[235,]	1.0	0	0.0	0.0
##	[236,]	0.8	0	0.2	0.0
##	[237,]	1.0	0	0.0	0.0
##	[238,]	0.0	0	0.4	0.6
##	[239,]	0.0	0	0.4	0.6
##	[240,]	1.0	0	0.0	0.0
##	[241,]	0.5	0	0.4	0.1
##	[242,]	0.0	0	0.4	0.6
##	[243,]	1.0	0	0.0	0.0
##	[244,]	1.0	0	0.0	0.0
##	[245,]	0.0	0	0.4	0.6
##	[246,]	0.0	0	0.4	0.6
##	[247,]	0.0	0	0.4	0.6
##	[248,]	0.0	0	0.4	0.6
##	[249,]	0.1	0	0.4	0.5
##	[250,]	0.1	0	0.4	0.5
##	[251,]	0.1	0	0.4	0.5
##	[252,]	0.0	0	0.4	0.6
##	[253,]	0.4	0	0.4	0.2
##	[254,]	1.0	0	0.0	0.0
##	[255,]	0.0	0	0.4	0.6
##	[256,]	1.0	0	0.0	0.0
##	[257,]	1.0	0	0.0	0.0
##	[258,]	0.0	0	0.4	0.6
##	[259,]	0.0	0	0.4	0.6
##	[260,]	0.8	0	0.2	0.0
##	[261,]	1.0	0	0.0	0.0
##	[262,]	0.0	0	0.4	0.6
##	[263,]	0.1	0	0.4	0.5
##	[264,]	0.0	0	0.4	0.6
##	[265,]	0.4	0	0.4	0.2
##	[266,]	0.0	0	0.4	0.6
##	[267,]	0.1	0	0.4	0.5
##	[268,]	1.0	0	0.0	0.0
##	[269,]	0.1	0	0.4	0.5
##	[270,]	1.0	0	0.0	0.0
##	[271,]	1.0	0	0.0	0.0
##	[272,]	0.0	0	0.4	0.6
##	[273,]	0.3	0	0.4	0.3

##	[274,]	0.0	0	0.4	0.6
##	[275,]	0.2	0	0.4	0.4
##	[276,]	0.0	0	0.4	0.6
##	[277,]	0.0	0	0.4	0.6
##	[278,]	0.0	0	0.4	0.6
##	[279,]	0.5	0	0.4	0.1
##	[280,]	0.0	0	0.4	0.6
##	[281,]	0.0	0	0.4	0.6
##	[282,]	0.9	0	0.1	0.0
##	[283,]	0.8	0	0.2	0.0
##	[284,]	0.1	0	0.4	0.5
##	[285,]	0.0	0	0.4	0.6
##	[286,]	0.0	0	0.4	0.6
##	[287,]	0.8	0	0.2	0.0
##	[288,]	0.1	0	0.4	0.5
##	[289,]	0.0	0	0.4	0.6
##	[290,]	0.7	0	0.3	0.0
##	[291,]	0.0	0	0.4	0.6
##	[292,]	0.4	0	0.4	0.2
##	[293,]	1.0	0	0.0	0.0
##	[294,]	0.0	0	0.4	0.6
##	[295,]	1.0	0	0.0	0.0
##	[296,]	0.1	0	0.4	0.5
##	[297,]	0.3	0	0.4	0.3
##	[298,]	0.8	0	0.2	0.0
##	[299,]	1.0	0	0.0	0.0
##	[300,]	0.8	0	0.2	0.0
##	[301,]	0.1	0	0.4	0.5
##	[302,]	0.5	0	0.4	0.1
##	[303,]	1.0	0	0.0	0.0
##	[304,]	0.0	0	0.4	0.6
##	[305,]	0.0	0	0.4	0.6
##	[306,]	1.0	0	0.0	0.0
##	[307,]	0.8	0	0.2	0.0
##	[308,]	0.8	0	0.2	0.0
##	[309,]	0.0	0	0.4	0.6
##	[310,]	1.0	0	0.0	0.0
##	[311,]	1.0	0	0.0	0.0
##	[312,]	0.0	0	0.4	0.6
##	[313,]	1.0	0	0.0	0.0
##	[314,]	1.0	0	0.0	0.0
##	[315,]	0.0	0	0.4	0.6
##	[316,]	1.0	0	0.0	0.0
##	[317,]	1.0	0	0.0	0.0
##	[318,]	0.1	0	0.4	0.5
##	[319,]	0.7	0	0.3	0.0
##	[320,]	0.0	0	0.4	0.6
##	[321,]	0.7	0	0.3	0.0
##	[322,]	0.9	0	0.1	0.0
##	[323,]	0.1	0	0.4	0.5
##	[324,]	0.3	0	0.4	0.3
##	[325,]	0.8	0	0.2	0.0
##	[326,]	1.0	0	0.0	0.0
##	[327,]	1.0	0	0.0	0.0

##	[328,]	0.0	0	0.4	0.6
##	[329,]	1.0	0	0.0	0.0
##	[330,]	1.0	0	0.0	0.0
##	[331,]	0.8	0	0.2	0.0
##	[332,]	0.0	0	0.4	0.6
##	[333,]	0.0	0	0.4	0.6
##	[334,]	0.8	0	0.2	0.0
##	[335,]	0.3	0	0.4	0.3
##	[336,]	0.0	0	0.4	0.6
##	[337,]	0.0	0	0.4	0.6
##	[338,]	0.0	0	0.4	0.6
##	[339,]	1.0	0	0.0	0.0
##	[340,]	0.0	0	0.4	0.6
##	[341,]	1.0	0	0.0	0.0
##	[342,]	0.0	0	0.4	0.6
##	[343,]	0.8	0	0.2	0.0
##	[344,]	1.0	0	0.0	0.0
##	[345,]	0.0	0	0.4	0.6
##	[346,]	0.5	0	0.4	0.1
##	[347,]	1.0	0	0.0	0.0
##	[348,]	0.7	0	0.3	0.0
##	[349,]	1.0	0	0.0	0.0
##	[350,]	0.0	0	0.4	0.6
##	[351,]	0.7	0	0.3	0.0
##	[352,]	0.1	0	0.4	0.5
##	[353,]	0.0	0	0.4	0.6
##	[354,]	1.0	0	0.0	0.0
##	[355,]	0.0	0	0.4	0.6
##	[356,]	1.0	0	0.0	0.0
##	[357,]	1.0	0	0.0	0.0
##	[358,]	0.9	0	0.1	0.0
##	[359,]	0.1	0	0.4	0.5
##	[360,]	0.7	0	0.3	0.0
##	[361,]	0.0	0	0.4	0.6
##	[362,]	0.0	0	0.4	0.6
##	[363,]	0.5	0	0.4	0.1
##	[364,]	0.0	0	0.4	0.6
##	[365,]	0.8	0	0.2	0.0
##	[366,]	0.0	0	0.4	0.6
##	[367,]	0.0	0	0.4	0.6
##	[368,]	0.0	0	0.4	0.6
##	[369,]	0.0	0	0.4	0.6
##	[370,]	0.9	0	0.1	0.0
##	[371,]	0.0	0	0.4	0.6
##	[372,]	0.0	0	0.4	0.6
##	[373,]	0.0	0	0.4	0.6
##	[374,]	0.1	0	0.4	0.5
##	[375,]	0.0	0	0.4	0.6
##	[376,]	0.3	0	0.4	0.3
##	[377,]	0.1	0	0.4	0.5
##	[378,]	0.0	0	0.4	0.6
##	[379,]	0.0	0	0.4	0.6
##	[380,]	1.0	0	0.0	0.0
##	[381,]	0.0	0	0.4	0.6



##	[382,]	0.8	0	0.2	0.0
##	[383,]	1.0	0	0.0	0.0
##	[384,]	0.0	0	0.4	0.6
##	[385,]	0.8	0	0.2	0.0
##	[386,]	0.8	0	0.2	0.0
##	[387,]	0.0	0	0.4	0.6
##	[388,]	1.0	0	0.0	0.0
##	[389,]	0.9	0	0.1	0.0
##	[390,]	1.0	0	0.0	0.0
##	[391,]	1.0	0	0.0	0.0
##	[392,]	0.1	0	0.4	0.5
##	[393,]	0.0	0	0.4	0.6
##	[394,]	1.0	0	0.0	0.0
##	[395,]	0.8	0	0.2	0.0
##	[396,]	0.7	0	0.3	0.0
##	[397,]	0.0	0	0.4	0.6
##	[398,]	1.0	0	0.0	0.0
##	[399,]	1.0	0	0.0	0.0
##	[400,]	0.0	0	0.4	0.6
##	[401,]	0.0	0	0.4	0.6
##	[402,]	0.0	0	0.4	0.6
##	[403,]	0.0	0	0.4	0.6
##	[404,]	1.0	0	0.0	0.0
##	[405,]	0.0	0	0.4	0.6
##	[406,]	0.0	0	0.4	0.6
##	[407,]	1.0	0	0.0	0.0
##	[408,]	1.0	0	0.0	0.0
##	[409,]	0.0	0	0.4	0.6
##	[410,]	0.0	0	0.4	0.6
##	[411,]	0.0	0	0.4	0.6
##	[412,]	1.0	0	0.0	0.0
##	[413,]	0.0	0	0.4	0.6
##	[414,]	0.9	0	0.1	0.0
##	[415,]	1.0	0	0.0	0.0
##	[416,]	0.0	0	0.4	0.6
##	[417,]	0.0	0	0.4	0.6
##	[418,]	1.0	0	0.0	0.0
##	[419,]	0.0	0	0.4	0.6
##	[420,]	1.0	0	0.0	0.0
##	[421,]	1.0	0	0.0	0.0
##	[422,]	1.0	0	0.0	0.0
##	[423,]	0.0	0	0.4	0.6
##	[424,]	1.0	0	0.0	0.0
##	[425,]	0.8	0	0.2	0.0
##	[426,]	1.0	0	0.0	0.0
##	[427,]	0.1	0	0.4	0.5
##	[428,]	1.0	0	0.0	0.0
##	[429,]	0.0	0	0.4	0.6
##	[430,]	0.4	0	0.4	0.2
##	[431,]	0.0	0	0.4	0.6
##	[432,]	1.0	0	0.0	0.0
##	[433,]	0.0	0	0.4	0.6
##	[434,]	0.0	0	0.4	0.6
##	[435,]	0.8	0	0.2	0.0

##	[436,]	0.0	0	0.4	0.6
##	[437,]	1.0	0	0.0	0.0
##	[438,]	0.9	0	0.1	0.0
##	[439,]	0.3	0	0.4	0.3
##	[440,]	1.0	0	0.0	0.0
##	[441,]	1.0	0	0.0	0.0
##	[442,]	1.0	0	0.0	0.0
##	[443,]	0.8	0	0.2	0.0
##	[444,]	0.0	0	0.4	0.6
##	[445,]	0.0	0	0.4	0.6
##	[446,]	0.9	0	0.1	0.0
##	[447,]	0.0	0	0.4	0.6
##	[448,]	0.4	0	0.4	0.2
##	[449,]	1.0	0	0.0	0.0
##	[450,]	0.7	0	0.3	0.0
##	[451,]	0.0	0	0.4	0.6
##	[452,]	0.7	0	0.3	0.0
##	[453,]	0.0	0	0.4	0.6
##	[454,]	0.4	0	0.4	0.2
##	[455,]	0.1	0	0.4	0.5
##	[456,]	1.0	0	0.0	0.0
##	[457,]	0.0	0	0.4	0.6
##	[458,]	0.8	0	0.2	0.0
##	[459,]	0.8	0	0.2	0.0
##	[460,]	1.0	0	0.0	0.0
##	[461,]	1.0	0	0.0	0.0
##	[462,]	0.8	0	0.2	0.0
##	[463,]	1.0	0	0.0	0.0
##	[464,]	1.0	0	0.0	0.0
##	[465,]	1.0	0	0.0	0.0
##	[466,]	0.0	0	0.4	0.6
##	[467,]	0.0	0	0.4	0.6
##	[468,]	0.8	0	0.2	0.0
##	[469,]	1.0	0	0.0	0.0
##	[470,]	0.9	0	0.1	0.0
##	[471,]	1.0	0	0.0	0.0
##	[472,]	0.0	0	0.4	0.6
##	[473,]	0.0	0	0.4	0.6
##	[474,]	0.1	0	0.4	0.5
##	[475,]	0.0	0	0.4	0.6
##	[476,]	0.1	0	0.4	0.5
##	[477,]	0.5	0	0.4	0.1
##	[478,]	1.0	0	0.0	0.0
##	[479,]	1.0	0	0.0	0.0
##	[480,]	0.0	0	0.4	0.6
##	[481,]	0.1	0	0.4	0.5
##	[482,]	1.0	0	0.0	0.0
##	[483,]	0.0	0	0.4	0.6
##	[484,]	0.4	0	0.4	0.2
##	[485,]	1.0	0	0.0	0.0
##	[486,]	0.0	0	0.4	0.6
##	[487,]	1.0	0	0.0	0.0
##	[488,]	0.0	0	0.4	0.6
##	[489,]	0.0	0	0.4	0.6

##	[490,]	0.0	0	0.4	0.6
##	[491,]	1.0	0	0.0	0.0
##	[492,]	0.0	0	0.4	0.6
##	[493,]	1.0	0	0.0	0.0
##	[494,]	0.9	0	0.1	0.0
##	[495,]	0.0	0	0.4	0.6
##	[496,]	1.0	0	0.0	0.0
##	[497,]	0.1	0	0.4	0.5
##	[498,]	0.0	0	0.4	0.6
##	[499,]	1.0	0	0.0	0.0
##	[500,]	0.0	0	0.4	0.6
##	[501,]	0.0	0	0.4	0.6
##	[502,]	1.0	0	0.0	0.0
##	[503,]	0.7	0	0.3	0.0
##	[504,]	1.0	0	0.0	0.0
##	[505,]	0.7	0	0.3	0.0
##	[506,]	1.0	0	0.0	0.0
##	[507,]	1.0	0	0.0	0.0
##	[508,]	0.0	0	0.4	0.6
##	[509,]	0.1	0	0.4	0.5
##	[510,]	0.0	0	0.4	0.6
##	[511,]	0.0	0	0.4	0.6
##	[512,]	0.1	0	0.4	0.5
##	[513,]	0.4	0	0.4	0.2
##	[514,]	0.0	0	0.4	0.6
##	[515,]	0.0	0	0.4	0.6
##	[516,]	1.0	0	0.0	0.0
##	[517,]	0.0	0	0.4	0.6
##	[518,]	0.0	0	0.4	0.6
##	[519,]	1.0	0	0.0	0.0
##	[520,]	0.4	0	0.4	0.2
##	[521,]	1.0	0	0.0	0.0
##	[522,]	1.0	0	0.0	0.0
##	[523,]	0.0	0	0.4	0.6
##	[524,]	1.0	0	0.0	0.0
##	[525,]	0.0	0	0.4	0.6
##	[526,]	1.0	0	0.0	0.0
##	[527,]	1.0	0	0.0	0.0
##	[528,]	1.0	0	0.0	0.0
##	[529,]	0.0	0	0.4	0.6
##	[530,]	0.9	0	0.1	0.0
##	[531,]	0.7	0	0.3	0.0
##	[532,]	0.0	0	0.4	0.6
##	[533,]	0.5	0	0.4	0.1
##	[534,]	0.0	0	0.4	0.6
##	[535,]	0.1	0	0.4	0.5
##	[536,]	1.0	0	0.0	0.0
##	[537,]	1.0	0	0.0	0.0
##	[538,]	0.8	0	0.2	0.0
##	[539,]	0.0	0	0.4	0.6
##	[540,]	0.1	0	0.4	0.5
##	[541,]	1.0	0	0.0	0.0
##	[542,]	0.0	0	0.4	0.6
##	[543,]	0.1	0	0.4	0.5

##	[544,]	1.0	0	0.0	0.0
##	[545,]	0.4	0	0.4	0.2
##	[546,]	1.0	0	0.0	0.0
##	[547,]	0.0	0	0.4	0.6
##	[548,]	0.0	0	0.4	0.6
##	[549,]	0.1	0	0.4	0.5
##	[550,]	0.0	0	0.4	0.6
##	[551,]	0.0	0	0.4	0.6
##	[552,]	0.8	0	0.2	0.0
##	[553,]	1.0	0	0.0	0.0
##	[554,]	0.0	0	0.4	0.6
##	[555,]	0.8	0	0.2	0.0
##	[556,]	1.0	0	0.0	0.0
##	[557,]	0.0	0	0.4	0.6
##	[558,]	0.7	0	0.3	0.0
##	[559,]	0.9	0	0.1	0.0
##	[560,]	0.0	0	0.4	0.6
##	[561,]	0.0	0	0.4	0.6
##	[562,]	0.0	0	0.4	0.6
##	[563,]	0.0	0	0.4	0.6
##	[564,]	1.0	0	0.0	0.0
##	[565,]	1.0	0	0.0	0.0
##	[566,]	0.8	0	0.2	0.0
##	[567,]	1.0	0	0.0	0.0
##	[568,]	0.0	0	0.4	0.6
##	[569,]	0.0	0	0.4	0.6
##	[570,]	0.9	0	0.1	0.0
##	[571,]	1.0	0	0.0	0.0
##	[572,]	0.0	0	0.4	0.6
##	[573,]	0.0	0	0.4	0.6
##	[574,]	0.9	0	0.1	0.0
##	[575,]	0.1	0	0.4	0.5
##	[576,]	0.0	0	0.4	0.6
##	[577,]	0.1	0	0.4	0.5
##	[578,]	0.0	0	0.4	0.6
##	[579,]	0.0	0	0.4	0.6
##	[580,]	0.1	0	0.4	0.5
##	[581,]	0.0	0	0.4	0.6
##	[582,]	0.0	0	0.4	0.6
##	[583,]	0.0	0	0.4	0.6
##	[584,]	0.0	0	0.4	0.6
##	[585,]	0.0	0	0.4	0.6
##	[586,]	0.0	0	0.4	0.6
##	[587,]	0.1	0	0.4	0.5
##	[588,]	0.0	0	0.4	0.6
##	[589,]	0.4	0	0.4	0.2
##	[590,]	0.0	0	0.4	0.6
##	[591,]	1.0	0	0.0	0.0
##	[592,]	1.0	0	0.0	0.0
##	[593,]	0.0	0	0.4	0.6
##	[594,]	1.0	0	0.0	0.0
##	[595,]	1.0	0	0.0	0.0
##	[596,]	0.0	0	0.4	0.6
##	[597,]	0.7	0	0.3	0.0

##	[598,]	1.0	0	0.0	0.0
##	[599,]	0.3	0	0.4	0.3
##	[600,]	0.9	0	0.1	0.0
##	[601,]	0.0	0	0.4	0.6
##	[602,]	0.3	0	0.4	0.3
##	[603,]	0.9	0	0.1	0.0
##	[604,]	0.0	0	0.4	0.6
##	[605,]	0.5	0	0.4	0.1
##	[606,]	0.8	0	0.2	0.0
##	[607,]	0.0	0	0.4	0.6
##	[608,]	1.0	0	0.0	0.0
##	[609,]	0.1	0	0.4	0.5
##	[610,]	0.0	0	0.4	0.6
##	[611,]	0.7	0	0.3	0.0
##	[612,]	0.0	0	0.4	0.6
##	[613,]	0.0	0	0.4	0.6
##	[614,]	0.0	0	0.4	0.6
##	[615,]	0.3	0	0.4	0.3
##	[616,]	1.0	0	0.0	0.0
##	[617,]	1.0	0	0.0	0.0
##	[618,]	1.0	0	0.0	0.0
##	[619,]	1.0	0	0.0	0.0
##	[620,]	0.1	0	0.4	0.5
##	[621,]	0.0	0	0.4	0.6
##	[622,]	0.1	0	0.4	0.5
##	[623,]	0.0	0	0.4	0.6
##	[624,]	0.9	0	0.1	0.0
##	[625,]	0.0	0	0.4	0.6
##	[626,]	0.0	0	0.4	0.6
##	[627,]	1.0	0	0.0	0.0
##	[628,]	0.8	0	0.2	0.0
##	[629,]	0.7	0	0.3	0.0
##	[630,]	0.0	0	0.4	0.6
##	[631,]	0.0	0	0.4	0.6
##	[632,]	0.9	0	0.1	0.0
##	[633,]	0.0	0	0.4	0.6
##	[634,]	0.7	0	0.3	0.0
##	[635,]	1.0	0	0.0	0.0
##	[636,]	0.0	0	0.4	0.6
##	[637,]	0.8	0	0.2	0.0
##	[638,]	0.0	0	0.4	0.6
##	[639,]	1.0	0	0.0	0.0
##	[640,]	0.0	0	0.4	0.6
##	[641,]	1.0	0	0.0	0.0
##	[642,]	1.0	0	0.0	0.0
##	[643,]	0.8	0	0.2	0.0
##	[644,]	1.0	0	0.0	0.0
##	[645,]	0.0	0	0.4	0.6
##	[646,]	0.0	0	0.4	0.6
##	[647,]	1.0	0	0.0	0.0
##	[648,]	0.9	0	0.1	0.0
##	[649,]	0.0	0	0.4	0.6
##	[650,]	0.1	0	0.4	0.5
##	[651,]	0.5	0	0.4	0.1

##	[652,]	0.7	0	0.3	0.0
##	[653,]	0.0	0	0.4	0.6
##	[654,]	1.0	0	0.0	0.0
##	[655,]	0.0	0	0.4	0.6
##	[656,]	0.1	0	0.4	0.5
##	[657,]	0.0	0	0.4	0.6
##	[658,]	0.0	0	0.4	0.6
##	[659,]	0.0	0	0.4	0.6
##	[660,]	0.0	0	0.4	0.6
##	[661,]	0.1	0	0.4	0.5
##	[662,]	0.0	0	0.4	0.6
##	[663,]	1.0	0	0.0	0.0
##	[664,]	0.8	0	0.2	0.0
##	[665,]	1.0	0	0.0	0.0
##	[666,]	0.0	0	0.4	0.6
##	[667,]	1.0	0	0.0	0.0
##	[668,]	0.4	0	0.4	0.2
##	[669,]	0.8	0	0.2	0.0
##	[670,]	0.9	0	0.1	0.0
##	[671,]	1.0	0	0.0	0.0
##	[672,]	0.8	0	0.2	0.0
##	[673,]	0.0	0	0.4	0.6
##	[674,]	0.0	0	0.4	0.6
##	[675,]	1.0	0	0.0	0.0
##	[676,]	0.0	0	0.4	0.6
##	[677,]	0.1	0	0.4	0.5
##	[678,]	0.0	0	0.4	0.6
##	[679,]	0.8	0	0.2	0.0
##	[680,]	1.0	0	0.0	0.0
##	[681,]	0.8	0	0.2	0.0
##	[682,]	0.9	0	0.1	0.0
##	[683,]	1.0	0	0.0	0.0
##	[684,]	0.0	0	0.4	0.6
##	[685,]	1.0	0	0.0	0.0
##	[686,]	1.0	0	0.0	0.0
##	[687,]	0.0	0	0.4	0.6
##	[688,]	0.9	0	0.1	0.0
##	[689,]	1.0	0	0.0	0.0
##	[690,]	0.0	0	0.4	0.6
##	[691,]	0.0	0	0.4	0.6
##	[692,]	1.0	0	0.0	0.0
##	[693,]	1.0	0	0.0	0.0
##	[694,]	1.0	0	0.0	0.0
##	[695,]	0.0	0	0.4	0.6
##	[696,]	0.0	0	0.4	0.6
##	[697,]	0.7	0	0.3	0.0
##	[698,]	0.8	0	0.2	0.0
##	[699,]	0.8	0	0.2	0.0
##	[700,]	0.9	0	0.1	0.0
##	[701,]	1.0	0	0.0	0.0
##	[702,]	1.0	0	0.0	0.0
##	[703,]	0.0	0	0.4	0.6
##	[704,]	0.0	0	0.4	0.6
##	[705,]	0.0	0	0.4	0.6

##	[706,]	0.0	0	0.4	0.6
##	[707,]	0.8	0	0.2	0.0
##	[708,]	1.0	0	0.0	0.0
##	[709,]	1.0	0	0.0	0.0
##	[710,]	0.1	0	0.4	0.5
##	[711,]	0.1	0	0.4	0.5
##	[712,]	1.0	0	0.0	0.0
##	[713,]	1.0	0	0.0	0.0
##	[714,]	0.8	0	0.2	0.0
##	[715,]	1.0	0	0.0	0.0
##	[716,]	0.9	0	0.1	0.0
##	[717,]	0.0	0	0.4	0.6
##	[718,]	0.8	0	0.2	0.0
##	[719,]	1.0	0	0.0	0.0
##	[720,]	1.0	0	0.0	0.0
##	[721,]	1.0	0	0.0	0.0
##	[722,]	0.8	0	0.2	0.0
##	[723,]	0.1	0	0.4	0.5
##	[724,]	0.4	0	0.4	0.2
##	[725,]	0.0	0	0.4	0.6
##	[726,]	1.0	0	0.0	0.0
##	[727,]	1.0	0	0.0	0.0
##	[728,]	0.0	0	0.4	0.6
##	[729,]	0.9	0	0.1	0.0
##	[730,]	1.0	0	0.0	0.0
##	[731,]	0.1	0	0.4	0.5
##	[732,]	0.7	0	0.3	0.0
##	[733,]	1.0	0	0.0	0.0
##	[734,]	0.0	0	0.4	0.6
##	[735,]	0.0	0	0.4	0.6
##	[736,]	0.0	0	0.4	0.6
##	[737,]	0.8	0	0.2	0.0
##	[738,]	0.1	0	0.4	0.5
##	[739,]	0.9	0	0.1	0.0
##	[740,]	1.0	0	0.0	0.0
##	[741,]	0.4	0	0.4	0.2
##	[742,]	0.1	0	0.4	0.5
##	[743,]	0.9	0	0.1	0.0
##	[744,]	0.0	0	0.4	0.6
##	[745,]	1.0	0	0.0	0.0
##	[746,]	0.0	0	0.4	0.6
##	[747,]	1.0	0	0.0	0.0
##	[748,]	1.0	0	0.0	0.0
##	[749,]	1.0	0	0.0	0.0
##	[750,]	1.0	0	0.0	0.0
##	[751,]	0.0	0	0.4	0.6
##	[752,]	1.0	0	0.0	0.0
##	[753,]	0.1	0	0.4	0.5
##	[754,]	1.0	0	0.0	0.0
##	[755,]	1.0	0	0.0	0.0
##	[756,]	0.0	0	0.4	0.6
##	[757,]	0.8	0	0.2	0.0
##	[758,]	0.8	0	0.2	0.0
##	[759,]	0.4	0	0.4	0.2

##	[760,]	0.1	0	0.4	0.5
##	[761,]	0.1	0	0.4	0.5
##	[762,]	0.8	0	0.2	0.0
##	[763,]	1.0	0	0.0	0.0
##	[764,]	0.4	0	0.4	0.2
##	[765,]	0.4	0	0.4	0.2
##	[766,]	1.0	0	0.0	0.0
##	[767,]	1.0	0	0.0	0.0
##	[768,]	0.8	0	0.2	0.0
##	[769,]	0.1	0	0.4	0.5
##	[770,]	1.0	0	0.0	0.0
##	[771,]	1.0	0	0.0	0.0
##	[772,]	0.0	0	0.4	0.6
##	[773,]	0.8	0	0.2	0.0
##	[774,]	1.0	0	0.0	0.0
##	[775,]	0.0	0	0.4	0.6
##	[776,]	0.0	0	0.4	0.6
##	[777,]	0.0	0	0.4	0.6
##	[778,]	0.0	0	0.4	0.6
##	[779,]	0.0	0	0.4	0.6
##	[780,]	0.0	0	0.4	0.6
##	[781,]	1.0	0	0.0	0.0
##	[782,]	0.1	0	0.4	0.5
##	[783,]	0.1	0	0.4	0.5
##	[784,]	0.0	0	0.4	0.6
##	[785,]	0.0	0	0.4	0.6
##	[786,]	0.1	0	0.4	0.5
##	[787,]	0.5	0	0.4	0.1
##	[788,]	0.4	0	0.4	0.2
##	[789,]	1.0	0	0.0	0.0
##	[790,]	0.1	0	0.4	0.5
##	[791,]	1.0	0	0.0	0.0
##	[792,]	0.5	0	0.4	0.1
##	[793,]	0.4	0	0.4	0.2
##	[794,]	1.0	0	0.0	0.0
##	[795,]	0.0	0	0.4	0.6
##	[796,]	1.0	0	0.0	0.0
##	[797,]	0.0	0	0.4	0.6
##	[798,]	0.1	0	0.4	0.5
##	[799,]	0.0	0	0.4	0.6
##	[800,]	0.5	0	0.4	0.1
##	[801,]	0.3	0	0.4	0.3
##	[802,]	0.1	0	0.4	0.5
##	[803,]	0.8	0	0.2	0.0
##	[804,]	0.9	0	0.1	0.0
##	[805,]	0.7	0	0.3	0.0
##	[806,]	0.8	0	0.2	0.0
##	[807,]	0.0	0	0.4	0.6
##	[808,]	0.9	0	0.1	0.0
##	[809,]	0.0	0	0.4	0.6
##	[810,]	1.0	0	0.0	0.0
##	[811,]	0.4	0	0.4	0.2
##	[812,]	1.0	0	0.0	0.0
##	[813,]	0.1	0	0.4	0.5



##	[814,]	0.0	0	0.4	0.6
##	[815,]	0.2	0	0.4	0.4
##	[816,]	0.8	0	0.2	0.0
##	[817,]	0.0	0	0.4	0.6
##	[818,]	1.0	0	0.0	0.0
##	[819,]	0.9	0	0.1	0.0
##	[820,]	0.0	0	0.4	0.6
##	[821,]	1.0	0	0.0	0.0
##	[822,]	0.0	0	0.4	0.6
##	[823,]	0.1	0	0.4	0.5
##	[824,]	0.0	0	0.4	0.6
##	[825,]	0.0	0	0.4	0.6
##	[826,]	0.0	0	0.4	0.6
##	[827,]	0.0	0	0.4	0.6
##	[828,]	1.0	0	0.0	0.0
##	[829,]	0.0	0	0.4	0.6
##	[830,]	1.0	0	0.0	0.0
##	[831,]	1.0	0	0.0	0.0
##	[832,]	1.0	0	0.0	0.0
##	[833,]	0.5	0	0.4	0.1
##	[834,]	0.0	0	0.4	0.6
##	[835,]	1.0	0	0.0	0.0
##	[836,]	0.0	0	0.4	0.6
##	[837,]	1.0	0	0.0	0.0
##	[838,]	0.0	0	0.4	0.6
##	[839,]	1.0	0	0.0	0.0
##	[840,]	0.9	0	0.1	0.0
##	[841,]	0.4	0	0.4	0.2
##	[842,]	0.1	0	0.4	0.5
##	[843,]	0.8	0	0.2	0.0
##	[844,]	0.0	0	0.4	0.6
##	[845,]	1.0	0	0.0	0.0
##	[846,]	0.1	0	0.4	0.5
##	[847,]	0.8	0	0.2	0.0
##	[848,]	0.1	0	0.4	0.5
##	[849,]	0.7	0	0.3	0.0
##	[850,]	0.8	0	0.2	0.0
##	[851,]	0.0	0	0.4	0.6
##	[852,]	1.0	0	0.0	0.0
##	[853,]	0.3	0	0.4	0.3
##	[854,]	1.0	0	0.0	0.0
##	[855,]	0.0	0	0.4	0.6
##	[856,]	1.0	0	0.0	0.0
##	[857,]	0.0	0	0.4	0.6
##	[858,]	0.8	0	0.2	0.0
##	[859,]	0.0	0	0.4	0.6
##	[860,]	0.5	0	0.4	0.1
##	[861,]	0.8	0	0.2	0.0
##	[862,]	0.0	0	0.4	0.6
##	[863,]	0.1	0	0.4	0.5
##	[864,]	1.0	0	0.0	0.0
##	[865,]	0.7	0	0.3	0.0
##	[866,]	0.1	0	0.4	0.5
##	[867,]	0.0	0	0.4	0.6

##	[868,]	1.0	0	0.0	0.0
##	[869,]	1.0	0	0.0	0.0
##	[870,]	1.0	0	0.0	0.0
##	[871,]	0.1	0	0.4	0.5
##	[872,]	0.0	0	0.4	0.6
##	[873,]	1.0	0	0.0	0.0
##	[874,]	1.0	0	0.0	0.0
##	[875,]	1.0	0	0.0	0.0
##	[876,]	0.5	0	0.4	0.1
##	[877,]	0.0	0	0.4	0.6
##	[878,]	1.0	0	0.0	0.0
##	[879,]	0.1	0	0.4	0.5
##	[880,]	0.8	0	0.2	0.0
##	[881,]	1.0	0	0.0	0.0
##	[882,]	0.1	0	0.4	0.5
##	[883,]	1.0	0	0.0	0.0
##	[884,]	0.1	0	0.4	0.5
##	[885,]	0.4	0	0.4	0.2
##	[886,]	0.0	0	0.4	0.6
##	[887,]	1.0	0	0.0	0.0
##	[888,]	1.0	0	0.0	0.0
##	[889,]	0.0	0	0.4	0.6
##	[890,]	0.0	0	0.4	0.6
##	[891,]	0.7	0	0.3	0.0
##	[892,]	0.0	0	0.4	0.6
##	[893,]	0.8	0	0.2	0.0
##	[894,]	1.0	0	0.0	0.0
##	[895,]	0.0	0	0.4	0.6
##	[896,]	1.0	0	0.0	0.0
##	[897,]	0.0	0	0.4	0.6
##	[898,]	1.0	0	0.0	0.0
##	[899,]	0.1	0	0.4	0.5
##	[900,]	0.0	0	0.4	0.6
##	[901,]	0.9	0	0.1	0.0
##	[902,]	1.0	0	0.0	0.0
##	[903,]	0.1	0	0.4	0.5
##	[904,]	1.0	0	0.0	0.0
##	[905,]	1.0	0	0.0	0.0
##	[906,]	0.0	0	0.4	0.6
##	[907,]	0.7	0	0.3	0.0
##	[908,]	0.1	0	0.4	0.5
##	[909,]	0.7	0	0.3	0.0
##	[910,]	1.0	0	0.0	0.0
##	[911,]	0.0	0	0.4	0.6
##	[912,]	0.7	0	0.3	0.0
##	[913,]	1.0	0	0.0	0.0
##	[914,]	0.0	0	0.4	0.6
##	[915,]	1.0	0	0.0	0.0
##	[916,]	0.1	0	0.4	0.5
##	[917,]	0.2	0	0.4	0.4
##	[918,]	0.0	0	0.4	0.6
##	[919,]	0.1	0	0.4	0.5
##	[920,]	1.0	0	0.0	0.0
##	[921,]	0.0	0	0.4	0.6

##	[922,]	1.0	0	0.0	0.0
##	[923,]	0.0	0	0.4	0.6
##	[924,]	0.5	0	0.4	0.1
##	[925,]	0.9	0	0.1	0.0
##	[926,]	0.8	0	0.2	0.0
##	[927,]	0.0	0	0.4	0.6
##	[928,]	0.5	0	0.4	0.1
##	[929,]	0.0	0	0.4	0.6
##	[930,]	0.5	0	0.4	0.1
##	[931,]	0.0	0	0.4	0.6
##	[932,]	1.0	0	0.0	0.0
##	[933,]	1.0	0	0.0	0.0
##	[934,]	0.0	0	0.4	0.6
##	[935,]	0.0	0	0.4	0.6
##	[936,]	0.8	0	0.2	0.0
##	[937,]	0.8	0	0.2	0.0
##	[938,]	0.8	0	0.2	0.0
##	[939,]	0.8	0	0.2	0.0
##	[940,]	0.0	0	0.4	0.6
##	[941,]	0.5	0	0.4	0.1
##	[942,]	1.0	0	0.0	0.0
##	[943,]	1.0	0	0.0	0.0
##	[944,]	0.7	0	0.3	0.0
##	[945,]	0.9	0	0.1	0.0
##	[946,]	0.8	0	0.2	0.0
##	[947,]	0.0	0	0.4	0.6
##	[948,]	0.1	0	0.4	0.5
##	[949,]	0.0	0	0.4	0.6
##	[950,]	0.0	0	0.4	0.6
##	[951,]	0.8	0	0.2	0.0
##	[952,]	0.4	0	0.4	0.2
##	[953,]	0.9	0	0.1	0.0
##	[954,]	0.1	0	0.4	0.5
##	[955,]	0.8	0	0.2	0.0
##	[956,]	0.0	0	0.4	0.6
##	[957,]	0.0	0	0.4	0.6
##	[958,]	0.0	0	0.4	0.6
##	[959,]	1.0	0	0.0	0.0
##	[960,]	0.0	0	0.4	0.6
##	[961,]	0.0	0	0.4	0.6
##	[962,]	1.0	0	0.0	0.0
##	[963,]	0.0	0	0.4	0.6
##	[964,]	0.0	0	0.4	0.6
##	[965,]	0.3	0	0.4	0.3
##	[966,]	0.8	0	0.2	0.0
##	[967,]	0.9	0	0.1	0.0
##	[968,]	0.1	0	0.4	0.5
##	[969,]	0.8	0	0.2	0.0
##	[970,]	1.0	0	0.0	0.0
##	[971,]	1.0	0	0.0	0.0
##	[972,]	1.0	0	0.0	0.0
##	[973,]	0.0	0	0.4	0.6
##	[974,]	0.8	0	0.2	0.0
##	[975,]	1.0	0	0.0	0.0

##	[976,]	1.0	0	0.0	0.0
##	[977,]	0.1	0	0.4	0.5
##	[978,]	1.0	0	0.0	0.0
##	[979,]	0.1	0	0.4	0.5
##	[980,]	0.0	0	0.4	0.6
##	[981,]	0.8	0	0.2	0.0
##	[982,]	0.9	0	0.1	0.0
##	[983,]	1.0	0	0.0	0.0
##	[984,]	0.8	0	0.2	0.0
##	[985,]	0.1	0	0.4	0.5
##	[986,]	1.0	0	0.0	0.0
##	[987,]	1.0	0	0.0	0.0
##	[988,]	0.0	0	0.4	0.6
##	[989,]	0.1	0	0.4	0.5
##	[990,]	0.0	0	0.4	0.6
##	[991,]	0.8	0	0.2	0.0
##	[992,]	0.4	0	0.4	0.2
##	[993,]	1.0	0	0.0	0.0
##	[994,]	1.0	0	0.0	0.0
##	[995,]	1.0	0	0.0	0.0
##	[996,]	0.0	0	0.4	0.6
##	[997,]	1.0	0	0.0	0.0
##	[998,]	1.0	0	0.0	0.0
##	[999,]	0.9	0	0.1	0.0
##	[1000,]	1.0	0	0.0	0.0
##	[1001,]	0.8	0	0.2	0.0
##	[1002,]	0.0	0	0.4	0.6
##	[1003,]	1.0	0	0.0	0.0
##	[1004,]	1.0	0	0.0	0.0
##	[1005,]	0.4	0	0.4	0.2
##	[1006,]	1.0	0	0.0	0.0
##	[1007,]	0.8	0	0.2	0.0
##	[1008,]	0.5	0	0.4	0.1
##	[1009,]	1.0	0	0.0	0.0
##	[1010,]	1.0	0	0.0	0.0
##	[1011,]	0.0	0	0.4	0.6
##	[1012,]	0.8	0	0.2	0.0
##	[1013,]	0.9	0	0.1	0.0
##	[1014,]	0.9	0	0.1	0.0
##	[1015,]	0.0	0	0.4	0.6
##	[1016,]	0.0	0	0.4	0.6
##	[1017,]	1.0	0	0.0	0.0
##	[1018,]	0.9	0	0.1	0.0
##	[1019,]	1.0	0	0.0	0.0
##	[1020,]	0.0	0	0.4	0.6
##	[1021,]	0.8	0	0.2	0.0
##	[1022,]	1.0	0	0.0	0.0
##	[1023,]	0.1	0	0.4	0.5
##	[1024,]	1.0	0	0.0	0.0
##	[1025,]	0.4	0	0.4	0.2
##	[1026,]	1.0	0	0.0	0.0
##	[1027,]	0.3	0	0.4	0.3
##	[1028,]	0.1	0	0.4	0.5
##	[1029,]	0.8	0	0.2	0.0

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## [1030,] 0.5 0 0.4 0.1
## [1031,] 0.5 0 0.4 0.1
## [1032,] 0.8 0 0.2 0.0
## [1033,] 0.0 0 0.4 0.6
## [1034,] 0.0 0 0.4 0.6
## [1035,] 0.0 0 0.4 0.6
## [1036,] 1.0 0 0.0 0.0
## [1037,] 0.8 0 0.2 0.0
## [1038,] 0.5 0 0.4 0.1
## [1039,] 0.0 0 0.4 0.6
## [1040,] 0.9 0 0.1 0.0
## [1041,] 0.9 0 0.1 0.0
## [1042,] 1.0 0 0.0 0.0
## [1043,] 0.4 0 0.4 0.2
## [1044,] 0.0 0 0.4 0.6
## [1045,] 0.0 0 0.4 0.6
## [1046,] 0.8 0 0.2 0.0
## [1047,] 0.0 0 0.4 0.6
## [1048,] 0.0 0 0.4 0.6
## [1049,] 0.5 0 0.4 0.1
## [1050,] 0.1 0 0.4 0.5
## [1051,] 1.0 0 0.0 0.0
## [1052,] 1.0 0 0.0 0.0
## [1053,] 0.4 0 0.4 0.2
## [1054,] 0.0 0 0.4 0.6
## [1055,] 1.0 0 0.0 0.0
## [1056,] 0.4 0 0.4 0.2
## [1057,] 1.0 0 0.0 0.0
## [1058,] 1.0 0 0.0 0.0
## [1059,] 1.0 0 0.0 0.0
## [1060,] 1.0 0 0.0 0.0
## [1061,] 0.0 0 0.4 0.6
## [1062,] 0.5 0 0.4 0.1
## [1063,] 0.7 0 0.3 0.0
## [1064,] 0.1 0 0.4 0.5
## [1065,] 0.8 0 0.2 0.0
## [1066,] 0.9 0 0.1 0.0
## [1067,] 0.0 0 0.4 0.6
## [1068,] 0.4 0 0.4 0.2
## [1069,] 0.4 0 0.4 0.2
## [1070,] 0.4 0 0.4 0.2
## [1071,] 0.0 0 0.4 0.6
## [1072,] 0.2 0 0.4 0.4
## [1073,] 0.7 0 0.3 0.0
## [1074,] 1.0 0 0.0 0.0
## [1075,] 0.0 0 0.4 0.6
## [1076,] 0.0 0 0.4 0.6
## [1077,] 0.9 0 0.1 0.0
## [1078,] 0.7 0 0.3 0.0
## [1079,] 1.0 0 0.0 0.0
## [1080,] 0.9 0 0.1 0.0
## [1081,] 0.0 0 0.4 0.6
## [1082,] 0.9 0 0.1 0.0
## [1083,] 1.0 0 0.0 0.0

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## [1084,] 0.0 0 0.4 0.6
## [1085,] 0.0 0 0.4 0.6
## [1086,] 1.0 0 0.0 0.0
## [1087,] 0.0 0 0.4 0.6
## [1088,] 0.8 0 0.2 0.0
## [1089,] 0.1 0 0.4 0.5
## [1090,] 0.1 0 0.4 0.5
## [1091,] 1.0 0 0.0 0.0
## [1092,] 0.8 0 0.2 0.0
## [1093,] 0.0 0 0.4 0.6
## [1094,] 0.1 0 0.4 0.5
## [1095,] 0.1 0 0.4 0.5
## [1096,] 0.4 0 0.4 0.2
## [1097,] 0.3 0 0.4 0.3
## [1098,] 0.9 0 0.1 0.0
## [1099,] 0.5 0 0.4 0.1
## [1100,] 1.0 0 0.0 0.0
## [1101,] 0.0 0 0.4 0.6
## [1102,] 0.0 0 0.4 0.6
## [1103,] 0.4 0 0.4 0.2
## [1104,] 0.4 0 0.4 0.2
## [1105,] 0.3 0 0.4 0.3
## [1106,] 0.1 0 0.4 0.5
## [1107,] 1.0 0 0.0 0.0
## [1108,] 1.0 0 0.0 0.0
## [1109,] 0.0 0 0.4 0.6
## [1110,] 1.0 0 0.0 0.0
## [1111,] 0.0 0 0.4 0.6
## [1112,] 0.0 0 0.4 0.6
## [1113,] 1.0 0 0.0 0.0
## [1114,] 0.0 0 0.4 0.6
## [1115,] 1.0 0 0.0 0.0
## [1116,] 0.6 0 0.4 0.0
## [1117,] 1.0 0 0.0 0.0
## [1118,] 1.0 0 0.0 0.0
## [1119,] 1.0 0 0.0 0.0
## [1120,] 1.0 0 0.0 0.0
## [1121,] 1.0 0 0.0 0.0
## [1122,] 0.0 0 0.4 0.6
## [1123,] 0.8 0 0.2 0.0
## [1124,] 0.8 0 0.2 0.0
## [1125,] 0.0 0 0.4 0.6
## [1126,] 0.0 0 0.4 0.6
## [1127,] 0.3 0 0.4 0.3
## [1128,] 0.8 0 0.2 0.0
## [1129,] 0.0 0 0.4 0.6
## [1130,] 1.0 0 0.0 0.0
## [1131,] 0.0 0 0.4 0.6
## [1132,] 0.0 0 0.4 0.6
## [1133,] 1.0 0 0.0 0.0
## [1134,] 0.0 0 0.4 0.6
## [1135,] 0.1 0 0.4 0.5
## [1136,] 0.9 0 0.1 0.0
## [1137,] 0.0 0 0.4 0.6

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## [1138,] 0.0 0 0.4 0.6
## [1139,] 0.1 0 0.4 0.5
## [1140,] 0.0 0 0.4 0.6
## [1141,] 0.1 0 0.4 0.5
## [1142,] 0.0 0 0.4 0.6
## [1143,] 0.0 0 0.4 0.6
## [1144,] 0.0 0 0.4 0.6
## [1145,] 0.1 0 0.4 0.5
## [1146,] 0.8 0 0.2 0.0
## [1147,] 0.0 0 0.4 0.6
## [1148,] 0.7 0 0.3 0.0
## [1149,] 1.0 0 0.0 0.0
## [1150,] 0.8 0 0.2 0.0
## [1151,] 1.0 0 0.0 0.0
## [1152,] 0.0 0 0.4 0.6
## [1153,] 0.0 0 0.4 0.6
## [1154,] 0.8 0 0.2 0.0
## [1155,] 1.0 0 0.0 0.0
## [1156,] 0.8 0 0.2 0.0
## [1157,] 1.0 0 0.0 0.0
## [1158,] 0.8 0 0.2 0.0
## [1159,] 0.8 0 0.2 0.0
## [1160,] 0.1 0 0.4 0.5
## [1161,] 0.0 0 0.4 0.6
## [1162,] 0.0 0 0.4 0.6
## [1163,] 0.0 0 0.4 0.6
## [1164,] 0.8 0 0.2 0.0
## [1165,] 0.4 0 0.4 0.2
## [1166,] 1.0 0 0.0 0.0
## [1167,] 0.8 0 0.2 0.0
## [1168,] 0.0 0 0.4 0.6
## [1169,] 0.9 0 0.1 0.0
## [1170,] 1.0 0 0.0 0.0
## [1171,] 0.8 0 0.2 0.0
## [1172,] 1.0 0 0.0 0.0
## [1173,] 0.0 0 0.4 0.6
## [1174,] 1.0 0 0.0 0.0
## [1175,] 0.4 0 0.4 0.2
## [1176,] 0.0 0 0.4 0.6
## [1177,] 0.4 0 0.4 0.2
## [1178,] 1.0 0 0.0 0.0
## [1179,] 0.8 0 0.2 0.0
## [1180,] 0.1 0 0.4 0.5
## [1181,] 0.8 0 0.2 0.0
## [1182,] 0.8 0 0.2 0.0
## [1183,] 0.7 0 0.3 0.0
## [1184,] 0.0 0 0.4 0.6
## [1185,] 0.8 0 0.2 0.0
## [1186,] 0.0 0 0.4 0.6
## [1187,] 0.8 0 0.2 0.0
## [1188,] 0.8 0 0.2 0.0
## [1189,] 0.0 0 0.4 0.6
## [1190,] 0.0 0 0.4 0.6
## [1191,] 0.8 0 0.2 0.0

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## [1192,] 0.3 0 0.4 0.3
## [1193,] 0.0 0 0.4 0.6
## [1194,] 0.0 0 0.4 0.6
## [1195,] 0.0 0 0.4 0.6
## [1196,] 1.0 0 0.0 0.0
## [1197,] 0.0 0 0.4 0.6
## [1198,] 0.0 0 0.4 0.6
## [1199,] 0.8 0 0.2 0.0
## [1200,] 0.0 0 0.4 0.6
## [1201,] 0.1 0 0.4 0.5
## [1202,] 0.8 0 0.2 0.0
## [1203,] 0.0 0 0.4 0.6
## [1204,] 0.0 0 0.4 0.6
## [1205,] 1.0 0 0.0 0.0
## [1206,] 0.0 0 0.4 0.6
## [1207,] 1.0 0 0.0 0.0
## [1208,] 0.0 0 0.4 0.6
## [1209,] 0.0 0 0.4 0.6
## [1210,] 0.0 0 0.4 0.6
## [1211,] 0.1 0 0.4 0.5
## [1212,] 0.1 0 0.4 0.5
## [1213,] 1.0 0 0.0 0.0
## [1214,] 0.1 0 0.4 0.5
## [1215,] 0.7 0 0.3 0.0
## [1216,] 0.1 0 0.4 0.5
## [1217,] 0.0 0 0.4 0.6
## [1218,] 0.0 0 0.4 0.6
## [1219,] 1.0 0 0.0 0.0
## [1220,] 0.0 0 0.4 0.6
## [1221,] 0.0 0 0.4 0.6
## [1222,] 0.0 0 0.4 0.6
## [1223,] 1.0 0 0.0 0.0
## [1224,] 0.0 0 0.4 0.6
## [1225,] 0.1 0 0.4 0.5
## [1226,] 0.0 0 0.4 0.6
## [1227,] 0.8 0 0.2 0.0
## [1228,] 0.9 0 0.1 0.0
## [1229,] 0.3 0 0.4 0.3
## [1230,] 0.7 0 0.3 0.0
## [1231,] 0.0 0 0.4 0.6
## [1232,] 1.0 0 0.0 0.0
## [1233,] 0.4 0 0.4 0.2
## [1234,] 0.0 0 0.4 0.6
## [1235,] 1.0 0 0.0 0.0
## [1236,] 0.0 0 0.4 0.6
## [1237,] 1.0 0 0.0 0.0
## [1238,] 0.0 0 0.4 0.6
## [1239,] 0.9 0 0.1 0.0
## [1240,] 0.4 0 0.4 0.2
## [1241,] 0.0 0 0.4 0.6
## [1242,] 1.0 0 0.0 0.0
## [1243,] 0.0 0 0.4 0.6
## [1244,] 0.0 0 0.4 0.6
## [1245,] 1.0 0 0.0 0.0

```



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## [1246,] 0.0 0 0.4 0.6
## [1247,] 1.0 0 0.0 0.0
## [1248,] 1.0 0 0.0 0.0
## [1249,] 0.0 0 0.4 0.6
## [1250,] 0.8 0 0.2 0.0
## [1251,] 0.4 0 0.4 0.2
## [1252,] 0.0 0 0.4 0.6
## [1253,] 0.0 0 0.4 0.6
## [1254,] 0.1 0 0.4 0.5
## [1255,] 1.0 0 0.0 0.0
## [1256,] 0.5 0 0.4 0.1
## [1257,] 0.8 0 0.2 0.0
## [1258,] 0.8 0 0.2 0.0
## [1259,] 0.7 0 0.3 0.0
## [1260,] 0.0 0 0.4 0.6
## [1261,] 1.0 0 0.0 0.0
## [1262,] 0.4 0 0.4 0.2
## [1263,] 1.0 0 0.0 0.0
## [1264,] 0.3 0 0.4 0.3
## [1265,] 0.7 0 0.3 0.0
## [1266,] 0.9 0 0.1 0.0
## [1267,] 0.8 0 0.2 0.0
## [1268,] 1.0 0 0.0 0.0
## [1269,] 0.5 0 0.4 0.1
## [1270,] 1.0 0 0.0 0.0
## [1271,] 0.5 0 0.4 0.1
## [1272,] 0.0 0 0.4 0.6
## [1273,] 0.8 0 0.2 0.0
## [1274,] 1.0 0 0.0 0.0
## [1275,] 1.0 0 0.0 0.0
## [1276,] 0.0 0 0.4 0.6
## [1277,] 0.7 0 0.3 0.0
## [1278,] 0.5 0 0.4 0.1
## [1279,] 0.1 0 0.4 0.5
## [1280,] 0.7 0 0.3 0.0
## [1281,] 0.1 0 0.4 0.5
## [1282,] 0.0 0 0.4 0.6
## [1283,] 0.0 0 0.4 0.6
## [1284,] 1.0 0 0.0 0.0
## [1285,] 0.9 0 0.1 0.0
## [1286,] 0.8 0 0.2 0.0
## [1287,] 0.0 0 0.4 0.6
## [1288,] 0.1 0 0.4 0.5
## [1289,] 0.8 0 0.2 0.0
## [1290,] 0.8 0 0.2 0.0
## [1291,] 0.6 0 0.4 0.0
## [1292,] 1.0 0 0.0 0.0
## [1293,] 0.1 0 0.4 0.5
## [1294,] 0.0 0 0.4 0.6
## [1295,] 0.8 0 0.2 0.0
## [1296,] 0.0 0 0.4 0.6
## [1297,] 0.8 0 0.2 0.0
## [1298,] 0.0 0 0.4 0.6
## [1299,] 1.0 0 0.0 0.0

```

## [1300,]	0.0	0	0.4	0.6
## [1301,]	1.0	0	0.0	0.0
## [1302,]	0.0	0	0.4	0.6
## [1303,]	1.0	0	0.0	0.0
## [1304,]	1.0	0	0.0	0.0
## [1305,]	1.0	0	0.0	0.0
## [1306,]	0.0	0	0.4	0.6
## [1307,]	0.0	0	0.4	0.6
## [1308,]	1.0	0	0.0	0.0
## [1309,]	1.0	0	0.0	0.0
## [1310,]	1.0	0	0.0	0.0
## [1311,]	0.0	0	0.4	0.6
## [1312,]	0.0	0	0.4	0.6
## [1313,]	0.9	0	0.1	0.0
## [1314,]	1.0	0	0.0	0.0
## [1315,]	1.0	0	0.0	0.0
## [1316,]	0.1	0	0.4	0.5
## [1317,]	0.9	0	0.1	0.0
## [1318,]	0.1	0	0.4	0.5
## [1319,]	1.0	0	0.0	0.0
## [1320,]	0.0	0	0.4	0.6
## [1321,]	1.0	0	0.0	0.0
## [1322,]	0.4	0	0.4	0.2
## [1323,]	1.0	0	0.0	0.0
## [1324,]	0.0	0	0.4	0.6
## [1325,]	1.0	0	0.0	0.0
## [1326,]	1.0	0	0.0	0.0
## [1327,]	0.2	0	0.4	0.4
## [1328,]	1.0	0	0.0	0.0
## [1329,]	0.0	0	0.4	0.6
## [1330,]	1.0	0	0.0	0.0
## [1331,]	0.0	0	0.4	0.6
## [1332,]	0.0	0	0.4	0.6
## [1333,]	1.0	0	0.0	0.0
## [1334,]	1.0	0	0.0	0.0
## [1335,]	0.0	0	0.4	0.6
## [1336,]	0.0	0	0.4	0.6
## [1337,]	0.7	0	0.3	0.0
## [1338,]	0.1	0	0.4	0.5
## [1339,]	1.0	0	0.0	0.0
## [1340,]	0.4	0	0.4	0.2
## [1341,]	1.0	0	0.0	0.0
## [1342,]	1.0	0	0.0	0.0
## [1343,]	0.0	0	0.4	0.6
## [1344,]	1.0	0	0.0	0.0
## [1345,]	0.0	0	0.4	0.6
## [1346,]	0.1	0	0.4	0.5
## [1347,]	0.1	0	0.4	0.5
## [1348,]	0.8	0	0.2	0.0
## [1349,]	0.7	0	0.3	0.0
## [1350,]	0.8	0	0.2	0.0
## [1351,]	1.0	0	0.0	0.0
## [1352,]	0.8	0	0.2	0.0
## [1353,]	0.8	0	0.2	0.0

```

## [1354,] 0.7 0 0.3 0.0
## [1355,] 0.1 0 0.4 0.5
## [1356,] 0.8 0 0.2 0.0
## [1357,] 0.4 0 0.4 0.2
## [1358,] 0.1 0 0.4 0.5
## [1359,] 0.5 0 0.4 0.1
## [1360,] 1.0 0 0.0 0.0
## [1361,] 0.8 0 0.2 0.0
## [1362,] 0.3 0 0.4 0.3
## [1363,] 0.7 0 0.3 0.0
## [1364,] 0.0 0 0.4 0.6
## [1365,] 1.0 0 0.0 0.0
## [1366,] 0.6 0 0.4 0.0
## [1367,] 0.8 0 0.2 0.0
## [1368,] 0.0 0 0.4 0.6
## [1369,] 1.0 0 0.0 0.0
## [1370,] 0.1 0 0.4 0.5
## [1371,] 0.9 0 0.1 0.0
## [1372,] 0.8 0 0.2 0.0
## [1373,] 0.1 0 0.4 0.5
## [1374,] 1.0 0 0.0 0.0
## [1375,] 0.1 0 0.4 0.5
## [1376,] 0.7 0 0.3 0.0
## [1377,] 0.4 0 0.4 0.2
## [1378,] 1.0 0 0.0 0.0
## [1379,] 0.0 0 0.4 0.6
## [1380,] 0.5 0 0.4 0.1
## [1381,] 0.0 0 0.4 0.6
## [1382,] 1.0 0 0.0 0.0
## [1383,] 0.3 0 0.4 0.3
## [1384,] 0.8 0 0.2 0.0
## [1385,] 0.8 0 0.2 0.0
## [1386,] 0.7 0 0.3 0.0
## [1387,] 1.0 0 0.0 0.0
## [1388,] 0.3 0 0.4 0.3
## [1389,] 0.0 0 0.4 0.6
## [1390,] 0.4 0 0.4 0.2
## [1391,] 0.8 0 0.2 0.0
## [1392,] 0.9 0 0.1 0.0
## [1393,] 0.1 0 0.4 0.5
## [1394,] 0.0 0 0.4 0.6
## [1395,] 0.0 0 0.4 0.6
## [1396,] 1.0 0 0.0 0.0
## [1397,] 0.7 0 0.3 0.0
## [1398,] 0.0 0 0.4 0.6
## [1399,] 1.0 0 0.0 0.0
## [1400,] 0.0 0 0.4 0.6
##
## $class
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## [73] "0" "3" "0" "3" "0" "0" "0" "3" "3" "0" "0" "0" "3" "3" "3" "0" "3" "3"

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## [523] "3" "0" "3" "0" "0" "0" "3" "0" "0" "3" "0" "3" "3" "0" "0" "0" "3" "3"
## [541] "0" "3" "3" "0" "0" "0" "3" "3" "3" "3" "3" "0" "0" "3" "0" "0" "3" "0"
## [559] "0" "3" "3" "3" "3" "0" "0" "0" "0" "3" "3" "0" "0" "3" "3" "0" "3" "3"
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## [1189] "3" "3" "0" "2" "3" "3" "3" "0" "3" "3" "0" "3" "3" "0" "3" "3" "0" "3"
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##
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## $samples
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##      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10]
## [1,]   73 1357 1220  566   30  545  943 1037  977   813
## [2,]  168  871  893 1311  409 1013  159 1164 1197   141
## [3,]  822  404  569  344 1090 1331  997 1278  391   505
## [4,] 1195 1105  560  675  988  405  203 1138  827 1309
## [5,]  222 1231  805 1052  958  629  110 1400  997   253
## [6,]  109  839  457  158  140  704  228  648  619   705
## [7,] 1075  376  478 1011  329  272  483  774  701 1358
## [8,]  890  833 1012 1359 1199  859 1014  312  568 1285
## [9,]  443  627 1099 1395  811 1341  110  714 1171 1303
## [10,] 1337 1272  407  988   68  645  633  255 1182 1238
## [11,]  277  848  123  887   23 1205  593  758 1397   206
## [12,] 1046  634 1322  724  387 1023  671  994  975 1023
## [13,]  403 1364  750 1030   37  680  387  956 1052 1240
## [14,]  131  350   69 1225 1181 1383  755  460  167   738
## [15,]  714  427 1361 1083  207  786 1349 1392   18   368
## [16,]  187 1260  657  506 1352  305  609  177  767   334
## [17,] 1053  222 1087 1208  965  577  956 1231  681 1180
## [18,] 1152  498  716   30  926  264  345  611   66 1125
## [19,] 1254  960  359  876 1061   28  452   29  599   458
## [20,]  892   76  829   97  154  203  182  889  251   445
## [21,]  107  890  742  284  213 1362  670 1343   93   698
## [22,]  110 1078  364  622  756  257  642  580  372    48
## [23,]  417  995  203  526  214 1053  983 1290  685   987
## [24,]  926 1011   37  713   31 1309  685  439   10 1040
## [25,]  965 1009  926   60  585  684  766  919 1046   318
## [26,]  452  882 1123  692 1359 1175   40  939  809   726
## [27,] 1107  566  528  963  388  604 1151  698 1142 1240
## [28,] 1326  222  181   16  619  603  822 1059  777   254
## [29,]  753 1221  991  113 1276 1267 1364 1347  796    93
## [30,]  783  262  833 1012   61 1354  468  580  700   201
## [31,]  773  962  239  970  858  288   50 1264  303   923
## [32,]  166 1246  929  410  754 1366  563  614 1064   596

```

##	[33,]	91	506	747	580	542	260	89	89	144	1049
##	[34,]	1074	927	972	1041	246	977	723	981	183	530
##	[35,]	101	1315	1249	468	386	740	97	709	340	91
##	[36,]	263	697	377	741	1363	340	618	1395	299	478
##	[37,]	939	516	2	502	274	43	1053	822	96	1124
##	[38,]	500	1346	1120	988	1018	995	348	1210	1271	911
##	[39,]	521	275	134	708	507	785	176	376	225	857
##	[40,]	1313	871	1202	752	1263	768	1107	301	113	1293
##	[41,]	475	246	704	1134	1221	772	1085	109	573	412
##	[42,]	849	776	28	371	544	1394	752	620	452	922
##	[43,]	45	1199	311	502	889	69	66	902	1011	210
##	[44,]	350	465	1336	1242	172	441	636	598	174	532
##	[45,]	151	253	827	218	531	762	1377	674	888	654
##	[46,]	553	1372	532	606	868	1125	1035	216	1196	1357
##	[47,]	1263	531	500	670	397	1375	224	977	859	368
##	[48,]	253	842	895	1197	698	1122	86	590	689	747
##	[49,]	211	975	702	1276	1325	767	798	1364	63	304
##	[50,]	41	1048	750	1226	1357	994	567	1001	233	1305
##	[51,]	256	1213	221	673	1278	1227	83	1310	229	558
##	[52,]	1229	275	143	824	1296	1296	1016	30	128	181
##	[53,]	933	189	491	56	703	1247	603	969	354	1175
##	[54,]	1268	1081	600	1361	814	541	1285	564	775	1210
##	[55,]	266	199	1389	92	675	709	925	1203	26	922
##	[56,]	1042	1207	474	856	784	390	107	534	1310	981
##	[57,]	792	248	662	358	1391	744	1074	998	244	689
##	[58,]	116	1151	607	499	879	274	399	1394	436	125
##	[59,]	463	626	865	1393	548	215	417	284	781	612
##	[60,]	740	1131	1239	532	129	850	728	606	600	191
##	[61,]	109	664	1133	1066	1167	1339	327	1063	1073	868
##	[62,]	1101	1341	603	1318	471	889	829	372	135	1290
##	[63,]	1355	320	1181	1298	95	63	1384	205	622	1093
##	[64,]	172	1193	983	300	423	99	679	1001	1003	467
##	[65,]	724	687	281	1343	1270	607	1319	975	565	477
##	[66,]	769	273	666	317	594	763	759	621	488	1279
##	[67,]	644	29	385	437	633	1138	1310	1381	440	1
##	[68,]	159	835	1007	1046	613	226	997	500	76	1335
##	[69,]	800	1175	1361	157	1088	493	525	616	604	1301
##	[70,]	151	1161	478	1346	785	797	3	317	500	698
##	[71,]	1026	354	1360	777	78	378	657	44	874	719
##	[72,]	158	544	410	310	914	53	933	968	539	322
##	[73,]	916	1063	344	851	970	1062	943	17	1309	298
##	[74,]	10	1260	1377	798	64	328	509	574	549	225
##	[75,]	312	598	923	219	1120	363	1187	549	376	78
##	[76,]	781	1068	950	440	695	691	993	667	766	1259
##	[77,]	493	702	648	329	1363	806	1034	558	272	1204
##	[78,]	419	120	1185	321	844	1213	1000	563	838	813
##	[79,]	1005	864	1047	213	520	817	82	1055	1185	1026
##	[80,]	578	384	1083	820	1397	755	1095	979	1235	874
##	[81,]	721	1115	162	70	738	345	989	1362	77	389
##	[82,]	754	675	1065	562	300	970	1061	779	195	1113
##	[83,]	856	484	985	633	101	1074	328	1266	1129	250
##	[84,]	1020	468	698	1372	353	1111	1182	633	531	3
##	[85,]	498	1058	1184	1371	497	1229	64	366	874	635
##	[86,]	711	62	932	37	696	822	415	870	558	68

##	[87,]	542	1070	1357	446	1274	590	881	574	596	1101
##	[88,]	650	1141	1179	379	1299	783	839	1090	374	729
##	[89,]	1258	419	762	491	705	98	874	553	104	448
##	[90,]	986	826	751	519	528	963	507	31	286	901
##	[91,]	641	653	1205	82	758	678	1340	1160	1236	425
##	[92,]	1302	1191	286	1263	1356	1070	226	381	717	1064
##	[93,]	871	980	1315	500	1272	291	760	1238	1160	746
##	[94,]	1192	438	714	920	1395	906	1239	302	1311	851
##	[95,]	124	397	864	632	1054	79	1101	41	618	79
##	[96,]	1086	503	1043	63	65	70	1130	435	380	615
##	[97,]	559	56	529	570	1056	611	300	614	1162	966
##	[98,]	192	1062	765	713	394	311	1327	85	1021	1353
##	[99,]	373	335	1263	798	730	417	556	1275	849	86
##	[100,]	52	362	1311	806	757	900	1289	1300	143	375
##	[101,]	715	183	97	765	385	876	1070	1345	66	492
##	[102,]	509	1159	1199	268	276	1000	1088	282	23	839
##	[103,]	25	512	799	792	1398	555	799	493	991	331
##	[104,]	857	1258	893	842	1	1314	1336	397	462	573
##	[105,]	1195	1015	284	1138	797	24	1266	836	239	254
##	[106,]	852	724	776	1115	63	375	1236	868	617	1328
##	[107,]	932	165	233	1364	468	1098	8	437	126	90
##	[108,]	1085	1111	450	613	621	1337	1338	67	1174	500
##	[109,]	1044	860	539	193	1208	848	335	528	989	267
##	[110,]	792	794	914	871	824	1161	702	1139	1180	99
##	[111,]	1057	873	506	621	141	747	1138	1351	1090	143
##	[112,]	288	1156	1287	1370	540	428	164	566	1374	1330
##	[113,]	1395	353	907	230	1063	966	280	1150	1171	678
##	[114,]	63	97	193	1156	1144	395	914	589	471	367
##	[115,]	299	257	1120	314	197	715	209	78	207	523
##	[116,]	1143	1245	1216	1088	717	398	939	685	105	718
##	[117,]	259	243	635	176	805	916	117	15	814	894
##	[118,]	223	521	391	705	417	527	386	201	496	515
##	[119,]	188	1164	724	574	1029	222	710	1032	954	452
##	[120,]	340	1085	1386	143	652	1214	1281	143	23	69
##	[121,]	192	337	866	926	519	427	855	18	320	749
##	[122,]	1006	1106	891	8	433	671	1083	823	998	1207
##	[123,]	614	480	1293	279	1226	913	512	1291	477	696
##	[124,]	1168	234	1068	1094	152	917	348	737	803	539
##	[125,]	170	1194	1060	560	351	1012	601	332	585	1092
##	[126,]	1172	417	961	99	1155	549	925	456	310	52
##	[127,]	1000	780	307	198	89	478	1109	1257	650	809
##	[128,]	1031	1054	571	307	1072	429	1160	948	4	992
##	[129,]	945	977	80	1319	213	508	991	987	28	1340
##	[130,]	1104	592	1139	215	884	617	804	958	527	366
##	[131,]	406	573	235	20	258	366	590	107	332	826
##	[132,]	133	904	1030	156	892	638	1382	403	1215	654
##	[133,]	255	619	689	403	874	1120	87	519	145	987
##	[134,]	835	1006	277	318	43	1157	16	1146	524	1250
##	[135,]	1173	1205	1056	106	1131	257	1376	23	471	1278
##	[136,]	1390	342	800	1344	1170	961	738	453	972	254
##	[137,]	603	1310	1261	725	1369	289	1292	876	108	850
##	[138,]	373	353	1143	1279	66	1125	960	407	38	631
##	[139,]	32	255	1389	395	1014	310	381	99	1148	51
##	[140,]	1139	308	1322	1038	372	805	1303	1038	830	281

##	[141,]	586	171	62	1019	250	1070	272	1376	198	975
##	[142,]	1153	787	103	547	434	631	495	710	1285	1083
##	[143,]	559	366	433	574	1205	845	1273	348	1235	511
##	[144,]	1072	12	711	844	375	988	107	57	950	602
##	[145,]	573	244	991	378	1014	135	490	983	857	974
##	[146,]	124	1338	923	1181	1217	1009	641	4	320	243
##	[147,]	427	1166	827	170	635	1132	124	867	431	361
##	[148,]	241	1109	1183	239	832	1115	1312	499	239	1038
##	[149,]	1044	399	938	956	448	331	181	1099	956	709
##	[150,]	239	175	748	1205	612	1240	743	1154	1274	637
##	[151,]	258	1265	564	288	619	1338	841	1298	1373	1109
##	[152,]	1041	11	1084	43	349	1261	768	1021	956	1165
##	[153,]	260	784	16	1339	450	1331	30	1	337	1390
##	[154,]	576	362	368	1381	741	884	1053	1351	1109	1364
##	[155,]	264	220	1285	374	214	342	819	1175	51	276
##	[156,]	1316	1103	421	645	1332	118	1395	206	923	44
##	[157,]	128	900	790	837	1044	331	398	867	1290	74
##	[158,]	591	177	36	919	395	722	1225	43	335	494
##	[159,]	979	326	295	40	548	1272	339	206	1036	908
##	[160,]	1105	371	1174	1340	953	1282	433	1246	1171	1161
##	[161,]	245	848	1008	376	1112	281	217	1331	1052	1028
##	[162,]	438	876	1120	133	1041	370	408	472	1322	467
##	[163,]	83	409	1012	221	1300	1005	875	121	281	562
##	[164,]	678	901	1292	823	1161	204	922	1203	29	770
##	[165,]	592	928	616	1012	1068	505	1262	1342	1066	208
##	[166,]	266	752	432	324	937	155	256	140	1022	778
##	[167,]	1233	144	1286	1246	148	462	1257	656	821	1156
##	[168,]	777	882	754	1087	1136	1126	208	619	150	1078
##	[169,]	682	878	1180	1258	431	703	990	208	105	142
##	[170,]	388	649	59	1167	633	293	1069	54	526	827
##	[171,]	835	271	419	554	904	688	304	86	686	94
##	[172,]	1174	1026	1106	957	40	1087	396	623	741	276
##	[173,]	85	1219	647	81	642	953	1263	1050	1136	1087
##	[174,]	1358	1341	624	776	472	526	806	25	116	724
##	[175,]	12	1108	776	645	343	824	244	1270	53	143
##	[176,]	785	499	365	1016	205	387	765	840	653	218
##	[177,]	1039	716	434	670	651	1213	328	917	769	1191
##	[178,]	511	245	1089	1394	297	120	1041	679	454	738
##	[179,]	477	459	1093	261	8	1206	1387	1398	1083	961
##	[180,]	814	689	564	1293	42	721	769	632	1282	1397
##	[181,]	466	1095	730	46	1006	568	557	1387	942	1386
##	[182,]	1114	1233	488	880	748	247	378	154	985	1391
##	[183,]	1373	381	246	386	1075	387	792	356	1187	958
##	[184,]	1214	826	599	383	167	1108	507	1055	121	743
##	[185,]	965	670	408	1317	196	354	494	464	1011	579
##	[186,]	539	380	621	777	897	1180	924	1281	873	1215
##	[187,]	1005	514	1030	6	1020	626	346	214	1375	937
##	[188,]	855	873	375	1143	1203	613	839	22	3	950
##	[189,]	217	68	1149	993	897	976	714	763	243	511
##	[190,]	498	297	1216	367	243	48	673	1029	1153	987
##	[191,]	32	1271	1042	525	1067	1367	777	618	599	71
##	[192,]	40	515	1315	313	1217	235	490	577	1152	851
##	[193,]	420	862	33	1264	498	737	435	15	141	318
##	[194,]	1159	702	1310	578	809	919	1294	609	593	558



##	[195,]	1181	864	82	232	643	445	1089	1065	1257	15
##	[196,]	740	384	514	241	472	1	46	691	644	16
##	[197,]	864	612	427	709	557	604	860	1317	712	241
##	[198,]	565	965	1347	1038	129	129	138	38	476	139
##	[199,]	62	944	212	565	1142	640	127	567	762	1218
##	[200,]	1323	10	1121	356	304	455	36	1124	834	934
##	[201,]	591	6	1111	927	259	1176	386	758	413	368
##	[202,]	391	734	152	1191	397	1085	690	1071	21	140
##	[203,]	343	794	1145	164	1096	1359	1266	1101	1177	37
##	[204,]	383	266	293	983	802	1020	760	1157	1248	611
##	[205,]	1114	109	1073	310	532	962	730	390	452	1180
##	[206,]	213	348	450	1053	472	1203	808	936	1343	597
##	[207,]	642	364	864	495	550	252	417	1322	766	691
##	[208,]	1146	1149	822	1187	502	411	15	1078	803	91
##	[209,]	182	1061	202	1393	777	449	1167	593	661	428
##	[210,]	383	160	966	87	773	847	206	897	869	589
##	[211,]	704	413	214	825	587	564	1084	63	919	1098
##	[212,]	442	216	1126	1106	928	150	1150	489	1017	602
##	[213,]	1226	1338	53	211	786	812	1325	514	1154	371
##	[214,]	1372	72	1088	961	373	175	1182	924	538	222
##	[215,]	893	427	79	1066	109	723	884	65	1279	172
##	[216,]	508	643	1040	809	1252	571	56	1161	993	502
##	[217,]	825	1143	1164	873	1383	177	978	503	899	1027
##	[218,]	1129	554	1134	278	923	1078	500	211	302	631
##	[219,]	5	741	166	597	536	296	1297	117	207	240
##	[220,]	1223	1171	261	210	1333	191	521	988	397	1102
##	[221,]	1	1204	725	757	557	46	417	30	539	443
##	[222,]	885	1008	47	1258	1393	1113	1058	1350	753	1019
##	[223,]	591	238	660	609	793	362	919	1178	680	410
##	[224,]	244	608	399	15	399	184	317	1134	587	198
##	[225,]	1003	676	483	16	89	851	51	1133	1306	805
##	[226,]	1209	877	840	487	1206	553	674	389	1030	1174
##	[227,]	135	568	578	78	409	1096	1033	291	1055	321
##	[228,]	875	457	355	158	778	39	945	941	1314	566
##	[229,]	715	1229	216	1039	199	850	428	3	1387	317
##	[230,]	1211	334	400	50	249	703	113	1008	808	178
##	[231,]	483	996	442	363	818	994	38	720	512	718
##	[232,]	277	635	625	679	435	1106	869	1157	1062	1108
##	[233,]	967	310	931	468	721	317	424	1140	114	12
##	[234,]	95	1270	530	493	549	154	1328	764	194	1010
##	[235,]	900	1280	278	458	483	1358	619	560	445	163
##	[236,]	1114	1219	572	248	772	226	862	985	664	1076
##	[237,]	1275	531	1180	1263	1087	1174	884	65	1162	130
##	[238,]	812	276	756	126	968	234	78	702	724	1141
##	[239,]	1260	238	495	887	456	792	1057	475	1052	95
##	[240,]	1120	531	488	110	401	1043	17	121	1282	692
##	[241,]	477	324	430	268	1070	311	877	287	1193	107
##	[242,]	1252	465	513	9	1384	962	695	755	9	112
##	[243,]	239	134	851	508	299	1073	492	1040	591	1246
##	[244,]	783	200	1349	1038	148	1099	129	270	680	385
##	[245,]	211	1253	784	458	884	478	92	1013	1322	432
##	[246,]	792	607	1104	1277	291	1247	444	875	873	1004
##	[247,]	1195	201	848	382	39	1021	263	377	663	1046
##	[248,]	413	1101	932	377	1182	703	949	990	538	671

##	[249,]	1327	771	288	497	158	348	359	1380	449	456
##	[250,]	297	1236	596	946	509	608	418	856	900	262
##	[251,]	836	507	67	490	21	177	201	857	1341	199
##	[252,]	276	1182	1031	46	385	201	572	827	897	586
##	[253,]	1050	1268	154	236	811	1289	162	279	973	824
##	[254,]	991	789	229	293	713	918	725	574	71	89
##	[255,]	1064	1358	898	1041	1262	24	414	776	1388	62
##	[256,]	110	1363	345	698	943	510	1266	334	293	449
##	[257,]	613	864	1013	246	1267	633	494	318	1130	293
##	[258,]	1142	1231	764	979	1318	797	140	430	1271	703
##	[259,]	1074	30	232	1180	1307	523	619	16	806	677
##	[260,]	1054	30	580	1162	1300	1244	967	127	1092	1265
##	[261,]	2	581	393	638	1212	747	1027	315	1263	490
##	[262,]	987	220	291	1287	1165	911	825	600	740	1048
##	[263,]	335	8	381	332	225	968	89	526	916	747
##	[264,]	464	124	656	274	1235	303	1284	65	1354	410
##	[265,]	967	702	1259	765	1379	1088	1380	642	150	1148
##	[266,]	1088	1283	9	476	1067	514	406	847	701	82
##	[267,]	1302	581	1041	355	1197	175	530	1349	357	537
##	[268,]	510	83	1293	1060	1127	818	723	536	233	965
##	[269,]	682	280	1151	177	488	624	942	1309	876	571
##	[270,]	1214	281	501	705	1349	925	1390	562	547	208
##	[271,]	1394	961	649	683	1235	1007	127	1161	982	810
##	[272,]	862	333	1380	272	609	48	1046	858	607	421
##	[273,]	149	1046	978	957	694	165	661	1130	497	1366
##	[274,]	127	1039	859	1007	974	1170	360	1209	412	57
##	[275,]	1305	176	1124	695	1119	97	1097	1058	1240	1396
##	[276,]	968	1089	1327	10	567	382	1138	1308	850	484
##	[277,]	871	1174	1357	1164	746	1176	981	269	332	1329
##	[278,]	36	2	486	1190	399	1380	468	1199	114	1248
##	[279,]	767	1098	526	1100	813	691	114	1298	692	915
##	[280,]	63	1377	813	187	279	523	662	1031	95	696
##	[281,]	464	854	501	676	812	1228	619	169	1017	574
##	[282,]	1247	806	1304	507	876	1147	743	929	430	391
##	[283,]	1361	161	1351	1311	221	1259	655	1000	341	432
##	[284,]	42	1171	500	370	594	76	746	683	945	1010
##	[285,]	156	1088	568	397	474	1007	1108	326	1375	101
##	[286,]	1014	1320	955	1152	261	585	107	340	1313	555
##	[287,]	198	495	1074	605	867	65	767	643	535	213
##	[288,]	263	1343	227	963	553	1329	706	1329	451	560
##	[289,]	520	1336	337	473	583	823	752	734	845	978
##	[290,]	136	523	532	727	1181	132	854	552	826	710
##	[291,]	767	228	1035	642	595	464	1174	1386	552	1048
##	[292,]	957	1055	531	1147	317	630	274	632	1131	1034
##	[293,]	780	1145	227	408	1236	399	426	518	1246	173
##	[294,]	760	1142	1167	1307	1389	879	552	51	211	616
##	[295,]	647	606	610	457	520	889	501	123	444	199
##	[296,]	351	127	349	179	540	545	689	214	469	670
##	[297,]	193	335	140	99	1301	1023	1175	487	862	158
##	[298,]	785	844	792	1218	1319	830	131	164	876	1140
##	[299,]	1199	736	1387	246	437	932	184	78	687	858
##	[300,]	279	139	51	387	734	552	1272	1101	1199	544
##	[301,]	1033	578	878	61	8	270	677	729	1186	1337
##	[302,]	807	679	829	749	799	1235	140	501	195	1313

##	[303,]	196	549	443	1360	366	1385	1338	1355	659	47
##	[304,]	1221	1181	1274	1264	548	491	1128	116	1157	544
##	[305,]	796	446	1053	1001	292	198	1200	328	430	1233
##	[306,]	1009	536	1281	1313	1362	755	1055	452	622	169
##	[307,]	1058	1202	943	676	1230	520	753	1328	1088	1106
##	[308,]	789	581	182	905	235	1292	775	980	576	238
##	[309,]	932	793	1147	230	1384	909	988	462	265	869
##	[310,]	1281	1147	598	795	1297	1132	308	885	353	566
##	[311,]	12	551	955	957	616	1274	893	348	49	58
##	[312,]	224	140	1292	873	1181	255	329	323	1237	280
##	[313,]	507	562	205	125	1162	698	451	33	495	1159
##	[314,]	1164	725	173	601	1065	816	84	94	252	863
##	[315,]	443	67	882	272	562	304	1245	256	325	375
##	[316,]	361	1192	768	453	1303	872	199	682	466	417
##	[317,]	764	914	493	1266	533	1109	1141	1196	369	915
##	[318,]	397	264	1322	400	332	47	116	1100	1240	1172
##	[319,]	472	1002	121	508	783	149	1365	133	1278	76
##	[320,]	582	884	370	1134	236	57	729	851	1099	181
##	[321,]	604	871	302	404	1359	650	456	459	84	955
##	[322,]	600	786	1176	646	877	436	1122	358	1336	533
##	[323,]	865	601	1273	36	702	752	177	283	541	29
##	[324,]	91	21	1215	698	6	413	115	531	46	486
##	[325,]	1276	1022	311	1248	1224	1179	725	236	563	899
##	[326,]	131	586	1336	769	439	1283	582	775	711	361
##	[327,]	1363	433	220	745	34	1084	966	242	389	954
##	[328,]	889	1208	1275	1217	181	882	1150	1057	707	799
##	[329,]	972	1032	622	122	779	47	881	214	921	473
##	[330,]	983	1290	1241	1281	701	1239	457	445	753	1279
##	[331,]	1368	800	1318	702	333	1150	162	1181	738	1397
##	[332,]	195	1144	444	909	109	51	1111	391	886	643
##	[333,]	621	1201	1043	970	360	529	754	1116	905	452
##	[334,]	792	1341	326	799	353	454	1338	221	210	111
##	[335,]	889	1184	593	648	879	706	953	1033	1157	671
##	[336,]	863	920	917	1370	129	192	785	701	180	409
##	[337,]	511	1372	1054	504	821	409	5	154	130	358
##	[338,]	391	1068	544	783	706	1244	1239	392	547	93
##	[339,]	1188	732	344	1098	884	651	564	283	820	1164
##	[340,]	739	306	1116	610	723	357	14	872	542	634
##	[341,]	809	1204	953	192	1161	909	1399	569	190	1248
##	[342,]	158	1241	271	168	1293	950	445	1386	1330	79
##	[343,]	669	1083	827	32	902	914	679	826	1212	566
##	[344,]	230	642	1333	326	368	333	189	348	641	51
##	[345,]	1091	931	156	1275	1084	966	636	59	1152	942
##	[346,]	40	911	861	477	424	744	328	1387	1352	26
##	[347,]	791	386	676	71	166	848	992	1217	1137	251
##	[348,]	85	685	1141	1196	701	182	355	580	1343	1148
##	[349,]	742	614	716	1005	898	1101	1236	824	319	139
##	[350,]	294	995	1170	1	1052	1354	1132	655	1382	877
##	[351,]	1261	101	469	930	797	474	974	265	137	318
##	[352,]	1100	1037	444	646	3	1137	724	514	1049	742
##	[353,]	405	1096	493	425	1034	382	492	431	961	72
##	[354,]	1359	934	365	1143	1388	1211	1064	217	871	707
##	[355,]	910	560	1309	471	1271	1232	903	777	419	120
##	[356,]	826	20	506	28	88	815	400	387	1328	1347

##	[357,]	1059	1375	1218	322	44	548	322	271	936	645
##	[358,]	258	93	321	1004	371	709	1147	1395	746	976
##	[359,]	160	47	150	831	1072	1359	933	631	697	806
##	[360,]	1220	245	1224	936	198	548	654	947	280	1114
##	[361,]	768	1396	1380	51	164	269	834	192	1006	442
##	[362,]	1200	192	380	820	945	215	724	711	1202	1076
##	[363,]	98	706	1353	279	545	513	9	1022	73	531
##	[364,]	807	654	781	1220	354	705	1391	1214	906	177
##	[365,]	1187	1128	1336	773	595	496	773	1370	1003	89
##	[366,]	248	1080	1168	267	1231	186	389	481	159	1273
##	[367,]	1267	785	423	414	1110	712	1312	130	137	596
##	[368,]	1165	838	1116	274	224	504	284	594	620	922
##	[369,]	870	1195	956	31	642	436	790	191	434	774
##	[370,]	1134	110	823	590	201	830	885	33	760	463
##	[371,]	707	314	13	111	795	1356	649	1272	1344	451
##	[372,]	474	842	862	1003	792	781	1186	1252	35	534
##	[373,]	555	946	1249	367	1313	119	740	1373	967	11
##	[374,]	1254	387	1271	849	47	1047	118	1183	1217	761
##	[375,]	1052	986	820	276	1362	1098	93	386	415	864
##	[376,]	302	486	745	299	921	1097	1208	9	575	676
##	[377,]	1382	1072	923	165	1229	608	1174	69	230	658
##	[378,]	1182	24	707	174	1125	1223	139	559	405	1078
##	[379,]	1190	957	843	1154	291	679	374	711	771	1023
##	[380,]	1335	440	618	1227	884	1078	1291	883	1234	978
##	[381,]	549	33	605	1310	432	1267	1038	885	825	463
##	[382,]	1300	465	5	571	739	3	502	1162	497	650
##	[383,]	410	668	496	737	322	1257	1059	360	1266	1146
##	[384,]	295	1011	576	590	426	252	1115	1357	827	612
##	[385,]	1390	1230	808	1033	300	858	587	633	1158	1148
##	[386,]	334	1216	360	610	184	569	789	109	822	1305
##	[387,]	51	404	958	387	721	308	1064	797	1253	616
##	[388,]	1021	1308	1245	680	1382	135	146	837	1385	694
##	[389,]	750	1300	134	1080	87	345	827	236	1218	85
##	[390,]	949	246	363	264	1314	1303	973	113	224	52
##	[391,]	44	1275	775	126	60	284	345	800	320	332
##	[392,]	69	407	261	1066	528	88	1164	24	525	518
##	[393,]	1019	423	886	633	1280	1284	1134	1104	96	100
##	[394,]	300	548	440	175	94	1171	324	554	1325	419
##	[395,]	951	389	97	779	969	581	409	529	437	264
##	[396,]	703	320	1011	382	736	1049	393	105	624	110
##	[397,]	1113	37	1388	503	361	1189	1328	314	30	1288
##	[398,]	773	1026	1093	1359	897	42	284	628	1198	452
##	[399,]	1357	784	850	651	1223	976	961	236	441	519
##	[400,]	729	950	1289	398	1283	617	471	519	818	243
##	[401,]	523	645	898	696	1316	501	64	1350	1009	138
##	[402,]	982	727	507	1190	430	735	167	894	263	290
##	[403,]	1212	503	1198	1042	936	309	1310	412	761	70
##	[404,]	684	1371	411	780	346	388	461	780	884	40
##	[405,]	865	168	497	826	460	1061	694	1323	211	740
##	[406,]	486	1021	82	266	522	261	377	711	402	503
##	[407,]	466	184	833	863	799	453	749	7	363	629
##	[408,]	752	710	1362	612	163	1125	1131	1134	758	1053
##	[409,]	1278	173	1306	521	695	529	140	231	1263	224
##	[410,]	586	634	221	1231	371	779	972	1155	1268	1126

##	[411,]	1313	1222	788	1365	523	499	1067	564	1184	270
##	[412,]	1026	239	195	1350	741	701	55	884	447	743
##	[413,]	841	61	810	299	946	269	983	1371	173	784
##	[414,]	270	1133	793	1383	1043	1241	1057	1064	945	91
##	[415,]	875	1070	1025	325	565	1153	855	1233	1004	810
##	[416,]	1015	173	1126	799	967	1379	305	103	44	852
##	[417,]	638	360	318	302	774	146	1068	67	1030	821
##	[418,]	156	1108	1342	1138	976	699	901	40	289	1197
##	[419,]	832	141	249	962	137	34	799	1349	1137	849
##	[420,]	748	1278	338	814	454	1084	285	649	21	507
##	[421,]	898	1293	1023	919	871	146	341	897	979	146
##	[422,]	1316	1199	1314	432	383	857	569	899	1069	1099
##	[423,]	321	122	988	1276	1340	374	489	597	255	820
##	[424,]	399	810	538	637	798	1206	1191	875	33	306
##	[425,]	1311	352	1223	1258	433	1211	308	211	1227	387
##	[426,]	559	1054	449	67	827	4	417	46	36	507
##	[427,]	988	872	948	978	417	1102	194	950	709	913
##	[428,]	1233	1131	1163	418	1	67	402	467	1075	616
##	[429,]	78	1173	916	716	889	13	720	554	537	1383
##	[430,]	496	1289	864	1262	539	606	813	674	233	227
##	[431,]	959	407	583	371	1274	46	1398	255	548	877
##	[432,]	729	644	746	1340	722	492	328	920	671	279
##	[433,]	449	475	1059	197	1015	948	490	1048	389	969
##	[434,]	430	1303	894	343	148	541	771	1212	939	1064
##	[435,]	983	1211	1324	442	361	1060	637	1262	692	1068
##	[436,]	531	197	311	298	538	911	493	366	497	612
##	[437,]	1283	1018	415	973	232	1222	771	182	1192	645
##	[438,]	665	478	216	719	449	38	210	474	1153	741
##	[439,]	600	600	398	1215	1390	864	142	1307	320	97
##	[440,]	814	766	44	921	363	591	643	207	1324	8
##	[441,]	865	549	185	396	247	724	425	133	995	229
##	[442,]	1131	1295	1218	1067	222	290	1308	818	490	1135
##	[443,]	1055	1351	228	1213	1118	623	907	169	583	320
##	[444,]	143	756	371	10	1168	619	150	1208	289	1042
##	[445,]	298	337	1374	1384	379	983	791	1319	947	586
##	[446,]	332	1205	840	125	1055	676	530	27	1231	853
##	[447,]	603	812	1060	966	809	1197	351	1065	130	1164
##	[448,]	691	142	1045	969	647	1294	273	418	658	1322
##	[449,]	759	418	455	210	442	788	96	1396	1228	469
##	[450,]	1152	199	1253	313	662	709	1108	631	1041	17
##	[451,]	518	522	1383	1140	939	1131	595	542	523	166
##	[452,]	888	1289	121	1381	185	78	1089	286	486	936
##	[453,]	929	6	60	455	748	84	86	281	81	194
##	[454,]	735	523	593	1086	1004	684	1398	1261	765	8
##	[455,]	1198	329	279	1	153	1225	432	626	622	974
##	[456,]	715	544	1226	929	904	924	857	626	1241	698
##	[457,]	706	1128	238	850	555	755	429	906	479	326
##	[458,]	859	986	1040	712	1249	529	95	833	244	1074
##	[459,]	577	447	1389	991	1110	104	1220	474	581	197
##	[460,]	609	1029	18	1245	463	686	426	550	1189	1133
##	[461,]	163	1249	862	54	1104	163	609	818	1252	105
##	[462,]	551	64	713	409	180	1195	223	1113	913	945
##	[463,]	14	608	1104	1216	1038	827	348	1194	544	1289
##	[464,]	1060	34	838	896	323	1285	484	709	863	551

##	[465,]	180	1268	160	1014	872	987	1037	9	201	1398
##	[466,]	429	159	1206	754	1253	419	320	408	797	787
##	[467,]	330	661	543	1305	816	345	979	1270	948	714
##	[468,]	595	1054	271	47	264	710	289	743	447	546
##	[469,]	672	369	335	165	915	357	884	276	744	157
##	[470,]	360	1222	411	1032	856	637	401	1258	408	671
##	[471,]	455	22	930	883	327	256	769	1087	588	991
##	[472,]	9	1104	288	396	1161	236	1302	246	1390	185
##	[473,]	286	1062	1105	1324	773	122	215	1200	117	6
##	[474,]	259	358	956	826	372	997	461	885	184	551
##	[475,]	1006	860	1128	124	359	638	914	1006	616	1031
##	[476,]	1201	1033	504	28	249	85	2	989	364	763
##	[477,]	525	1173	923	1225	507	217	447	93	530	1282
##	[478,]	243	345	1327	267	443	831	65	1280	1029	384
##	[479,]	1053	832	546	849	872	123	935	95	1321	1111
##	[480,]	438	595	435	19	1175	420	1096	1356	1137	443
##	[481,]	82	442	51	522	653	570	1139	737	595	622
##	[482,]	929	834	1351	554	475	618	1354	747	306	910
##	[483,]	1201	920	365	130	1340	1317	1308	750	1373	683
##	[484,]	1219	1329	1014	1387	432	1092	1205	1396	1044	578
##	[485,]	230	1073	837	1062	4	1067	683	1127	472	1286
##	[486,]	733	1033	482	771	1103	47	1339	401	442	450
##	[487,]	1122	1282	1095	578	802	848	1054	755	1008	37
##	[488,]	498	783	1014	175	768	728	83	750	5	1212
##	[489,]	1304	564	763	341	361	518	777	849	239	104
##	[490,]	90	447	979	1134	926	1385	1165	290	147	217
##	[491,]	249	939	1271	725	124	936	212	1255	446	401
##	[492,]	942	964	857	1115	1371	842	593	726	329	560
##	[493,]	1243	836	685	945	390	426	884	164	605	927
##	[494,]	1313	642	834	1267	114	923	422	206	689	977
##	[495,]	190	298	874	454	88	219	536	733	1217	198
##	[496,]	1005	784	908	376	616	215	406	616	121	1354
##	[497,]	592	139	104	1016	948	200	905	243	1287	377
##	[498,]	222	1106	1398	27	1153	163	295	76	1294	85
##	[499,]	1112	1096	621	232	543	462	684	282	155	768
##	[500,]	715	1297	541	20	1363	1357	926	1037	1068	1032
##	[501,]	557	1314	623	1305	1247	944	969	1048	923	471
##	[502,]	430	1264	279	338	424	1288	163	1036	319	779
##	[503,]	423	523	464	682	1377	836	708	1336	978	509
##	[504,]	812	414	867	1044	376	805	1105	701	26	1365
##	[505,]	1288	133	787	644	1174	1033	655	467	283	375
##	[506,]	322	751	9	512	627	31	426	313	1260	698
##	[507,]	187	398	816	1069	1290	97	683	281	550	199
##	[508,]	959	366	678	88	1332	349	784	1230	731	955
##	[509,]	456	1359	1328	1292	429	567	908	458	74	921
##	[510,]	340	784	305	1082	303	894	992	491	971	922
##	[511,]	975	365	673	1188	1001	40	1133	424	771	112
##	[512,]	29	280	1259	944	1103	1061	1222	1054	1262	14
##	[513,]	1254	843	234	1108	1072	33	353	163	1114	572
##	[514,]	947	809	293	903	7	720	458	1195	905	1078
##	[515,]	608	925	234	754	1285	902	796	1025	188	1001
##	[516,]	429	684	655	1023	314	606	555	24	1380	404
##	[517,]	932	644	1317	791	559	1366	454	315	301	473
##	[518,]	325	1221	1364	280	940	1122	924	342	1328	1205

##	[519,]	685	285	870	834	315	668	292	1320	202	79
##	[520,]	1073	419	1172	1396	437	24	782	407	213	615
##	[521,]	1064	993	850	597	484	1150	579	200	535	503
##	[522,]	1017	489	1243	723	783	1122	701	1289	426	910
##	[523,]	653	895	811	688	352	349	41	1294	309	320
##	[524,]	89	981	226	1151	934	510	1395	933	359	1334
##	[525,]	1355	490	287	896	1379	296	1220	861	984	530
##	[526,]	233	156	516	1157	1091	1306	1162	627	370	1045
##	[527,]	922	900	602	154	325	920	1057	34	613	688
##	[528,]	58	194	1255	889	65	358	816	913	787	1108
##	[529,]	594	689	1270	297	444	1089	108	491	67	735
##	[530,]	982	95	1190	811	1359	458	242	1047	1039	48
##	[531,]	1017	194	997	682	550	1304	838	392	618	854
##	[532,]	328	743	836	1135	193	525	1234	865	808	252
##	[533,]	288	842	520	1026	1061	981	1162	792	540	633
##	[534,]	439	673	540	1237	833	898	667	338	20	1156
##	[535,]	528	201	376	1377	1204	178	1344	557	595	820
##	[536,]	837	285	1131	687	824	647	1022	263	186	888
##	[537,]	179	606	37	1369	639	951	393	761	968	725
##	[538,]	1276	475	22	448	119	1344	298	1360	168	845
##	[539,]	245	749	571	419	473	650	1355	1067	1390	133
##	[540,]	1081	385	1000	494	19	1054	773	1069	927	434
##	[541,]	807	302	898	333	1363	1296	262	811	1076	92
##	[542,]	632	706	779	1341	444	1373	510	973	971	397
##	[543,]	314	435	845	1347	524	213	837	808	200	552
##	[544,]	439	183	188	149	788	517	216	1180	533	161
##	[545,]	152	58	609	651	779	519	824	250	76	1088
##	[546,]	1056	1210	1135	1048	902	383	1290	1261	632	1370
##	[547,]	717	907	827	174	462	443	353	918	424	83
##	[548,]	365	749	1310	520	921	1265	738	1364	668	517
##	[549,]	37	1248	1252	604	1041	550	561	188	914	813
##	[550,]	730	602	118	439	86	805	988	354	92	71
##	[551,]	1197	871	380	81	1160	404	51	577	897	480
##	[552,]	539	933	650	33	461	76	208	2	191	211
##	[553,]	1207	681	254	918	212	1259	1269	654	217	98
##	[554,]	594	160	892	99	497	977	1395	792	767	218
##	[555,]	578	150	877	449	728	403	467	160	605	286
##	[556,]	805	1246	1362	560	1053	790	1312	624	833	171
##	[557,]	398	391	399	248	392	608	658	1101	1299	845
##	[558,]	617	1045	641	693	1074	441	683	593	1298	515
##	[559,]	631	379	163	42	1213	2	206	144	903	123
##	[560,]	1076	434	1328	1400	340	475	820	583	1077	80
##	[561,]	333	37	579	203	1257	25	1128	545	289	282
##	[562,]	1082	506	544	1276	869	1026	1062	83	1219	1319
##	[563,]	644	610	298	1336	843	768	838	1007	1194	1215
##	[564,]	715	608	1174	810	504	1399	338	79	596	664
##	[565,]	138	1399	909	907	413	792	376	264	902	545
##	[566,]	1137	1296	1052	655	32	325	1082	1280	1110	408
##	[567,]	92	691	488	903	90	1351	556	958	844	864
##	[568,]	1088	650	842	268	1355	1290	142	222	580	953
##	[569,]	1065	1290	979	645	1132	452	1057	989	106	508
##	[570,]	531	908	258	1332	93	564	1285	832	2	454
##	[571,]	437	680	1377	510	227	173	499	1199	599	9
##	[572,]	316	1341	1081	166	197	639	966	1090	452	164

##	[573,]	189	835	896	920	1215	542	1263	1127	1116	230
##	[574,]	443	278	588	215	1186	1391	582	1055	426	1234
##	[575,]	116	10	894	231	53	238	1095	974	565	951
##	[576,]	1395	39	459	999	53	1325	1072	600	696	725
##	[577,]	843	1213	1387	637	10	1029	390	160	673	532
##	[578,]	846	883	626	995	537	541	647	1358	869	1380
##	[579,]	659	1229	146	1261	944	1055	1276	922	1357	223
##	[580,]	611	1205	1291	28	132	386	1194	503	961	301
##	[581,]	88	367	424	1116	1209	820	487	859	1083	1371
##	[582,]	991	1228	480	251	451	782	694	1374	1334	680
##	[583,]	958	306	667	7	334	922	121	1293	532	656
##	[584,]	164	826	786	136	326	625	551	1042	1322	582
##	[585,]	155	1041	325	527	491	1135	1354	1281	1339	871
##	[586,]	1062	48	1369	1186	617	1232	499	475	418	1077
##	[587,]	953	1021	1092	433	402	461	649	1300	405	920
##	[588,]	457	928	1113	932	840	698	124	1352	430	1396
##	[589,]	1400	1032	846	1160	1377	1230	1078	239	815	494
##	[590,]	224	551	394	160	63	1398	916	472	1385	1041
##	[591,]	192	542	841	653	67	726	1312	327	274	1161
##	[592,]	813	176	1316	1104	1026	679	1358	197	35	418
##	[593,]	1133	406	150	372	342	1184	113	1004	268	285
##	[594,]	536	453	88	993	703	1229	679	353	793	208
##	[595,]	1273	1046	1278	35	1356	290	337	561	964	524
##	[596,]	111	473	405	537	1197	102	140	1279	1229	1185
##	[597,]	675	1160	603	168	1161	636	473	198	768	1344
##	[598,]	1285	1142	666	893	1060	486	310	193	155	937
##	[599,]	405	1206	1150	268	367	761	1376	50	251	721
##	[600,]	1176	649	130	218	687	1189	1091	1045	802	1397
##	[601,]	569	154	1007	441	169	305	1006	398	91	642
##	[602,]	142	42	1176	1166	332	440	385	1108	375	687
##	[603,]	1020	564	742	384	936	410	901	267	157	164
##	[604,]	390	712	385	1039	126	1334	986	1212	894	24
##	[605,]	920	1132	1250	47	1123	630	605	1324	772	37
##	[606,]	710	937	890	985	250	10	682	1232	58	623
##	[607,]	1124	574	889	188	385	70	218	861	1122	1009
##	[608,]	541	807	1079	1174	733	453	1042	979	705	516
##	[609,]	612	1321	462	1164	752	110	261	699	1379	208
##	[610,]	123	174	366	495	1208	281	464	419	747	210
##	[611,]	1264	1018	514	961	571	598	838	224	376	1182
##	[612,]	643	487	994	970	908	1365	1229	87	114	1112
##	[613,]	430	1052	436	1082	685	139	1386	1133	767	1181
##	[614,]	659	598	1388	650	1059	1312	671	1087	805	998
##	[615,]	445	794	573	1147	722	403	99	863	166	223
##	[616,]	1067	923	1392	713	915	469	165	1348	1083	952
##	[617,]	789	320	304	675	266	688	306	362	10	551
##	[618,]	315	907	16	68	925	593	126	959	579	700
##	[619,]	744	1148	506	1398	943	676	950	546	972	397
##	[620,]	914	468	689	499	1134	1344	411	759	745	381
##	[621,]	1395	777	367	174	388	1309	212	603	611	644
##	[622,]	480	606	1145	63	365	124	1064	682	137	191
##	[623,]	320	373	756	1183	768	1171	639	908	1258	1271
##	[624,]	726	1303	243	732	1002	1341	459	78	1338	455
##	[625,]	278	1016	1012	908	408	109	130	456	641	1245
##	[626,]	749	487	580	1108	1080	659	667	513	186	879



##	[627,]	1086	944	744	90	749	877	854	280	737	575
##	[628,]	1104	1343	1391	932	795	569	480	1351	363	754
##	[629,]	658	66	859	363	1243	353	478	761	1074	379
##	[630,]	856	134	507	1291	374	391	153	939	894	1270
##	[631,]	774	194	890	51	453	912	1002	1092	446	797
##	[632,]	154	1155	1060	1398	1380	1193	1237	1257	1114	1213
##	[633,]	520	371	1334	1264	279	1238	701	697	920	401
##	[634,]	993	871	1250	978	1000	935	863	185	664	292
##	[635,]	847	303	412	1353	428	806	1332	1127	529	1033
##	[636,]	1165	776	1088	320	1047	1247	641	347	1002	816
##	[637,]	386	549	1021	1215	61	1084	694	1375	12	750
##	[638,]	375	912	25	753	31	685	1009	83	273	882
##	[639,]	55	614	886	147	1042	905	191	964	489	402
##	[640,]	178	1328	1240	1323	594	299	491	804	1057	1084
##	[641,]	1022	579	486	925	496	105	1194	1111	34	712
##	[642,]	759	618	393	316	1330	959	969	1372	749	244
##	[643,]	2	1110	245	39	699	376	1293	763	1050	846
##	[644,]	416	60	789	112	912	117	245	475	96	1358
##	[645,]	93	1383	1176	1027	8	343	1142	1128	1101	912
##	[646,]	1352	83	397	981	600	185	599	622	1361	445
##	[647,]	739	738	178	36	443	930	625	970	799	832
##	[648,]	1334	119	1308	739	75	112	1076	555	851	895
##	[649,]	647	1357	552	1347	696	529	934	48	323	1339
##	[650,]	252	259	1104	1290	684	1235	1343	1195	578	329
##	[651,]	712	602	517	292	454	418	1043	330	847	953
##	[652,]	62	71	1194	1305	1023	141	604	1084	858	1221
##	[653,]	1149	340	1392	1326	422	750	138	503	124	66
##	[654,]	490	127	470	137	92	421	465	1322	473	1288
##	[655,]	183	235	1107	931	806	394	999	982	247	445
##	[656,]	354	453	1041	948	1210	136	57	685	206	736
##	[657,]	683	1001	884	740	693	821	463	936	1058	409
##	[658,]	1319	747	1174	428	661	384	634	843	1232	932
##	[659,]	318	287	1012	937	506	1037	976	951	964	623
##	[660,]	833	397	425	452	1287	160	39	953	1022	413
##	[661,]	749	89	876	1036	1112	288	1380	1067	50	1107
##	[662,]	512	82	1001	194	373	452	839	1016	822	1160
##	[663,]	446	924	1115	722	1333	1312	1201	1098	1150	1122
##	[664,]	199	432	378	629	336	1317	823	1240	846	208
##	[665,]	570	280	656	832	261	928	986	335	1174	1281
##	[666,]	1178	705	1259	1279	1022	156	1064	1345	218	1214
##	[667,]	1185	1301	1077	1396	1249	793	96	947	1229	967
##	[668,]	594	901	674	1174	177	924	893	743	413	730
##	[669,]	1352	1011	676	978	687	473	857	1202	1153	897
##	[670,]	991	370	855	930	1145	1279	100	1021	1033	50
##	[671,]	818	84	40	338	1063	354	842	265	634	1038
##	[672,]	906	435	383	278	880	1271	1039	125	123	1330
##	[673,]	1299	898	105	787	873	1336	949	354	638	227
##	[674,]	380	1129	661	1323	286	1224	1353	573	238	265
##	[675,]	1325	939	48	703	979	117	275	472	450	1302
##	[676,]	1353	1094	614	1377	755	957	1166	197	1080	739
##	[677,]	483	54	99	1272	84	257	464	543	1257	1364
##	[678,]	425	1028	1258	773	1061	364	755	1188	687	962
##	[679,]	1031	1235	839	986	112	893	351	616	117	432
##	[680,]	156	988	851	1089	1089	388	479	1240	911	514

##	[681,]	45	470	152	1343	285	353	180	920	1171	366
##	[682,]	1230	652	156	1190	1185	724	1202	1163	1381	1285
##	[683,]	582	802	1230	1317	593	623	624	1129	841	1080
##	[684,]	1255	194	671	225	114	147	255	1080	944	375
##	[685,]	929	696	1203	818	254	799	1298	994	576	947
##	[686,]	1320	617	1066	201	610	737	303	741	381	959
##	[687,]	1	81	951	717	64	969	172	133	1162	1001
##	[688,]	911	650	332	874	1151	37	949	1289	278	588
##	[689,]	1079	926	666	668	220	844	202	740	54	605
##	[690,]	147	860	596	721	1189	618	564	76	1165	995
##	[691,]	915	1303	503	812	873	1134	961	770	801	1208
##	[692,]	1085	1180	149	606	323	873	598	724	189	1380
##	[693,]	791	860	476	785	349	342	41	1333	99	1349
##	[694,]	1221	906	108	982	158	1388	632	853	674	920
##	[695,]	879	610	943	698	1196	444	1016	745	81	709
##	[696,]	993	95	734	1385	695	1025	119	210	320	746
##	[697,]	542	1047	504	1334	839	679	383	723	390	511
##	[698,]	1354	881	952	1154	1354	1173	634	1296	90	531
##	[699,]	1288	166	515	165	1253	517	902	685	262	1163
##	[700,]	517	1323	881	149	1289	1315	537	861	719	1366
##	[701,]	595	1099	342	1278	1103	1052	1299	74	524	459
##	[702,]	1263	1223	555	1310	494	75	491	1234	1377	690
##	[703,]	356	286	267	944	1230	1378	847	134	933	572
##	[704,]	239	1211	253	347	379	1351	1138	1072	870	1140
##	[705,]	495	513	59	836	1027	88	3	1223	482	324
##	[706,]	119	430	1298	693	1349	853	560	1140	794	1011
##	[707,]	1095	992	120	231	1385	915	1082	800	763	1023
##	[708,]	621	778	267	395	406	184	817	545	571	254
##	[709,]	402	50	940	1169	272	1012	1142	661	98	748
##	[710,]	93	586	1051	23	375	1269	920	1207	411	1045
##	[711,]	41	126	1159	872	310	1395	1038	1102	455	544
##	[712,]	1245	800	1224	1264	742	724	1097	68	423	985
##	[713,]	1098	206	1299	129	1217	169	735	922	125	472
##	[714,]	659	374	1390	931	971	3	481	1188	490	596
##	[715,]	1359	1129	63	816	219	218	1235	329	77	913
##	[716,]	860	778	1032	1169	1083	238	622	1388	590	448
##	[717,]	798	1369	855	478	176	1331	689	1263	809	726
##	[718,]	1027	496	454	1062	808	1208	405	944	637	854
##	[719,]	564	1182	1371	1092	142	984	1149	716	546	734
##	[720,]	204	741	117	222	1082	1147	569	1252	645	308
##	[721,]	1145	1181	269	729	988	1063	299	436	765	18
##	[722,]	877	1389	373	504	365	891	276	833	603	246
##	[723,]	109	539	509	1094	467	395	959	635	511	1112
##	[724,]	799	1038	1233	292	1370	288	688	913	1199	459
##	[725,]	456	1234	1363	874	345	1394	62	962	1052	938
##	[726,]	1182	1249	711	1295	375	1242	1085	945	1069	8
##	[727,]	20	1368	217	401	669	462	898	1255	94	1300
##	[728,]	1069	568	145	515	161	86	1224	1074	1015	1007
##	[729,]	587	106	749	1084	202	987	1350	116	822	679
##	[730,]	1046	1120	678	156	1271	1173	1172	427	1272	506
##	[731,]	39	833	863	887	14	701	395	930	491	1331
##	[732,]	238	934	972	1177	854	704	1336	807	50	647
##	[733,]	842	295	481	802	663	169	1000	420	541	1001
##	[734,]	317	1325	665	131	1389	1205	1237	1386	104	164

##	[735,]	332	1300	342	688	1297	535	1325	971	1256	148
##	[736,]	701	621	1258	840	959	1075	1113	1091	1363	131
##	[737,]	1112	168	736	537	822	648	709	427	523	368
##	[738,]	1184	151	315	889	387	687	692	1058	635	728
##	[739,]	1323	295	26	557	739	403	638	380	979	246
##	[740,]	72	1238	381	1300	1243	1339	339	1108	812	1336
##	[741,]	63	1228	117	680	1362	619	49	850	723	1083
##	[742,]	393	916	131	1163	554	897	813	804	1311	587
##	[743,]	841	1006	1166	108	303	1079	997	253	1264	212
##	[744,]	980	995	1058	632	688	276	947	1036	1187	615
##	[745,]	1104	569	1296	436	317	922	1211	1129	1004	257
##	[746,]	632	1167	1049	1071	776	454	770	38	786	186
##	[747,]	567	404	834	1320	413	1251	484	1364	432	317
##	[748,]	1193	994	1019	543	1064	970	364	202	411	608
##	[749,]	1291	1002	1332	947	1107	912	109	733	885	299
##	[750,]	958	476	228	1221	1150	88	1038	420	577	826
##	[751,]	390	713	1392	810	578	296	978	23	1072	963
##	[752,]	436	584	399	897	413	753	1325	555	470	891
##	[753,]	315	874	841	484	858	3	806	450	1389	504
##	[754,]	593	1370	876	1012	120	1097	684	627	1356	931
##	[755,]	494	127	1389	784	1232	211	1085	1204	664	40
##	[756,]	93	337	314	26	32	1257	870	658	528	483
##	[757,]	669	1290	88	402	484	288	862	956	1043	1389
##	[758,]	1240	1358	608	16	1236	1330	579	988	257	344
##	[759,]	772	1387	452	253	775	506	267	124	1381	321
##	[760,]	1248	1120	1198	40	1120	1184	870	838	1314	735
##	[761,]	379	164	157	819	913	1172	750	1391	489	35
##	[762,]	14	173	1264	1377	562	498	1201	511	1398	194
##	[763,]	1122	551	1001	625	1111	1251	294	990	612	671
##	[764,]	428	995	1049	835	822	1079	913	1203	1064	914
##	[765,]	1336	459	383	583	1314	22	353	855	908	974
##	[766,]	65	842	1195	1217	907	824	828	1198	1101	586
##	[767,]	760	1391	608	356	148	282	132	1345	1228	970
##	[768,]	1127	1120	786	516	1148	322	508	1344	346	432
##	[769,]	825	547	648	910	464	1309	1170	529	1300	1099
##	[770,]	793	165	850	73	972	1053	847	1109	285	300
##	[771,]	33	465	1272	1038	474	1159	145	365	555	621
##	[772,]	283	252	136	951	929	519	731	704	386	611
##	[773,]	108	145	1263	656	373	951	523	707	1280	544
##	[774,]	584	1342	926	975	1195	533	1110	1073	1040	888
##	[775,]	233	186	784	479	1394	345	161	1076	383	109
##	[776,]	1157	1393	1086	1319	1374	441	906	62	1159	882
##	[777,]	920	1032	1239	665	809	400	888	901	1000	20
##	[778,]	158	581	1353	365	390	227	21	1105	304	889
##	[779,]	56	427	136	1382	563	937	1355	997	657	162
##	[780,]	661	672	229	360	690	637	1127	330	710	995
##	[781,]	986	418	835	451	841	107	60	1162	1197	1010
##	[782,]	200	995	1182	909	667	1383	466	1079	249	1285
##	[783,]	686	878	532	78	31	949	1154	225	389	639
##	[784,]	939	209	326	145	1239	1068	204	1129	1099	1400
##	[785,]	673	915	895	1350	1267	1208	858	680	1006	1257
##	[786,]	302	1361	354	873	503	1001	544	1310	39	361
##	[787,]	179	824	748	218	1341	774	1015	1222	395	911
##	[788,]	880	487	410	463	1375	948	151	1379	865	1160

##	[789,]	1322	723	348	637	419	37	1014	1045	681	854
##	[790,]	1283	1317	1014	546	1031	23	1282	1047	1386	867
##	[791,]	359	345	1195	417	757	1156	1079	497	43	758
##	[792,]	431	638	1350	1327	1356	851	1124	606	958	1046
##	[793,]	624	275	341	803	107	1349	848	346	977	532
##	[794,]	436	523	1341	1182	1141	565	1352	1298	708	354
##	[795,]	539	1257	966	341	1223	976	1361	750	587	351
##	[796,]	1098	540	349	636	93	32	533	511	121	585
##	[797,]	1134	1202	114	63	1120	1276	1348	1036	1332	113
##	[798,]	1305	649	343	527	530	1149	955	538	1158	1143
##	[799,]	441	405	1339	1214	1177	1346	1093	1130	1133	1283
##	[800,]	1009	117	302	855	509	186	386	979	97	1189
##	[801,]	138	607	1081	256	1316	709	931	525	1358	257
##	[802,]	326	1392	848	891	840	230	178	490	108	344
##	[803,]	1255	743	757	535	805	1229	429	1122	977	1162
##	[804,]	727	107	1110	1158	1271	729	232	392	1204	182
##	[805,]	572	509	984	1144	395	1400	323	625	189	211
##	[806,]	962	1267	403	206	268	1371	1240	226	937	1361
##	[807,]	346	1316	794	372	879	1237	171	1090	479	1124
##	[808,]	962	487	912	691	260	960	481	189	99	1284
##	[809,]	701	1230	741	80	52	1396	726	70	1156	1269
##	[810,]	488	155	1335	116	1123	667	878	1262	142	906
##	[811,]	970	474	1013	1184	579	896	803	562	1143	897
##	[812,]	798	627	1127	1161	75	635	1040	80	1070	555
##	[813,]	87	960	646	313	1059	789	1174	1010	941	589
##	[814,]	433	787	1181	707	66	470	717	1076	784	1226
##	[815,]	909	833	1354	858	9	51	403	1118	775	169
##	[816,]	656	256	765	715	560	606	824	621	1392	1270
##	[817,]	404	119	763	451	751	965	577	522	239	1381
##	[818,]	1360	257	643	1193	1218	955	1315	1309	586	1288
##	[819,]	740	472	1094	569	1086	1048	548	779	1306	253
##	[820,]	105	572	1002	296	1345	202	603	205	120	793
##	[821,]	394	1132	440	1372	162	1142	108	1088	102	257
##	[822,]	1025	966	704	380	1206	1382	169	886	261	606
##	[823,]	821	756	21	442	558	898	762	204	528	302
##	[824,]	312	1072	626	943	1032	1191	604	1027	66	637
##	[825,]	1326	58	1021	966	196	1345	3	1090	1386	997
##	[826,]	169	1128	495	746	1044	630	888	264	861	782
##	[827,]	467	970	639	1228	352	1226	196	523	548	130
##	[828,]	1185	390	1239	1233	1263	1358	295	1237	542	358
##	[829,]	1330	940	196	786	31	1029	613	618	1081	1004
##	[830,]	174	38	715	946	514	192	109	506	1271	534
##	[831,]	490	1376	635	1118	536	903	677	1385	72	54
##	[832,]	1111	607	153	270	55	703	657	20	477	514
##	[833,]	465	431	359	905	130	149	1236	318	865	261
##	[834,]	37	420	818	499	696	806	1399	1000	762	669
##	[835,]	377	1223	874	376	879	1317	1197	133	916	1014
##	[836,]	1393	1052	96	998	512	1080	864	325	868	169
##	[837,]	856	673	380	911	926	805	480	1314	637	372
##	[838,]	542	450	994	98	481	9	1361	562	1363	939
##	[839,]	1023	960	1243	1060	282	547	381	131	1005	499
##	[840,]	667	854	156	638	1116	1351	99	146	628	375
##	[841,]	14	1135	1192	719	1302	1203	574	1313	499	774
##	[842,]	1180	1210	50	568	841	752	740	1387	937	1260

##	[843,]	811	134	855	1297	1179	762	1039	1368	1359	442
##	[844,]	317	1112	46	301	463	1289	692	848	1002	998
##	[845,]	809	429	1344	2	804	975	307	954	889	770
##	[846,]	251	1353	788	759	514	551	1379	297	1160	1242
##	[847,]	901	1259	1030	38	313	994	874	1297	127	280
##	[848,]	902	805	892	744	1102	737	1043	726	239	1220
##	[849,]	200	55	1119	329	702	899	727	680	378	1260
##	[850,]	1125	1009	927	296	610	250	630	409	258	632
##	[851,]	142	370	159	3	834	811	969	643	975	641
##	[852,]	554	965	459	1179	1383	546	1008	861	283	395
##	[853,]	69	697	234	203	779	357	190	601	971	460
##	[854,]	1070	167	1158	1309	860	847	1300	90	1232	798
##	[855,]	957	725	356	218	669	129	121	236	1270	276
##	[856,]	229	862	697	364	1025	806	712	792	1385	1227
##	[857,]	568	900	1016	498	148	194	965	116	744	823
##	[858,]	1113	150	1190	1214	667	117	304	997	381	236
##	[859,]	1047	1138	860	272	1013	234	1084	90	170	422
##	[860,]	441	831	1389	753	149	527	354	1032	119	647
##	[861,]	429	886	20	862	332	902	1340	1291	256	624
##	[862,]	193	1200	1258	602	228	1227	870	838	37	1260
##	[863,]	1236	1003	1359	37	316	1072	109	35	355	81
##	[864,]	4	102	437	978	851	1183	60	1283	754	1161
##	[865,]	697	24	247	1286	85	1211	638	975	672	308
##	[866,]	1383	1263	1301	590	1083	315	1308	727	735	209
##	[867,]	296	1238	871	745	983	1206	781	340	263	564
##	[868,]	1282	331	236	335	300	1030	790	999	469	734
##	[869,]	866	917	256	1136	354	440	1391	318	793	1092
##	[870,]	1254	553	155	403	368	503	620	1334	608	761
##	[871,]	668	88	1191	218	766	1271	1289	513	629	601
##	[872,]	124	1010	461	535	125	133	1266	456	1249	372
##	[873,]	813	294	670	652	333	995	654	1217	983	192
##	[874,]	338	969	799	204	1074	1233	176	382	955	95
##	[875,]	1192	955	223	770	1043	42	1108	1211	252	760
##	[876,]	191	668	801	778	1281	1067	1234	458	753	296
##	[877,]	18	223	117	760	267	799	453	374	457	475
##	[878,]	1130	458	1267	980	1043	1344	490	211	1057	572
##	[879,]	1369	504	765	723	1091	833	363	937	1395	668
##	[880,]	761	1182	770	817	921	1392	1364	215	1383	194
##	[881,]	1247	951	457	522	1237	1323	1379	1142	1006	455
##	[882,]	1364	949	36	198	1211	309	578	607	50	1199
##	[883,]	813	1031	296	257	191	1324	417	658	674	547
##	[884,]	622	799	831	612	1017	1330	67	458	976	436
##	[885,]	72	986	412	943	425	825	1277	318	409	1239
##	[886,]	972	691	967	1377	910	885	240	1187	379	1228
##	[887,]	297	1202	374	173	708	1171	756	811	476	304
##	[888,]	238	497	864	1115	696	865	9	233	553	1106
##	[889,]	748	30	461	1279	355	690	603	1200	1334	895
##	[890,]	953	1027	809	162	877	837	1144	664	326	830
##	[891,]	1240	539	897	558	665	725	341	355	319	1186
##	[892,]	864	999	43	995	648	115	1260	243	415	1140
##	[893,]	1000	1141	668	669	1154	158	125	805	1161	1097
##	[894,]	1304	1397	876	499	594	1014	369	464	901	549
##	[895,]	1183	782	1122	762	1215	675	1247	157	746	9
##	[896,]	948	700	981	647	273	397	869	180	943	797

##	[897,]	164	374	960	500	44	236	710	1165	439	405
##	[898,]	950	632	283	60	719	1114	1232	1107	21	520
##	[899,]	1351	1211	1128	598	267	715	1218	323	372	859
##	[900,]	1322	818	1134	120	1059	1063	1004	333	1190	980
##	[901,]	633	738	645	594	697	1295	1374	1118	414	620
##	[902,]	595	790	935	1176	256	76	1319	874	913	190
##	[903,]	391	4	1030	669	373	1090	434	918	523	380
##	[904,]	246	1199	451	629	109	1350	118	1314	1089	436
##	[905,]	1232	180	878	525	1187	1341	121	327	1325	1313
##	[906,]	572	474	339	783	1352	652	617	990	118	968
##	[907,]	88	301	463	1000	10	750	1300	611	720	408
##	[908,]	1369	943	378	1130	979	927	485	873	1367	502
##	[909,]	1383	584	383	954	704	409	1228	785	571	284
##	[910,]	1297	374	300	691	1201	157	523	867	893	582
##	[911,]	1061	1211	1136	521	240	909	746	95	800	1065
##	[912,]	420	120	951	455	938	477	232	430	127	133
##	[913,]	776	691	493	1297	256	180	366	1277	1248	875
##	[914,]	1047	1316	472	51	265	1042	343	370	97	1113
##	[915,]	379	1395	575	300	416	807	501	739	1364	543
##	[916,]	351	1120	61	449	543	705	1281	177	453	279
##	[917,]	639	858	897	356	46	640	419	1163	934	827
##	[918,]	1380	470	1146	1125	337	1077	274	690	988	1180
##	[919,]	824	788	1328	1060	876	1148	774	969	622	467
##	[920,]	507	468	918	891	1122	51	469	817	383	913
##	[921,]	988	1081	930	1243	1057	42	835	567	113	119
##	[922,]	752	47	962	341	1108	482	1038	35	466	1005
##	[923,]	292	87	97	614	125	1353	904	1139	843	1117
##	[924,]	478	620	953	767	363	1364	792	626	831	82
##	[925,]	1392	932	144	1361	1238	1311	368	1158	318	485
##	[926,]	948	1284	329	964	429	107	402	153	803	1274
##	[927,]	931	674	895	772	309	216	928	361	962	693
##	[928,]	577	807	449	262	1211	963	1246	275	771	191
##	[929,]	1046	1047	1152	981	960	487	305	889	1334	114
##	[930,]	190	450	1006	74	312	1143	397	466	70	277
##	[931,]	1163	126	308	597	1160	1015	1262	330	1225	416
##	[932,]	1368	1134	24	34	562	210	26	348	433	591
##	[933,]	1213	390	654	1150	525	340	1005	1248	684	632
##	[934,]	177	1315	942	1111	36	1136	1036	505	456	505
##	[935,]	964	921	328	995	1338	772	192	525	260	567
##	[936,]	678	237	1099	254	860	187	134	975	141	432
##	[937,]	509	1322	399	1257	314	1229	975	1014	793	1124
##	[938,]	602	1166	1070	33	148	765	1121	1107	1220	366
##	[939,]	603	918	1347	1286	620	436	1066	804	1058	1209
##	[940,]	820	577	1142	361	343	1286	564	396	161	536
##	[941,]	699	1219	1133	342	1124	1310	964	186	744	276
##	[942,]	2	722	653	632	861	1092	1124	160	1083	1082
##	[943,]	1009	1160	808	1131	1392	186	202	663	945	1371
##	[944,]	1339	1150	382	1198	75	1105	933	1064	1119	884
##	[945,]	60	331	1011	1172	788	1102	1124	485	1070	787
##	[946,]	30	212	769	217	48	518	385	538	538	1378
##	[947,]	1287	1315	286	1205	568	375	35	729	745	991
##	[948,]	1107	602	866	331	10	1275	1278	62	1100	1113
##	[949,]	1023	62	436	1309	876	1158	245	644	1364	816
##	[950,]	144	486	40	567	49	42	283	1062	345	280

##	[951,]	92	312	397	58	943	394	542	1283	174	783
##	[952,]	353	1020	578	684	1384	283	1358	680	516	36
##	[953,]	200	12	200	1027	264	794	34	1274	889	1270
##	[954,]	25	87	821	719	684	1225	1153	1238	1242	932
##	[955,]	22	765	430	567	991	982	1203	752	312	864
##	[956,]	1265	490	1385	857	22	799	469	1251	1271	1396
##	[957,]	939	664	880	13	1331	1145	910	919	790	1231
##	[958,]	1153	750	256	495	987	532	822	953	669	900
##	[959,]	166	1336	1058	512	1245	174	550	650	850	1015
##	[960,]	286	560	1322	156	698	717	513	70	1228	1384
##	[961,]	874	1005	1248	10	1204	673	870	158	1179	522
##	[962,]	316	758	659	663	5	1210	1019	1034	552	444
##	[963,]	64	985	632	468	1393	416	1129	887	648	1160
##	[964,]	144	1191	733	1246	727	922	455	504	306	478
##	[965,]	1247	311	806	372	1137	800	918	1134	1108	926
##	[966,]	1053	1017	1136	37	372	4	487	954	1226	1223
##	[967,]	606	81	801	1262	385	1200	543	388	957	582
##	[968,]	309	634	165	336	742	1209	880	1317	225	169
##	[969,]	199	1084	499	846	1267	701	1305	1136	961	545
##	[970,]	688	231	1236	786	845	1045	525	647	1144	464
##	[971,]	528	480	1312	945	87	799	926	165	477	264
##	[972,]	1212	614	464	744	1136	520	848	100	1310	612
##	[973,]	1015	1283	63	917	136	354	630	591	266	1395
##	[974,]	1369	359	805	699	541	127	902	403	59	1253
##	[975,]	844	1305	439	211	1128	563	1075	541	675	10
##	[976,]	845	804	1170	531	271	588	827	178	1003	224
##	[977,]	1152	433	669	1037	37	2	737	684	291	1193
##	[978,]	148	970	58	352	468	874	812	96	683	568
##	[979,]	905	337	1329	362	40	382	480	566	653	989
##	[980,]	624	30	244	1352	383	552	1384	756	796	1157
##	[981,]	1216	249	388	468	277	945	758	566	818	595
##	[982,]	927	447	1350	639	1209	750	460	877	169	902
##	[983,]	1327	649	1146	939	635	605	36	1335	1237	397
##	[984,]	1331	1345	624	397	1371	494	178	208	354	1193
##	[985,]	407	899	711	447	231	1005	687	465	387	1252
##	[986,]	775	1147	1287	1326	469	487	1247	707	688	589
##	[987,]	222	112	220	67	754	148	56	570	1153	834
##	[988,]	793	564	1098	937	756	1089	911	1156	266	515
##	[989,]	663	1075	131	711	276	758	546	153	991	670
##	[990,]	1372	701	1257	105	429	824	1222	1302	220	1005
##	[991,]	699	779	1022	477	974	1292	754	501	429	778
##	[992,]	457	222	221	700	820	708	863	821	917	1303
##	[993,]	411	246	1046	519	965	682	754	815	704	128
##	[994,]	1283	601	332	1121	419	146	940	1053	989	514
##	[995,]	928	958	103	1076	1070	798	69	701	1139	497
##	[996,]	1039	29	1138	269	66	986	1305	1389	1005	780
##	[997,]	752	66	905	827	627	819	630	563	757	1193
##	[998,]	861	1177	1216	60	21	749	1199	1080	242	1254
##	[999,]	97	1086	432	826	456	1001	1256	68	106	260
##	[1000,]	1241	264	216	31	1064	856	662	689	1108	168
##	[1001,]	978	1067	826	1216	739	806	797	972	758	1188
##	[1002,]	777	845	983	954	481	1181	1154	149	1098	730
##	[1003,]	1399	688	443	619	457	1029	348	241	564	1283
##	[1004,]	558	1363	834	273	337	500	1191	654	152	1000

## [1005,]	309	57	1196	1280	1043	999	183	410	63	321
## [1006,]	1301	854	481	334	664	92	1068	625	1159	357
## [1007,]	40	673	682	443	1344	1268	1153	327	1308	1302
## [1008,]	834	137	1274	847	947	929	1232	854	1142	1292
## [1009,]	740	256	374	243	846	67	642	1005	502	344
## [1010,]	1339	543	790	1025	711	762	1273	104	1051	1097
## [1011,]	538	344	1134	1293	1348	1357	1061	1141	831	169
## [1012,]	1011	1389	978	1365	441	844	1258	583	1056	1250
## [1013,]	584	618	1133	1037	1024	839	618	1243	1382	1245
## [1014,]	1183	1326	250	1251	1135	73	801	1317	348	817
## [1015,]	351	233	213	1040	259	811	1047	447	1180	639
## [1016,]	1258	733	275	507	414	418	1185	118	1040	6
## [1017,]	499	555	1245	335	1227	1062	320	708	60	942
## [1018,]	517	1015	1384	522	300	674	348	1114	999	582
## [1019,]	267	1320	966	652	1205	1065	1255	709	221	272
## [1020,]	586	949	15	1291	960	1032	961	507	792	1345
## [1021,]	1207	1277	504	1356	247	181	388	374	914	556
## [1022,]	1169	491	936	723	1288	512	1229	729	1140	613
## [1023,]	45	862	848	1290	503	119	557	1378	1326	931
## [1024,]	1150	31	461	950	809	1055	960	287	20	239
## [1025,]	1354	242	1015	240	1308	118	881	423	644	750
## [1026,]	1034	648	399	507	985	908	938	706	638	967
## [1027,]	689	1067	748	855	1215	803	964	354	892	787
## [1028,]	1280	1257	92	860	545	1091	442	740	1338	1257
## [1029,]	878	1193	216	761	69	1016	274	728	1032	336
## [1030,]	905	964	153	953	777	230	507	887	678	14
## [1031,]	891	1076	85	197	581	872	1359	659	1170	771
## [1032,]	927	1147	516	640	162	1237	348	1092	706	490
## [1033,]	952	947	46	521	1337	1257	955	1224	743	639
## [1034,]	1047	669	147	1133	1168	521	57	45	946	305
## [1035,]	347	229	295	739	1112	1052	1298	1030	1050	330
## [1036,]	320	612	102	520	518	1326	1383	1357	193	1108
## [1037,]	552	459	146	714	759	144	1280	1312	1215	375
## [1038,]	1287	297	999	199	1195	748	354	422	775	1109
## [1039,]	1367	811	431	459	605	1337	1073	486	899	46
## [1040,]	270	802	1320	1335	1397	379	148	1340	342	907
## [1041,]	385	650	226	1025	1281	926	644	1108	326	1345
## [1042,]	593	999	1372	326	479	842	1307	327	879	254
## [1043,]	786	1002	119	149	809	1088	311	1352	207	178
## [1044,]	421	189	765	1180	834	573	116	43	697	514
## [1045,]	66	417	902	1183	838	1340	1090	365	1275	1198
## [1046,]	307	1260	286	549	866	377	482	900	58	1335
## [1047,]	521	1121	737	539	943	120	346	766	626	484
## [1048,]	260	391	236	309	220	711	48	1039	970	1110
## [1049,]	725	83	692	110	1243	1013	481	767	1235	627
## [1050,]	674	1258	57	362	109	744	225	1096	686	20
## [1051,]	807	1337	76	127	86	53	1253	206	95	749
## [1052,]	1232	789	1047	764	924	57	277	672	530	1124
## [1053,]	132	642	407	821	471	655	262	1321	821	522
## [1054,]	857	556	57	504	929	825	1238	630	252	102
## [1055,]	868	61	140	1116	1397	539	695	376	700	162
## [1056,]	190	399	1074	674	767	131	412	1119	1134	959
## [1057,]	286	801	1332	1333	744	234	1039	284	1125	1385
## [1058,]	905	1228	1057	877	787	268	1148	16	1283	807



## [1059,]	869	678	542	654	661	1158	563	774	260	665
## [1060,]	64	119	192	568	59	327	1219	525	1210	1250
## [1061,]	776	564	828	1374	1368	1185	1312	1377	1230	711
## [1062,]	126	290	894	743	151	118	1229	440	660	1303
## [1063,]	1289	1378	1048	1363	918	79	508	336	267	1099
## [1064,]	887	619	304	576	596	855	707	574	1193	240
## [1065,]	787	755	1362	950	1183	727	233	441	1385	424
## [1066,]	151	481	102	792	79	1088	926	525	1380	474
## [1067,]	1130	787	672	1212	120	760	1281	450	146	60
## [1068,]	176	743	1289	1346	776	1052	1223	254	228	474
## [1069,]	764	1139	339	119	366	121	332	1032	263	88
## [1070,]	562	1194	915	1023	229	1134	125	688	1317	415
## [1071,]	271	200	805	1358	98	315	634	1115	1320	422
## [1072,]	983	234	1282	329	570	535	1281	96	1126	940
## [1073,]	692	1074	508	361	933	185	825	1255	763	567
## [1074,]	1019	586	329	127	748	1013	974	671	1141	883
## [1075,]	786	1156	1040	1224	932	151	956	651	194	1136
## [1076,]	387	559	1342	193	41	937	654	180	170	911
## [1077,]	164	114	1091	765	683	690	1177	831	1395	1361
## [1078,]	974	485	1092	1019	472	1350	281	1040	498	114
## [1079,]	187	114	636	1290	13	785	465	1116	1352	1000
## [1080,]	235	671	931	445	968	835	820	1255	57	1073
## [1081,]	937	342	508	870	294	658	1127	426	1271	29
## [1082,]	825	801	1186	587	1359	423	1074	1206	638	1107
## [1083,]	92	839	1072	708	1207	1148	296	817	352	451
## [1084,]	1350	54	1362	10	439	1065	276	1044	169	698
## [1085,]	316	461	573	255	1330	483	1026	739	645	884
## [1086,]	848	697	959	1378	1241	436	1004	732	412	528
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## [1090,]	553	1042	1299	1172	761	86	722	197	1303	981
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## [1092,]	482	780	738	642	704	554	112	1018	746	465
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## [1094,]	828	282	1333	627	967	152	1292	773	430	743
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## [1101,]	898	1217	468	821	1095	669	470	1273	1159	965
## [1102,]	540	1050	156	832	576	577	245	967	976	306
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## [1142,]	159	565	1370	710	1098	1237	1391	1292	155	1245
## [1143,]	831	1376	736	541	158	1316	337	568	1234	911
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## [1161,]	1278	928	1084	766	239	388	428	690	575	815
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##	[1251,]	1115	362	1197	353	1114	262	507	189	292	30
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## [1350,]	886	348	321	317	1028	531	505	425	303	309
## [1351,]	679	830	787	341	936	266	797	714	930	1091
## [1352,]	1240	928	1392	1323	1196	353	1031	30	1028	357
## [1353,]	62	1084	896	818	157	1126	1074	675	751	274
## [1354,]	626	82	392	125	1308	64	454	44	883	1313
## [1355,]	1113	27	1285	1375	697	1229	260	966	856	746
## [1356,]	53	1020	1220	462	955	1133	151	1041	52	761
## [1357,]	680	1363	819	1058	837	1102	615	476	865	370
## [1358,]	140	211	1273	98	523	124	258	1038	539	1092
## [1359,]	1213	328	1138	1035	1384	750	202	1023	1384	793
## [1360,]	343	249	1226	331	840	1083	492	1163	4	297
## [1361,]	1179	598	648	882	37	1006	1160	426	1312	1248
## [1362,]	390	630	188	14	1170	268	1139	771	641	686
## [1363,]	426	240	658	1116	1188	129	707	489	591	54
## [1364,]	819	900	1155	225	691	720	1346	447	583	183
## [1365,]	1179	617	752	1194	1184	253	121	767	362	225
## [1366,]	1206	79	914	86	299	201	513	320	292	1046
## [1367,]	59	1356	396	610	131	1297	965	1317	228	1076
## [1368,]	585	391	328	712	1055	621	1183	512	231	318
## [1369,]	264	569	906	1247	1271	1396	729	957	336	800
## [1370,]	550	1248	1308	1101	256	133	120	393	208	926
## [1371,]	1085	864	222	1397	905	1282	1320	929	1272	189
## [1372,]	454	1142	256	1098	495	796	395	466	479	96
## [1373,]	16	1102	587	1120	684	1352	889	156	1120	925
## [1374,]	994	254	915	1007	1293	933	722	423	906	1035
## [1375,]	792	681	1054	183	65	1253	1382	325	239	903
## [1376,]	1160	1333	927	1210	906	782	1298	1313	906	587
## [1377,]	653	1300	807	259	201	383	1029	1087	379	464
## [1378,]	120	232	70	39	210	462	679	1032	672	592
## [1379,]	926	674	206	530	7	1097	738	52	926	197
## [1380,]	451	1252	1006	727	594	767	829	799	1398	186
## [1381,]	397	1096	1172	1218	29	570	1272	830	332	294
## [1382,]	292	724	219	871	243	111	162	826	852	257

```

## [1383,] 834 872 542 679 666 1093 1008 771 569 685
## [1384,] 42 573 574 900 410 657 1315 726 192 1331
## [1385,] 1282 1317 612 1008 1198 447 81 743 1251 192
## [1386,] 487 15 850 1013 229 396 984 467 256 9
## [1387,] 487 948 1262 1259 796 1366 1330 1036 154 1160
## [1388,] 526 1393 764 1086 702 856 577 682 808 170
## [1389,] 1381 836 490 896 810 1231 374 1318 109 1321
## [1390,] 410 1193 1112 1190 707 1167 919 1116 128 1114
## [1391,] 1119 688 252 731 227 1207 936 754 1373 565
## [1392,] 213 158 898 921 851 687 703 621 1189 1210
## [1393,] 827 481 603 1300 513 82 772 701 438 1025
## [1394,] 794 537 294 817 950 1292 609 923 510 1006
## [1395,] 1257 1192 739 13 540 1260 613 104 148 915
## [1396,] 651 481 902 133 564 1051 84 31 318 1357
## [1397,] 1349 877 1336 81 765 216 1390 603 54 100
## [1398,] 1037 781 451 719 898 1360 808 801 587 540
## [1399,] 792 222 1076 155 1043 683 1036 106 1119 261
## [1400,] 583 1086 774 1027 429 589 109 71 482 1219
##
## $importance
## battery_power blue clock_speed dual_sim fc
## 0 0 0 0 0
## four_g int_memory m_dep mobile_wt n_cores
## 0 0 0 0 0
## pc px_height px_width ram sc_h
## 0 0 0 100 0
## sc_w talk_time three_g touch_screen wifi
## 0 0 0 0 0
##
## $terms
## price_range ~ battery_power + blue + clock_speed + dual_sim +
## fc + four_g + int_memory + m_dep + mobile_wt + n_cores +
## pc + px_height + px_width + ram + sc_h + sc_w + talk_time +
## three_g + touch_screen + wifi
## attr("variables")
## list(price_range, battery_power, blue, clock_speed, dual_sim,
## fc, four_g, int_memory, m_dep, mobile_wt, n_cores, pc, px_height,
## px_width, ram, sc_h, sc_w, talk_time, three_g, touch_screen,
## wifi)
## attr("factors")
## battery_power blue clock_speed dual_sim fc four_g int_memory
## price_range 0 0 0 0 0 0 0
## battery_power 1 0 0 0 0 0 0
## blue 0 1 0 0 0 0 0
## clock_speed 0 0 1 0 0 0 0
## dual_sim 0 0 0 1 0 0 0
## fc 0 0 0 0 1 0 0
## four_g 0 0 0 0 0 1 0
## int_memory 0 0 0 0 0 0 1
## m_dep 0 0 0 0 0 0 0
## mobile_wt 0 0 0 0 0 0 0
## n_cores 0 0 0 0 0 0 0
## pc 0 0 0 0 0 0 0
## px_height 0 0 0 0 0 0 0

```

```

## px_width      0 0      0      0 0      0      0
## ram           0 0      0      0 0      0      0
## sc_h          0 0      0      0 0      0      0
## sc_w          0 0      0      0 0      0      0
## talk_time     0 0      0      0 0      0      0
## three_g       0 0      0      0 0      0      0
## touch_screen  0 0      0      0 0      0      0
## wifi          0 0      0      0 0      0      0
##               m_dep mobile_wt n_cores pc px_height px_width ram sc_h sc_w
## price_range   0      0      0 0      0      0 0      0 0
## battery_power 0      0      0 0      0      0 0      0 0
## blue          0      0      0 0      0      0 0      0 0
## clock_speed   0      0      0 0      0      0 0      0 0
## dual_sim      0      0      0 0      0      0 0      0 0
## fc            0      0      0 0      0      0 0      0 0
## four_g        0      0      0 0      0      0 0      0 0
## int_memory    0      0      0 0      0      0 0      0 0
## m_dep         1      0      0 0      0      0 0      0 0
## mobile_wt     0      1      0 0      0      0 0      0 0
## n_cores       0      0      1 0      0      0 0      0 0
## pc            0      0      0 1      0      0 0      0 0
## px_height     0      0      0 0      1      0 0      0 0
## px_width      0      0      0 0      0      1 0      0 0
## ram           0      0      0 0      0      0 1      0 0
## sc_h          0      0      0 0      0      0 0      1 0
## sc_w          0      0      0 0      0      0 0      0 1
## talk_time     0      0      0 0      0      0 0      0 0
## three_g       0      0      0 0      0      0 0      0 0
## touch_screen  0      0      0 0      0      0 0      0 0
## wifi          0      0      0 0      0      0 0      0 0
##               talk_time three_g touch_screen wifi
## price_range   0      0      0 0
## battery_power 0      0      0 0
## blue          0      0      0 0
## clock_speed   0      0      0 0
## dual_sim      0      0      0 0
## fc            0      0      0 0
## four_g        0      0      0 0
## int_memory    0      0      0 0
## m_dep         0      0      0 0
## mobile_wt     0      0      0 0
## n_cores       0      0      0 0
## pc            0      0      0 0
## px_height     0      0      0 0
## px_width      0      0      0 0
## ram           0      0      0 0
## sc_h          0      0      0 0
## sc_w          0      0      0 0
## talk_time     1      0      0 0
## three_g       0      1      0 0
## touch_screen  0      0      1 0
## wifi          0      0      0 1
## attr("term.labels")
## [1] "battery_power" "blue"          "clock_speed"    "dual_sim"

```



```

## [5] "fc"          "four_g"      "int_memory"  "m_dep"
## [9] "mobile_wt"   "n_cores"     "pc"          "px_height"
## [13] "px_width"    "ram"         "sc_h"        "sc_w"
## [17] "talk_time"   "three_g"     "touch_screen" "wifi"
## attr("order")
## [1] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
## attr("intercept")
## [1] 1
## attr("response")
## [1] 1
## attr(".Environment")
## <environment: R_GlobalEnv>
## attr("predvars")
## list(price_range, battery_power, blue, clock_speed, dual_sim,
##       fc, four_g, int_memory, m_dep, mobile_wt, n_cores, pc, px_height,
##       px_width, ram, sc_h, sc_w, talk_time, three_g, touch_screen,
##       wifi)
## attr("dataClasses")
##   price_range battery_power      blue  clock_speed  dual_sim
##   "factor"      "numeric"    "numeric"  "numeric"    "numeric"
##   fc          four_g      int_memory    m_dep      mobile_wt
##   "numeric"    "numeric"    "numeric"  "numeric"    "numeric"
##   n_cores      pc          px_height    px_width    ram
##   "numeric"    "numeric"    "numeric"  "numeric"    "numeric"
##   sc_h          sc_w      talk_time    three_g    touch_screen
##   "numeric"    "numeric"    "numeric"  "numeric"    "numeric"
##   wifi
##   "numeric"
##
## $call
## bagging(formula = price_range ~ ., data = data_train, mfinal = 10,
##         control = rpart.control(maxdepth = 1))
##
## attr("vardep.summary")
##  0  1  2  3
## 350 350 350 350
## attr("class")
## [1] "bagging"

```

```

data.predbagging <- predict.bagging(data.bagging, newdata = data_test)
data.predbagging

```

```

## $formula
## price_range ~ .
##
## $votes
##      [,1] [,2] [,3] [,4]
## [1,]    1    0    4    5
## [2,]    0    0    4    6
## [3,]   10    0    0    0
## [4,]   10    0    0    0
## [5,]    0    0    4    6
## [6,]    8    0    2    0
## [7,]    0    0    4    6

```

##	[8,]	0	0	4	6
##	[9,]	0	0	4	6
##	[10,]	1	0	4	5
##	[11,]	10	0	0	0
##	[12,]	10	0	0	0
##	[13,]	5	0	4	1
##	[14,]	0	0	4	6
##	[15,]	4	0	4	2
##	[16,]	0	0	4	6
##	[17,]	10	0	0	0
##	[18,]	0	0	4	6
##	[19,]	5	0	4	1
##	[20,]	4	0	4	2
##	[21,]	10	0	0	0
##	[22,]	9	0	1	0
##	[23,]	0	0	4	6
##	[24,]	0	0	4	6
##	[25,]	9	0	1	0
##	[26,]	10	0	0	0
##	[27,]	0	0	4	6
##	[28,]	1	0	4	5
##	[29,]	3	0	4	3
##	[30,]	0	0	4	6
##	[31,]	10	0	0	0
##	[32,]	10	0	0	0
##	[33,]	1	0	4	5
##	[34,]	0	0	4	6
##	[35,]	9	0	1	0
##	[36,]	0	0	4	6
##	[37,]	1	0	4	5
##	[38,]	3	0	4	3
##	[39,]	1	0	4	5
##	[40,]	1	0	4	5
##	[41,]	0	0	4	6
##	[42,]	4	0	4	2
##	[43,]	0	0	4	6
##	[44,]	5	0	4	1
##	[45,]	10	0	0	0
##	[46,]	10	0	0	0
##	[47,]	10	0	0	0
##	[48,]	10	0	0	0
##	[49,]	0	0	4	6
##	[50,]	5	0	4	1
##	[51,]	8	0	2	0
##	[52,]	8	0	2	0
##	[53,]	0	0	4	6
##	[54,]	4	0	4	2
##	[55,]	8	0	2	0
##	[56,]	0	0	4	6
##	[57,]	9	0	1	0
##	[58,]	0	0	4	6
##	[59,]	9	0	1	0
##	[60,]	0	0	4	6
##	[61,]	1	0	4	5

##	[62,]	5	0	4	1
##	[63,]	10	0	0	0
##	[64,]	0	0	4	6
##	[65,]	10	0	0	0
##	[66,]	8	0	2	0
##	[67,]	10	0	0	0
##	[68,]	0	0	4	6
##	[69,]	10	0	0	0
##	[70,]	0	0	4	6
##	[71,]	1	0	4	5
##	[72,]	8	0	2	0
##	[73,]	3	0	4	3
##	[74,]	10	0	0	0
##	[75,]	4	0	4	2
##	[76,]	10	0	0	0
##	[77,]	0	0	4	6
##	[78,]	10	0	0	0
##	[79,]	10	0	0	0
##	[80,]	8	0	2	0
##	[81,]	10	0	0	0
##	[82,]	10	0	0	0
##	[83,]	3	0	4	3
##	[84,]	10	0	0	0
##	[85,]	0	0	4	6
##	[86,]	8	0	2	0
##	[87,]	4	0	4	2
##	[88,]	0	0	4	6
##	[89,]	0	0	4	6
##	[90,]	10	0	0	0
##	[91,]	0	0	4	6
##	[92,]	10	0	0	0
##	[93,]	10	0	0	0
##	[94,]	10	0	0	0
##	[95,]	10	0	0	0
##	[96,]	0	0	4	6
##	[97,]	9	0	1	0
##	[98,]	1	0	4	5
##	[99,]	0	0	4	6
##	[100,]	7	0	3	0
##	[101,]	0	0	4	6
##	[102,]	2	0	4	4
##	[103,]	10	0	0	0
##	[104,]	10	0	0	0
##	[105,]	10	0	0	0
##	[106,]	1	0	4	5
##	[107,]	10	0	0	0
##	[108,]	10	0	0	0
##	[109,]	1	0	4	5
##	[110,]	0	0	4	6
##	[111,]	0	0	4	6
##	[112,]	0	0	4	6
##	[113,]	0	0	4	6
##	[114,]	0	0	4	6
##	[115,]	10	0	0	0

## [116,]	0	0	4	6
## [117,]	0	0	4	6
## [118,]	0	0	4	6
## [119,]	0	0	4	6
## [120,]	0	0	4	6
## [121,]	4	0	4	2
## [122,]	0	0	4	6
## [123,]	8	0	2	0
## [124,]	0	0	4	6
## [125,]	10	0	0	0
## [126,]	0	0	4	6
## [127,]	10	0	0	0
## [128,]	10	0	0	0
## [129,]	10	0	0	0
## [130,]	8	0	2	0
## [131,]	0	0	4	6
## [132,]	8	0	2	0
## [133,]	4	0	4	2
## [134,]	0	0	4	6
## [135,]	10	0	0	0
## [136,]	0	0	4	6
## [137,]	2	0	4	4
## [138,]	10	0	0	0
## [139,]	0	0	4	6
## [140,]	7	0	3	0
## [141,]	10	0	0	0
## [142,]	0	0	4	6
## [143,]	0	0	4	6
## [144,]	10	0	0	0
## [145,]	0	0	4	6
## [146,]	0	0	4	6
## [147,]	4	0	4	2
## [148,]	10	0	0	0
## [149,]	4	0	4	2
## [150,]	0	0	4	6
## [151,]	10	0	0	0
## [152,]	7	0	3	0
## [153,]	0	0	4	6
## [154,]	10	0	0	0
## [155,]	10	0	0	0
## [156,]	8	0	2	0
## [157,]	1	0	4	5
## [158,]	0	0	4	6
## [159,]	0	0	4	6
## [160,]	1	0	4	5
## [161,]	4	0	4	2
## [162,]	7	0	3	0
## [163,]	0	0	4	6
## [164,]	8	0	2	0
## [165,]	10	0	0	0
## [166,]	3	0	4	3
## [167,]	0	0	4	6
## [168,]	10	0	0	0
## [169,]	10	0	0	0

## [170,]	0	0	4	6
## [171,]	0	0	4	6
## [172,]	10	0	0	0
## [173,]	10	0	0	0
## [174,]	10	0	0	0
## [175,]	10	0	0	0
## [176,]	0	0	4	6
## [177,]	0	0	4	6
## [178,]	0	0	4	6
## [179,]	2	0	4	4
## [180,]	5	0	4	1
## [181,]	10	0	0	0
## [182,]	9	0	1	0
## [183,]	0	0	4	6
## [184,]	0	0	4	6
## [185,]	0	0	4	6
## [186,]	1	0	4	5
## [187,]	1	0	4	5
## [188,]	9	0	1	0
## [189,]	10	0	0	0
## [190,]	0	0	4	6
## [191,]	5	0	4	1
## [192,]	8	0	2	0
## [193,]	1	0	4	5
## [194,]	8	0	2	0
## [195,]	8	0	2	0
## [196,]	10	0	0	0
## [197,]	1	0	4	5
## [198,]	10	0	0	0
## [199,]	10	0	0	0
## [200,]	0	0	4	6
## [201,]	1	0	4	5
## [202,]	10	0	0	0
## [203,]	0	0	4	6
## [204,]	4	0	4	2
## [205,]	0	0	4	6
## [206,]	8	0	2	0
## [207,]	4	0	4	2
## [208,]	7	0	3	0
## [209,]	1	0	4	5
## [210,]	10	0	0	0
## [211,]	8	0	2	0
## [212,]	10	0	0	0
## [213,]	0	0	4	6
## [214,]	4	0	4	2
## [215,]	3	0	4	3
## [216,]	10	0	0	0
## [217,]	0	0	4	6
## [218,]	1	0	4	5
## [219,]	0	0	4	6
## [220,]	10	0	0	0
## [221,]	1	0	4	5
## [222,]	0	0	4	6
## [223,]	7	0	3	0

## [224,]	10	0	0	0
## [225,]	0	0	4	6
## [226,]	8	0	2	0
## [227,]	1	0	4	5
## [228,]	8	0	2	0
## [229,]	9	0	1	0
## [230,]	0	0	4	6
## [231,]	8	0	2	0
## [232,]	1	0	4	5
## [233,]	0	0	4	6
## [234,]	10	0	0	0
## [235,]	0	0	4	6
## [236,]	0	0	4	6
## [237,]	4	0	4	2
## [238,]	10	0	0	0
## [239,]	8	0	2	0
## [240,]	5	0	4	1
## [241,]	0	0	4	6
## [242,]	1	0	4	5
## [243,]	0	0	4	6
## [244,]	10	0	0	0
## [245,]	8	0	2	0
## [246,]	0	0	4	6
## [247,]	10	0	0	0
## [248,]	10	0	0	0
## [249,]	10	0	0	0
## [250,]	8	0	2	0
## [251,]	5	0	4	1
## [252,]	10	0	0	0
## [253,]	0	0	4	6
## [254,]	0	0	4	6
## [255,]	7	0	3	0
## [256,]	0	0	4	6
## [257,]	8	0	2	0
## [258,]	10	0	0	0
## [259,]	0	0	4	6
## [260,]	10	0	0	0
## [261,]	0	0	4	6
## [262,]	0	0	4	6
## [263,]	7	0	3	0
## [264,]	7	0	3	0
## [265,]	0	0	4	6
## [266,]	10	0	0	0
## [267,]	0	0	4	6
## [268,]	4	0	4	2
## [269,]	5	0	4	1
## [270,]	8	0	2	0
## [271,]	10	0	0	0
## [272,]	10	0	0	0
## [273,]	10	0	0	0
## [274,]	8	0	2	0
## [275,]	10	0	0	0
## [276,]	1	0	4	5
## [277,]	0	0	4	6

## [278,]	8	0	2	0
## [279,]	0	0	4	6
## [280,]	10	0	0	0
## [281,]	10	0	0	0
## [282,]	5	0	4	1
## [283,]	0	0	4	6
## [284,]	0	0	4	6
## [285,]	10	0	0	0
## [286,]	0	0	4	6
## [287,]	0	0	4	6
## [288,]	10	0	0	0
## [289,]	8	0	2	0
## [290,]	0	0	4	6
## [291,]	10	0	0	0
## [292,]	0	0	4	6
## [293,]	7	0	3	0
## [294,]	0	0	4	6
## [295,]	10	0	0	0
## [296,]	10	0	0	0
## [297,]	0	0	4	6
## [298,]	0	0	4	6
## [299,]	10	0	0	0
## [300,]	10	0	0	0
## [301,]	0	0	4	6
## [302,]	1	0	4	5
## [303,]	0	0	4	6
## [304,]	9	0	1	0
## [305,]	0	0	4	6
## [306,]	10	0	0	0
## [307,]	7	0	3	0
## [308,]	9	0	1	0
## [309,]	1	0	4	5
## [310,]	10	0	0	0
## [311,]	5	0	4	1
## [312,]	8	0	2	0
## [313,]	0	0	4	6
## [314,]	7	0	3	0
## [315,]	7	0	3	0
## [316,]	0	0	4	6
## [317,]	0	0	4	6
## [318,]	4	0	4	2
## [319,]	0	0	4	6
## [320,]	10	0	0	0
## [321,]	10	0	0	0
## [322,]	8	0	2	0
## [323,]	0	0	4	6
## [324,]	7	0	3	0
## [325,]	10	0	0	0
## [326,]	9	0	1	0
## [327,]	1	0	4	5
## [328,]	8	0	2	0
## [329,]	0	0	4	6
## [330,]	7	0	3	0
## [331,]	10	0	0	0

## [332,]	8	0	2	0
## [333,]	10	0	0	0
## [334,]	1	0	4	5
## [335,]	1	0	4	5
## [336,]	4	0	4	2
## [337,]	0	0	4	6
## [338,]	0	0	4	6
## [339,]	8	0	2	0
## [340,]	1	0	4	5
## [341,]	0	0	4	6
## [342,]	0	0	4	6
## [343,]	1	0	4	5
## [344,]	10	0	0	0
## [345,]	1	0	4	5
## [346,]	10	0	0	0
## [347,]	0	0	4	6
## [348,]	4	0	4	2
## [349,]	8	0	2	0
## [350,]	0	0	4	6
## [351,]	1	0	4	5
## [352,]	0	0	4	6
## [353,]	0	0	4	6
## [354,]	0	0	4	6
## [355,]	0	0	4	6
## [356,]	9	0	1	0
## [357,]	0	0	4	6
## [358,]	10	0	0	0
## [359,]	0	0	4	6
## [360,]	1	0	4	5
## [361,]	1	0	4	5
## [362,]	10	0	0	0
## [363,]	0	0	4	6
## [364,]	0	0	4	6
## [365,]	8	0	2	0
## [366,]	10	0	0	0
## [367,]	0	0	4	6
## [368,]	0	0	4	6
## [369,]	5	0	4	1
## [370,]	10	0	0	0
## [371,]	1	0	4	5
## [372,]	8	0	2	0
## [373,]	0	0	4	6
## [374,]	0	0	4	6
## [375,]	10	0	0	0
## [376,]	0	0	4	6
## [377,]	0	0	4	6
## [378,]	10	0	0	0
## [379,]	9	0	1	0
## [380,]	10	0	0	0
## [381,]	10	0	0	0
## [382,]	0	0	4	6
## [383,]	10	0	0	0
## [384,]	0	0	4	6
## [385,]	0	0	4	6



## [386,]	0	0	4	6
## [387,]	7	0	3	0
## [388,]	9	0	1	0
## [389,]	3	0	4	3
## [390,]	5	0	4	1
## [391,]	10	0	0	0
## [392,]	10	0	0	0
## [393,]	0	0	4	6
## [394,]	0	0	4	6
## [395,]	10	0	0	0
## [396,]	0	0	4	6
## [397,]	0	0	4	6
## [398,]	10	0	0	0
## [399,]	8	0	2	0
## [400,]	10	0	0	0
## [401,]	10	0	0	0
## [402,]	0	0	4	6
## [403,]	10	0	0	0
## [404,]	0	0	4	6
## [405,]	1	0	4	5
## [406,]	10	0	0	0
## [407,]	1	0	4	5
## [408,]	4	0	4	2
## [409,]	10	0	0	0
## [410,]	0	0	4	6
## [411,]	10	0	0	0
## [412,]	0	0	4	6
## [413,]	0	0	4	6
## [414,]	9	0	1	0
## [415,]	10	0	0	0
## [416,]	8	0	2	0
## [417,]	8	0	2	0
## [418,]	10	0	0	0
## [419,]	10	0	0	0
## [420,]	10	0	0	0
## [421,]	10	0	0	0
## [422,]	0	0	4	6
## [423,]	4	0	4	2
## [424,]	10	0	0	0
## [425,]	10	0	0	0
## [426,]	10	0	0	0
## [427,]	10	0	0	0
## [428,]	10	0	0	0
## [429,]	1	0	4	5
## [430,]	0	0	4	6
## [431,]	10	0	0	0
## [432,]	10	0	0	0
## [433,]	0	0	4	6
## [434,]	8	0	2	0
## [435,]	10	0	0	0
## [436,]	0	0	4	6
## [437,]	10	0	0	0
## [438,]	2	0	4	4
## [439,]	10	0	0	0

## [440,]	0	0	4	6
## [441,]	8	0	2	0
## [442,]	8	0	2	0
## [443,]	1	0	4	5
## [444,]	0	0	4	6
## [445,]	0	0	4	6
## [446,]	0	0	4	6
## [447,]	4	0	4	2
## [448,]	10	0	0	0
## [449,]	0	0	4	6
## [450,]	0	0	4	6
## [451,]	0	0	4	6
## [452,]	1	0	4	5
## [453,]	0	0	4	6
## [454,]	10	0	0	0
## [455,]	10	0	0	0
## [456,]	10	0	0	0
## [457,]	10	0	0	0
## [458,]	3	0	4	3
## [459,]	9	0	1	0
## [460,]	4	0	4	2
## [461,]	10	0	0	0
## [462,]	0	0	4	6
## [463,]	8	0	2	0
## [464,]	1	0	4	5
## [465,]	7	0	3	0
## [466,]	7	0	3	0
## [467,]	4	0	4	2
## [468,]	8	0	2	0
## [469,]	1	0	4	5
## [470,]	8	0	2	0
## [471,]	10	0	0	0
## [472,]	7	0	3	0
## [473,]	1	0	4	5
## [474,]	0	0	4	6
## [475,]	0	0	4	6
## [476,]	10	0	0	0
## [477,]	0	0	4	6
## [478,]	0	0	4	6
## [479,]	0	0	4	6
## [480,]	3	0	4	3
## [481,]	10	0	0	0
## [482,]	0	0	4	6
## [483,]	8	0	2	0
## [484,]	0	0	4	6
## [485,]	10	0	0	0
## [486,]	0	0	4	6
## [487,]	8	0	2	0
## [488,]	10	0	0	0
## [489,]	8	0	2	0
## [490,]	0	0	4	6
## [491,]	10	0	0	0
## [492,]	8	0	2	0
## [493,]	7	0	3	0

## [494,]	8	0	2	0
## [495,]	0	0	4	6
## [496,]	0	0	4	6
## [497,]	9	0	1	0
## [498,]	1	0	4	5
## [499,]	10	0	0	0
## [500,]	10	0	0	0
## [501,]	10	0	0	0
## [502,]	1	0	4	5
## [503,]	10	0	0	0
## [504,]	4	0	4	2
## [505,]	10	0	0	0
## [506,]	10	0	0	0
## [507,]	8	0	2	0
## [508,]	8	0	2	0
## [509,]	9	0	1	0
## [510,]	10	0	0	0
## [511,]	10	0	0	0
## [512,]	10	0	0	0
## [513,]	10	0	0	0
## [514,]	1	0	4	5
## [515,]	8	0	2	0
## [516,]	8	0	2	0
## [517,]	10	0	0	0
## [518,]	0	0	4	6
## [519,]	10	0	0	0
## [520,]	0	0	4	6
## [521,]	0	0	4	6
## [522,]	3	0	4	3
## [523,]	10	0	0	0
## [524,]	0	0	4	6
## [525,]	4	0	4	2
## [526,]	0	0	4	6
## [527,]	8	0	2	0
## [528,]	0	0	4	6
## [529,]	10	0	0	0
## [530,]	0	0	4	6
## [531,]	5	0	4	1
## [532,]	0	0	4	6
## [533,]	10	0	0	0
## [534,]	0	0	4	6
## [535,]	8	0	2	0
## [536,]	0	0	4	6
## [537,]	10	0	0	0
## [538,]	0	0	4	6
## [539,]	0	0	4	6
## [540,]	10	0	0	0
## [541,]	1	0	4	5
## [542,]	7	0	3	0
## [543,]	10	0	0	0
## [544,]	10	0	0	0
## [545,]	0	0	4	6
## [546,]	1	0	4	5
## [547,]	0	0	4	6

```

## [548,] 10 0 0 0
## [549,] 10 0 0 0
## [550,] 1 0 4 5
## [551,] 10 0 0 0
## [552,] 0 0 4 6
## [553,] 10 0 0 0
## [554,] 0 0 4 6
## [555,] 10 0 0 0
## [556,] 1 0 4 5
## [557,] 7 0 3 0
## [558,] 0 0 4 6
## [559,] 0 0 4 6
## [560,] 3 0 4 3
## [561,] 0 0 4 6
## [562,] 8 0 2 0
## [563,] 8 0 2 0
## [564,] 8 0 2 0
## [565,] 10 0 0 0
## [566,] 1 0 4 5
## [567,] 8 0 2 0
## [568,] 10 0 0 0
## [569,] 0 0 4 6
## [570,] 0 0 4 6
## [571,] 8 0 2 0
## [572,] 3 0 4 3
## [573,] 1 0 4 5
## [574,] 10 0 0 0
## [575,] 1 0 4 5
## [576,] 8 0 2 0
## [577,] 9 0 1 0
## [578,] 0 0 4 6
## [579,] 8 0 2 0
## [580,] 0 0 4 6
## [581,] 0 0 4 6
## [582,] 1 0 4 5
## [583,] 0 0 4 6
## [584,] 10 0 0 0
## [585,] 10 0 0 0
## [586,] 8 0 2 0
## [587,] 10 0 0 0
## [588,] 0 0 4 6
## [589,] 0 0 4 6
## [590,] 1 0 4 5
## [591,] 8 0 2 0
## [592,] 1 0 4 5
## [593,] 10 0 0 0
## [594,] 10 0 0 0
## [595,] 10 0 0 0
## [596,] 0 0 4 6
## [597,] 8 0 2 0
## [598,] 10 0 0 0
## [599,] 10 0 0 0
## [600,] 0 0 4 6
##

```

```

## $prob
##      [,1] [,2] [,3] [,4]
## [1,] 0.1  0  0.4 0.5
## [2,] 0.0  0  0.4 0.6
## [3,] 1.0  0  0.0 0.0
## [4,] 1.0  0  0.0 0.0
## [5,] 0.0  0  0.4 0.6
## [6,] 0.8  0  0.2 0.0
## [7,] 0.0  0  0.4 0.6
## [8,] 0.0  0  0.4 0.6
## [9,] 0.0  0  0.4 0.6
## [10,] 0.1  0  0.4 0.5
## [11,] 1.0  0  0.0 0.0
## [12,] 1.0  0  0.0 0.0
## [13,] 0.5  0  0.4 0.1
## [14,] 0.0  0  0.4 0.6
## [15,] 0.4  0  0.4 0.2
## [16,] 0.0  0  0.4 0.6
## [17,] 1.0  0  0.0 0.0
## [18,] 0.0  0  0.4 0.6
## [19,] 0.5  0  0.4 0.1
## [20,] 0.4  0  0.4 0.2
## [21,] 1.0  0  0.0 0.0
## [22,] 0.9  0  0.1 0.0
## [23,] 0.0  0  0.4 0.6
## [24,] 0.0  0  0.4 0.6
## [25,] 0.9  0  0.1 0.0
## [26,] 1.0  0  0.0 0.0
## [27,] 0.0  0  0.4 0.6
## [28,] 0.1  0  0.4 0.5
## [29,] 0.3  0  0.4 0.3
## [30,] 0.0  0  0.4 0.6
## [31,] 1.0  0  0.0 0.0
## [32,] 1.0  0  0.0 0.0
## [33,] 0.1  0  0.4 0.5
## [34,] 0.0  0  0.4 0.6
## [35,] 0.9  0  0.1 0.0
## [36,] 0.0  0  0.4 0.6
## [37,] 0.1  0  0.4 0.5
## [38,] 0.3  0  0.4 0.3
## [39,] 0.1  0  0.4 0.5
## [40,] 0.1  0  0.4 0.5
## [41,] 0.0  0  0.4 0.6
## [42,] 0.4  0  0.4 0.2
## [43,] 0.0  0  0.4 0.6
## [44,] 0.5  0  0.4 0.1
## [45,] 1.0  0  0.0 0.0
## [46,] 1.0  0  0.0 0.0
## [47,] 1.0  0  0.0 0.0
## [48,] 1.0  0  0.0 0.0
## [49,] 0.0  0  0.4 0.6
## [50,] 0.5  0  0.4 0.1
## [51,] 0.8  0  0.2 0.0
## [52,] 0.8  0  0.2 0.0

```

##	[53,]	0.0	0	0.4	0.6
##	[54,]	0.4	0	0.4	0.2
##	[55,]	0.8	0	0.2	0.0
##	[56,]	0.0	0	0.4	0.6
##	[57,]	0.9	0	0.1	0.0
##	[58,]	0.0	0	0.4	0.6
##	[59,]	0.9	0	0.1	0.0
##	[60,]	0.0	0	0.4	0.6
##	[61,]	0.1	0	0.4	0.5
##	[62,]	0.5	0	0.4	0.1
##	[63,]	1.0	0	0.0	0.0
##	[64,]	0.0	0	0.4	0.6
##	[65,]	1.0	0	0.0	0.0
##	[66,]	0.8	0	0.2	0.0
##	[67,]	1.0	0	0.0	0.0
##	[68,]	0.0	0	0.4	0.6
##	[69,]	1.0	0	0.0	0.0
##	[70,]	0.0	0	0.4	0.6
##	[71,]	0.1	0	0.4	0.5
##	[72,]	0.8	0	0.2	0.0
##	[73,]	0.3	0	0.4	0.3
##	[74,]	1.0	0	0.0	0.0
##	[75,]	0.4	0	0.4	0.2
##	[76,]	1.0	0	0.0	0.0
##	[77,]	0.0	0	0.4	0.6
##	[78,]	1.0	0	0.0	0.0
##	[79,]	1.0	0	0.0	0.0
##	[80,]	0.8	0	0.2	0.0
##	[81,]	1.0	0	0.0	0.0
##	[82,]	1.0	0	0.0	0.0
##	[83,]	0.3	0	0.4	0.3
##	[84,]	1.0	0	0.0	0.0
##	[85,]	0.0	0	0.4	0.6
##	[86,]	0.8	0	0.2	0.0
##	[87,]	0.4	0	0.4	0.2
##	[88,]	0.0	0	0.4	0.6
##	[89,]	0.0	0	0.4	0.6
##	[90,]	1.0	0	0.0	0.0
##	[91,]	0.0	0	0.4	0.6
##	[92,]	1.0	0	0.0	0.0
##	[93,]	1.0	0	0.0	0.0
##	[94,]	1.0	0	0.0	0.0
##	[95,]	1.0	0	0.0	0.0
##	[96,]	0.0	0	0.4	0.6
##	[97,]	0.9	0	0.1	0.0
##	[98,]	0.1	0	0.4	0.5
##	[99,]	0.0	0	0.4	0.6
##	[100,]	0.7	0	0.3	0.0
##	[101,]	0.0	0	0.4	0.6
##	[102,]	0.2	0	0.4	0.4
##	[103,]	1.0	0	0.0	0.0
##	[104,]	1.0	0	0.0	0.0
##	[105,]	1.0	0	0.0	0.0
##	[106,]	0.1	0	0.4	0.5

```

## [107,] 1.0 0 0.0 0.0
## [108,] 1.0 0 0.0 0.0
## [109,] 0.1 0 0.4 0.5
## [110,] 0.0 0 0.4 0.6
## [111,] 0.0 0 0.4 0.6
## [112,] 0.0 0 0.4 0.6
## [113,] 0.0 0 0.4 0.6
## [114,] 0.0 0 0.4 0.6
## [115,] 1.0 0 0.0 0.0
## [116,] 0.0 0 0.4 0.6
## [117,] 0.0 0 0.4 0.6
## [118,] 0.0 0 0.4 0.6
## [119,] 0.0 0 0.4 0.6
## [120,] 0.0 0 0.4 0.6
## [121,] 0.4 0 0.4 0.2
## [122,] 0.0 0 0.4 0.6
## [123,] 0.8 0 0.2 0.0
## [124,] 0.0 0 0.4 0.6
## [125,] 1.0 0 0.0 0.0
## [126,] 0.0 0 0.4 0.6
## [127,] 1.0 0 0.0 0.0
## [128,] 1.0 0 0.0 0.0
## [129,] 1.0 0 0.0 0.0
## [130,] 0.8 0 0.2 0.0
## [131,] 0.0 0 0.4 0.6
## [132,] 0.8 0 0.2 0.0
## [133,] 0.4 0 0.4 0.2
## [134,] 0.0 0 0.4 0.6
## [135,] 1.0 0 0.0 0.0
## [136,] 0.0 0 0.4 0.6
## [137,] 0.2 0 0.4 0.4
## [138,] 1.0 0 0.0 0.0
## [139,] 0.0 0 0.4 0.6
## [140,] 0.7 0 0.3 0.0
## [141,] 1.0 0 0.0 0.0
## [142,] 0.0 0 0.4 0.6
## [143,] 0.0 0 0.4 0.6
## [144,] 1.0 0 0.0 0.0
## [145,] 0.0 0 0.4 0.6
## [146,] 0.0 0 0.4 0.6
## [147,] 0.4 0 0.4 0.2
## [148,] 1.0 0 0.0 0.0
## [149,] 0.4 0 0.4 0.2
## [150,] 0.0 0 0.4 0.6
## [151,] 1.0 0 0.0 0.0
## [152,] 0.7 0 0.3 0.0
## [153,] 0.0 0 0.4 0.6
## [154,] 1.0 0 0.0 0.0
## [155,] 1.0 0 0.0 0.0
## [156,] 0.8 0 0.2 0.0
## [157,] 0.1 0 0.4 0.5
## [158,] 0.0 0 0.4 0.6
## [159,] 0.0 0 0.4 0.6
## [160,] 0.1 0 0.4 0.5

```

##	[161,]	0.4	0	0.4	0.2
##	[162,]	0.7	0	0.3	0.0
##	[163,]	0.0	0	0.4	0.6
##	[164,]	0.8	0	0.2	0.0
##	[165,]	1.0	0	0.0	0.0
##	[166,]	0.3	0	0.4	0.3
##	[167,]	0.0	0	0.4	0.6
##	[168,]	1.0	0	0.0	0.0
##	[169,]	1.0	0	0.0	0.0
##	[170,]	0.0	0	0.4	0.6
##	[171,]	0.0	0	0.4	0.6
##	[172,]	1.0	0	0.0	0.0
##	[173,]	1.0	0	0.0	0.0
##	[174,]	1.0	0	0.0	0.0
##	[175,]	1.0	0	0.0	0.0
##	[176,]	0.0	0	0.4	0.6
##	[177,]	0.0	0	0.4	0.6
##	[178,]	0.0	0	0.4	0.6
##	[179,]	0.2	0	0.4	0.4
##	[180,]	0.5	0	0.4	0.1
##	[181,]	1.0	0	0.0	0.0
##	[182,]	0.9	0	0.1	0.0
##	[183,]	0.0	0	0.4	0.6
##	[184,]	0.0	0	0.4	0.6
##	[185,]	0.0	0	0.4	0.6
##	[186,]	0.1	0	0.4	0.5
##	[187,]	0.1	0	0.4	0.5
##	[188,]	0.9	0	0.1	0.0
##	[189,]	1.0	0	0.0	0.0
##	[190,]	0.0	0	0.4	0.6
##	[191,]	0.5	0	0.4	0.1
##	[192,]	0.8	0	0.2	0.0
##	[193,]	0.1	0	0.4	0.5
##	[194,]	0.8	0	0.2	0.0
##	[195,]	0.8	0	0.2	0.0
##	[196,]	1.0	0	0.0	0.0
##	[197,]	0.1	0	0.4	0.5
##	[198,]	1.0	0	0.0	0.0
##	[199,]	1.0	0	0.0	0.0
##	[200,]	0.0	0	0.4	0.6
##	[201,]	0.1	0	0.4	0.5
##	[202,]	1.0	0	0.0	0.0
##	[203,]	0.0	0	0.4	0.6
##	[204,]	0.4	0	0.4	0.2
##	[205,]	0.0	0	0.4	0.6
##	[206,]	0.8	0	0.2	0.0
##	[207,]	0.4	0	0.4	0.2
##	[208,]	0.7	0	0.3	0.0
##	[209,]	0.1	0	0.4	0.5
##	[210,]	1.0	0	0.0	0.0
##	[211,]	0.8	0	0.2	0.0
##	[212,]	1.0	0	0.0	0.0
##	[213,]	0.0	0	0.4	0.6
##	[214,]	0.4	0	0.4	0.2



##	[215,]	0.3	0	0.4	0.3
##	[216,]	1.0	0	0.0	0.0
##	[217,]	0.0	0	0.4	0.6
##	[218,]	0.1	0	0.4	0.5
##	[219,]	0.0	0	0.4	0.6
##	[220,]	1.0	0	0.0	0.0
##	[221,]	0.1	0	0.4	0.5
##	[222,]	0.0	0	0.4	0.6
##	[223,]	0.7	0	0.3	0.0
##	[224,]	1.0	0	0.0	0.0
##	[225,]	0.0	0	0.4	0.6
##	[226,]	0.8	0	0.2	0.0
##	[227,]	0.1	0	0.4	0.5
##	[228,]	0.8	0	0.2	0.0
##	[229,]	0.9	0	0.1	0.0
##	[230,]	0.0	0	0.4	0.6
##	[231,]	0.8	0	0.2	0.0
##	[232,]	0.1	0	0.4	0.5
##	[233,]	0.0	0	0.4	0.6
##	[234,]	1.0	0	0.0	0.0
##	[235,]	0.0	0	0.4	0.6
##	[236,]	0.0	0	0.4	0.6
##	[237,]	0.4	0	0.4	0.2
##	[238,]	1.0	0	0.0	0.0
##	[239,]	0.8	0	0.2	0.0
##	[240,]	0.5	0	0.4	0.1
##	[241,]	0.0	0	0.4	0.6
##	[242,]	0.1	0	0.4	0.5
##	[243,]	0.0	0	0.4	0.6
##	[244,]	1.0	0	0.0	0.0
##	[245,]	0.8	0	0.2	0.0
##	[246,]	0.0	0	0.4	0.6
##	[247,]	1.0	0	0.0	0.0
##	[248,]	1.0	0	0.0	0.0
##	[249,]	1.0	0	0.0	0.0
##	[250,]	0.8	0	0.2	0.0
##	[251,]	0.5	0	0.4	0.1
##	[252,]	1.0	0	0.0	0.0
##	[253,]	0.0	0	0.4	0.6
##	[254,]	0.0	0	0.4	0.6
##	[255,]	0.7	0	0.3	0.0
##	[256,]	0.0	0	0.4	0.6
##	[257,]	0.8	0	0.2	0.0
##	[258,]	1.0	0	0.0	0.0
##	[259,]	0.0	0	0.4	0.6
##	[260,]	1.0	0	0.0	0.0
##	[261,]	0.0	0	0.4	0.6
##	[262,]	0.0	0	0.4	0.6
##	[263,]	0.7	0	0.3	0.0
##	[264,]	0.7	0	0.3	0.0
##	[265,]	0.0	0	0.4	0.6
##	[266,]	1.0	0	0.0	0.0
##	[267,]	0.0	0	0.4	0.6
##	[268,]	0.4	0	0.4	0.2

##	[269,]	0.5	0	0.4	0.1
##	[270,]	0.8	0	0.2	0.0
##	[271,]	1.0	0	0.0	0.0
##	[272,]	1.0	0	0.0	0.0
##	[273,]	1.0	0	0.0	0.0
##	[274,]	0.8	0	0.2	0.0
##	[275,]	1.0	0	0.0	0.0
##	[276,]	0.1	0	0.4	0.5
##	[277,]	0.0	0	0.4	0.6
##	[278,]	0.8	0	0.2	0.0
##	[279,]	0.0	0	0.4	0.6
##	[280,]	1.0	0	0.0	0.0
##	[281,]	1.0	0	0.0	0.0
##	[282,]	0.5	0	0.4	0.1
##	[283,]	0.0	0	0.4	0.6
##	[284,]	0.0	0	0.4	0.6
##	[285,]	1.0	0	0.0	0.0
##	[286,]	0.0	0	0.4	0.6
##	[287,]	0.0	0	0.4	0.6
##	[288,]	1.0	0	0.0	0.0
##	[289,]	0.8	0	0.2	0.0
##	[290,]	0.0	0	0.4	0.6
##	[291,]	1.0	0	0.0	0.0
##	[292,]	0.0	0	0.4	0.6
##	[293,]	0.7	0	0.3	0.0
##	[294,]	0.0	0	0.4	0.6
##	[295,]	1.0	0	0.0	0.0
##	[296,]	1.0	0	0.0	0.0
##	[297,]	0.0	0	0.4	0.6
##	[298,]	0.0	0	0.4	0.6
##	[299,]	1.0	0	0.0	0.0
##	[300,]	1.0	0	0.0	0.0
##	[301,]	0.0	0	0.4	0.6
##	[302,]	0.1	0	0.4	0.5
##	[303,]	0.0	0	0.4	0.6
##	[304,]	0.9	0	0.1	0.0
##	[305,]	0.0	0	0.4	0.6
##	[306,]	1.0	0	0.0	0.0
##	[307,]	0.7	0	0.3	0.0
##	[308,]	0.9	0	0.1	0.0
##	[309,]	0.1	0	0.4	0.5
##	[310,]	1.0	0	0.0	0.0
##	[311,]	0.5	0	0.4	0.1
##	[312,]	0.8	0	0.2	0.0
##	[313,]	0.0	0	0.4	0.6
##	[314,]	0.7	0	0.3	0.0
##	[315,]	0.7	0	0.3	0.0
##	[316,]	0.0	0	0.4	0.6
##	[317,]	0.0	0	0.4	0.6
##	[318,]	0.4	0	0.4	0.2
##	[319,]	0.0	0	0.4	0.6
##	[320,]	1.0	0	0.0	0.0
##	[321,]	1.0	0	0.0	0.0
##	[322,]	0.8	0	0.2	0.0

```

## [323,] 0.0 0 0.4 0.6
## [324,] 0.7 0 0.3 0.0
## [325,] 1.0 0 0.0 0.0
## [326,] 0.9 0 0.1 0.0
## [327,] 0.1 0 0.4 0.5
## [328,] 0.8 0 0.2 0.0
## [329,] 0.0 0 0.4 0.6
## [330,] 0.7 0 0.3 0.0
## [331,] 1.0 0 0.0 0.0
## [332,] 0.8 0 0.2 0.0
## [333,] 1.0 0 0.0 0.0
## [334,] 0.1 0 0.4 0.5
## [335,] 0.1 0 0.4 0.5
## [336,] 0.4 0 0.4 0.2
## [337,] 0.0 0 0.4 0.6
## [338,] 0.0 0 0.4 0.6
## [339,] 0.8 0 0.2 0.0
## [340,] 0.1 0 0.4 0.5
## [341,] 0.0 0 0.4 0.6
## [342,] 0.0 0 0.4 0.6
## [343,] 0.1 0 0.4 0.5
## [344,] 1.0 0 0.0 0.0
## [345,] 0.1 0 0.4 0.5
## [346,] 1.0 0 0.0 0.0
## [347,] 0.0 0 0.4 0.6
## [348,] 0.4 0 0.4 0.2
## [349,] 0.8 0 0.2 0.0
## [350,] 0.0 0 0.4 0.6
## [351,] 0.1 0 0.4 0.5
## [352,] 0.0 0 0.4 0.6
## [353,] 0.0 0 0.4 0.6
## [354,] 0.0 0 0.4 0.6
## [355,] 0.0 0 0.4 0.6
## [356,] 0.9 0 0.1 0.0
## [357,] 0.0 0 0.4 0.6
## [358,] 1.0 0 0.0 0.0
## [359,] 0.0 0 0.4 0.6
## [360,] 0.1 0 0.4 0.5
## [361,] 0.1 0 0.4 0.5
## [362,] 1.0 0 0.0 0.0
## [363,] 0.0 0 0.4 0.6
## [364,] 0.0 0 0.4 0.6
## [365,] 0.8 0 0.2 0.0
## [366,] 1.0 0 0.0 0.0
## [367,] 0.0 0 0.4 0.6
## [368,] 0.0 0 0.4 0.6
## [369,] 0.5 0 0.4 0.1
## [370,] 1.0 0 0.0 0.0
## [371,] 0.1 0 0.4 0.5
## [372,] 0.8 0 0.2 0.0
## [373,] 0.0 0 0.4 0.6
## [374,] 0.0 0 0.4 0.6
## [375,] 1.0 0 0.0 0.0
## [376,] 0.0 0 0.4 0.6

```

```

## [377,] 0.0 0 0.4 0.6
## [378,] 1.0 0 0.0 0.0
## [379,] 0.9 0 0.1 0.0
## [380,] 1.0 0 0.0 0.0
## [381,] 1.0 0 0.0 0.0
## [382,] 0.0 0 0.4 0.6
## [383,] 1.0 0 0.0 0.0
## [384,] 0.0 0 0.4 0.6
## [385,] 0.0 0 0.4 0.6
## [386,] 0.0 0 0.4 0.6
## [387,] 0.7 0 0.3 0.0
## [388,] 0.9 0 0.1 0.0
## [389,] 0.3 0 0.4 0.3
## [390,] 0.5 0 0.4 0.1
## [391,] 1.0 0 0.0 0.0
## [392,] 1.0 0 0.0 0.0
## [393,] 0.0 0 0.4 0.6
## [394,] 0.0 0 0.4 0.6
## [395,] 1.0 0 0.0 0.0
## [396,] 0.0 0 0.4 0.6
## [397,] 0.0 0 0.4 0.6
## [398,] 1.0 0 0.0 0.0
## [399,] 0.8 0 0.2 0.0
## [400,] 1.0 0 0.0 0.0
## [401,] 1.0 0 0.0 0.0
## [402,] 0.0 0 0.4 0.6
## [403,] 1.0 0 0.0 0.0
## [404,] 0.0 0 0.4 0.6
## [405,] 0.1 0 0.4 0.5
## [406,] 1.0 0 0.0 0.0
## [407,] 0.1 0 0.4 0.5
## [408,] 0.4 0 0.4 0.2
## [409,] 1.0 0 0.0 0.0
## [410,] 0.0 0 0.4 0.6
## [411,] 1.0 0 0.0 0.0
## [412,] 0.0 0 0.4 0.6
## [413,] 0.0 0 0.4 0.6
## [414,] 0.9 0 0.1 0.0
## [415,] 1.0 0 0.0 0.0
## [416,] 0.8 0 0.2 0.0
## [417,] 0.8 0 0.2 0.0
## [418,] 1.0 0 0.0 0.0
## [419,] 1.0 0 0.0 0.0
## [420,] 1.0 0 0.0 0.0
## [421,] 1.0 0 0.0 0.0
## [422,] 0.0 0 0.4 0.6
## [423,] 0.4 0 0.4 0.2
## [424,] 1.0 0 0.0 0.0
## [425,] 1.0 0 0.0 0.0
## [426,] 1.0 0 0.0 0.0
## [427,] 1.0 0 0.0 0.0
## [428,] 1.0 0 0.0 0.0
## [429,] 0.1 0 0.4 0.5
## [430,] 0.0 0 0.4 0.6

```

```

## [431,] 1.0 0 0.0 0.0
## [432,] 1.0 0 0.0 0.0
## [433,] 0.0 0 0.4 0.6
## [434,] 0.8 0 0.2 0.0
## [435,] 1.0 0 0.0 0.0
## [436,] 0.0 0 0.4 0.6
## [437,] 1.0 0 0.0 0.0
## [438,] 0.2 0 0.4 0.4
## [439,] 1.0 0 0.0 0.0
## [440,] 0.0 0 0.4 0.6
## [441,] 0.8 0 0.2 0.0
## [442,] 0.8 0 0.2 0.0
## [443,] 0.1 0 0.4 0.5
## [444,] 0.0 0 0.4 0.6
## [445,] 0.0 0 0.4 0.6
## [446,] 0.0 0 0.4 0.6
## [447,] 0.4 0 0.4 0.2
## [448,] 1.0 0 0.0 0.0
## [449,] 0.0 0 0.4 0.6
## [450,] 0.0 0 0.4 0.6
## [451,] 0.0 0 0.4 0.6
## [452,] 0.1 0 0.4 0.5
## [453,] 0.0 0 0.4 0.6
## [454,] 1.0 0 0.0 0.0
## [455,] 1.0 0 0.0 0.0
## [456,] 1.0 0 0.0 0.0
## [457,] 1.0 0 0.0 0.0
## [458,] 0.3 0 0.4 0.3
## [459,] 0.9 0 0.1 0.0
## [460,] 0.4 0 0.4 0.2
## [461,] 1.0 0 0.0 0.0
## [462,] 0.0 0 0.4 0.6
## [463,] 0.8 0 0.2 0.0
## [464,] 0.1 0 0.4 0.5
## [465,] 0.7 0 0.3 0.0
## [466,] 0.7 0 0.3 0.0
## [467,] 0.4 0 0.4 0.2
## [468,] 0.8 0 0.2 0.0
## [469,] 0.1 0 0.4 0.5
## [470,] 0.8 0 0.2 0.0
## [471,] 1.0 0 0.0 0.0
## [472,] 0.7 0 0.3 0.0
## [473,] 0.1 0 0.4 0.5
## [474,] 0.0 0 0.4 0.6
## [475,] 0.0 0 0.4 0.6
## [476,] 1.0 0 0.0 0.0
## [477,] 0.0 0 0.4 0.6
## [478,] 0.0 0 0.4 0.6
## [479,] 0.0 0 0.4 0.6
## [480,] 0.3 0 0.4 0.3
## [481,] 1.0 0 0.0 0.0
## [482,] 0.0 0 0.4 0.6
## [483,] 0.8 0 0.2 0.0
## [484,] 0.0 0 0.4 0.6

```

## [485,]	1.0	0	0.0	0.0
## [486,]	0.0	0	0.4	0.6
## [487,]	0.8	0	0.2	0.0
## [488,]	1.0	0	0.0	0.0
## [489,]	0.8	0	0.2	0.0
## [490,]	0.0	0	0.4	0.6
## [491,]	1.0	0	0.0	0.0
## [492,]	0.8	0	0.2	0.0
## [493,]	0.7	0	0.3	0.0
## [494,]	0.8	0	0.2	0.0
## [495,]	0.0	0	0.4	0.6
## [496,]	0.0	0	0.4	0.6
## [497,]	0.9	0	0.1	0.0
## [498,]	0.1	0	0.4	0.5
## [499,]	1.0	0	0.0	0.0
## [500,]	1.0	0	0.0	0.0
## [501,]	1.0	0	0.0	0.0
## [502,]	0.1	0	0.4	0.5
## [503,]	1.0	0	0.0	0.0
## [504,]	0.4	0	0.4	0.2
## [505,]	1.0	0	0.0	0.0
## [506,]	1.0	0	0.0	0.0
## [507,]	0.8	0	0.2	0.0
## [508,]	0.8	0	0.2	0.0
## [509,]	0.9	0	0.1	0.0
## [510,]	1.0	0	0.0	0.0
## [511,]	1.0	0	0.0	0.0
## [512,]	1.0	0	0.0	0.0
## [513,]	1.0	0	0.0	0.0
## [514,]	0.1	0	0.4	0.5
## [515,]	0.8	0	0.2	0.0
## [516,]	0.8	0	0.2	0.0
## [517,]	1.0	0	0.0	0.0
## [518,]	0.0	0	0.4	0.6
## [519,]	1.0	0	0.0	0.0
## [520,]	0.0	0	0.4	0.6
## [521,]	0.0	0	0.4	0.6
## [522,]	0.3	0	0.4	0.3
## [523,]	1.0	0	0.0	0.0
## [524,]	0.0	0	0.4	0.6
## [525,]	0.4	0	0.4	0.2
## [526,]	0.0	0	0.4	0.6
## [527,]	0.8	0	0.2	0.0
## [528,]	0.0	0	0.4	0.6
## [529,]	1.0	0	0.0	0.0
## [530,]	0.0	0	0.4	0.6
## [531,]	0.5	0	0.4	0.1
## [532,]	0.0	0	0.4	0.6
## [533,]	1.0	0	0.0	0.0
## [534,]	0.0	0	0.4	0.6
## [535,]	0.8	0	0.2	0.0
## [536,]	0.0	0	0.4	0.6
## [537,]	1.0	0	0.0	0.0
## [538,]	0.0	0	0.4	0.6

##	[539,]	0.0	0	0.4	0.6
##	[540,]	1.0	0	0.0	0.0
##	[541,]	0.1	0	0.4	0.5
##	[542,]	0.7	0	0.3	0.0
##	[543,]	1.0	0	0.0	0.0
##	[544,]	1.0	0	0.0	0.0
##	[545,]	0.0	0	0.4	0.6
##	[546,]	0.1	0	0.4	0.5
##	[547,]	0.0	0	0.4	0.6
##	[548,]	1.0	0	0.0	0.0
##	[549,]	1.0	0	0.0	0.0
##	[550,]	0.1	0	0.4	0.5
##	[551,]	1.0	0	0.0	0.0
##	[552,]	0.0	0	0.4	0.6
##	[553,]	1.0	0	0.0	0.0
##	[554,]	0.0	0	0.4	0.6
##	[555,]	1.0	0	0.0	0.0
##	[556,]	0.1	0	0.4	0.5
##	[557,]	0.7	0	0.3	0.0
##	[558,]	0.0	0	0.4	0.6
##	[559,]	0.0	0	0.4	0.6
##	[560,]	0.3	0	0.4	0.3
##	[561,]	0.0	0	0.4	0.6
##	[562,]	0.8	0	0.2	0.0
##	[563,]	0.8	0	0.2	0.0
##	[564,]	0.8	0	0.2	0.0
##	[565,]	1.0	0	0.0	0.0
##	[566,]	0.1	0	0.4	0.5
##	[567,]	0.8	0	0.2	0.0
##	[568,]	1.0	0	0.0	0.0
##	[569,]	0.0	0	0.4	0.6
##	[570,]	0.0	0	0.4	0.6
##	[571,]	0.8	0	0.2	0.0
##	[572,]	0.3	0	0.4	0.3
##	[573,]	0.1	0	0.4	0.5
##	[574,]	1.0	0	0.0	0.0
##	[575,]	0.1	0	0.4	0.5
##	[576,]	0.8	0	0.2	0.0
##	[577,]	0.9	0	0.1	0.0
##	[578,]	0.0	0	0.4	0.6
##	[579,]	0.8	0	0.2	0.0
##	[580,]	0.0	0	0.4	0.6
##	[581,]	0.0	0	0.4	0.6
##	[582,]	0.1	0	0.4	0.5
##	[583,]	0.0	0	0.4	0.6
##	[584,]	1.0	0	0.0	0.0
##	[585,]	1.0	0	0.0	0.0
##	[586,]	0.8	0	0.2	0.0
##	[587,]	1.0	0	0.0	0.0
##	[588,]	0.0	0	0.4	0.6
##	[589,]	0.0	0	0.4	0.6
##	[590,]	0.1	0	0.4	0.5
##	[591,]	0.8	0	0.2	0.0
##	[592,]	0.1	0	0.4	0.5

```

## [593,] 1.0 0 0.0 0.0
## [594,] 1.0 0 0.0 0.0
## [595,] 1.0 0 0.0 0.0
## [596,] 0.0 0 0.4 0.6
## [597,] 0.8 0 0.2 0.0
## [598,] 1.0 0 0.0 0.0
## [599,] 1.0 0 0.0 0.0
## [600,] 0.0 0 0.4 0.6
##
## $class
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## [19] "0" "0" "0" "0" "3" "3" "0" "0" "3" "3" "2" "3" "0" "0" "3" "3" "0" "3"
## [37] "3" "2" "3" "3" "3" "0" "3" "0" "0" "0" "0" "0" "3" "0" "0" "0" "3" "0"
## [55] "0" "3" "0" "3" "0" "3" "3" "0" "0" "3" "0" "0" "0" "3" "0" "3" "3" "0"
## [73] "2" "0" "0" "0" "3" "0" "0" "0" "0" "0" "2" "0" "3" "0" "0" "3" "3" "0"
## [91] "3" "0" "0" "0" "0" "3" "0" "3" "3" "0" "3" "2" "0" "0" "0" "3" "0" "0"
## [109] "3" "3" "3" "3" "3" "3" "0" "3" "3" "3" "3" "3" "0" "3" "0" "3" "0" "3"
## [127] "0" "0" "0" "0" "3" "0" "0" "3" "0" "3" "2" "0" "3" "0" "0" "3" "3" "0"
## [145] "3" "3" "0" "0" "0" "3" "0" "0" "3" "0" "0" "0" "3" "3" "3" "3" "0" "0"
## [163] "3" "0" "0" "2" "3" "0" "0" "3" "3" "0" "0" "0" "0" "3" "3" "3" "2" "0"
## [181] "0" "0" "3" "3" "3" "3" "3" "0" "0" "3" "0" "0" "3" "0" "0" "0" "3" "0"
## [199] "0" "3" "3" "0" "3" "0" "3" "0" "0" "0" "3" "0" "0" "0" "3" "0" "2" "0"
## [217] "3" "3" "3" "0" "3" "3" "0" "0" "3" "0" "3" "0" "0" "3" "0" "3" "3" "0"
## [235] "3" "3" "0" "0" "0" "0" "3" "3" "3" "0" "0" "3" "0" "0" "0" "0" "0" "0"
## [253] "3" "3" "0" "3" "0" "0" "3" "0" "3" "3" "0" "0" "3" "0" "3" "0" "0" "0"
## [271] "0" "0" "0" "0" "0" "3" "3" "0" "3" "0" "0" "0" "3" "3" "0" "3" "3" "0"
## [289] "0" "3" "0" "3" "0" "3" "0" "0" "3" "3" "0" "0" "3" "3" "3" "0" "3" "0"
## [307] "0" "0" "3" "0" "0" "0" "3" "0" "0" "3" "3" "0" "3" "0" "0" "0" "3" "0"
## [325] "0" "0" "3" "0" "3" "0" "0" "0" "0" "3" "3" "0" "3" "3" "0" "3" "3" "3"
## [343] "3" "0" "3" "0" "3" "0" "0" "3" "3" "3" "3" "3" "3" "0" "3" "0" "3" "3"
## [361] "3" "0" "3" "3" "0" "0" "3" "3" "0" "0" "3" "0" "3" "3" "0" "3" "3" "0"
## [379] "0" "0" "0" "3" "0" "3" "3" "3" "0" "0" "2" "0" "0" "0" "3" "3" "0" "3"
## [397] "3" "0" "0" "0" "0" "3" "0" "3" "3" "0" "3" "0" "0" "3" "0" "3" "3" "0"
## [415] "0" "0" "0" "0" "0" "0" "0" "3" "0" "0" "0" "0" "0" "0" "3" "3" "0" "0"
## [433] "3" "0" "0" "3" "0" "2" "0" "3" "0" "0" "3" "3" "3" "3" "0" "0" "3" "3"
## [451] "3" "3" "3" "0" "0" "0" "0" "2" "0" "0" "0" "3" "0" "3" "0" "0" "0" "0"
## [469] "3" "0" "0" "0" "3" "3" "3" "0" "3" "3" "3" "2" "0" "3" "0" "3" "0" "3"
## [487] "0" "0" "0" "3" "0" "0" "0" "0" "3" "3" "0" "3" "0" "0" "0" "3" "0" "0"
## [505] "0" "0" "0" "0" "0" "0" "0" "0" "0" "3" "0" "0" "0" "3" "0" "3" "3" "2"
## [523] "0" "3" "0" "3" "0" "3" "0" "3" "0" "3" "0" "3" "0" "3" "0" "3" "3" "0"
## [541] "3" "0" "0" "0" "3" "3" "3" "0" "0" "3" "0" "3" "0" "3" "0" "3" "0" "3"
## [559] "3" "2" "3" "0" "0" "0" "0" "3" "0" "0" "3" "3" "0" "2" "3" "0" "3" "0"
## [577] "0" "3" "0" "3" "3" "3" "3" "0" "0" "0" "0" "3" "3" "3" "0" "3" "0" "0"
## [595] "0" "3" "0" "0" "0" "3"
##
## $confusion
##
## Predicted Class Observed Class
## 0 150 140 37 1
## 2 0 2 12 2
## 3 0 8 101 147
##
## $error
## [1] 0.485

```



```
data.baggingcv <- bagging.cv(price_range ~., v = 10, data = data_train, mfinal = 10, control = rpart.co
data.baggingcv
```

```
## $class
##      [1] "3" "3" "3" "0" "0" "0" "3" "3" "0" "2" "0" "0" "3" "3" "0" "0" "3" "3"
##     [19] "3" "2" "1" "3" "0" "0" "3" "3" "0" "3" "0" "2" "0" "0" "3" "0" "3" "1"
##     [37] "0" "0" "3" "2" "3" "0" "0" "0" "0" "3" "3" "3" "3" "0" "3" "3" "0" "3"
##     [55] "0" "1" "3" "0" "3" "2" "1" "0" "0" "0" "3" "3" "3" "0" "0" "0" "0" "0"
##     [73] "0" "3" "0" "3" "0" "0" "0" "2" "3" "0" "3" "0" "3" "3" "3" "0" "3" "2"
##     [91] "3" "3" "3" "3" "0" "3" "0" "3" "3" "0" "0" "0" "0" "3" "0" "3" "3" "3"
##    [109] "3" "0" "0" "0" "3" "0" "3" "3" "0" "3" "3" "2" "1" "3" "0" "3" "3" "1"
##    [127] "0" "3" "3" "2" "0" "0" "3" "3" "3" "0" "3" "3" "3" "2" "3" "3" "0" "0"
##    [145] "0" "0" "3" "3" "0" "2" "3" "0" "0" "3" "3" "3" "3" "3" "3" "2" "3" "0"
##    [163] "3" "3" "0" "0" "3" "0" "3" "2" "0" "3" "3" "0" "0" "0" "3" "3" "0" "0"
##    [181] "0" "3" "0" "1" "0" "3" "0" "3" "3" "0" "3" "0" "3" "3" "0" "0" "3" "0"
##    [199] "0" "2" "0" "3" "3" "3" "0" "0" "0" "3" "0" "0" "3" "0" "0" "3" "0" "1"
##    [217] "3" "0" "3" "0" "3" "3" "0" "0" "0" "0" "3" "0" "0" "0" "3" "3" "0" "1"
##    [235] "0" "1" "0" "3" "3" "0" "1" "3" "0" "0" "3" "3" "3" "3" "3" "2" "3" "3"
##    [253] "3" "0" "3" "0" "0" "3" "3" "0" "0" "3" "3" "3" "3" "3" "3" "0" "3" "0"
##    [271] "0" "3" "3" "3" "3" "3" "3" "3" "0" "2" "3" "0" "0" "3" "3" "3" "0" "3"
##    [289] "3" "2" "3" "3" "0" "3" "0" "3" "3" "0" "0" "2" "3" "0" "0" "3" "3" "0"
##    [307] "0" "0" "3" "0" "0" "3" "0" "0" "3" "0" "0" "3" "0" "2" "1" "0" "3" "3"
##    [325] "0" "0" "0" "3" "0" "0" "0" "3" "3" "0" "3" "3" "3" "3" "0" "2" "0" "3"
##    [343] "0" "0" "3" "1" "0" "0" "0" "2" "1" "3" "3" "0" "3" "0" "0" "0" "3" "2"
##    [361] "3" "3" "0" "3" "0" "3" "3" "3" "3" "0" "3" "3" "3" "3" "3" "3" "3" "3"
##    [379] "3" "0" "3" "0" "0" "3" "0" "1" "3" "0" "0" "0" "0" "3" "3" "0" "0" "1"
##    [397] "3" "0" "0" "2" "3" "3" "3" "0" "3" "3" "0" "0" "3" "2" "3" "0" "3" "0"
##    [415] "0" "3" "3" "0" "3" "0" "0" "0" "3" "0" "0" "0" "3" "0" "3" "2" "3" "0"
##    [433] "3" "3" "0" "3" "0" "0" "3" "0" "0" "0" "0" "3" "3" "0" "3" "3" "0" "2"
##    [451] "3" "0" "3" "1" "3" "0" "3" "0" "0" "0" "0" "0" "0" "0" "0" "3" "3" "0"
##    [469] "0" "0" "0" "3" "3" "3" "3" "3" "0" "0" "0" "2" "3" "0" "3" "3" "0" "3"
##    [487] "0" "3" "3" "2" "0" "3" "0" "0" "3" "0" "3" "3" "0" "2" "3" "0" "0" "0"
##    [505] "0" "0" "0" "3" "3" "2" "3" "3" "3" "3" "3" "0" "3" "3" "0" "2" "0" "0"
##    [523] "3" "0" "3" "0" "0" "0" "3" "0" "1" "3" "0" "3" "3" "0" "0" "0" "3" "2"
##    [541] "0" "3" "3" "0" "0" "0" "3" "3" "3" "2" "3" "0" "0" "3" "0" "0" "3" "0"
##    [559] "0" "2" "3" "3" "3" "0" "0" "1" "0" "3" "3" "0" "0" "3" "3" "0" "3" "3"
##    [577] "3" "3" "3" "2" "3" "3" "3" "3" "3" "3" "3" "3" "0" "2" "0" "0" "3" "0"
##    [595] "0" "3" "0" "0" "3" "0" "3" "3" "0" "3" "0" "1" "3" "0" "3" "2" "1" "3"
##    [613] "3" "3" "3" "0" "0" "0" "0" "2" "3" "3" "3" "0" "3" "3" "0" "0" "0" "2"
##    [631] "3" "0" "3" "0" "0" "3" "0" "3" "0" "2" "0" "0" "0" "0" "3" "3" "0" "0"
##    [649] "3" "2" "1" "0" "3" "0" "3" "3" "3" "3" "3" "2" "3" "3" "0" "0" "0" "3"
##    [667] "0" "0" "0" "0" "0" "0" "3" "3" "0" "3" "3" "3" "0" "0" "0" "0" "0" "3"
##    [685] "0" "0" "3" "0" "0" "2" "3" "0" "0" "0" "3" "3" "0" "0" "0" "0" "0" "0"
##    [703] "3" "3" "3" "3" "0" "0" "0" "2" "3" "0" "0" "0" "0" "0" "3" "0" "0" "0"
##    [721] "0" "0" "3" "3" "3" "0" "0" "3" "0" "0" "3" "0" "0" "3" "3" "3" "0" "3"
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##    [757] "0" "0" "0" "2" "3" "0" "0" "3" "3" "0" "0" "0" "3" "0" "0" "3" "0" "0"
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##    [793] "3" "0" "3" "0" "3" "3" "3" "2" "1" "3" "0" "0" "0" "1" "3" "0" "3" "0"
##    [811] "1" "0" "3" "3" "3" "1" "3" "0" "0" "2" "0" "3" "3" "3" "3" "3" "3" "0"
##    [829] "3" "0" "0" "0" "0" "3" "0" "3" "0" "3" "0" "0" "1" "3" "0" "3" "0" "3"
##    [847] "0" "3" "0" "2" "3" "0" "3" "0" "3" "0" "3" "0" "3" "2" "0" "3" "3" "0"
##    [865] "0" "3" "3" "0" "0" "0" "3" "3" "0" "0" "0" "1" "3" "0" "3" "0" "0" "3"
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## [883] "0" "3" "3" "3" "0" "0" "3" "2" "1" "3" "0" "0" "3" "0" "3" "0" "3" "2"
## [901] "0" "0" "3" "0" "0" "3" "0" "3" "0" "0" "3" "0" "0" "3" "0" "3" "3" "3"
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## [937] "0" "0" "0" "2" "1" "0" "0" "0" "0" "1" "3" "3" "3" "2" "0" "3" "0" "3"
## [955] "0" "3" "3" "3" "0" "2" "3" "0" "3" "3" "3" "0" "0" "3" "0" "0" "0" "0"
## [973] "3" "0" "0" "0" "3" "0" "3" "2" "0" "0" "0" "0" "3" "0" "0" "3" "3" "2"
## [991] "0" "0" "0" "0" "0" "3" "0" "0" "0" "0" "0" "3" "0" "0" "3" "0" "0" "0"
## [1009] "0" "0" "3" "0" "0" "0" "3" "3" "0" "0" "0" "2" "0" "0" "3" "0" "0" "0"
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## [1081] "3" "0" "0" "3" "3" "0" "3" "0" "3" "2" "0" "0" "3" "3" "3" "3" "3" "0"
## [1099] "0" "0" "3" "3" "3" "3" "3" "3" "0" "0" "3" "0" "3" "3" "0" "3" "0" "1"
## [1117] "0" "0" "0" "0" "0" "3" "0" "0" "3" "3" "3" "0" "3" "0" "3" "3" "0" "3"
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## [1153] "3" "0" "0" "1" "0" "0" "0" "2" "3" "3" "3" "0" "3" "0" "0" "3" "0" "0"
## [1171] "0" "0" "3" "0" "0" "3" "3" "0" "0" "2" "0" "0" "0" "3" "0" "3" "0" "0"
## [1189] "3" "2" "0" "3" "3" "3" "3" "0" "3" "3" "0" "2" "3" "0" "3" "3" "0" "3"
## [1207] "0" "3" "3" "2" "3" "3" "0" "3" "0" "3" "3" "3" "0" "2" "3" "3" "0" "3"
## [1225] "3" "3" "0" "0" "3" "2" "3" "0" "3" "3" "0" "3" "0" "3" "0" "2" "3" "0"
## [1243] "3" "3" "0" "3" "0" "0" "3" "2" "1" "3" "3" "3" "0" "1" "0" "0" "0" "2"
## [1261] "0" "3" "0" "3" "0" "0" "0" "0" "0" "0" "1" "3" "0" "0" "0" "3" "0" "0"
## [1279] "3" "2" "3" "3" "3" "0" "0" "1" "3" "3" "0" "2" "1" "0" "3" "3" "0" "3"
## [1297] "0" "3" "0" "2" "0" "3" "0" "0" "0" "3" "3" "0" "0" "0" "3" "3" "0" "0"
## [1315] "0" "3" "0" "3" "0" "2" "0" "0" "0" "3" "0" "0" "3" "0" "3" "0" "3" "3"
## [1333] "0" "0" "3" "3" "0" "3" "0" "2" "0" "0" "3" "0" "3" "3" "3" "0" "0" "0"
## [1351] "0" "0" "0" "1" "3" "1" "3" "3" "0" "0" "0" "3" "0" "3" "0" "1" "0" "3"
## [1369] "0" "2" "0" "0" "3" "0" "3" "1" "3" "0" "3" "2" "3" "0" "3" "0" "0" "1"
## [1387] "0" "3" "3" "2" "0" "0" "3" "3" "3" "0" "0" "3" "0" "2"
##
## $confusion
##           Observed Class
## Predicted Class  0    1    2    3
##           0 347 253  55    0
##           1   2  28  19    1
##           2   1  18  25   41
##           3   0  51 251 308
##
## $error
## [1] 0.4942857
```

```
data.bagging.margins <- margins(data.bagging, data_train)
data.bagging.predmargins <- margins(data.predbagging, data_test)
data.bagging.margins
```

```
## $margins
## [1] -0.1 -0.1 -0.2 -0.9 -1.0  1.0  0.2  0.2 -0.8 -0.1  1.0  1.0  0.2 -0.4
## [15] -0.9  1.0 -0.5 -0.2  0.2  0.2 -0.4  0.2  1.0 -0.9  0.2 -0.2 -0.1 -0.1
## [29] -0.8 -0.8  1.0 -1.0  0.2  1.0  0.2 -0.1 -0.1 -0.9 -0.2 -0.1 -0.2 -0.8
## [43]  1.0  1.0 -0.1 -0.2  0.2  0.2  0.2  1.0  0.2  0.2  1.0  0.2  1.0 -0.8
## [57]  0.2 -0.8  0.2 -0.1 -0.7 -0.7 -1.0  1.0 -0.2  0.1  0.2 -0.4 -0.9  1.0
## [71] -0.6  0.8 -0.8  0.1 -0.9 -0.5  1.0  1.0 -0.8  0.1  0.2 -0.7 -0.4  1.0
## [85]  0.2  0.2 -0.2 -0.7 -0.1  0.2  0.2  0.2  0.2 -0.2 -0.8  0.2  1.0 -0.4
## [99]  0.2  1.0  0.8 -0.8  1.0  0.2  1.0  0.2  0.0 -0.2 -0.4 -0.9 -0.9  1.0
```

```

## [113]  0.2 -1.0 -0.2 -0.2  1.0  0.1  0.2 -0.5 -0.4  0.1 -0.8 -0.2  0.2  0.0
## [127]  1.0  0.1 -0.2 -0.8  0.6  1.0  0.1  0.2  0.2  1.0  0.2  0.2 -0.5  0.0
## [141]  0.2 -0.2 -0.8 -1.0  1.0  1.0 -0.1 -0.1  0.0  0.2 -0.2  1.0  1.0  0.2
## [155]  0.2  0.2 -0.1 -0.1  0.2  0.2  0.2  1.0 -0.4 -0.2  1.0 -0.8  0.2  1.0
## [169] -0.2  0.2 -0.6  0.2  0.2 -0.8 -0.8  1.0 -0.2 -0.1  1.0  1.0 -0.8  0.2
## [183] -1.0 -0.7  1.0  0.2 -1.0  0.1 -0.1  1.0  0.2 -0.8 -0.1  0.2 -0.8  1.0
## [197]  0.2 -1.0 -0.7  0.1 -0.8  0.2  0.2  0.2 -1.0  1.0 -0.8  0.2 -1.0 -0.8
## [211]  0.2  1.0  1.0 -0.2  1.0 -0.6  0.2 -0.6  0.2  1.0 -0.2  0.2 -1.0  1.0
## [225] -0.8  1.0  0.2  1.0  1.0  1.0 -0.2 -0.2 -0.8 -0.5 -1.0 -0.8 -1.0 -0.2
## [239]  0.2  1.0 -0.5  0.2  1.0 -1.0 -0.2 -0.2 -0.2 -0.2 -0.5  0.1 -0.1 -0.2
## [253]  0.0  1.0  0.2 -1.0  1.0  0.2 -0.2  0.6  1.0  0.2 -0.1  0.2 -0.4  0.2
## [267] -0.1  1.0 -0.5  1.0 -1.0 -0.2  0.1 -0.2 -0.4 -0.2  0.2  0.2 -0.5  0.2
## [281]  0.2  0.8 -0.8 -0.1  0.2  0.2 -0.6 -0.1  0.2  0.4 -0.2  0.0  1.0  0.2
## [295] -1.0 -0.1 -0.4 -0.8  1.0 -0.8 -0.1 -0.1  1.0 -0.2 -0.2  1.0 -0.8 -0.8
## [309]  0.2 -1.0  1.0  0.2  1.0 -1.0  0.2 -1.0  1.0 -0.1 -0.7  0.2 -0.7  0.8
## [323] -0.1  0.1 -0.8  1.0  1.0  0.2  1.0  1.0 -0.8  0.2  0.2  0.6  0.1 -0.2
## [337]  0.2  0.2  1.0  0.2  1.0  0.2 -0.8  1.0 -0.2 -0.1 -1.0 -0.4  1.0 -0.2
## [351] -0.7 -0.1  0.2  1.0  0.2 -1.0  1.0 -0.9 -0.1 -0.4  0.2  0.2 -0.5 -0.2
## [365] -0.8  0.2  0.2  0.2  0.2  0.2 -0.9  0.2  0.2  0.2 -0.1  0.2  0.1 -0.1  0.2
## [379] -0.2  1.0 -0.2 -0.8  1.0  0.2 -0.8 -0.8  0.2 -1.0  0.8  1.0  1.0 -0.1
## [393] -0.2  1.0 -0.8 -0.4 -0.2  1.0  1.0  0.2  0.2  0.2  0.2  1.0 -0.2 -0.2
## [407]  1.0  1.0  0.2  0.2  0.2  1.0  0.2 -0.9  1.0 -0.2  0.2 -1.0 -0.2  1.0
## [421]  1.0  1.0  0.2  1.0 -0.8 -1.0 -0.1  1.0 -0.2  0.0  0.2  1.0 -0.2  0.2
## [435] -0.8  0.2 -1.0 -0.9 -0.4  1.0  1.0 -1.0 -0.8  0.2  0.2 -0.9 -0.2  0.0
## [449]  1.0 -0.7  0.2 -0.7 -0.2  0.0 -0.5  1.0  0.2 -0.6 -0.8  1.0 -1.0 -0.6
## [463]  1.0  1.0  1.0 -0.2  0.2 -0.8  1.0  0.8  1.0 -0.2  0.2 -0.1  0.2 -0.1
## [477] -0.1  1.0  1.0  0.2 -0.5 -1.0  0.2  0.0  1.0  0.2  1.0  0.2  0.2  0.2
## [491]  1.0 -0.2  1.0 -0.9  0.2  1.0 -0.5 -0.2 -1.0  0.2  0.2  1.0 -0.4  1.0
## [505] -0.4  1.0  1.0 -0.2 -0.1  0.2  0.2 -0.1 -0.4 -0.2  0.2 -1.0 -0.2  0.2
## [519] -1.0  0.0 -1.0  1.0 -0.2  1.0  0.2  1.0  1.0  1.0  0.2  0.8 -0.4  0.2
## [533] -0.5  0.2 -0.1  1.0  1.0  0.6  0.2 -0.1  1.0 -0.2 -0.1  1.0  0.0  1.0
## [547]  0.2  0.2 -0.1  0.2 -0.2 -0.8  1.0  0.2 -0.8  1.0 -0.2 -0.7 -0.8  0.2
## [561]  0.2  0.2  0.2  1.0  1.0 -0.8  1.0 -0.2 -0.2  0.8  1.0  0.2  0.2 -0.9
## [575]  0.1  0.2 -0.1  0.2  0.2 -0.5  0.2  0.2  0.2  0.2 -0.2  0.2 -0.5  0.2
## [589]  0.0  0.2  1.0  1.0  0.2  1.0  1.0 -0.2 -0.7  1.0  0.1 -0.9 -0.2  0.1
## [603] -0.9 -0.2 -0.1  0.6 -0.2  1.0 -0.1 -0.2 -0.4  0.2  0.2  0.2 -0.4  1.0
## [617] -1.0  1.0  1.0  0.1  0.2 -0.1 -0.2 -0.9 -0.2 -0.2  1.0 -0.8 -0.7  0.2
## [631]  0.2 -0.8  0.2 -0.4  1.0  0.2 -0.6 -0.2  1.0  0.2  1.0 -1.0 -0.8  1.0
## [645] -0.2  0.2  1.0  0.8  0.2 -0.1 -0.5 -0.7 -0.2  1.0  0.2 -0.1 -0.2  0.2
## [659]  0.2 -0.2 -0.1  0.2  1.0 -0.8  1.0  0.2  1.0  0.0 -0.8 -0.9  1.0 -0.8
## [673]  0.2  0.2 -1.0  0.2 -0.1  0.2 -0.8  1.0 -0.8 -0.9  1.0 -0.2  1.0 -1.0
## [687]  0.2 -0.9  1.0  0.2  0.2  1.0  1.0  1.0  0.2  0.2 -0.7 -0.8 -0.8 -0.9
## [701]  1.0  1.0 -0.2  0.2  0.2 -0.2  0.6  1.0 -1.0  0.1 -0.1  1.0  1.0 -0.6
## [715]  1.0  0.8  0.2 -0.8  1.0  1.0  1.0 -0.8 -0.1  0.0 -0.2  1.0  1.0  0.2
## [729] -0.9  1.0  0.1 -0.4  1.0 -0.2  0.2  0.2 -0.8 -0.5 -0.9 -1.0  0.0 -0.5
## [743] -0.9 -0.2  1.0  0.2  1.0  1.0  1.0  1.0  0.2  1.0 -0.5 -1.0  1.0  0.2
## [757] -0.6 -0.8  0.0 -0.1 -0.1 -0.8  1.0 -0.4  0.0  1.0  1.0 -0.8  0.1 -1.0
## [771]  1.0  0.2 -0.8  1.0  0.2  0.2  0.2  0.2  0.2 -0.2  1.0 -0.1 -0.1  0.2
## [785]  0.2 -0.1 -0.5  0.0  1.0 -0.1 -1.0 -0.5 -0.4  1.0 -0.2  1.0 -0.2 -0.1
## [799] -0.2 -0.5  0.1 -0.1 -0.8 -0.9 -0.7 -0.8  0.2  0.8  0.2  1.0  0.0  1.0
## [813] -0.1 -0.2  0.0 -0.6 -0.2  1.0  0.8 -0.2  1.0  0.2 -0.5  0.2 -0.2 -0.2
## [827]  0.2  1.0  0.2 -1.0  1.0  1.0 -0.1 -0.2  1.0 -0.2  1.0 -0.2  1.0 -0.9
## [841]  0.0 -0.1 -0.8 -0.2  1.0 -0.1 -0.8 -0.1 -0.7 -0.8  0.2  1.0 -0.4 -1.0
## [855] -0.2  1.0  0.2 -0.8 -0.2 -0.1 -0.8  0.2 -0.1  1.0 -0.4 -0.1  0.2  1.0

```

```

## [869] -1.0  1.0 -0.1  0.2  1.0  1.0  1.0 -0.1  0.2  1.0 -0.1 -0.8 -1.0 -0.1
## [883] -1.0 -0.1 -0.4  0.2  1.0  1.0 -0.2  0.2 -0.7  0.2 -0.8  1.0  0.2  1.0
## [897]  0.2 -1.0 -0.1  0.2  0.8  1.0 -0.5  1.0 -1.0  0.2 -0.7 -0.1 -0.4  1.0
## [911]  0.2 -0.7  1.0  0.2  1.0 -0.1  0.0  0.2 -0.1  1.0  0.2 -1.0  0.2 -0.5
## [925] -0.9  0.6  0.2 -0.5  0.2 -0.5 -0.2  1.0 -1.0  0.2  0.2 -0.8  0.6 -0.8
## [939] -0.8  0.2 -0.5 -1.0 -1.0 -0.7 -0.9 -0.8 -0.2 -0.1  0.2  0.2 -0.6 -0.4
## [953] -0.9 -0.1 -0.8 -0.2  0.2 -0.2  1.0  0.2  0.2 -1.0 -0.2  0.2  0.1 -0.8
## [967] -0.9 -0.1 -0.8 -1.0  1.0  1.0 -0.2 -0.8 -1.0  1.0 -0.1  1.0 -0.1  0.2
## [981] -0.8  0.8  1.0 -0.8  0.1  1.0 -1.0  0.2 -0.1  0.2 -0.6 -0.4  1.0  1.0
## [995]  1.0  0.2  1.0  1.0  0.8  1.0 -0.8 -0.2  1.0  1.0 -0.4  1.0 -0.6 -0.1
## [1009]  1.0  1.0  0.2 -0.8 -0.9 -0.9  0.2  0.2  1.0 -0.9  1.0  0.2 -0.8  1.0
## [1023] -0.1  1.0  0.0  1.0 -0.4 -0.1 -0.8 -0.5 -0.1 -0.8  0.2  0.2  0.2  1.0
## [1037] -0.8 -0.1  0.2  0.8 -0.9 -1.0  0.0 -0.2  0.2 -0.8  0.2 -0.6 -0.5 -0.1
## [1051]  1.0 -1.0  0.0  0.2  1.0 -0.4  1.0  1.0  1.0  1.0  0.2 -0.5 -0.4 -0.1
## [1065] -0.6 -0.9  0.2 -0.4  0.0  0.0  0.2 -0.4 -0.7  1.0  0.2  0.2 -0.9 -0.7
## [1079]  1.0 -0.9 -0.2 -0.9 -1.0  0.2  0.2  1.0 -0.2 -0.8 -0.1 -0.1  1.0 -0.6
## [1093]  0.2 -0.1  0.1  0.0 -0.4 -0.9 -0.1 -1.0  0.2 -0.2  0.0  0.0  0.1 -0.5
## [1107]  1.0  1.0 -0.2  1.0  0.2 -0.2  1.0  0.2  1.0 -0.2 -1.0  1.0  1.0  1.0
## [1121]  1.0  0.2 -0.8 -0.8  0.2  0.2  0.1 -0.6  0.2  1.0  0.2  0.2  1.0 -0.2
## [1135] -0.5 -0.9 -0.2  0.2 -0.1  0.2 -0.1  0.2  0.2  0.2 -0.1 -0.6  0.2 -0.7
## [1149] -1.0 -0.8  1.0  0.2 -0.2 -0.8  1.0 -0.8  1.0 -0.6 -0.8 -0.1  0.2 -0.2
## [1163]  0.2 -0.8 -0.4 -1.0 -0.8 -0.2 -0.9  1.0 -0.8  1.0  0.2  1.0 -0.4  0.2
## [1177] -0.4 -1.0 -0.8  0.1 -0.8 -0.8 -0.4  0.2 -0.8  0.2 -0.6 -0.8 -0.2  0.2
## [1191] -0.6 -0.4  0.2  0.2  0.2  1.0  0.2  0.2 -0.6  0.2 -0.1 -0.6  0.2  0.2
## [1205]  1.0 -0.2  1.0 -0.2 -0.2 -0.2 -0.1 -0.1  1.0 -0.1 -0.7 -0.1  0.2  0.2
## [1219]  1.0 -0.2  0.2  0.2 -1.0 -0.2 -0.5  0.2 -0.8 -0.9  0.1 -0.7  0.2  1.0
## [1233] -0.4  0.2  1.0 -0.2  1.0  0.2 -0.9 -0.4 -0.2  1.0  0.2  0.2  1.0  0.2
## [1247]  1.0  1.0 -0.2 -0.8 -0.2  0.2  0.2 -0.1  1.0 -0.5 -0.8  0.6 -0.7  0.2
## [1261]  1.0 -0.4  1.0 -0.4 -0.7 -0.9  0.6  1.0 -0.5  1.0 -0.5  0.2 -0.8  1.0
## [1275]  1.0  0.2 -0.7 -0.1 -0.1 -0.7 -0.1  0.2  0.2  1.0  0.8 -0.8 -0.2 -0.1
## [1289] -0.8 -0.6 -0.6  1.0 -0.1  0.2  0.6  0.2  0.6  0.2  1.0  0.2  1.0  0.2
## [1303]  1.0  1.0  1.0  0.2 -0.2  1.0  1.0  1.0  0.2  0.2 -0.9  1.0  1.0 -0.5
## [1317] -0.9 -0.1  1.0  0.2  1.0 -0.4  1.0  0.2  1.0  1.0 -0.4  1.0  0.2  1.0
## [1331] -0.2  0.2  1.0 -1.0  0.2  0.2 -0.7  0.1  1.0 -0.4  1.0  1.0 -0.2  1.0
## [1345]  0.2 -0.5 -0.1 -0.8 -0.4 -0.8  1.0 -0.8 -0.8 -0.7 -0.1 -0.8  0.0 -0.1
## [1359] -0.1  1.0  0.6  0.1 -0.7 -0.2 -1.0 -0.6  0.6  0.2  1.0  0.1 -0.9 -0.8
## [1373] -0.1  1.0 -0.1 -0.4 -0.4  1.0  0.2 -0.5  0.2  1.0  0.1 -0.8 -0.8 -0.7
## [1387] -1.0  0.1 -0.2 -0.4 -0.8  0.8 -0.5  0.2  0.2  1.0 -0.4  0.2  1.0  0.2
##
## attr(,"class")
## [1] "margins"

```

```
data.bagging.predmargins
```

```

## $margins
## [1] -0.5  0.2  1.0  1.0  0.2 -0.8  0.2  0.2  0.2 -0.1  1.0  1.0 -0.5  0.2 -0.4
## [16]  0.2  1.0  0.2 -0.5  0.0  1.0  0.8  0.2  0.2  0.8  1.0  0.2  0.1 -0.1 -0.2
## [31]  1.0 -1.0 -0.1  0.2 -0.9 -0.2 -0.5  0.1 -0.1 -0.1  0.2 -0.4  0.2 -0.1  1.0
## [46]  1.0  1.0 -1.0  0.2 -0.1 -0.6 -0.8  0.2  0.0 -0.6  0.2 -0.9 -0.2 -0.9  0.2
## [61] -0.1 -0.1  1.0  0.2  1.0 -0.8 -1.0  0.2  1.0  0.2 -0.1 -0.8  0.1  1.0 -0.4
## [76]  1.0 -0.2  1.0  1.0 -0.8 -1.0  1.0  0.1  1.0  0.2 -0.8 -0.4  0.2  0.2  1.0
## [91]  0.2  1.0 -1.0 -1.0  1.0  0.2 -0.9 -0.1 -0.2 -0.4 -0.2  0.0  1.0 -1.0  1.0
## [106] -0.1 -1.0  1.0  0.1  0.2 -0.2  0.2  0.2  0.2 -1.0  0.2  0.2  0.2  0.2 -0.2
## [121] -0.4  0.2 -0.8  0.2  1.0  0.2 -1.0  1.0  1.0 -0.6 -0.2 -0.8 -0.4  0.2  1.0

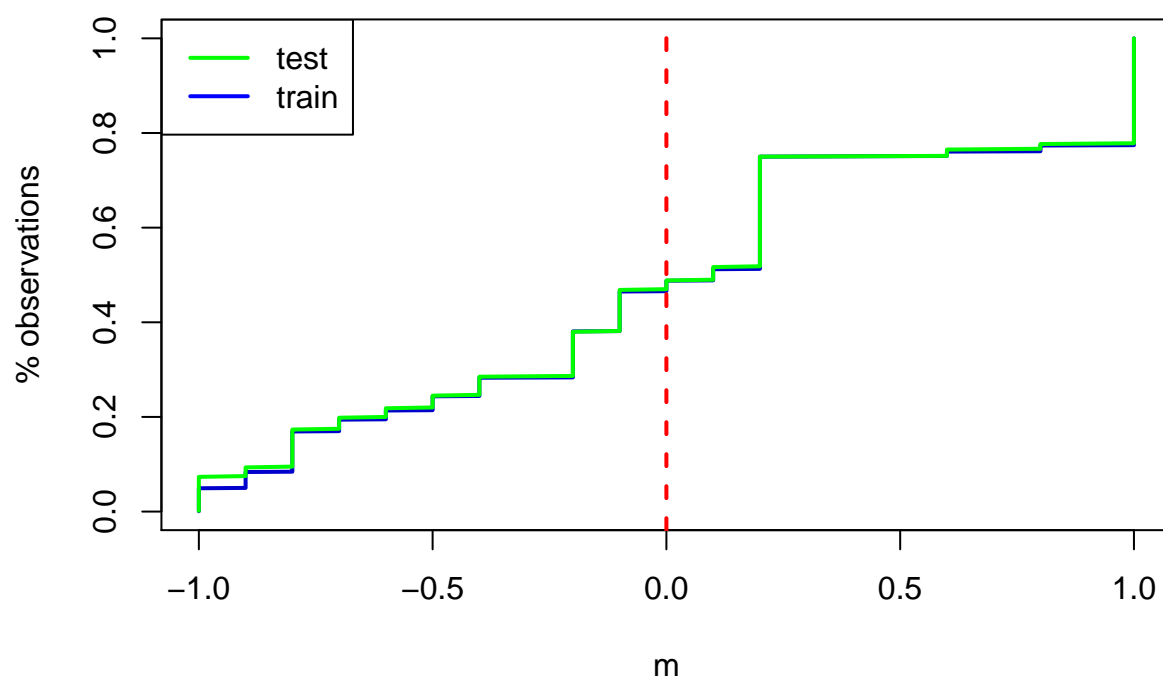
```

```
## [136]  0.2  0.0 -1.0  0.2 -0.7  1.0  0.2  0.2  1.0 -0.2  0.2 -0.4  1.0  0.0 -0.2
## [151]  1.0 -0.7  0.2  1.0  1.0 -0.8 -0.1 -0.2 -0.6 -0.5 -0.4 -0.4 -0.2 -0.8 -1.0
## [166]  0.1  0.2 -1.0 -1.0  0.2  0.2  1.0  1.0  1.0 -1.0  0.2 -0.2 -0.2 -0.4 -0.1
## [181]  1.0 -0.9 -0.2 -0.2 -0.2 -0.1 -0.1 -0.9  1.0  0.2 -0.5 -0.8 -0.1 -0.8  0.6
## [196]  1.0 -0.1  1.0  1.0  0.2 -0.1  1.0 -0.2 -0.4  0.2  0.6  0.0 -0.7 -0.5  1.0
## [211] -0.8  1.0  0.2 -0.4  0.1  1.0  0.2 -0.1  0.2 -1.0 -0.1  0.2 -0.7  1.0  0.2
## [226] -0.8  0.1 -0.8 -0.9  0.2 -0.8 -0.1  0.2 -1.0 -0.2  0.2  0.0  1.0 -0.8 -0.5
## [241]  0.2 -0.1  0.2  1.0 -0.6  0.2  1.0  1.0  1.0 -0.8 -0.5  1.0  0.2 -0.2 -0.4
## [256]  0.2  0.6  1.0  0.2  1.0 -0.2  0.2 -0.7 -0.4  0.2  1.0  0.2 -0.4 -0.5 -0.8
## [271]  1.0 -1.0  1.0 -0.8 -1.0 -0.1  0.2 -0.8 -0.2  1.0  1.0 -0.5  0.2  0.2 -1.0
## [286] -0.2  0.2  1.0 -0.8  0.2  1.0  0.2 -0.7  0.2  1.0  1.0 -0.2  0.2  1.0 -1.0
## [301] -0.2  0.1  0.2 -0.9  0.2  1.0 -0.7 -0.9 -0.1  1.0 -0.5 -0.8 -0.2 -0.7 -0.7
## [316]  0.2 -0.2  0.0  0.2 -1.0  1.0 -0.8  0.2 -0.7  1.0 -0.9 -0.1 -0.6  0.2 -0.7
## [331]  1.0  0.6  1.0 -0.1 -0.5 -0.4  0.2  0.2 -0.8 -0.1 -0.2  0.2 -0.1  1.0 -0.1
## [346]  1.0 -0.2 -0.4 -0.8 -0.2 -0.1  0.2  0.2  0.2  0.2  0.8 -0.2  1.0  0.2 -0.1
## [361] -0.1  1.0 -0.2 -0.2 -0.8  1.0  0.2  0.2 -0.5 -1.0  0.1 -0.8  0.2 -0.2  1.0
## [376]  0.2  0.2 -1.0 -0.8  1.0  1.0  0.2 -1.0  0.2  0.2  0.2 -0.7  0.8  0.1 -0.1
## [391]  1.0  1.0 -0.2 -0.2  1.0  0.2  0.2  1.0 -0.8  1.0  1.0  0.2  1.0 -0.2 -0.1
## [406] -1.0 -0.5  0.0 -1.0  0.2  1.0 -0.2 -0.2 -0.9 -1.0 -0.8 -0.6  1.0  1.0  1.0
## [421]  1.0 -0.2 -0.4  1.0 -1.0 -1.0 -1.0  1.0 -0.1  0.2 -1.0 -1.0  0.2 -0.8  1.0
## [436]  0.2  1.0 -0.4  1.0  0.2 -0.8  0.6 -0.5  0.2  0.2 -0.2 -0.2  1.0 -0.2  0.2
## [451]  0.2 -0.1 -0.2 -1.0  1.0  1.0  1.0  0.1  0.8 -0.4 -1.0 -0.2 -0.8 -0.1 -0.4
## [466] -0.7  0.0 -0.8 -0.1 -0.8  1.0 -0.7 -0.1  0.2 -0.2  1.0  0.2  0.2  0.2  0.1
## [481]  1.0  0.2 -0.8  0.2 -1.0  0.2 -0.6  1.0 -0.8 -0.2 -1.0 -0.8 -0.4 -0.8  0.2
## [496] -0.2 -0.9  0.1  1.0  1.0  1.0 -0.1  1.0  0.0  1.0 -1.0 -0.8 -0.6  0.8  1.0
## [511]  1.0 -1.0  1.0 -0.1 -0.8  0.6  1.0 -0.2  1.0  0.2  0.2  0.1  1.0 -0.2  0.0
## [526]  0.2 -0.6 -0.2  1.0 -0.2 -0.1  0.2 -1.0  0.2 -0.8 -0.2  1.0  0.2  0.2 -1.0
## [541] -0.1 -0.7  1.0  1.0  0.2 -0.1 -0.2  1.0  1.0  0.1  1.0  0.2  1.0  0.2  1.0
## [556] -0.1 -0.4  0.2 -0.2 -0.1 -0.2  0.6 -0.8 -0.6  1.0 -0.1 -0.8  1.0  0.2  0.2
## [571] -0.8  0.1 -0.1  1.0 -0.1 -0.8  0.8  0.2 -0.6  0.2  0.2 -0.1  0.2 -1.0  1.0
## [586]  0.6  1.0  0.2  0.2 -0.1  0.6 -0.1 -1.0  1.0 -1.0  0.2 -0.8  1.0  1.0  0.2
##
## attr(,"class")
## [1] "margins"
```

```
margins.test <- data.bagging.predmargins[[1]]
margins.train <- data.bagging.margins[[1]]

plot(sort(margins.train), (1:length(margins.train)) / length(margins.train), type = "l", xlim = c(-1,1))
abline(v = 0, col = "red", lty = 2, lwd = 2)
lines(sort(margins.test), (1:length(margins.test)) / length(margins.test), type = "l", cex = 0.5, col =
legend("topleft", c("test","train"), col = c("green", "blue"), lty = 1, lwd = 2)
```

## Margin cumulative distribution graph



```
evol.test <- errorevol(data.adaboost, data_test)
evol.train <- errorevol(data.adaboost, data_train)

plot(evol.test$error, type = "l", ylim = c(0, 1),
     main = "Boosting error versus number of trees", xlab = "Iterations",
     ylab = "Error", col = "red", lwd = 2)
lines(evol.train$error, cex = .5, col = "blue", lty = 2, lwd = 2)
legend("topleft", c("test", "train"), col = c("red", "blue"), lty = 1:2, lwd = 2)
```

**Boosting error versus number of trees**

