Lab_02T

36-290 – Statistical Research Methodology

Week 2 Tuesday – Fall 2021

Data

We'll begin by importing some data from the 36-290 GitHub site. These data are stored in .Rdata format (which is equivalent to .rda, if you've seen that file extension); such data are saved via R's save() function and loaded via R's load() function. One wrinkle here: the data are stored on the web, so we also have to apply the url() function.

```
rm(list=ls())  # This is generally good practice: remove all current variables from the global environment.
file.path = "https://raw.githubusercontent.com/pefreeman/36-290/master/EXAMPLE_DATASETS/BUZZARD/Buzzard_DC1.Rdata"
load(url(file.path))
rm(file.path)
set.seed(101)
s = sample(nrow(df),4000)
predictors = df[s,-c(7:14)]
response = as.vector(df[s,14])
rm(df,s)
objects()  # Shows the loaded variables. (Redundant with the Environment pane.)
```

```
## [1] "predictors" "response"
```

If everything loaded correctly, you should see two variables in your global environment: predictors and response . predictors is a data frame with 4000 rows and 6 columns, and response is a vector of length 4000, and it represents *redshift*, which you can think of as a directly observable proxy for the distance of a galaxy from the Earth. (After all, tape measures aren't going to help us here.) See the description of redshift in Lab_01R if you need to remind yourself what redshift is exactly.

Questions

Question 1

Apply the dim(), nrow(), ncol(), and length() functions to predictors, so as to build intuition about what these functions output. (Note: we are not using dplyr yet, just base R functions here.) Do you know why length() returns the value it does? Ask me or the TA if you do not. (But fill in an answer below regardless to reinforce the answer.)

```
dim(predictors)

## [1] 4000 6

nrow(predictors)

## [1] 4000

ncol(predictors)

## [1] 6

length(predictors)

## [1] 6

the length() returns 6 because there are 6 variables
```

Question 2

Display the names of each column of predictors .

```
names(predictors)
```

```
## [1] "u" "g" "r" "i" "z" "y"
```

Time for a digression.

A *magnitude* is a logarithmic measure of brightness that is calibrated such as to be approximately zero for the brightest stars in the night sky (Sirius, Vega, etc.). Every five-unit *increase* in magnitude is a factor of 100 *decrease* in brightness. So a magnitude of 20 means the object is 100 million times fainter than a star like Vega.

Magnitudes are generally measured in particular bands. Imagine that you put a filter in front of a telescope that only lets photons of certain wavelengths pass through. You can then assess the brightness of an object at just those wavelengths. So $\, u \,$ represents a magnitude determined at ultraviolet wavelengths, with $\, g \,$, $\, r \,$, and $\, i \,$ representing green, red, and infrared. (The $\, z \,$ and $\, y \,$ are a bit further into the infrared. The names don't represent words.)

So the predictor data consists of six magnitudes spanning from the near-UV to the near-IR.

Question 3

Use the base R summary() function to get a textual summary of the predictors. Do you notice anything strange?

```
summary(predictors)
```

```
##
                                                   i
##
   Min.
        :19.55 Min.
                       :18.51
                              Min.
                                    :18.00
                                             Min.
                                                   :17.74
   1st Qu.:26.37
                 1st Qu.:25.86
                               1st Qu.:25.10
                                             1st Qu.:24.55
   Median :27.34 Median :26.94 Median :26.29
                                             Median :25.74
##
   Mean :33.06 Mean :26.87 Mean :25.88 Mean :25.27
##
   3rd Qu.:28.51 3rd Qu.:27.74 3rd Qu.:27.00
                                             3rd Ou.:26.47
##
   Max. :99.00 Max. :99.00 Max. :29.41 Max. :27.00
##
##
   Min.
        :17.56
                Min.
                       :17.34
##
   1st Qu.:24.21
                 1st Qu.:23.86
   Median :25.35 Median :25.04
##
##
   Mean :24.98 Mean :25.85
   3rd Qu.:26.12 3rd Qu.:25.89
   Max. :99.00 Max. :99.00
```

It appears that the values for min/Q1/median/mean/3Q of all the variables are fairly close in value but the only ex ception to that would be the max values under variables r and i are vastly different from the others (29.41 and 27 compared to 99).

dplyr

Below, we will practice using dplyr package functions to select rows and/or columns of a data frame. dplyr is part of the tidyverse, and is rapidly becoming the most oft-used way of transforming data. To learn more about "transformatory" functions, read through today's class notes, then through Chapter 5 of the online version of *R for Data Science* (see the syllabus for the link, or just Google for it). In short, you can

action	function
pick features by name	select()
pick observations by value	filter()
pick observations by category	group_by()
create new features	mutate()
reorder rows	arrange()
collapse rows to summaries	summarize()

A cool thing about dplyr is that you can use a piping operator (%>%) to have the output of one function be the input to the next. And you don't have to have only dplyr functions within the flow; for instance, you could pipe the first two rows your data frame to head:

```
suppressMessages(library(tidyverse))
head(predictors[,1:2])  # base R
```

```
## 2873 23.5907 21.6827

## 108639 27.1252 26.2652

## 19665 27.4013 26.7235

## 87391 27.9354 27.0586

## 35772 27.7733 27.4076

## 46326 27.1742 26.9353
```

```
predictors %>% select(.,u,g) %>% head(.) # dplyr
```

Let's do a few exercises here. Be sure to tap into, e.g., StackOverflow and R for Data Science for any help you may need.

Question 4

Grab all data for which i is less than 25 and g is greater than 22, and output in order of increasing y. (Remember: you combine conditions with & for "and" and | for "or".) Show only the first six lines of output. Note that head() by default shows the first six rows of the input data frame.

```
predictors %>% arrange(.,y) %>% filter(.,(i<25 & g>22)) %>% head()
```

Question 5

To get a quick, textual idea of how the data are distributed: select the g column, apply the round() function, then pipe the output to table(). Do you notice anything strange? (It would be related to what you should have seen above.)

```
predictors %>% select(., g) %>% round(.,) %>% table(.)
```

```
##
##
     19
           20
                21
                      22
                            23
                                  24
                                       25
                                             26
                                                   27
                                                         28
                                                              29
                                                                    30
                                                                          31
                                                                               32
                                                                                     34
                                                                                           qq
##
                            99
                                206
                                      388
                                            722 1224
                                                       946
                                                             247
                                                                                           11
```

```
I notice that most of the values are gathered towards the 26\ \mathrm{or}\ 27\ \mathrm{values}.
```

Time for another digression. Domain scientists are not bound by the R convention of using NA when data are "not available." Sometimes the domain scientists will tell you what they use in place of NA, sometimes not. In those latter cases, one can usual infer the values. Astronomers for some reason love using -99, -9, 99, etc., to represent missing values. The 99 seen in the r column represents a missing value.

Question 6

Use filter() to determine how many rows contain 99's. While more "elegant" solutions may exist, here you should combine logical operators.

```
filter(predictors, u == 99 | g == 99 | r == 99 | i == 99 | z == 99 | y == 99)
```

```
## u g r i z y

## 1 99.0000 28.6780 27.9336 26.5562 25.0876 24.8142

## 2 99.0000 26.9491 25.8114 24.8964 24.6316 24.5645

## 3 99.0000 29.6675 27.7214 26.7440 26.5730 25.9962

## 4 99.0000 28.0462 27.8069 26.9388 27.5762 27.8884

## 5 28.2424 29.4176 28.1202 26.6837 26.2754 99.0000
```

```
99.0000 28.9702 27.8574 26.1651 25.0758 24.5420
## 6
## 7
       99.0000 27.6859 27.5021 26.6976 27.2323 26.0221
## 8
       99.0000 31.6617 27.5083 25.8405 24.8862 24.0097
## 9
       99.0000 27.4599 25.9715 25.0598 24.0858 23.3608
       99.0000 28.8544 27.0935 26.1411 26.0946 28.1544
## 10
## 11
       99.0000 27.9855 27.4880 26.6029 26.1607 25.4544
       99.0000 27.3952 26.8879 26.7157 26.1964 26.0210
## 12
       99.0000 28.0005 27.4545 26.8872 26.1570 26.2312
## 14
       99.0000 28.0421 27.5552 26.9130 26.5365 26.9885
## 15
       99.0000 27.1915 27.2267 26.1779 25.9988 25.8512
## 16
       99.0000 29.2627 27.9059 26.8753 26.6095 26.5269
## 17
       99.0000 27.2487 27.1684 26.6990 25.9979 25.7881
## 18
       26.8558 26.5724 26.6476 26.9707 26.8069 99.0000
## 19
       99.0000 27.9055 26.8069 26.3458 27.0690 99.0000
## 20
      99.0000 27.6919 26.7320 25.9597 24.9550 24.6838
## 21
      99.0000 26.3633 25.7265 25.4207 25.3231 25.0933
## 22
       99.0000 27.6353 27.8968 26.8258 26.5430 25.7629
## 23
       99.0000 29.9483 27.8641 26.9712 27.0348 27.7180
## 24
       99.0000 28.1164 27.8167 26.5014 26.1962 25.3223
## 25
       27.5885 27.6860 27.3862 26.8267 26.6587 99.0000
## 26
       99.0000 27.4486 25.8067 24.6466 23.8021 23.4049
## 27
       99.0000 27.7037 27.1968 26.6516 26.0970 25.8503
## 28
       99.0000 27.6039 27.0312 26.2584 26.0401 25.7453
## 29
       27.2885 27.1313 27.4207 26.8427 28.0921 99.0000
## 30
       26.9276 27.2714 27.3821 26.8622 26.4800 99.0000
## 31
       99.0000 27.2852 26.7060 26.3534 25.7981 25.6726
## 32
       99.0000 28.0583 27.2086 26.4782 26.1971 26.0446
## 33
       26.8580 27.3662 27.1260 26.9618 26.3097 99.0000
## 34
       99.0000 27.7507 27.4130 26.9389 26.3294 25.7272
## 35
       99.0000 27.5086 26.5260 26.3163 26.0648 26.1637
## 36
       99.0000 31.9366 28.5181 26.9738 26.4255 25.3278
## 37
       99.0000 26.9427 25.5862 24.8519 24.5059 24.2749
## 38
       99.0000 28.3338 27.4182 26.5812 27.7019 25.8192
       99.0000 27.7702 27.3140 26.9685 26.3725 27.2582
## 40
       27.6520 27.1784 27.0018 26.9962 27.3063 99.0000
## 41
       26.4966 26.8210 26.7531 26.6547 26.4410 99.0000
## 42
       99.0000 26.8532 25.1277 23.9400 23.1553 22.8988
## 43
       99.0000 28.2404 27.7774 26.9972 26.7679 27.3974
## 44
       99.0000 28.1033 27.5268 26.9988 26.7559 99.0000
      99.0000 29.0893 27.8860 26.5891 25.7091 25.0496
## 45
## 46
       99.0000 28.6602 27.9144 26.8388 27.7917 26.5771
## 47
       27.3697 27.9831 27.1880 26.8935 26.6584 99.0000
## 48
       99.0000 29.0576 28.1688 26.8469 26.5895 25.5750
## 49
       29.5210 99.0000 27.6145 26.8541 26.2860 26.8439
## 50
       99.0000 27.5433 26.7329 26.2622 26.6790 27.5520
## 51
       99.0000 26.5642 26.2132 25.5084 24.9450 24.1974
## 52
       99.0000 27.4373 26.6819 26.8474 26.2551 25.7575
## 53
       99.0000 26.1293 25.1305 24.7248 24.4048 24.2408
## 54
       99.0000 27.9189 27.3949 25.6821 24.9547 23.9676
## 55
       99.0000 28.3936 26.5494 25.9686 25.5711 25.4564
## 56
       26.8888 26.9189 27.2544 26.6831 26.5482 99.0000
## 57
       99.0000 28.4109 27.1770 26.4427 25.6346 26.1790
      99.0000 27.9385 27.3819 26.7355 26.1163 26.6924
## 58
       99.0000 27.4025 26.9224 25.9742 25.6605 24.7633
## 60
      99.0000 28.0042 27.2219 26.2793 25.7110 25.6499
## 61
      99.0000 27.7389 27.6257 26.6188 26.8936 25.5326
## 62
       99.0000 27.9097 26.3035 25.4628 24.9899 24.5603
## 63
       99.0000 27.6662 27.5048 26.9562 26.4251 27.8957
## 64
       99.0000 28.0817 26.4662 25.9236 25.6338 25.4230
## 65
       99.0000 26.9310 26.3427 26.0572 25.7897 25.7088
## 66
       99.0000 27.7969 26.7649 26.0797 25.4415 26.5222
## 67
       26.8091 27.1051 26.3926 26.0878 25.7855 99.0000
## 68
       99.0000 99.0000 27.3701 26.3858 25.7402 26.6798
## 69
       29.0702 28.9576 27.5533 26.9678 27.1043 99.0000
## 70
       99.0000 27.7350 26.7135 26.4387 26.1225 25.4259
       99.0000 29.2276 27.7069 26.5335 25.6737 24.7534
## 71
       99.0000 27.3152 25.8600 25.4248 25.1431 25.0860
## 73
       99.0000 28.9241 27.3025 26.1166 25.5515 25.1762
## 74
       99.0000 28.2692 28.1055 26.7215 26.2304 28.2854
##
       99.0000 28.0260 26.2920 25.8429 25.2210 25.1695
## 76
       29.8229 99.0000 27.8689 26.8375 26.8790 28.0045
       99.0000 27.7977 28.0113 26.9533 27.4551 27.0326
## 77
## 78
       99.0000 27.7499 26.8824 26.9620 26.8278 27.0841
## 79
       27.5517 27.7506 27.1375 26.8596 26.3696 99.0000
## 80
       99.0000 28.3210 27.4296 26.9180 26.4562 28.8782
       99.0000 26.9242 25.4562 24.6548 24.2960 24.0168
## 81
## 82
       99.0000 27.7626 26.7750 26.1748 25.5985 25.1347
## 83
       99.0000 27.1086 26.4240 25.6322 25.1824 25.0011
## 84
      99.0000 27.9010 26.8127 26.0845 25.3389 25.0077
```

```
99.0000 27.5419 27.7182 26.9461 26.3415 26.6412
      99.0000 27.9860 25.8037 24.7908 23.7876 23.1590
## 87
       28.8198 99.0000 29.4085 26.7994 25.8796 25.0563
## 88
       99.0000 31.0968 27.7944 26.6324 25.8724 24.8197
       27.1364 27.8245 27.4346 26.9374 26.5091 99.0000
## 89
## 90
       99.0000 28.9236 27.9968 26.9293 26.6381 26.1188
## 91
       99.0000 29.5798 27.3619 26.7347 25.7971 25.3122
       99.0000 27.5683 27.1008 26.5321 26.4091 25.7739
## 93
       26.4120 27.4219 27.1061 26.6317 26.5921 99.0000
## 94
       99.0000 28.9582 27.7671 26.1450 25.2890 24.7592
## 95
       27.6410 27.1336 26.8586 26.8224 26.7147 99.0000
## 96
       99.0000 27.8768 26.7923 25.3881 24.2431 23.4894
      99.0000 28.0802 26.4441 25.6929 25.3049 25.9983
## 97
      99.0000 28.0348 26.9674 26.2725 26.1820 26.7111
      28.9317 28.1823 27.1905 26.6717 26.6680 99.0000
## 100 99.0000 27.4786 27.4813 26.9844 26.7496 27.0887
## 101 99.0000 27.5749 27.3549 26.9983 26.9427 26.7748
## 102 99.0000 27.2407 26.6059 26.1456 26.0179 25.8543
## 103 99.0000 27.6998 26.8209 25.8500 25.3841 24.7142
## 104 99.0000 28.1425 26.8161 26.1785 26.8025 25.7628
## 105 99.0000 27.3962 27.0956 26.6932 25.7213 25.5488
## 106 27.4992 27.5320 26.9905 26.7043 26.8213 99.0000
## 107 99.0000 28.6674 26.5324 26.0616 25.6125 26.0007
## 108 99.0000 29.5516 27.3413 26.5399 25.8255 25.5565
## 109 99.0000 26.7387 25.0506 23.8922 22.9906 22.5569
## 110 99.0000 27.9980 27.1037 26.7060 26.0470 25.4122
## 111 99.0000 27.9249 27.4178 26.1729 25.4474 25.5452
## 112 99.0000 28.7600 27.4241 26.8660 25.8095 25.3845
## 113 27.4529 27.1347 26.3360 26.4542 26.3333 99.0000
## 114 26.6110 26.9796 27.0209 26.4039 26.5694 99.0000
## 115 99.0000 27.9003 26.7425 25.3988 24.7536 23.7086
## 116 99.0000 27.0067 26.1140 25.6883 26.0010 25.0826
## 117 28.0302 27.9501 27.4237 26.8163 26.8667 99.0000
## 118 28.3342 28.7335 27.5282 26.6505 26.6873 99.0000
## 119 99.0000 28.4254 26.8579 26.3785 26.4718 26.2101
## 120 27.3697 27.7864 26.9123 26.5626 26.6821 99.0000
## 121 99.0000 29.0820 27.1303 26.3621 26.1748 27.1242
## 122 99.0000 27.7119 27.6429 26.8571 26.3426 25.9335
## 123 99.0000 27.4873 26.6511 26.1783 26.1334 26.9426
## 124 99.0000 28.6627 27.6740 26.7204 26.5136 26.3897
## 125 28.8940 28.6044 28.6732 26.8906 27.1556 99.0000
## 126 99.0000 27.7340 27.3181 26.4074 25.5253 25.2635
## 127 99.0000 29.1339 28.8794 26.8772 26.9426 26.1740
## 128 99.0000 28.4380 27.4526 26.7059 25.9577 24.9595
## 129 99.0000 27.7017 27.0804 26.2573 25.9126 25.7573
## 130 99.0000 27.5068 26.1209 25.5807 25.3409 25.2270
## 131 99.0000 28.0440 27.4448 26.6983 26.5246 27.3021
## 132 99.0000 28.4915 27.0320 26.6659 26.8206 26.4476
## 133 27.2533 28.1199 27.0328 26.8448 26.7656 99.0000
## 134 99.0000 29.7592 26.6953 25.1093 24.3386 23.3157
## 135 27.3255 27.6360 26.7536 26.3409 26.2196 99.0000
## 136 99.0000 28.1802 27.5477 26.9497 26.5421 26.4742
## 137 99.0000 27.1424 27.0590 26.7692 25.9427 25.2998
## 138 99.0000 28.7199 27.8481 26.9681 26.8091 25.6428
## 139 99.0000 27.5622 27.2678 26.2548 25.5316 25.5273
## 140 99.0000 28.0848 25.9770 24.4278 23.6644 22.7077
## 141 99.0000 29.3863 27.9953 26.9633 26.6782 25.7341
## 142 99.0000 27.7675 27.2195 26.3149 25.8818 25.1878
## 143 99.0000 27.7140 26.9408 26.3488 26.6626 27.0939
## 144 99.0000 27.1892 25.9477 25.0092 24.6537 24.2532
## 145 99.0000 27.7458 27.5737 26.7477 25.8938 25.7111
## 146 99.0000 27.5548 27.0364 26.2739 25.8051 26.3060
## 147 99.0000 28.1422 27.6752 26.8461 27.1171 27.1066
## 148 29.1859 28.8674 28.1948 26.8235 26.6071 99.0000
## 149 28.3014 28.1922 27.4364 26.9406 26.7667 99.0000
## 150 99.0000 26.6513 26.0664 25.2647 24.6190 23.8856
## 151 99.0000 27.7664 26.9574 26.4268 26.3690 28.4564
## 152 99.0000 28.3670 27.8617 26.9744 28.4575 26.4952
## 153 99.0000 28.9414 26.7716 25.6520 25.1129 24.5915
## 154 99.0000 27.9258 27.7127 26.8954 27.0026 26.0930
## 155 99.0000 27.5596 27.1249 26.6848 26.5849 26.7709
## 156 99.0000 28.7772 28.3713 26.5697 25.6127 24.4212
## 157 99.0000 27.2349 26.8670 26.4324 25.7554 26.7323
## 158 99.0000 27.9192 27.0263 26.2682 26.0343 25.2798
## 159 99.0000 27.8609 27.1282 26.6852 26.1268 25.6724
## 160 99.0000 26.9969 25.9203 25.6491 25.3973 25.3484
  161 99.0000 27.4803 26.9257 26.5157 27.3678 26.6744
## 162 99.0000 28.4391 27.4410 26.2781 25.7716 25.8267
## 163 99.0000 28.6147 27.1909 26.3471 26.2417 25.7086
```

```
## 164 99.0000 27.4922 26.4017 25.7845 25.4546 25.6549
## 165 99.0000 29.0448 26.9272 26.0920 25.8169 25.0309
## 166 26.7510 27.0151 27.1820 26.7929 27.0406 99.0000
## 167 99.0000 28.4451 27.2330 26.3521 26.8097 26.0044
## 168 99.0000 27.3150 26.5922 26.4153 26.2156 25.9297
## 169 99.0000 27.5778 27.1194 26.9583 26.3030 25.8568
## 170 99.0000 28.7474 27.1213 26.4954 25.9398 25.8240
## 171 27.6752 27.2217 26.7694 26.6983 27.0723 99.0000
## 172 26.5028 26.8674 27.0288 26.8500 26.9765 99.0000
## 173 99.0000 27.0841 26.6439 26.0485 25.7538 25.3588
## 174 99.0000 29.9117 27.9072 26.2165 25.3948 24.3354
## 175 99.0000 28.4108 27.9219 26.8844 27.1940 27.1840
## 176 99.0000 28.0849 27.4469 26.9116 26.4834 25.7376
## 177 99.0000 27.0583 27.0172 26.3005 26.4769 25.9733
## 178 99.0000 27.9800 26.8658 25.4582 24.4605 23.9279
## 179 29.2204 29.7032 27.6312 26.9634 26.5207 99.0000
## 180 99.0000 28.5472 27.1901 26.7941 26.6991 26.3129
## 181 99.0000 99.0000 28.4684 26.2745 25.4313 24.9216
## 182 99.0000 28.1017 27.6134 26.7696 26.0543 25.3117
## 183 99.0000 28.2624 26.4014 25.7131 25.3573 25.0308
## 184 27.2341 27.7774 27.3483 26.6703 26.2699 99.0000
## 185 99.0000 27.6836 27.6843 26.6894 26.6672 27.0305
## 186 99.0000 27.4105 26.9156 26.0846 26.0381 26.2045
## 187 99.0000 28.5658 27.9488 26.1077 24.8504 24.5413
## 188 99.0000 29.0244 27.8755 26.7335 26.3215 25.9445
## 189 99.0000 27.5600 26.6915 26.3814 26.2598 25.8686
## 190 99.0000 26.6721 25.7933 25.4323 25.3155 24.8057
## 191 99.0000 26.8099 26.6873 26.2967 25.8276 25.4221
## 192 99.0000 30.4456 28.6172 26.9456 26.9728 26.7689
## 193 99.0000 29.9999 27.4384 26.8917 26.9435 26.0931
## 194 99.0000 27.4496 27.6478 26.8702 26.5615 26.5755
## 195 29.6378 99.0000 28.2308 26.8221 26.1719 25.4217
## 196 99.0000 28.1680 27.0915 26.6410 25.3886 24.7219
## 197 99.0000 27.9950 26.6628 26.0289 25.6592 25.5975
## 198 99.0000 28.0867 27.3440 26.4200 25.4731 25.1639
## 199 99.0000 27.5586 27.7168 25.8178 25.3389 24.0704
## 200 99.0000 27.4429 26.7317 25.9358 26.1212 27.8906
## 201 99.0000 28.0055 26.4339 25.5031 25.2689 25.3316
## 202 99.0000 27.7333 27.0378 26.4393 25.9442 25.9438
## 203 99.0000 29.3973 28.3148 26.8422 27.3749 26.6960
## 204 99.0000 27.6721 26.6729 25.7315 25.3585 24.8993
## 205 99.0000 26.7089 26.3805 26.1001 26.2355 25.1692
## 206 99.0000 27.4731 26.6035 26.1245 26.0196 25.2237
## 207 28.6918 27.8550 26.9189 26.8973 26.5940 99.0000
## 208 99.0000 28.6361 27.5266 26.9829 26.8182 26.1140
## 209 99.0000 28.6544 27.9728 26.5714 25.2310 24.8036
## 210 99.0000 28.4724 27.0335 26.6030 26.1936 26.0789
## 211 99.0000 27.7808 27.0428 26.4076 26.3044 27.6315
## 212 99.0000 28.0232 26.5595 26.2015 25.6471 26.5574
## 213 99.0000 28.2456 27.5837 25.7745 24.4913 23.8499
## 214 99.0000 33.9851 27.8138 26.5209 25.8356 25.3668
## 215 99.0000 26.8103 25.9892 25.0869 24.6748 24.7374
## 216 99.0000 28.3315 27.3751 26.1979 25.4084 24.8762
## 217 30.4207 99.0000 27.6028 26.7539 25.9280 25.3908
## 218 99.0000 28.3971 27.4129 26.8452 26.8406 26.4841
## 219 99.0000 26.9397 26.2635 26.0253 25.8270 25.5940
## 220 99.0000 29.0731 27.3019 25.8715 25.0456 24.4536
## 221 99.0000 26.9518 26.1148 25.6227 25.4036 25.0937
## 222 99.0000 31.7990 27.5102 25.7700 25.0462 24.0571
## 223 99.0000 28.2810 27.5228 26.5477 25.7008 25.7363
## 224 99.0000 28.1028 27.0114 25.6886 25.2543 24.7066
## 225 99.0000 28.1803 27.2082 26.3867 25.4609 25.2667
## 226 99.0000 25.9277 24.1938 22.9305 22.3620 22.0390
## 227 99.0000 28.5659 26.9822 26.3628 25.2553 24.9170
## 228 99.0000 27.8546 27.1754 26.6532 26.5850 25.7151
## 229 99.0000 28.7061 27.4154 26.5243 25.4530 24.9021
## 230 99.0000 29.0581 28.4120 26.9514 26.3470 26.0822
## 231 99.0000 28.2002 27.7992 26.9005 26.7069 27.3819
## 232 99.0000 27.3764 26.7629 26.0074 26.0242 25.7550
## 233 99.0000 28.6043 27.4070 26.1105 25.7659 24.9654
## 234 99.0000 27.5380 26.9120 26.0759 26.0959 26.3677
## 235 99.0000 28.8998 27.6247 26.6472 25.9913 25.6081
## 236 27.2460 27.4796 27.6002 26.9886 26.6549 99.0000
## 237 99.0000 29.2577 26.9963 26.7559 26.6440 25.7256
## 238 99.0000 28.7112 27.5077 25.8392 24.4433 23.6582
## 239 99.0000 27.8971 26.7753 25.8339 24.8345 24.0954
  240 28.6032 28.3588 27.9604 26.6037 26.2190 99.0000
## 241 99.0000 27.5762 27.1632 26.7361 27.0374 26.0378
## 242 29.4680 28.5342 27.4187 26.7581 99.0000 26.7209
```

```
## 243 99.0000 27.5777 27.2598 26.5432 25.9141 25.7490
## 244 99.0000 28.0208 27.6368 26.8787 26.4108 27.2863
## 245 99.0000 30.2574 27.9939 26.9124 25.9262 25.3056
## 246 99.0000 28.3161 26.7975 26.0306 25.9470 25.5136
## 247 26.3712 26.6383 26.5301 26.6072 27.1113 99.0000
## 248 29.6089 99.0000 27.5417 26.4395 24.9132 23.9021
## 249 26.5482 27.0362 27.1281 26.8698 27.0271 99.0000
## 250 99.0000 27.7011 27.5322 26.6771 27.1409 26.1957
## 251 99.0000 27.9477 27.0016 26.3699 26.0316 25.6524
## 252 99.0000 27.2472 26.9193 26.5953 25.9911 25.3603
## 253 99.0000 28.9623 28.3353 26.9242 26.6603 26.2080
## 254 28.7016 27.8189 27.6557 26.9453 27.3066 99.0000
## 255 99.0000 29.5320 27.8361 26.3583 25.9582 25.1855
## 256 99.0000 26.8026 26.9736 26.9635 27.8943 27.1198
## 257 99.0000 27.4644 26.9503 25.4278 24.6380 23.9629
## 258 29.6100 27.9968 27.0481 26.6015 27.5598 99.0000
## 259 99.0000 28.2986 26.6068 26.6274 25.8428 26.8240
## 260 99.0000 27.4288 26.1413 25.6441 25.4107 24.8272
## 261 99.0000 28.4136 26.7054 26.2354 25.8256 25.2264
## 262 99.0000 28.8666 27.5841 26.6773 25.8543 25.3275
## 263 99.0000 28.3029 27.3941 26.5472 25.5577 25.2216
## 264 99.0000 28.0529 27.5842 26.9832 26.4640 26.7158
## 265 99.0000 27.4848 26.8887 26.0769 25.3706 24.9299
## 266 26.0537 27.0357 26.7900 26.9462 27.0514 99.0000
## 267 99.0000 27.1337 26.1319 26.0896 25.7025 25.8231
## 268 29.1837 28.4274 27.6472 26.9602 27.0405 99.0000
## 269 99.0000 27.0664 25.7486 24.6913 23.7045 22.9642
## 270 99.0000 28.7339 28.4983 26.9964 26.0833 25.0020
## 271 26.3111 26.5290 26.3349 26.0722 26.4831 99.0000
## 272 99.0000 28.3951 27.6204 26.8903 27.7157 26.3177
## 273 99.0000 28.2793 27.6415 26.7791 26.0152 26.4021
## 274 99.0000 26.8188 25.7216 25.3734 25.0344 25.1237
## 275 99.0000 27.5000 25.7849 24.6325 24.1313 23.7948
## 276 99.0000 27.9281 27.5815 26.3713 26.1188 25.7199
## 277 99.0000 28.0439 27.4243 26.9074 26.4755 27.1746
## 278 99.0000 28.5056 27.2215 26.4695 25.8518 26.2602
## 279 99.0000 28.6570 27.3552 25.7299 25.0515 24.0030
## 280 99.0000 99.0000 27.2825 25.6091 24.8518 23.7762
## 281 99.0000 28.5252 27.4908 26.8960 26.4872 28.1416
## 282 99.0000 27.8071 26.9586 26.5274 26.6709 26.6057
## 283 99.0000 28.5850 27.4920 26.9283 26.5081 26.3294
## 284 99.0000 28.4575 27.8602 26.6572 25.0343 24.3447
## 285 99.0000 28.2650 27.2299 26.7090 27.0568 27.0125
  286 99.0000 28.3072 27.1778 26.6971 25.9930 26.4963
## 287 99.0000 28.1074 27.5227 26.2566 25.9975 25.4439
## 288 99.0000 27.8052 26.6768 25.5032 24.8763 24.2776
## 289 99.0000 28.3168 27.1430 26.6211 25.8126 25.3086
## 290 99.0000 27.8701 27.7421 26.5252 26.3078 27.1996
## 291 99.0000 28.1030 27.1267 25.3650 24.3450 23.6450
## 292 99.0000 29.3592 27.4845 26.5606 25.5827 24.5222
## 293 99.0000 28.7100 26.8444 25.4263 24.6179 23.7596
## 294 99.0000 27.0447 25.4409 24.3233 23.8586 23.6005
## 295 99.0000 25.9915 23.6939 22.5238 21.6267 21.2369
## 296 26.7212 26.2997 26.1855 26.3218 26.5599 99.0000
## 297 99.0000 28.2388 27.1981 25.7482 24.9018 24.3475
## 298 99.0000 28.0195 27.0341 26.3287 26.9525 26.7723
## 299 99.0000 26.6386 25.1758 24.3432 24.0521 23.9400
## 300 99.0000 28.5306 27.1089 26.6905 27.2118 26.6838
## 301 99.0000 28.5696 27.3547 26.6943 26.3661 26.4396
## 302 99.0000 28.5319 27.6757 26.9416 27.2614 25.9015
## 303 28.3853 28.0667 27.2693 26.9243 26.8958 99.0000
## 304 99.0000 28.0621 27.6907 26.6667 26.4460 26.0539
## 305 99.0000 28.8411 26.8689 25.9389 25.1837 24.4777
## 306 99.0000 29.0139 27.5485 26.2549 25.1253 24.6412
## 307 99.0000 27.3296 26.2614 26.0184 25.8761 26.0711
## 308 99.0000 27.2802 26.4248 25.7873 25.7276 25.5928
## 309 28.0207 28.2760 26.9078 26.5237 26.3310 99.0000
## 310 99.0000 29.4646 28.2446 26.1901 25.0739 24.6960
## 311 99.0000 28.4255 26.9881 25.9372 25.6150 25.8983
## 312 99.0000 28.0705 27.1251 26.6891 26.4389 27.5419
## 313 99.0000 28.0580 26.8266 25.6470 25.5789 25.0411
## 314 99.0000 28.4668 26.4752 24.6619 23.9355 22.9788
## 315 99.0000 30.1799 27.2947 26.1049 26.0913 26.3267
## 316 99.0000 27.2662 26.8013 25.6334 24.7680 24.2629
## 317 27.8182 27.2965 26.9840 26.7551 26.3898 99.0000
## 318 99.0000 31.0891 27.4676 26.7506 26.4178 26.2874
  319 99.0000 28.9994 27.4067 26.3966 26.1556 25.1814
## 320 99.0000 28.4061 27.5842 26.8103 26.1746 27.1475
## 321 99.0000 27.8410 27.1702 26.5047 25.8961 25.0264
```

```
## 322 29.2512 28.2609 27.3140 26.7538 26.3416 99.0000
## 323 99.0000 28.5720 27.3136 26.3180 25.7251 25.2074
## 324 99.0000 28.6055 28.2953 26.8313 26.7966 27.2772
  325 99.0000 29.4413 27.5653 26.1894 25.1783 24.3072
      99.0000 27.1060 26.7023 25.9375 25.7711 99.0000
  327 99.0000 27.7945 26.3486 25.9263 25.5811 25.2784
## 328 99.0000 99.0000 27.5420 26.6843 26.6117 26.5000
  329 99.0000 26.2602 25.4698 25.2358 25.0633 24.4537
## 330 99.0000 26.7565 25.1185 23.9627 23.3129 22.9985
  331 99.0000 28.0244 26.9191 26.3968 26.2044 26.9076
   332 26.0975 26.0556 25.9905 26.1397 25.6582 99.0000
## 333 30.0745 99.0000 28.1605 26.9924 26.0831 25.5217
## 334 30.5622 28.2569 27.9610 26.9010 27.2648 99.0000
## 335 99.0000 28.9288 27.5332 26.9058 27.1021 99.0000
## 336 99.0000 28.8587 27.5034 26.9004 26.4127 26.5141
## 337 99.0000 26.6583 26.1688 25.4943 25.5130 25.2431
  338 99.0000 27.5696 26.8552 24.9924 24.0340 23.4926
  339 99.0000 30.2457 27.7108 26.5878 25.7533 25.1338
  340 99.0000 30.5332 27.7512 25.7465 24.7686 23.8829
## 341 99.0000 27.8694 27.0542 25.6965 25.2079 24.9950
  342 28.0125 27.2404 26.8328 26.9690 27.9012 99.0000
## 343 99.0000 28.9968 27.4270 26.7584 26.6911 26.0676
##
  344 99.0000 28.5993 28.3519 26.1441 24.9664 24.5721
   345 99.0000 29.4695 27.8539 26.7234 26.5418 26.2814
## 346 99.0000 28.7382 27.4805 26.8453 26.8886 27.3199
## 347 99.0000 26.8454 26.0460 25.8361 25.6352 25.4301
## 348 99.0000 27.5543 27.5395 26.6123 26.6051 25.9366
## 349 99.0000 27.7551 27.0721 26.2980 26.1158 25.8412
## 350 99.0000 27.5252 26.6769 26.5213 26.1450 25.9935
  351 30.7286 29.1889 28.8647 26.7705 26.2755 99.0000
  352 99.0000 26.7247 25.4493 25.0312 24.7203 24.7662
## 353 27.2670 27.8356 26.9125 26.7588 26.4504 99.0000
## 354 99.0000 27.9326 27.0167 26.1865 25.7564 25.9767
## 355 99.0000 26.8586 26.2749 25.9312 25.3933 25.4439
## 356 99.0000 28.0959 27.6029 26.5694 26.7596 26.1950
## 357 99.0000 28.7895 27.0075 25.6891 25.0484 25.0065
  358 99.0000 28.2926 28.1430 26.7556 26.4543 25.8913
  359 99.0000 27.4327 26.8280 25.9289 25.5679 25.9815
##
## 360 99.0000 27.6314 27.1382 26.7832 26.1096 25.9505
## 361 99.0000 29.1897 28.6001 26.9661 26.7404 28.3865
  362 99.0000 28.5592 27.0770 26.2611 25.5581 25.3595
## 363 99.0000 28.3712 28.8582 26.8852 27.5485 99.0000
##
  364 99.0000 27.7608 26.7240 25.8200 25.2027 25.0929
   365 99.0000 28.3109 27.9147 26.9173 26.7691 26.4529
##
  366 99.0000 29.1972 27.2662 26.7291 26.6086 26.9225
##
  367 28.2142 27.5792 27.0733 26.3357 26.3038 99.0000
  368 99.0000 28.8527 27.6260 26.5174 26.1776 26.2737
## 369 99.0000 28.8072 27.3290 26.9471 26.4490 26.6890
## 370 99.0000 27.6576 26.8387 25.7242 24.8134 24.4102
  371 28.6776 28.2298 27.4347 26.7283 25.8204 99.0000
## 372 99.0000 30.3153 27.6524 26.3468 26.1441 25.8348
## 373 99.0000 29.1308 28.5872 26.6596 26.0185 24.8138
## 374 99.0000 26.6895 26.2713 26.0165 25.9084 26.5422
## 375 99.0000 28.1376 27.4308 26.6358 26.5049 25.8847
## 376 99.0000 27.7632 27.2195 26.5366 25.6805 24.9226
## 377 99.0000 28.1528 27.5626 26.3410 26.2606 26.5378
  378 99.0000 28.1567 26.9710 26.3167 25.6123 26.0151
  379 99.0000 27.0538 26.5696 25.5908 25.2807 25.2634
## 380 99.0000 28.3111 26.3006 25.0260 24.3479 23.3789
  381 99.0000 29.1517 27.9890 26.8582 26.7872 27.4275
## 382 99.0000 28.6672 28.0722 26.6993 26.3103 26.0620
## 383 99.0000 27.7800 27.2043 26.5971 26.1963 27.1725
  384 99.0000 27.1515 25.9019 24.9853 24.1083 23.7306
##
##
      26.0782 25.8773 25.8979 25.8432 26.2471 99.0000
##
  386 99.0000 28.1931 27.3915 26.3332 26.3611 25.7887
## 387 99.0000 27.3314 26.8176 26.1345 26.1442 25.7709
  388 99.0000 29.1517 28.5663 26.8733 26.7487 25.2981
## 389 99.0000 27.8645 27.6806 26.5842 26.1292 25.4034
##
  390 99,0000 27,9446 27,1401 26,4295 26,4566 26,6194
   391 99.0000 27.1894 26.2314 25.8520 25.5391 25.9073
  392 99.0000 29.3088 26.6906 25.3966 24.8108 24.7654
## 393 99.0000 28.2762 26.9750 26.5575 26.6851 28.7832
```

Question 7

pred.new <- filter(predictors, u != 99 | g != 99 | r != 99 | i != 99 | z != 99 | y != 99)</pre>

```
## 1
        23.5907 21.6827 20.0759 19.4611 19.0885 18.8831
## 2
        27.1252 26.2652 25.5893 25.0175 24.6461 24.0259
        27.4013 26.7235 26.6074 26.5520 25.7460 25.4095
## 4
        27.9354 27.0586 26.3402 25.6980 25.0166 24.2701
## 5
        27.7733 27.4076 26.0681 25.3545 25.0698 24.9984
## 6
        27.1742 26.9353 26.2515 26.2313 26.0436 25.3952
## 7
        25.3228 24.9353 24.5632 24.1697 23.5369 23.2099
## 8
        27.4160 27.5820 26.8848 26.1395 25.3435 25.8520
## 9
        27.2069 27.4311 25.5344 24.4186 23.5194 23.0643
## 10
        28.8780 27.5836 26.3113 26.1606 25.8048 26.1740
        99.0000 28.6780 27.9336 26.5562 25.0876 24.8142
## 11
## 12
        28.3921 27.9233 26.8904 26.3605 26.4174 25.7329
## 13
        26.6773 26.0998 25.2068 24.9732 24.8651 24.6902
## 14
        27.2278 26.3539 25.9111 25.2846 25.0043 24.1177
## 15
        26.9538 27.1541 27.3460 26.5548 25.9525 25.3050
## 16
        26.8456 27.0187 26.1422 25.4837 25.5677 25.3532
## 17
        28.0052 27.7457 26.4383 26.0616 25.7784 26.1672
## 18
        25,2085 25,1535 24,9196 24,8335 24,6124 24,3069
        29.2546 30.8355 27.7408 26.8231 25.9516 26.2909
## 20
        26.1497 26.2192 26.0955 25.6397 25.4075 25.0130
## 21
        26.5509 26.4818 25.5536 25.2270 25.2445 24.9525
## 22
        24.5290 23.9741 23.0932 22.6841 22.4904 22.2640
## 23
        28.2080 28.0037 26.2904 24.9391 24.4180 24.1830
        28.9982 28.8441 27.2527 26.5719 25.5759 25.8044
## 24
## 25
        24.8240 24.8536 24.6835 24.5371 24.6220 24.6840
## 26
        27.0908 27.5066 27.4050 26.4532 26.6131 26.2317
## 27
        26.6189 25.2088 23.8330 23.3868 23.1178 23.0027
## 28
        26.4905 26.0486 25.3823 24.7199 24.4525 23.6197
## 29
        28.3465 27.4630 26.5717 25.7214 24.7746 23.9812
## 30
        28.4209 28.2880 27.4080 26.6403 26.5285 26.5848
## 31
        31.5726 27.3192 27.1310 26.5103 26.4225 25.6176
## 32
        28.1489 27.8916 27.5010 26.6906 25.6706 26.5114
## 33
        29.1256 27.9763 27.0292 26.7976 26.9672 26.2662
## 34
        27,6598 26,3224 25,8027 25,7159 25,4798 25,2686
## 35
        27.1932 26.1313 25.5652 24.8539 24.2522 24.1523
## 36
        99.0000 26.9491 25.8114 24.8964 24.6316 24.5645
## 37
        26.9505 26.5753 26.0784 25.4054 24.8646 24.5873
## 38
        26.6317 26.6204 25.8408 25.3731 25.2625 25.2317
        23.7494 22.7033 21.6606 21.1618 20.8411 20.5920
## 40
        24.8429 23.5477 22.6904 22.2319 22.0422 21.8155
## 41
        27.5204 27.7285 26.9929 26.6925 26.6048 26.3440
## 42
        99.0000 29.6675 27.7214 26.7440 26.5730 25.9962
## 43
        27.5168 29.4731 27.4634 26.2148 25.6620 25.4156
        99.0000 28.0462 27.8069 26.9388 27.5762 27.8884
## 44
        26.2940 26.0667 25.7064 25.3692 24.7137 24.4754
## 45
## 46
        28.3053 26.8101 25.7267 24.9689 24.8305 24.8043
## 47
        27.7512 26.9047 26.5232 25.9890 25.4380 26.1799
## 48
        26.1591 24.9571 23.4138 22.3028 21.9225 21.5656
        27.0744 26.0737 25.2942 24.8377 24.7759 24.6305
## 49
## 50
        25.7862 25.1911 24.6239 24.4655 24.4099 24.3539
## 51
        26.3847 26.0648 25.8074 25.2263 24.7896 23.8893
        27.8197 28.0456 27.0652 26.5326 25.9764 28.1821
## 53
        25.6431 25.6287 25.4379 25.0704 24.7970 24.5576
## 54
        27,2264 26,6165 25,6304 24,9386 24,0875 23,6585
## 55
        28.8194 28.2238 27.6085 26.0116 25.2318 24.4592
## 56
        27.2091 25.9012 24.3842 23.1960 22.7635 22.4243
## 57
        26.5874 25.9783 25.5048 24.9143 24.5030 23.9024
## 58
        26.5267 26.2025 24.9746 24.4122 24.2170 23.9205
## 59
        25.7664 25.0661 23.9577 23.2849 23.1373 22.8929
## 60
        28.1760 27.3996 27.4028 26.8932 27.2581 25.7115
## 61
        26.3381 26.1001 25.6144 25.5268 25.3847 25.5478
## 62
        26.9933 26.1939 25.5789 24.8870 24.2727 24.0573
## 63
        27.2710 26.0094 25.5536 25.0561 24.6234 24.4312
## 64
        28.1292 27.0356 24.9791 23.7826 22.8522 22.0419
## 65
        29.1440 28.2120 27.0214 26.8139 26.6610 26.7252
## 66
        26.6734 26.9618 26.7649 26.5744 26.6068 25.5605
## 67
        26.7420 26.4678 26.1872 25.9182 25.4729 24.9277
## 68
        27.5620 27.4842 26.3191 25.7195 25.0682 24.5815
        25.5645 24.6126 23.9909 23.7564 23.6159 23.5673
## 69
        26.2779 26.4544 25.8065 25.3685 25.4078 24.9253
## 70
        28.2189 26.6906 26.3069 25.6792 25.4269 26.4898
## 71
        25.5887 25.1474 24.6842 24.4974 24.3467 24.3638
```

```
28.0681 27.6013 26.9489 26.4647 25.6820 25.0125
## 73
## 74
        25.2554 24.8657 24.0349 23.7949 23.6688 23.5896
        26.1032 25.3681 23.4371 22.3180 21.4136 20.9592
## 75
## 76
        26.2473 25.8953 25.1163 24.5955 24.3804 24.4361
## 77
        28.2424 29.4176 28.1202 26.6837 26.2754 99.0000
## 78
        28.3330 27.8871 27.1012 26.9542 26.1834 26.2996
## 79
        29.9067 29.1769 27.9319 26.9695 26.9588 29.6223
## 80
        25.2596 24.5702 23.4889 22.6959 21.9383 21.5542
## 81
       27.8407 27.5703 26.9581 26.2224 25.9186 25.8953
## 82
        27.0065 26.5739 25.7851 25.1745 25.0848 24.9713
## 83
        27.7584 27.9356 26.8045 26.2979 26.6657 25.8988
## 84
       26.8458 26.3254 26.2689 25.7780 25.2112 24.7541
## 85
       25.5016 25.3407 24.9019 24.2711 24.0173 23.9559
## 86
        26.3515 26.1852 25.7143 25.6401 25.4113 25.2629
## 87
        26.3581 26.0194 25.3646 24.6924 24.4506 24.3314
## 88
       26.7498 26.1775 25.0547 24.5991 24.2826 24.1428
## 89
        27.1613 28.3186 28.2976 26.8731 27.6306 26.7550
## 90
        27.3878 28.2304 27.2710 26.9600 26.2623 27.4151
## 91
        99.0000 28.9702 27.8574 26.1651 25.0758 24.5420
## 92
       26.7702 25.9774 25.1721 24.1824 23.8712 23.6064
## 93
       29.5105 28.6623 27.3934 25.4760 24.5108 24.0294
## 94
       28.7677 28.1083 27.3822 26.7579 26.8036 26.4309
## 95
       27.3849 26.7923 25.5132 25.1705 24.9947 24.4100
## 96
        24.4493 23.9789 23.4495 22.7737 22.5904 22.4742
## 97
        27.0086 26.1973 25.8617 25.6216 25.4212 25.4239
## 98
       99.0000 27.6859 27.5021 26.6976 27.2323 26.0221
## 99
        27.0037 26.8867 26.4836 25.9131 25.1681 24.7888
       27.7149 27.4305 26.0949 25.2065 24.9376 24.4327
## 100
## 101
       28.3965 28.5976 27.5629 26.9222 26.6820 26.8252
## 102
       30.1858 28.1109 26.4871 24.7450 24.0867 22.9911
## 103
        29.1098 30.2545 28.4310 26.9262 26.7440 31.5682
## 104
       25.4800 25.0120 23.6072 22.5956 21.7975 21.4625
## 105
       26.0449 25.5407 24.9566 24.8194 24.6210 24.8078
       28.9737 26.7347 26.3124 25.8207 25.0124 24.8154
## 107
       27.8048 27.7558 26.6794 25.9711 25.0937 24.6453
## 108
       99.0000 31.6617 27.5083 25.8405 24.8862 24.0097
## 109
        26.9322 26.3646 25.6975 24.6761 24.0238 23.2902
## 110
       24.3764 22.7359 21.4422 20.9512 20.6848 20.4670
## 111
       27.8039 27.5786 26.7804 26.0302 25.9373 25.6887
       99.0000 27.4599 25.9715 25.0598 24.0858 23.3608
## 112
## 113
       27.4302 27.4222 26.4625 25.9584 25.8212 25.7474
## 114
      99.0000 28.8544 27.0935 26.1411 26.0946 28.1544
## 115
       25.3025 24.3001 23.6234 23.2673 23.1538 22.9817
## 116
       26.3901 26.4997 26.7621 26.8865 26.4839 26.6713
## 117
       27.9830 27.4822 26.9654 26.0706 25.3717 25.3478
## 118
       28.0418 27.9294 27.1045 26.4524 26.0929 25.2800
## 119
       26.2505 25.4146 24.5361 23.6009 23.0824 22.9120
## 120
       28.4583 26.9024 26.2961 25.8636 25.5368 25.5522
## 121
       27.4011 27.5427 26.6247 26.0721 26.3974 27.0641
## 122
       26.9429 26.0693 23.6378 22.5234 21.5045 20.9203
## 123
       31.0711 29.3700 28.3446 26.9023 27.0790 26.9673
## 124
       28.1587 27.4872 26.6918 25.8740 25.5831 25.0922
## 125
       27.9147 26.7582 25.5385 24.3470 23.5299 22.7669
## 126
      99.0000 27.9855 27.4880 26.6029 26.1607 25.4544
## 127
       27.1589 27.1902 26.8306 26.2868 26.5366 25.6409
## 128
       28.1642 27.9889 26.3037 25.9457 25.7511 25.1839
## 129
       28.1295 27.1672 26.7560 26.6055 26.2648 25.8942
## 130
       27.7412 27.2165 26.7459 26.0424 25.5664 25.1168
       28.1492 27.0302 26.3259 26.0324 25.7576 25.4970
## 131
       26.7010 26.3689 25.5601 24.7597 24.3197 24.1195
## 132
       26.8484 27.2735 26.7470 26.2125 26.1539 25.5416
## 133
## 134
       28.7864 27.6317 26.7267 26.2818 26.2873 25.8843
## 135
       27.8443 26.7471 26.3115 26.3039 26.1726 25.7483
## 136
       23.9544 22.9458 22.1460 21.9357 21.6788 21.7137
## 137
       25.6743 24.4970 23.1968 22.9228 22.7628 22.6715
       25.4266 24.6804 24.0356 23.3232 23.1673 23.0210
## 138
       99.0000 27.3952 26.8879 26.7157 26.1964 26.0210
## 140
       25.7028 25.2798 24.6677 23.8431 23.5382 23.4780
## 141
       30.2659 28.8755 27.8752 26.6219 26.2718 28.0630
## 142
       26.2713 26.0686 25.1629 24.4653 23.7420 23.4440
## 143
        27.7527 27.3598 26.8755 26.6431 26.3616 26.0163
       23.7350 22.9648 22.6422 22.4577 22.3946 22.2956
## 144
## 145
       26.5354 26.8726 26.4999 26.0153 25.6725 25.2609
       27.5456 26.3197 25.4028 25.1169 24.8863 24.6371
## 147
       27.2383 27.4337 26.2674 25.5955 25.4162 25.2546
## 148
       24.9897 24.8440 24.1627 23.5813 22.8814 22.6009
       27.3800 27.9628 27.2757 26.9270 27.0203 25.6807
       27.9541 26.9499 26.9739 26.6286 26.1495 25.8430
## 150
## 151 26.1539 25.8538 25.0840 24.4084 24.1900 23.9655
```

```
## 152 99.0000 28.0005 27.4545 26.8872 26.1570 26.2312
       28.9731 27.8204 26.6721 26.3613 26.1606 26.3381
## 154
       29.9981 28.4193 27.0202 26.0424 25.9001 25.1539
## 155
       27.8540 26.0984 24.6875 24.1125 23.8925 23.8547
## 156
        24.7922 23.8921 22.6739 21.6964 21.3536 21.0321
## 157
       28.4482 27.9130 27.2787 26.5101 25.9948 25.2235
## 158
       99.0000 28.0421 27.5552 26.9130 26.5365 26.9885
       28.0492 27.7464 27.0177 26.3825 26.1431 26.4445
## 160
       31.2265 27.7647 26.5378 25.8716 24.7222 24.1823
## 161
       27.8728 27.9822 27.2647 26.7756 26.0814 25.7971
## 162
       26.3357 26.0166 25.2859 24.6200 24.3970 24.4394
## 163
       27.9109 28.2089 27.3425 26.9665 27.7448 25.9759
## 164
       99.0000 27.1915 27.2267 26.1779 25.9988 25.8512
## 165
       26.8943 27.8515 27.0970 26.1868 25.7756 25.9312
## 166
       27.3914 25.8844 25.2107 24.3047 23.6853 22.8502
## 167
       28.3369 27.2243 25.4916 24.5312 23.5198 23.0325
## 168
       28.4870 27.8588 27.1438 26.9717 26.3082 25.6752
## 169
       27.7209 27.7136 27.0732 26.4383 26.6934 27.4961
## 170
       30.3440 27.8508 27.3069 26.7490 26.0978 26.5945
## 171
       25.5889 25.4814 25.1112 24.5348 24.0782 23.8003
       24.6205 23.8978 22.9914 22.7124 22.5107 22.4058
## 173
       25.2231 24.6784 23.7423 23.0379 22.7700 22.5108
## 174
       26.2904 25.6074 24.5648 23.6138 23.3474 23.1130
## 175
       26.9743 25.6516 24.8453 24.6112 24.4283 24.3514
## 176
       26.6690 27.1101 26.6231 26.2105 26.5872 25.5480
## 177
       27.2795 27.4140 27.0228 26.7156 26.5943 26.3928
## 178
       26.8811 26.4115 25.9688 25.7964 25.7123 25.4065
       25.1236 24.7740 24.6409 24.0948 23.6550 22.9186
## 179
## 180
       25.8806 25.5724 25.0070 24.3168 23.9644 23.7055
## 181
       27.1791 28.0240 27.3065 26.9033 26.8668 26.8150
## 182
       27.4578 27.0182 25.2897 24.1771 23.3858 23.0770
## 183
       28.5485 28.2122 27.3295 26.9860 26.4146 25.8162
       29.2743 27.3675 27.1547 26.5708 26.4545 26.1016
## 184
       25.9150 24.8299 24.2145 23.9237 23.8521 23.6882
## 186
       26.1898 26.1435 26.0303 26.0957 26.0745 26.4451
## 187
       99.0000 29.2627 27.9059 26.8753 26.6095 26.5269
## 188
       99.0000 27.2487 27.1684 26.6990 25.9979 25.7881
## 189
       26.4759 25.7340 24.9832 24.1781 23.8794 23.8258
## 190
       29.6979 29.1416 27.4330 26.8687 26.3781 25.1857
## 191
      27.4047 26.7019 25.9933 25.4014 25.2697 24.9195
       27.3043 25.4635 24.5850 24.3198 23.9955 24.1169
## 193
       27.9925 28.5425 27.4970 26.5000 25.6171 25.1065
## 194
       28.2699 27.9365 27.3141 26.5184 26.0188 25.8093
## 195
       26.8558 26.5724 26.6476 26.9707 26.8069 99.0000
## 196
       27.3854 27.0924 26.6447 25.6993 25.2596 25.1425
## 197
       99.0000 27.9055 26.8069 26.3458 27.0690 99.0000
       26.8994 27.3040 26.6729 26.3870 26.3461 25.8577
## 199
       25.1525 24.4345 23.7243 23.5500 23.3449 23.3436
## 200
       26.5090 25.0922 24.1846 23.8581 23.6128 23.4565
## 201
       99,0000 27,6919 26,7320 25,9597 24,9550 24,6838
## 202
       99.0000 26.3633 25.7265 25.4207 25.3231 25.0933
       28.9295 29.4774 27.9687 26.4322 25.5572 24.6287
## 203
       26.5055 26.6887 26.7953 26.5512 26.4997 26.3223
## 204
       28.5546 27.8309 26.3221 25.3246 24.4609 23.8040
## 206
       28.5829 29.6314 27.0514 26.4505 25.9460 25.5217
## 207
       99.0000 27.6353 27.8968 26.8258 26.5430 25.7629
## 208
       29.9024 29.6355 28.2893 26.8018 26.0478 25.2392
## 209
       29.2746 27.6786 26.7385 25.9063 25.5569 25.3625
## 210
       29.7040 27.5801 27.0003 26.4159 26.0531 25.8030
       27.3490 26.7342 26.3188 26.1716 25.9898 25.7575
## 211
## 212
       29.3489 27.1732 26.6207 25.6039 24.9995 24.0020
## 213
       26.3758 26.0851 24.9389 24.3107 24.1835 24.0248
## 214
       99.0000 29.9483 27.8641 26.9712 27.0348 27.7180
## 215
       99.0000 28.1164 27.8167 26.5014 26.1962 25.3223
## 216
       27.6691 27.6645 27.9776 26.8253 26.7963 26.6239
## 217
       27.4113 27.2869 26.9432 26.2856 26.5674 26.3558
       27.5885 27.6860 27.3862 26.8267 26.6587 99.0000
## 219
      25.3609 24.9915 24.7860 24.3007 23.7713 23.0884
## 220
       26.5259 26.4330 25.6487 25.1605 25.1626 24.9870
## 221
       27.4816 27.3624 26.7097 26.4239 26.2845 26.6014
## 222
        24.6115 24.3220 23.7486 23.3858 23.2784 23.1158
       29.2160 27.3207 26.0026 25.4335 25.1291 25.2439
## 223
       26.1998 26.7701 26.2982 25.4596 25.1919 24.8276
## 225
       25.0611 24.2325 23.0461 22.6794 22.5632 22.0676
## 226
       26.5231 26.6545 26.7881 26.5354 26.4665 26.7244
## 227
       27.4804 26.9306 26.5425 26.3554 26.0311 26.0034
       27.5706 27.1727 25.2802 24.1328 23.2094 22.7795
## 229
       26.7203 26.2785 25.5208 24.8969 24.8000 24.5367
## 230 27.3394 27.1136 26.5688 26.6547 25.9026 25.7241
```

```
## 231 27.1835 27.1312 26.4483 25.9404 25.2465 24.7676
       99.0000 27.4486 25.8067 24.6466 23.8021 23.4049
## 233
       29.2901 27.4031 26.4799 25.3716 24.1894 23.4281
## 234
        26.7516 26.8355 26.4599 25.9113 25.5734 25.5324
        30.0203 28.5565 26.5653 25.9269 25.4033 25.3213
## 235
## 236
        99.0000 27.7037 27.1968 26.6516 26.0970 25.8503
       31.8338 28.3780 27.4987 26.6002 26.2079 26.3430
## 237
       99.0000 27.6039 27.0312 26.2584 26.0401 25.7453
## 239
       24.1920 23.2495 22.8330 22.5775 22.5543 22.4797
## 240
       25.4163 24.6864 23.8872 23.7146 23.4775 23.4722
## 241
        25.9189 24.7587 23.5415 22.6452 22.3150 22.0131
## 242
       24.6137 23.9098 22.9748 22.7258 22.5224 22.4076
       28.8215 27.9027 28.0318 26.9091 27.3873 26.5991
## 243
       27.2885 27.1313 27.4207 26.8427 28.0921 99.0000
## 245
      28.2767 27.0880 25.4964 24.6125 24.2038 23.7262
## 246 29.4886 26.0339 24.4363 23.3704 22.9474 22.6162
## 247
       27.7852 27.3995 26.9649 26.0663 25.7275 25.3595
## 248
       25.1686 24.4366 23.7160 22.8933 22.5949 22.5029
## 249
       27.7207 27.6168 27.2030 26.9507 27.6593 26.3545
## 250
       25.7857 25.8311 25.7036 25.4962 25.2241 25.0584
       24.5733 23.6259 23.0989 22.8068 22.8217 22.7626
## 252
       27.1773 27.2377 26.2175 25.4284 25.1440 24.8004
## 253
       30.4945 28.7568 27.7862 26.7975 26.5748 31.1654
## 254
       26.0950 25.7198 24.8857 24.6412 24.4460 24.4576
## 255
        26.9306 27.8026 27.3713 26.7824 26.4045 26.1327
## 256
       26.9276 27.2714 27.3821 26.8622 26.4800 99.0000
       25.8317 25.9284 25.8888 25.9903 25.8364 26.1279
       24.7065 23.8727 23.3566 23.0875 23.0608 22.9915
## 258
## 259
       28.9057 28.4634 27.4390 26.9665 27.0937 28.3587
## 260
       28.2352 28.7892 27.2325 26.7313 26.4119 25.7329
## 261
        30.0616 28.6757 27.5908 26.6463 25.9732 25.6289
## 262
       99.0000 27.2852 26.7060 26.3534 25.7981 25.6726
## 263
       27.0827 27.1259 26.6606 25.9520 25.2261 25.0813
       99.0000 28.0583 27.2086 26.4782 26.1971 26.0446
## 265
       27.5345 27.8980 27.1990 26.7940 26.7085 26.2121
## 266
       23.6374 23.6058 23.4835 23.5266 23.3802 23.5975
## 267
       28.2907 28.1309 28.1115 26.5720 26.6339 24.7430
## 268
       29.0198 28.5486 27.6762 26.7724 26.8705 26.3936
## 269
       28.7076 27.8768 27.0204 25.9323 24.9549 24.2832
## 270
       27.1215 26.8389 26.0548 25.8286 25.4567 25.7342
       22.3166 21.2894 20.9855 20.7307 20.7679 20.6636
## 272
       25.7614 24.9523 23.9009 23.2561 23.0492 22.8666
## 273
       27.2999 26.9944 26.4685 26.3690 26.1835 25.8627
## 274
       27.9110 28.1863 27.1829 26.6275 25.8866 25.3501
## 275
       26.4190 26.0822 25.4824 24.6624 24.4234 23.8931
       27.2775 28.3120 27.2403 26.8655 27.5668 27.0860
## 276
       25.2727 25.0660 24.4699 23.6175 23.0784 22.8796
## 278
       29.1233 28.3727 27.2154 26.5866 26.1899 25.7558
## 279
       24.8072 24.0427 23.5370 23.2752 23.2248 23.1337
## 280
       26.8580 27.3662 27.1260 26.9618 26.3097 99.0000
## 281
       26.8832 26.5329 25.9390 25.2791 24.6338 24.3605
## 282
       28.1037 27.1396 26.6674 26.6544 26.0169 26.2482
## 283
       27.7770 27.2678 25.5836 24.1244 23.2885 22.3944
      27.5462 27.1953 26.6801 26.5046 26.3454 26.7845
## 285
      27.6319 27.6448 27.1339 26.4573 26.1365 24.9105
## 286
       27.2613 27.5616 26.4575 25.5710 25.2111 25.2449
## 287
       26.7704 26.8603 25.9755 25.7477 25.5171 26.1309
## 288
       23.9710 23.5709 22.8093 22.0265 21.7688 21.5762
## 289
       25.1796 25.2382 24.9767 24.5991 24.4420 24.4974
## 290
       26.8010 25.7050 24.8199 24.7048 24.4768 24.5575
## 291
       29.4283 28.5292 27.9942 26.9834 26.7393 27.4991
## 292
       24.2883 23.7950 22.9175 22.6544 22.4912 22.4001
## 293
       26.3545 26.3690 25.8236 25.5020 25.5249 25.4959
## 294
       24.8075 24.0819 23.4243 23.2637 23.0450 23.0344
## 295
       26.4293 25.8556 25.3158 25.1653 25.3088 24.8675
## 296
       27.5794 27.4447 26.8744 26.4159 25.7007 25.1779
## 297
       26.1811 26.1644 26.0297 25.5455 25.2171 24.6337
## 298
       27.4860 27.4976 27.0352 26.1723 26.2596 26.1796
## 299
       27.2355 28.0731 26.5439 26.2420 25.9587 26.6581
##
  300
       99.0000 27.7507 27.4130 26.9389 26.3294 25.7272
## 301
       27.6446 27.1509 26.5123 25.9446 25.9659 25.7566
## 302
       27.8040 27.8649 27.3994 26.3391 26.3632 26.1668
## 303
       27.8760 28.4269 27.5830 26.9057 26.1273 26.0858
## 304
       27.1968 27.0074 26.3118 26.2657 26.0292 26.4381
## 305
       21.6873 20.4499 19.5755 19.1232 18.8656 18.6434
##
       26.9665 26.1637 25.4043 24.8479 24.2100 23.8191
  306
       26.8048 25.8854 25.3757 24.6218 24.1977 23.4293
## 308
       29.2085 27.4839 27.2256 26.3085 25.9378 27.9218
## 309
       28.1552 25.9818 24.1900 22.9332 22.2884 21.9262
```

```
27.3601 26.3564 25.5474 24.9197 24.7969 24.8793
## 311 25.2395 24.6228 23.7385 22.9710 22.3451 22.1204
## 312
        28.8261 28.6991 27.2724 26.9349 25.9719 26.4202
## 313
        27.4381 27.0683 26.6647 26.3621 25.9861 29.5161
## 314
        29.1394 27.3283 26.3147 26.1152 25.3485 24.8797
## 315
        26.1619 25.0246 23.9160 23.1041 22.8819 22.6594
## 316
        27.0795 26.5640 25.6492 24.8543 24.2193 23.9436
        26.4757 26.0536 24.8386 23.8353 23.4547 23.1078
## 318
       99.0000 27.5086 26.5260 26.3163 26.0648 26.1637
## 319
        28.2775 28.0559 27.6431 26.9405 27.3009 27.1922
## 320
        26.3620 25.4121 24.7912 24.2133 24.0862 23.9184
## 321
       25.5444 24.8224 23.0869 21.9483 21.1685 20.8509
## 322
       27.9280 27.5027 26.7065 25.8048 25.3964 24.9324
       25.6719 23.2983 21.5768 20.6211 20.1689 19.8174
## 324 99.0000 31.9366 28.5181 26.9738 26.4255 25.3278
## 325
       26.0619 25.3231 24.6838 23.7068 23.1723 22.3419
## 326
        28.1511 27.7563 26.8076 26.2364 25.8604 25.5708
## 327
        26.4886 25.8615 25.6854 25.3709 25.1218 24.4128
## 328
        27.0981 25.5626 24.1937 23.5414 23.2173 22.8866
        28.2892 27.0647 25.9409 25.5703 25.3897 24.8883
## 329
       30.5953 27.1761 26.2294 26.0583 25.6133 25.6942
## 331
       99.0000 26.9427 25.5862 24.8519 24.5059 24.2749
       27.5246 26.8663 25.9165 25.4535 25.1709 25.6851
## 332
## 333
        27.1674 26.8636 25.8991 25.5645 25.4573 25.4461
## 334
        29.4042 26.9885 26.2571 25.9231 25.8393 25.3588
        28.7547 27.8734 27.2197 26.1786 25.5188 25.2576
## 335
## 336
       29.6318 28.4991 28.1289 26.9697 25.4754 24.9997
## 337
       25.0971 24.9977 24.9805 25.0839 24.9136 25.2994
## 338
       27.2369 27.9851 27.4042 26.6975 26.5859 26.4729
## 339
        23.3320 22.4142 21.6669 21.3121 21.1440 21.0031
## 340
        27.7036 26.6694 25.8184 25.2886 25.1650 25.2189
## 341
        27.4932 25.2233 23.7021 23.1245 22.8128 22.5786
## 342
        99.0000 28.3338 27.4182 26.5812 27.7019 25.8192
        26.3960 26.2331 25.9770 25.7317 25.1671 24.8280
## 344
       24.6924 24.5916 24.5401 24.5696 24.5907 24.8867
## 345
       29.0881 27.2543 25.1092 24.0162 23.1388 22.7461
## 346
        22.8386 21.3461 20.3679 19.9478 19.7254 19.5353
## 347
        26.4437 26.2098 25.2938 24.6654 24.3597 24.2184
## 348
        27.4873 27.3498 25.3703 23.9112 23.1417 22.1805
## 349
       99.0000 27.7702 27.3140 26.9685 26.3725 27.2582
       25.2004 24.3724 23.4452 23.1264 22.9235 22.8189
## 351
       25.9258 26.0576 25.8099 25.9452 26.0454 25.4083
## 352
       23.2300 22.5759 22.0202 21.7439 21.6785 21.6027
## 353
        28.9676 27.3083 26.9103 26.7290 26.0699 25.7044
## 354
        28.5888 28.1393 25.9376 24.8915 23.8993 23.1113
        26.7504 28.0525 27.0944 26.9766 27.2288 26.5844
## 355
        24.9299 24.1194 23.2028 22.6157 22.4073 22.2263
## 357
       25.0551 23.9324 22.5934 21.8402 21.5836 21.3413
## 358
       26.8157 26.1021 25.2980 24.8096 24.3187 23.7652
## 359
        27.9254 28.1287 26.9084 26.1392 25.5210 25.3747
## 360
        26.4327 25.8844 24.9883 24.6789 24.6144 24.3048
## 361
       26.5292 26.5555 25.9100 25.2183 25.0642 24.8849
       27.9650 28.0733 27.3581 26.4545 25.9370 26.9657
## 362
       27.6520 27.1784 27.0018 26.9962 27.3063 99.0000
## 364 29.1260 27.1312 26.4099 25.7791 25.7062 25.4330
## 365
       28.1365 26.4782 25.9140 25.4864 25.2284 25.2720
## 366
        29.7193 28.1666 26.9776 26.0931 25.3884 24.5807
## 367
        27.3177 27.2095 26.3470 25.9069 25.2528 24.8578
        26.8396 26.8304 26.1507 25.9990 25.5460 25.5913
## 368
        28.6787 27.1088 26.8697 26.3146 26.0983 25.4232
## 369
## 370
       29.9623 27.5598 26.3882 25.3785 24.7099 24.9046
## 371 28.4327 27.5443 27.1582 26.9393 26.8831 26.7725
## 372
        24.5708 24.2739 24.1071 23.6633 23.3095 22.5616
## 373
        27.0537 27.6282 26.7704 26.3727 26.4145 26.8237
## 374
        27.1552 26.9384 27.2080 26.9332 26.3650 26.5818
## 375
       26.7584 26.5855 25.5746 25.2324 25.0854 24.8602
       26.4698 27.3062 27.2018 26.9748 25.9974 25.5285
## 377
       28.1960 28.0293 27.3904 26.7053 26.2285 25.6643
## 378
       27.8720 28.2135 27.3194 26.6130 26.9643 27.4424
## 379
        27.6210 26.5751 25.7979 25.5315 25.4021 24.9908
## 380
        27.7019 30.6803 27.0571 26.7395 26.2717 26.0022
## 381
        26.9279 27.4404 27.0264 26.7069 26.8628 26.2111
## 382
       25.7661 25.3532 24.5376 24.3308 24.2392 24.1038
## 383
       27.3069 26.9516 26.6377 26.3065 26.3433 26.1522
## 384
        28.1813 27.0512 25.8545 24.4429 23.6203 22.7383
## 385
        30.4115 29.1409 28.8788 26.5663 25.6585 24.9808
        25.9681 26.2468 26.3212 26.5362 26.3258 26.3985
## 387
        26.7369 26.0739 25.3442 24.7081 24.5114 24.2101
## 388 27.9913 26.5464 25.6682 25.5565 25.2542 25.8206
```

```
27.7527 27.7199 26.6912 26.6980 26.9500 26.0309
       25.9718 26.0551 25.6356 25.1516 24.7178 24.5267
## 391
       28.5138 27.7720 26.8745 26.1886 25.5848 26.0083
## 392
       29.1739 27.1409 26.2971 26.0327 25.9454 25.5055
## 393
        26.4966 26.8210 26.7531 26.6547 26.4410 99.0000
## 394
       27.2267 27.1441 26.8448 26.9160 27.1844 27.4267
       26.0008 25.8306 25.3311 25.0558 24.7118 24.1275
## 395
       27.8822 27.3867 26.7021 25.8557 25.7375 25.2689
## 397
       25.1018 23.8720 22.6351 21.7404 21.4122 21.1443
## 398
       24.6706 24.2920 23.9063 23.3079 22.7215 22.0351
## 399
        26.3241 25.6706 25.4153 24.9061 24.6092 23.8275
       99.0000 26.8532 25.1277 23.9400 23.1553 22.8988
## 400
## 401 25.8011 23.8701 22.2826 21.3428 20.9600 20.6611
## 402 22.5812 21.7168 20.6161 20.1850 19.8880 19.7253
## 403
      28.0217 27.3121 26.9752 26.2261 25.9022 25.3277
## 404
       27.2196 27.6401 26.6676 26.4311 26.9254 25.6194
## 405
       28.7960 28.0796 27.3208 26.6399 25.9041 25.7477
## 406
       27.1865 26.6528 26.6435 26.3348 26.1293 26.5912
## 407
       28.5259 26.8555 26.1152 25.5696 24.6987 24.2525
## 408
       26.8214 25.5879 24.8212 24.5888 24.4119 24.4516
       99.0000 28.2404 27.7774 26.9972 26.7679 27.3974
## 410
       27.1077 26.6432 26.4086 25.8784 25.5995 25.1518
## 411
       99.0000 28.1033 27.5268 26.9988 26.7559 99.0000
## 412
       24.8688 24.4109 23.6191 22.9803 22.4857 22.2897
## 413
       25.6291 25.2631 24.5914 24.2100 23.7112 23.4264
       27.0824 27.8641 27.0244 26.2309 25.8891 25.5651
## 414
       26.9633 26.5040 24.9983 24.3745 24.0376 23.7127
      27.4384 27.0193 26.4778 26.0300 25.6776 27.2406
## 417
       25.4327 25.3389 25.1078 24.8268 24.0545 23.9357
## 418
       27.4180 26.7883 25.7337 25.3566 25.2013 25.1973
## 419
       29.6378 27.5679 26.7593 25.5798 24.9041 24.1532
## 420
       27.0858 27.1514 26.5105 25.9775 25.8720 25.7691
## 421
       26.6070 26.6807 26.3724 25.7372 25.0698 25.1631
       28.3209 27.8608 28.0972 26.8695 26.4928 26.4666
## 423
       26.5913 26.3888 26.1456 25.8008 25.4410 26.1185
## 424
       30.4623 28.4717 27.3977 26.8484 26.2192 26.7747
## 425
       24.2495 24.1038 23.7381 23.0610 22.7255 22.6113
## 426
       27.2677 27.1237 26.5940 26.0902 25.4854 24.9502
## 427
       26.5037 26.3746 26.1710 25.8088 25.6609 25.8071
       24.4721 24.1113 23.4038 22.6820 22.4672 22.3041
## 428
       26.4263 25.9821 25.3470 24.5989 23.9383 23.6625
## 430
       26.0529 25.9678 26.0370 25.9573 25.6888 25.9325
## 431
       24.9561 24.5894 23.8193 23.2226 22.4808 21.9802
## 432
       25.1409 24.7017 23.8425 23.4831 23.3074 22.9382
## 433
       25.3603 24.9437 24.0099 23.4284 23.2757 23.1293
       27.9759 27.4812 27.2326 26.9173 26.0529 26.8451
## 434
## 435
       28.0215 27.5136 27.3587 26.9735 26.9605 27.1345
## 436
       36.8527 28.1223 27.4664 26.9222 27.2035 26.1811
## 437
       99.0000 29.0893 27.8860 26.5891 25.7091 25.0496
## 438
       26.5886 26.4862 26.1316 25.6222 25.1638 24.5615
## 439
       29.2602 28.4396 27.7512 26.9853 26.9415 26.7895
## 440
       28.5650 27.4239 26.8621 26.0129 25.4275 24.6237
## 441
       28.6534 27.4907 26.7689 26.4240 25.5601 25.4161
## 442 26.9923 27.0030 27.0482 26.8303 26.7900 26.2877
## 443 25.3396 25.1020 24.8580 24.4604 23.9999 23.3708
## 444
       28.4757 26.5628 25.7166 25.6753 25.2348 25.6116
## 445
       24.1339 23.5940 22.7074 21.8922 21.6332 21.4041
## 446
       22.6300 22.0843 21.0751 20.6234 20.3237 20.1244
## 447
       29.2234 27.4039 25.8067 24.6990 23.9300 23.5476
       30.4434 26.9048 26.2395 25.6262 25.6254 25.3120
## 448
## 449
       28.7953 28.8206 27.2457 26.6838 26.1226 25.2870
## 450
       24.6118 23.9994 23.2444 23.0573 22.8076 22.8496
## 451
       29.7204 30.5478 28.3367 26.7854 26.2727 25.8919
## 452
       99.0000 28.6602 27.9144 26.8388 27.7917 26.5771
## 453
       27.1568 26.7610 26.2951 25.6248 25.1256 24.5691
## 454
       26.7897 26.4556 25.8084 25.0601 24.8813 24.9142
      27.8769 27.0131 26.2492 25.5382 25.0346 24.9083
## 456
      27.7941 27.3949 26.9648 26.5272 25.9680 25.4661
## 457
       26.9730 27.0152 26.6842 25.8275 25.4063 25.0061
## 458
       27.8043 27.3665 26.9136 26.2790 25.7776 25.7091
## 459
       28.3432 27.4456 26.8201 26.0890 26.1401 25.4619
## 460
       25.9190 25.8925 25.3778 25.2675 25.1101 25.0951
       29.9161 32.4665 27.9783 26.6219 25.7315 25.4538
## 461
## 462
      27.7642 27.3223 26.9128 26.7561 26.0082 26.0299
## 463
       27.7357 26.3638 25.5966 24.9377 24.8730 24.4524
## 464
       27.0055 27.3891 26.5685 25.7963 25.4506 25.5542
       28.6864 28.4416 27.3685 26.6392 26.4050 26.3856
## 466
       27.0240 27.0869 26.3579 25.5985 25.5028 25.1125
## 467 27.4184 26.5722 26.1933 25.7248 25.2979 25.0994
```

```
26.9122 26.2573 25.7954 25.7503 25.6103 26.4167
       25.8619 25.6739 25.1418 25.0036 24.8946 24.8689
## 470
       25.1489 24.6614 24.1470 23.5442 23.1606 22.4196
## 471
       27.7158 28.1063 27.3071 26.7766 26.2363 25.7883
## 472
        28.1183 27.8389 27.1839 26.3593 26.1057 25.8542
## 473
       23.6918 22.3866 20.9285 20.1120 19.7955 19.5006
       29.1071 27.4319 26.4241 25.4854 25.3063 24.6604
       25.0708 24.4945 24.0282 23.8188 23.8238 23.6736
## 476
       25.8734 25.1373 24.0903 23.0846 22.6466 22.4242
## 477
       25.4724 24.8429 23.9024 23.6406 23.4441 23.3422
## 478
       25.0214 24.3539 23.5432 23.2352 22.9978 22.9497
## 479
       26.6916 26.1220 24.3054 23.2714 22.3116 21.7051
       27.8292 26.4764 26.0206 25.4698 25.3302 25.2302
## 480
## 481 26.9031 26.7317 26.0738 25.4176 24.8468 24.5785
## 482 28.0485 28.1161 26.7137 26.0573 25.6166 25.2817
## 483 27.3858 26.8991 26.5494 26.2847 26.2551 25.1931
## 484
       27.3697 27.9831 27.1880 26.8935 26.6584 99.0000
## 485
       25.7238 24.9959 24.3375 23.6463 23.1835 22.4983
## 486
       24.8792 24.7031 24.1169 23.4312 22.6603 22.1395
## 487
       24.0746 23.8517 23.3592 22.6523 22.3796 22.2524
       30.3184 28.9308 27.0892 26.0542 25.1234 24.4976
## 489
       27.6724 27.8668 26.5792 26.3482 25.9893 26.1264
## 490
       26.9647 26.9162 26.6271 26.2248 25.6015 25.2289
## 491
       26.7790 27.3469 27.1749 26.5051 26.1767 25.3288
## 492
       27.5221 27.1847 26.7483 26.1970 25.5555 25.4206
       27.1201 26.9017 26.7579 26.1021 25.7410 25.1021
## 493
       99.0000 29.0576 28.1688 26.8469 26.5895 25.5750
## 495
      25.6586 25.0334 24.1676 23.5733 23.4234 23.2502
## 496
       26.9739 26.4675 25.8159 24.9026 24.5389 24.4032
## 497
       25.1000 24.4403 23.4762 22.9054 22.6844 22.4158
## 498
       26.0476 25.4110 24.4310 24.2124 23.9887 24.0026
## 499
       27.3194 27.6462 27.4336 26.7274 26.7220 28.5262
       29.5210 99.0000 27.6145 26.8541 26.2860 26.8439
## 500
      23.1165 22.8691 22.3760 22.3484 22.1504 22.2738
## 502
       26.7333 26.4687 25.9343 25.2369 24.8354 24.1756
       26.2093 25.6822 25.0678 24.5428 24.4143 24.3305
## 503
## 504
       27.0399 26.3052 26.2008 25.7301 25.9988 26.0179
## 505
       27.6123 27.8677 26.8972 25.8972 25.9160 26.6250
## 506
       29.8842 29.6865 26.9195 25.9302 25.1146 24.4270
## 507
       24.6347 24.1052 23.2741 23.0388 22.8009 22.8012
       27.6762 27.5243 27.4234 26.9345 26.4387 26.1565
## 509
       25.6138 25.3977 25.3032 25.0375 24.7027 24.2910
## 510
       25.5740 25.2959 24.5977 23.7623 23.4284 23.2391
## 511
       99.0000 27.5433 26.7329 26.2622 26.6790 27.5520
## 512
       26.7361 26.9623 26.5855 26.6204 26.1224 26.5830
       28.7148 29.5105 27.2290 26.2922 26.0931 25.2527
## 513
       26.3355 25.7632 24.6097 23.7609 22.8670 22.4774
## 515
       28.1864 27.7824 27.2089 26.6748 27.0741 26.3367
## 516
       28.7646 28.1991 27.6200 26.9656 26.7275 26.0238
## 517
       28.9227 28.9022 27.5893 26.8314 26.9021 26.7571
## 518
       27.0059 26.3299 24.9842 23.9079 23.1379 22.7821
## 519
       27.1001 27.3545 26.7444 26.8197 26.0579 26.3186
       23.6058 22.8714 21.9877 21.6584 21.3693 21.2226
## 520
      27.6490 26.7442 26.8898 26.6067 26.4354 25.7125
## 522 28.0604 29.2126 27.7439 26.5592 26.3708 26.6367
## 523
       28.2873 27.7504 27.6390 26.9688 27.0349 26.4308
## 524
       99.0000 26.5642 26.2132 25.5084 24.9450 24.1974
## 525
       27.6199 26.3002 25.9438 26.0126 25.4684 25.5076
## 526
       25.8020 25.8617 25.6155 25.1860 24.7998 24.3668
       26.7132 26.8980 26.7679 26.2050 25.6667 25.2602
## 527
       31.1815 27.5236 27.0347 26.4087 26.3759 25.6546
## 528
## 529
       28.0821 27.2160 26.8038 25.8944 25.7195 26.0702
       27.0674 26.9086 26.4179 26.3024 26.2647 26.0541
## 530
## 531
       27.3848 27.5687 27.1519 26.0297 25.8223 25.8201
## 532
       27.6319 26.8675 26.2518 25.7940 25.1676 24.5073
       27.2315 26.7870 26.2018 26.0950 25.8687 25.9616
## 533
       25.7239 25.9963 25.7341 25.2148 24.7583 24.9269
## 535
      28.8682 28.6631 27.0142 25.9159 25.2048 24.7385
## 536
       28.2425 30.5076 27.6542 26.8447 26.4761 25.6493
## 537
       27.8159 26.6229 25.7376 25.5433 25.1807 25.6213
## 538
       27.4223 26.7003 25.6606 24.3950 23.6042 22.6951
## 539
       26.2515 25.3375 24.4930 24.1330 23.8939 23.7426
## 540
       99.0000 27.4373 26.6819 26.8474 26.2551 25.7575
## 541
       26.8693 26.2582 25.1227 24.6605 24.5925 24.1767
## 542
       29.6689 27.5444 26.7855 26.5447 26.5815 26.1559
## 543
       99.0000 26.1293 25.1305 24.7248 24.4048 24.2408
       27.0461 25.9907 24.9853 24.3265 23.5836 23.0732
## 545
       25.6388 25.2209 25.2205 25.0823 25.4731 25.2266
## 546 99.0000 27.9189 27.3949 25.6821 24.9547 23.9676
```

```
26.0285 25.8239 25.4234 24.7892 24.6452 24.4958
       28.7302 28.2004 27.1892 26.6220 26.5873 26.5238
## 549
       27.4215 27.3367 26.5447 25.5612 25.1779 25.4205
## 550
        28.0226 26.4217 24.4191 23.2229 22.3823 22.0273
        26.1695 25.7124 25.4275 25.3119 25.3214 26.1417
## 551
## 552
       26.9307 26.7803 25.7519 24.6302 24.2334 24.1036
       28.1019 28.0327 27.0455 26.4218 25.8209 25.2894
## 553
       30.8422 29.0325 27.3424 26.8363 26.9582 26.2325
## 555
       26.1806 25.2720 24.1508 23.6976 23.4230 23.2300
## 556
       20.2639 19.4075 18.8305 18.5348 18.4000 18.2745
## 557
       24.4447 23.6163 22.4218 22.0092 21.8186 21.4201
## 558
       99.0000 28.3936 26.5494 25.9686 25.5711 25.4564
## 559
       28.4739 26.9513 26.6372 26.3389 25.7025 25.3830
## 560
       27.6617 28.0888 26.6617 25.4990 24.5369 24.1753
## 561
      29.1909 27.9193 26.4086 26.1388 25.5457 25.3637
## 562
      23.0128 21.3579 19.8800 19.3776 19.0498 18.9045
## 563
       25.5479 25.8267 25.2174 24.4558 24.2055 24.2442
## 564
       28.4472 27.1085 26.3938 25.4386 24.9748 24.8311
## 565
       22.9788 22.2445 21.2250 20.9376 20.6814 20.6079
       27.6612 28.6202 25.7107 24.4703 23.5188 22.7133
## 566
       28.0762 27.8640 27.7373 26.8451 28.2721 26.2001
## 568
       27.0217 27.1235 26.2985 26.0331 26.0401 26.0192
## 569
       28.3422 27.6058 27.4801 26.7419 26.5549 28.2737
## 570
       26.8888 26.9189 27.2544 26.6831 26.5482 99.0000
## 571
       25.8172 25.5616 24.6561 23.9209 23.6670 23.3983
## 572
       25.7962 25.4935 25.3700 25.0707 24.7355 24.2288
       26.0703 25.2355 24.6052 24.3529 24.3053 24.2128
       27.0891 26.4536 26.5474 26.6934 25.8185 26.1152
## 574
## 575
      99.0000 28.4109 27.1770 26.4427 25.6346 26.1790
## 576
       26.6229 26.1552 25.1175 24.0637 23.5936 23.2623
## 577
       27.6830 27.5915 27.1536 26.1960 25.3805 24.4897
## 578
       27.1098 26.8451 26.0134 25.4687 24.9263 24.8137
## 579
       99.0000 27.9385 27.3819 26.7355 26.1163 26.6924
       23.3165 22.3395 21.7222 21.3974 21.2748 21.1485
## 581
       27.0575 26.6007 25.7109 25.1956 24.9735 24.3877
## 582
       25.3016 25.3157 24.7639 24.0785 23.4769 23.2545
## 583
       28.3696 27.0106 26.9621 26.8926 27.2439 27.2430
## 584
       25.6665 24.6201 23.9360 23.6201 23.5089 23.4223
## 585
       99.0000 27.4025 26.9224 25.9742 25.6605 24.7633
## 586
       26.4734 26.1020 24.6635 23.5215 22.6677 22.2391
       28.1430 26.5729 25.3849 25.0080 24.8239 24.4767
## 588
       25.1355 25.2514 25.1287 25.2592 25.2431 25.5396
## 589
       26.0570 26.0643 25.4370 25.4105 24.9558 25.3071
## 590
       28.9154 27.7748 26.1331 24.5945 23.8967 22.9252
## 591
       28.8341 28.2610 29.0120 26.8491 29.3536 29.4473
       30.0770 29.2246 28.1935 26.1588 25.4681 24.5143
## 592
       99.0000 28.0042 27.2219 26.2793 25.7110 25.6499
## 594
       26.8355 26.8470 26.0517 25.5071 24.9643 24.7531
## 595
       27.7603 27.1476 27.0173 26.3089 25.8770 25.7524
## 596
       22.4467 21.6359 20.5706 20.0357 19.8010 19.4866
## 597
       24.5933 23.9372 23.2778 23.0985 22.8414 22.8609
## 598
       27.3691 26.2312 25.6523 25.0648 24.8015 23.9538
       27.6566 27.8425 27.5933 26.8087 26.2809 32.0570
## 599
       28.2388 27.3617 26.9664 26.6674 25.9703 26.1305
## 601 23.9659 23.5582 22.7772 22.1860 22.0021 21.8036
## 602
       25.6980 23.3357 21.6949 20.5325 20.1028 19.7526
## 603
       24.7895 24.0067 23.4142 23.2343 23.0046 23.0352
## 604
       25.9012 25.7579 25.2469 25.1725 24.9747 25.1911
## 605
       23.2140 22.2042 21.2896 21.0100 20.7518 20.6995
       27.1556 26.9311 25.7750 25.4462 25.3962 25.1837
## 606
       26.5626 26.6419 25.7785 25.7744 25.3959 25.6107
## 607
## 608
       28.9460 27.2009 26.4971 25.9624 25.3233 25.1552
## 609
       29.5818 29.2373 26.7837 26.1100 25.8768 25.5572
## 610
       28.0883 27.7839 26.0242 25.5055 25.2617 24.9525
## 611
       26.8765 25.7741 24.7312 24.3067 24.1297 23.6958
## 612
       27.2801 27.2023 26.6469 26.0903 25.8149 25.4587
       27.5045 27.6131 26.2268 25.3565 24.5486 23.7443
## 614 28.3174 25.7828 24.5730 24.1637 23.8641 23.6642
## 615
       24.3582 23.7813 23.0748 22.8645 22.6087 22.5929
## 616
       27.7747 27.5889 26.8566 26.3438 26.5341 25.7917
## 617
       27.1329 26.8958 26.1553 25.5551 25.2125 25.0532
       24.9059 24.7000 24.0431 23.5919 23.4302 23.1884
## 618
## 619
       28.6326 27.7432 27.3650 26.6810 26.5319 27.1445
       25.8826 25.6394 24.9397 24.6905 24.4763 24.4631
## 621
       27.4140 27.3241 26.7838 26.1540 25.5733 25.1285
## 622
       99.0000 27.7389 27.6257 26.6188 26.8936 25.5326
       25.0089 23.2159 21.5783 20.3853 19.9409 19.6037
## 624
       26.5729 25.9211 25.1454 24.3587 23.9061 23.6062
## 625 26.8958 25.7837 25.0978 24.9707 24.6494 24.7591
```

```
26.7940 26.5083 26.2783 26.0564 25.8902 26.4286
       26.6354 27.0321 26.5552 26.4331 26.1446 26.0224
## 628
       27.5683 27.3667 26.7367 26.5808 26.2604 25.6098
## 629
        28.8450 27.3708 26.3713 25.4366 25.1953 26.0430
        27.2710 27.5724 26.6630 26.4198 26.1735 25.8297
## 630
## 631
       26.3485 25.7506 24.9821 24.1739 23.7665 23.5599
## 632
       25.8774 25.5212 25.2111 24.5947 24.1053 23.3105
       28.0426 27.4919 26.4493 25.7114 25.3578 24.9979
## 634
       27.1621 27.0493 26.8377 26.5805 26.1399 26.6994
## 635
       26.0923 25.9598 25.8256 25.5216 25.3309 25.2875
## 636
       27.0079 28.0138 27.0824 26.9590 27.0024 26.1845
## 637
       25.0770 25.0070 24.9274 24.9539 25.1225 24.5462
## 638
       28.2178 26.9856 25.9280 25.8168 25.6644 25.4804
## 639
       30.4923 28.0408 27.6787 26.9712 25.8640 25.6226
## 640
      99.0000 27.9097 26.3035 25.4628 24.9899 24.5603
## 641 28.6084 26.8151 26.1246 25.7877 25.9309 25.7472
## 642
       27.0915 26.8823 26.1233 25.3155 25.1000 25.0657
## 643
       26.0832 25.4133 24.2836 23.1989 22.5120 22.2239
## 644
       25.8708 25.3421 24.8113 24.6024 24.4580 24.2040
## 645
       23.4418 23.3832 23.2349 23.4289 23.1276 23.5903
       27.5112 27.2312 26.8901 26.6998 25.9744 26.2950
## 647
       26.3440 26.1971 25.6750 25.5880 24.6433 24.2450
## 648
       99.0000 27.6662 27.5048 26.9562 26.4251 27.8957
## 649
       27.1922 25.8440 24.3274 23.7169 23.3909 23.3133
## 650
       26.4877 25.2843 24.3980 24.2160 24.0621 24.1084
## 651
       27.0348 27.5402 26.7943 26.0020 25.5316 25.3647
## 652
       28.6693 28.1162 27.7643 26.4768 26.5379 25.7896
       26.9222 26.4698 25.8894 24.9666 24.3467 23.6223
## 653
## 654
       27.2493 27.6024 26.9934 26.8539 26.3635 26.1279
## 655
       27.0509 27.0331 26.9321 26.1739 25.8860 25.2565
## 656
       25.9335 25.7030 24.9480 24.7782 24.5129 24.5124
## 657
       27.5501 27.6871 27.0015 26.8139 26.3678 25.8594
       24.9931 24.5359 23.8763 23.1259 22.8556 22.6224
## 658
       28.7489 28.7292 27.7945 26.9603 26.7445 26.3388
## 660
       27.4180 27.4651 26.6157 25.8952 25.9444 26.3932
## 661
       26.6397 26.2915 25.5664 24.8883 24.6813 24.6323
## 662
       22.7401 22.2104 22.0282 21.8814 21.9122 21.8986
## 663
       99.0000 28.0817 26.4662 25.9236 25.6338 25.4230
## 664
       27.3024 27.2163 26.5463 25.9016 26.2000 25.3249
## 665
       28.1582 27.4714 27.0678 26.1705 26.4845 25.6541
       27.3820 27.7415 27.2049 26.7675 27.3187 28.3076
## 667
       99.0000 26.9310 26.3427 26.0572 25.7897 25.7088
       29.8635 29.1922 27.9199 26.9022 25.8421 25.9109
## 668
## 669
       27.1120 26.7614 26.3121 26.0764 25.7854 24.8768
## 670
       27.8316 28.3147 27.4205 26.6772 26.3173 25.5986
       99.0000 27.7969 26.7649 26.0797 25.4415 26.5222
## 671
## 672
       29.7973 29.3991 27.5698 26.3791 26.9954 26.0468
## 673
       28.4362 27.1428 26.2244 25.7117 25.3231 25.1149
## 674
       27.3721 26.6920 26.0402 25.3071 24.6131 24.1386
## 675
       24.1385 22.7327 21.3337 20.9243 20.6939 20.5681
## 676
       25.8630 25.4471 24.7808 24.0665 23.4590 23.1986
## 677
       26.8488 26.5854 26.0119 25.2686 24.8260 24.1527
       26.2779 26.1817 25.7776 25.4182 25.5378 25.2095
## 678
       28.0566 28.1656 26.8990 26.6234 26.2563 26.2184
## 680
      26.8922 26.8536 26.4868 26.1823 26.0600 26.8419
## 681
       26.7156 25.4224 24.7155 24.4364 24.3013 24.2063
## 682
       29.1934 28.2053 26.6776 25.4455 24.7023 23.8130
## 683
       28.0025 27.6442 27.2204 26.3755 26.2448 25.5939
## 684
       19.9762 19.0557 18.4569 18.0945 18.0385 17.8989
       24.9933 24.3763 24.0741 23.9415 23.8545 23.8197
## 685
## 686
       29.7575 28.4009 27.4614 26.5193 26.7550 26.5651
## 687
       26.8091 27.1051 26.3926 26.0878 25.7855 99.0000
## 688
       27.3395 27.5624 26.4405 25.9388 25.1057 25.1708
## 689
       26.1251 25.5543 24.6669 24.3666 24.1199 23.9340
## 690
       99.0000 99.0000 27.3701 26.3858 25.7402 26.6798
## 691
       28.4766 28.2511 27.6187 26.8846 26.7318 26.4062
       26.6499 26.1341 25.4576 24.6754 24.4884 24.4935
## 693
       26.5171 27.0042 26.3750 26.1686 25.5679 25.4298
## 694
       28.3758 26.9838 26.7541 26.4631 27.2039 26.7701
## 695
       27.7174 27.8671 26.8295 26.5440 26.3099 25.4986
## 696
       27.7751 27.1470 26.9989 26.6076 26.6416 26.0205
       23.5153 23.2699 22.6597 21.8594 21.4056 21.2361
## 697
## 698
       28.4761 28.0962 27.2142 26.5877 25.8510 25.5064
## 699
       27.1495 26.5000 25.9463 26.1650 25.8643 25.9543
## 700
       28.7399 27.9479 27.0984 25.7151 24.8497 24.0517
##
  701
       27.8107 26.7526 25.9857 25.3928 24.8109 24.0491
       26.6129 26.4366 26.5681 26.8074 26.7949 26.5036
## 703
       29.3587 26.4010 26.1707 26.1996 25.5491 26.9453
## 704 27.3074 26.6258 25.9973 25.4779 24.7861 24.3359
```

```
26.5395 26.7814 26.9901 25.9538 25.5925 24.8298
       27.0094 26.9176 25.9512 25.2421 25.4112 25.0116
## 707
       26.6288 26.4024 26.3490 26.2776 26.3300 26.1695
## 708
       25.9028 25.4124 24.8235 24.7330 24.5973 24.4821
##
  709
        28.4119 27.9291 27.4877 26.4137 26.0595 25.7010
## 710
       25.2019 25.2242 25.1346 24.7450 24.4134 24.2186
       26.9482 26.5323 25.8731 25.2150 24.8205 24.8485
       27.2643 26.7579 26.5240 26.2477 26.2140 26.3592
## 713
       27.5321 27.7479 26.9908 26.9268 26.5838 25.9915
## 714
       27.7173 27.7929 26.5073 26.2083 26.4241 25.8621
## 715
        28.8467 26.8203 25.2470 24.7442 24.3852 24.1830
## 716
       26.8350 25.8237 24.5850 24.3922 24.0665 24.0854
## 717
       25.1631 24.6294 24.0094 23.8564 23.6622 23.7008
      28.1518 29.1289 27.8095 26.9207 24.9791 24.0251
## 719
       26.7530 26.4950 26.4352 26.2391 25.9712 25.5300
## 720 24.4279 23.7453 23.2688 23.0013 22.9587 22.8954
## 721
       26.8035 26.7433 26.6533 26.3361 25.7171 25.8009
## 722
       28.7811 27.5019 26.6088 25.9921 25.5102 24.7198
## 723
       29.3899 28.6912 27.7836 26.9528 26.2946 25.8551
       25.8465 24.8110 24.0954 23.9011 23.7465 23.8182
## 724
       28.7464 26.7935 25.7819 23.8680 23.1131 22.0911
## 726
       27.6194 26.8368 26.4548 25.8131 25.3908 25.0678
## 727
       26.9892 27.8964 27.4530 26.6692 26.4597 26.1218
## 728
        28.1638 27.1619 26.3723 26.2182 25.6826 25.9989
## 729
        26.9896 27.0399 26.0198 25.2138 24.6417 24.4897
## 730
       27.9930 27.8644 26.3957 25.0787 24.2376 23.3662
## 731
       29.0702 28.9576 27.5533 26.9678 27.1043 99.0000
      27.7334 27.4050 26.4771 25.5148 25.4553 24.7178
## 732
## 733
       26.3412 26.0033 25.6003 24.9510 24.5995 24.0068
## 734
       26.1349 26.7305 26.5350 26.1353 26.1861 26.1410
## 735
        27.1515 27.3057 27.1437 25.9098 25.2738 24.6821
## 736
       27.7041 27.0821 26.6329 26.0001 25.7705 25.2782
       99.0000 27.7350 26.7135 26.4387 26.1225 25.4259
## 737
       26.6644 26.7770 26.6267 26.7237 26.4372 26.5900
## 739
       25.7410 26.3187 26.1884 26.1027 26.0958 27.1428
## 740
       99.0000 29.2276 27.7069 26.5335 25.6737 24.7534
## 741
        26.9012 26.4165 26.2988 26.1255 26.1148 25.5678
## 742
        25.8828 25.0580 24.2515 23.6811 23.1798 22.9835
## 743
       26.9608 27.0465 26.3697 26.2700 26.2190 25.8667
## 744
       26.9922 26.9800 26.9511 26.8878 27.7265 26.5438
       28.0674 28.0202 27.2809 26.9605 27.3514 26.3589
## 746
       24.6645 22.5436 20.9118 20.2203 19.8550 19.6338
## 747
       29.5551 27.2525 26.8792 26.3103 26.2714 26.5334
## 748
       25.4626 25.2729 24.8489 24.6526 24.3866 23.9877
## 749
       28.2475 28.3282 26.9434 26.2687 26.3868 26.0122
       27.8485 27.2948 26.1193 25.6470 25.4799 24.9331
## 750
       28.3711 27.5056 26.8019 26.4948 26.5868 25.9298
## 752
       26.4126 26.6296 26.3488 25.9955 26.2372 25.4924
## 753
       26.1009 25.6011 24.8512 24.1613 24.0219 23.9994
## 754
        25.4490 25.3558 25.0249 24.5062 24.1466 23.9723
## 755
        25.5948 25.0593 24.0972 23.3792 23.1700 22.9654
## 756
       31.3421 29.3940 29.1376 26.9787 25.9819 25.2804
## 757
       99.0000 27.3152 25.8600 25.4248 25.1431 25.0860
       28.4407 27.3208 27.6826 26.8927 26.6854 27.2617
## 759
       25.5583 25.5793 24.9156 24.3657 24.1502 24.0166
## 760
       25.7951 25.5425 24.9694 24.7643 24.7582 24.7452
## 761
       99.0000 28.9241 27.3025 26.1166 25.5515 25.1762
## 762
       27.3278 25.9651 25.2427 24.2586 23.7638 22.8840
       99.0000 28.2692 28.1055 26.7215 26.2304 28.2854
## 763
       26.6701 27.0507 26.9534 26.3692 25.6042 25.4900
## 764
       26.4885 26.0154 25.5884 25.1061 24.7754 24.4775
## 765
## 766
       27.4272 27.1817 26.4120 25.8322 26.0377 25.6555
## 767
       24.4307 24.4831 24.3180 24.3657 24.5185 24.1745
##
        28.6113 27.8474 26.6800 24.9486 24.2933 23.3947
## 769
       99.0000 28.0260 26.2920 25.8429 25.2210 25.1695
## 770
       29.9889 28.4232 27.7492 26.9615 26.2671 25.3650
       24.5049 23.7876 22.9964 22.7659 22.5265 22.4745
## 772 28.5580 26.9408 26.3938 25.5753 25.3122 25.1769
## 773
       26.4892 26.4942 26.3643 26.1354 26.4937 25.7970
## 774
       29.3407 32.3031 28.1429 26.9143 26.6633 26.4688
## 775
        23.2148 22.3941 21.3457 21.0036 20.8348 20.5427
## 776
       25.3161 25.1454 24.5848 24.0893 23.9432 23.9309
       26.0145 25.5579 25.0323 24.2871 23.9484 23.7754
       26.4107 25.9316 25.2600 24.4715 24.3057 24.1356
## 779
       25.1487 25.0724 24.9554 24.8550 24.6934 24.2742
## 780
       27.4361 27.9825 26.9155 26.4879 26.2968 28.4916
       25.9756 26.1835 25.6067 25.0817 24.4447 24.0942
## 782
       26.9858 26.8166 26.5112 25.6065 25.5684 24.9817
## 783 21.7215 20.7672 19.9819 19.7292 19.4735 19.4461
```

```
24.8509 24.6580 24.3731 23.8711 23.2913 22.7088
       29.8229 99.0000 27.8689 26.8375 26.8790 28.0045
## 786
       28.9774 28.1734 27.3782 26.8960 26.4855 26.2335
## 787
       99.0000 27.7977 28.0113 26.9533 27.4551 27.0326
##
  788
        27.5113 27.0579 25.6235 24.5289 24.2416 23.8103
## 789
        99.0000 27.7499 26.8824 26.9620 26.8278 27.0841
## 790
       25,7052 24,4781 23,9758 23,6352 23,5175 23,3387
       26.9136 26.7263 26.8978 26.7754 27.4267 26.7343
## 792
       26.6506 26.7749 26.5828 26.2014 26.2575 25.5754
## 793
       27.3916 27.4414 27.2265 26.8522 26.4722 26.1142
## 794
        28.1099 26.4051 25.0618 23.9375 22.9633 22.2044
## 795
       30.5556 28.5376 27.4216 25.7560 24.6030 23.8133
       23.3144 23.1315 22.5990 21.9830 21.8420 21.7913
## 796
       25.0927 24.8315 23.6063 22.6589 21.6757 21.0691
## 798
      27.2286 26.2200 25.5109 24.8386 24.0476 23.7709
## 799
       24.3435 23.8622 23.1087 22.6515 22.5174 22.4038
## 800
       26.5972 26.3227 25.8365 25.3666 24.8251 24.7748
## 801
       26.5416 25.8031 25.2296 25.0393 24.9600 25.3456
## 802
       24.8174 24.7016 24.2389 24.0397 23.9958 23.8177
## 803
       27.4402 27.6345 26.6912 26.0877 25.6573 25.0772
       27.5517 27.7506 27.1375 26.8596 26.3696 99.0000
## 805
       99.0000 28.3210 27.4296 26.9180 26.4562 28.8782
## 806
       28.5363 27.4053 26.7100 26.0640 26.2714 25.2417
## 807
        24.1342 22.9769 22.3293 21.9968 21.8628 21.7306
## 808
        99.0000 26.9242 25.4562 24.6548 24.2960 24.0168
## 809
       26.7814 26.8832 26.5360 26.0011 26.2026 25.6532
## 810
       26.2668 26.1109 26.0153 25.9878 25.9726 25.6165
       24.7036 24.5121 24.0194 23.5128 23.3780 23.2564
## 811
## 812
       28.8032 27.9682 27.0796 26.0774 25.3250 24.3312
## 813
       27.0899 26.5964 26.1370 25.6555 24.9988 24.4830
## 814
       26.3468 26.3092 25.6387 25.3830 25.2432 25.2133
## 815
       26.6872 25.9890 25.1308 24.3830 23.8257 23.1229
## 816
       27.5627 27.6210 27.0398 26.4532 25.8537 25.3688
       29.5245 27.9911 27.2229 26.7647 26.5536 26.3514
## 818
       28.9612 28.6634 28.1678 26.3595 25.8875 24.9158
## 819
       24.9580 22.7981 21.1401 20.3251 19.9303 19.6578
## 820
       27.4121 27.3996 26.6346 26.5729 26.0584 26.0138
## 821
       24.5656 24.1491 23.3821 22.5344 22.2246 22.0387
## 822
       23.8137 23.0285 22.3177 21.6227 21.4548 21.2749
## 823
       27.0253 26.6497 26.6514 26.0881 25.6297 25.1678
       27.5982 27.2545 26.4385 25.8653 25.5067 25.1635
## 825
       27.4586 26.8496 26.3403 25.5644 25.0496 25.1186
## 826
       26.8179 27.2903 26.9057 26.3391 25.7969 25.2109
## 827
        25.6623 25.0498 24.6855 24.5248 24.4359 24.1475
## 828
       26.9838 27.8966 26.6227 25.8357 25.3789 24.8486
## 829
       99.0000 27.7626 26.7750 26.1748 25.5985 25.1347
       26.6945 26.4067 26.3602 25.9315 25.6986 25.0812
## 831
       28.2123 32.3913 27.1901 26.5166 26.3533 25.6037
       27.6479 26.4666 25.7451 25.4450 25.3114 25.3922
## 832
## 833
        27.0335 28.1300 27.5699 26.7675 26.6550 26.6812
## 834
       99.0000 27.1086 26.4240 25.6322 25.1824 25.0011
## 835
       26.6463 25.8386 24.8303 24.0730 23.9191 23.6230
## 836
       27.1786 27.5678 27.1779 26.7521 26.3139 27.1624
       30.7587 28.4034 27.4576 26.7073 25.2414 24.4158
## 838
      25.6882 25.6761 24.9967 24.7307 24.6732 24.1380
## 839
       28.4695 26.7311 25.8324 25.3807 25.2008 24.8744
## 840
       26.1190 26.0932 25.9420 25.7274 25.4476 25.1663
## 841
       27.3215 26.9466 26.1038 25.3679 25.3477 25.2460
       99.0000 27.9010 26.8127 26.0845 25.3389 25.0077
## 842
## 843
       22.4724 20.8844 19.5779 19.0539 18.7436 18.4975
## 844
       27.6427 26.4094 24.9952 24.5269 24.2564 24.0512
## 845
       99.0000 27.5419 27.7182 26.9461 26.3415 26.6412
## 846
       27.3650 27.0471 26.6265 26.4512 26.0680 25.9384
## 847
       27.5439 27.0483 26.7956 26.4784 25.6716 24.8203
## 848
       24.4468 24.1425 23.5624 23.4532 23.1703 23.1720
       26.3756 25.6556 25.1799 24.8893 24.7418 24.7670
## 849
       25.9924 25.9385 24.8044 23.8177 23.4069 22.9936
## 851 28.1133 27.5612 26.6047 26.1764 25.8956 27.0384
## 852
       25.6965 25.5062 25.4558 25.3545 25.1461 24.9326
## 853
       24.9158 24.6546 24.1205 23.5586 22.8694 22.5552
## 854
       28.7130 27.2050 26.0268 25.5257 25.2406 25.0302
## 855
       23.0820 21.8536 21.2260 20.8811 20.6910 20.5125
## 856
       99.0000 27.9860 25.8037 24.7908 23.7876 23.1590
## 857
       26.2769 26.0296 25.1024 24.8189 24.5930 24.6789
## 858
       26.5944 26.5918 26.1139 25.9309 25.9006 27.0051
## 859
       25.0702 24.2162 23.3516 23.1184 22.8794 22.7804
       28.5514 27.8474 26.8164 25.0289 24.2560 23.3862
## 861
       27.4436 27.5904 27.5729 26.5546 26.3239 26.9693
## 862 28.8198 99.0000 29.4085 26.7994 25.8796 25.0563
```

```
27.2312 26.5164 26.1476 26.1232 25.6657 28.1914
       28.4791 28.3536 27.2811 26.9559 26.8652 27.1983
## 865
       99.0000 31.0968 27.7944 26.6324 25.8724 24.8197
## 866
       28.2548 27.2703 25.7738 24.6697 23.9836 23.7116
## 867
        28.7975 28.0722 26.5327 25.1567 24.2840 23.3888
## 868
       26.0294 24.8679 23.8951 23.5356 23.2537 22.9948
       28.1827 28.5560 26.9267 26.3981 26.2152 25.4071
## 869
       27.3733 27.4616 27.6103 26.9759 26.5029 26.0879
## 871
       27.9433 26.7587 25.9411 24.9012 24.4472 24.2167
## 872
       26.3689 25.4854 24.0475 23.6222 23.4289 23.1723
## 873
        25.5983 25.4544 25.3599 25.4151 25.3740 25.9791
## 874
       26.5926 25.7011 24.8743 24.5010 24.3353 24.1178
## 875
      27.4126 27.5081 26.8570 25.8799 25.9490 25.5199
      26.2324 26.5076 26.4010 25.9595 25.5844 24.8432
## 877
       27.4705 27.1082 26.2692 25.8760 25.8190 26.1706
## 878
      25.8021 24.8071 23.9116 23.6134 23.3923 23.3438
## 879
       27.1364 27.8245 27.4346 26.9374 26.5091 99.0000
## 880
       25.8944 25.3133 24.9336 24.7141 24.6091 24.8702
## 881
       26.1081 25.6966 24.7463 24.2345 24.0246 23.9258
## 882
       26.8424 26.8126 26.6439 26.7884 26.9223 26.8273
       25.9159 25.5547 24.9184 24.2610 23.7302 23.4796
## 884
       27.8035 27.3554 26.7106 26.2154 26.0957 25.4892
## 885
       27.8094 27.6105 27.1544 26.6892 26.2200 25.5422
## 886
       29.8832 28.2209 28.0881 26.7137 26.2103 26.9049
## 887
       28.8852 27.7260 27.1473 26.2552 25.9114 26.7082
## 888
       28.1386 27.5976 27.0436 26.6854 26.6067 25.8586
## 889
       26.2652 25.6942 24.8527 24.0960 23.2645 22.7420
## 890
       26.6181 26.3253 25.1227 24.8906 24.7495 24.6070
## 891
       26.7327 27.2942 26.4775 25.6340 25.4055 25.1346
## 892
       28.0317 28.6924 27.5428 26.8557 26.4794 27.8476
## 893
       29.3944 27.9080 27.4128 25.5085 24.9029 23.9331
## 894
       29.0179 29.5258 27.4417 26.4034 25.4697 25.0811
       28.1807 28.1373 27.1585 26.8917 26.7597 26.4737
## 895
       27.5455 28.3773 27.2858 26.6989 26.0581 25.5398
## 897
       28.2762 27.6864 26.9354 25.9274 25.0444 24.5315
## 898
       24.7724 24.0567 23.2628 23.0076 22.8031 22.7278
## 899
       26.7355 26.3366 25.0203 24.4978 24.2311 23.9471
## 900
       26.2352 25.7467 25.4683 25.0718 24.5965 24.1116
## 901
       26.7398 26.7200 26.8981 26.5635 27.3971 26.7306
## 902
       24.1342 23.1664 21.8972 21.3238 21.0251 20.8116
       26.6927 27.1312 26.3949 26.0334 25.6009 26.1640
## 904
       24.1264 22.5053 21.1854 20.6748 20.3862 20.1718
## 905
       29.8482 28.5203 27.4654 26.6239 26.9109 28.0026
## 906
       28.3169 27.6915 27.3250 26.8882 26.4065 25.7291
## 907
       99.0000 28.9236 27.9968 26.9293 26.6381 26.1188
       28.5031 27.3456 25.7321 24.8915 24.4738 24.2431
## 908
       27.7736 26.4277 25.9133 25.5489 25.0028 24.2262
## 910
      26.5527 25.9201 25.4569 24.8000 24.4665 24.3808
## 911 29.5539 27.2447 26.3646 25.8458 25.7528 25.3403
## 912
       24.5544 23.6987 23.3385 23.1336 23.0879 23.0394
## 913
        28.9012 28.5700 27.1297 26.9313 27.2705 26.4141
## 914
       25.0233 24.4147 23.0338 22.0240 21.2965 21.0033
       26.3696 26.2757 25.2217 24.3862 24.2057 24.0928
## 915
      25.0938 23.4788 21.9935 20.9463 20.5793 20.2627
## 917
       29.7791 28.2584 27.2820 26.6169 27.0076 26.0568
## 918
       25.5522 24.8686 24.3449 24.2009 24.0831 24.0799
## 919
       30.3310 28.8665 27.7019 26.9887 26.3040 26.0218
## 920
       27.5183 26.3577 26.0194 25.5855 25.0024 24.7623
## 921
       26.5594 26.9035 26.0912 25.3296 25.2193 25.2240
       24.8167 24.0351 23.3940 23.2290 23.0202 23.0578
## 922
## 923
       25.2073 25.0366 24.3394 23.5194 23.0463 22.9388
## 924
       29.6790 28.5377 27.6517 26.8324 26.9125 28.4815
## 925
       99.0000 29.5798 27.3619 26.7347 25.7971 25.3122
## 926
       26.9319 25.8755 24.5532 23.5884 23.2927 23.0469
## 927
       27.6088 27.1341 26.6044 25.8334 25.4546 25.2727
       26.4426 24.9453 23.2420 21.9423 21.4435 21.0509
## 928
       29.3577 27.9935 27.2049 26.7411 26.6078 26.6299
## 930
      23.5436 23.0393 22.1155 21.4071 21.2047 20.9997
## 931
       26.9547 27.3115 26.9594 26.8531 26.3067 26.4064
## 932
       26.4925 26.8121 26.0499 25.6012 25.5388 25.4938
## 933
        99.0000 27.5683 27.1008 26.5321 26.4091 25.7739
## 934
       26.0287 26.2472 25.9212 25.8124 25.9006 27.4840
       26.7255 25.9846 25.2791 24.8494 24.7546 24.4863
## 936
       27.2143 26.9368 26.7010 25.8982 25.9076 25.1857
## 937
       28.1400 27.3496 26.6537 26.4233 26.4724 27.1668
## 938
       27.4525 27.0121 25.6109 24.9863 24.7131 24.4749
       27.5361 27.9712 27.6643 26.9894 26.3135 25.8121
## 940
       30.1824 28.5213 27.6915 26.3552 26.3407 26.1702
## 941 26.9452 26.3059 25.5264 25.2507 25.0267 24.8298
```

```
28.4075 27.1414 26.9242 26.5714 26.4399 25.1770
       27.2630 26.2672 25.5703 25.3097 25.0801 24.9174
## 944
       32.7086 26.4397 25.0351 24.6717 24.4696 24.4534
## 945
        26.8276 26.4237 25.3800 24.3315 24.0352 23.9359
        25.1567 24.3907 22.9699 21.9316 21.5355 21.1897
## 946
## 947
       26.4120 27.4219 27.1061 26.6317 26.5921 99.0000
       99,0000 28,9582 27,7671 26,1450 25,2890 24,7592
## 948
       26.6489 25.8602 25.0554 24.5719 24.4030 23.9470
## 950
       25.9108 25.5931 24.7475 23.7250 23.3021 23.1534
## 951
       26.2346 25.7475 25.1161 24.2872 23.7775 23.0090
## 952
       25.5733 24.8879 23.9127 23.5579 23.4414 23.0124
## 953
       25.5478 25.2481 24.7153 24.2121 23.5765 23.2045
## 954
      27.3804 26.5709 26.4449 26.0284 25.6131 25.3837
      27.6410 27.1336 26.8586 26.8224 26.7147 99.0000
## 956
      27.9360 27.0701 26.4170 25.5389 24.6874 23.8475
## 957
       21.9722 20.5482 19.2293 18.7054 18.4347 18.1962
## 958
       27.4759 26.9354 25.8489 25.0233 24.1742 23.9280
## 959
       27.7327 27.7697 27.0539 26.4928 26.0763 25.7696
## 960
       31.8332 27.9320 27.0242 25.8032 25.3267 24.9874
## 961
       26.4260 26.2525 25.6396 24.9397 24.4922 24.6369
       26.6427 26.2199 25.5141 24.9918 24.8732 24.9867
## 963
       25.8257 26.0866 25.9088 26.0530 25.8923 25.7783
## 964
       26.5660 26.4342 26.4191 26.2247 26.0092 25.4375
## 965
       27.6686 27.0220 26.8758 26.7332 26.6972 26.0247
## 966
       30.0829 28.6000 27.3384 25.5883 24.4321 23.7244
## 967
       29.2309 27.4021 26.6628 25.3637 24.8371 24.2408
## 968
       27.3503 27.5931 26.8709 26.0587 26.1847 25.8477
       24.8263 24.2837 23.1998 22.3431 22.0554 21.7264
## 969
## 970
       28.7335 28.2178 27.6009 26.8691 26.6352 26.7683
## 971
       25.0087 24.3866 23.3178 22.2682 21.7539 21.4374
## 972
       27.1923 27.2328 26.5064 25.6545 25.3454 25.8039
## 973
       29.2898 28.7567 28.2962 26.8806 25.9478 25.8033
## 974
       28.0745 27.5201 27.3510 26.7355 27.3968 28.1622
       25.2339 25.1736 24.7621 24.0571 23.8218 23.7901
## 976
       28.1250 25.7418 24.8291 24.4826 24.2138 24.0651
## 977
       26.2840 26.6206 26.7324 26.5684 28.2541 30.6207
## 978
       25.9049 26.0664 25.8510 25.4694 25.2737 25.2212
## 979
       28.3228 28.1346 27.1668 26.7707 26.5065 25.9408
## 980
       99.0000 27.8768 26.7923 25.3881 24.2431 23.4894
## 981
       27.3836 27.3110 26.8683 26.5563 25.7521 26.8088
       31.6187 28.4729 28.1338 26.9063 27.0378 26.2216
## 983
      99.0000 28.0802 26.4441 25.6929 25.3049 25.9983
## 984
       26.6915 26.0478 25.1444 24.7347 24.5526 24.3025
## 985
       28.1822 27.0771 26.1748 25.0914 24.7942 24.3203
## 986
       27.5875 27.0131 26.6877 26.3224 25.9569 25.2696
## 987
       27.8976 26.9159 25.6058 25.0754 24.9848 24.5854
       28.5033 26.8434 25.5259 24.2345 23.4230 22.5275
## 989
       23.5139 22.7743 21.7418 21.3646 21.1068 21.0201
## ggg
       99.0000 28.0348 26.9674 26.2725 26.1820 26.7111
## 991
       27.9641 26.8856 26.0505 25.3450 24.9125 24.2459
## 992
       28.9317 28.1823 27.1905 26.6717 26.6680 99.0000
## 993
       28.0921 27.5300 26.3568 25.9457 25.6424 25.8704
       27.7328 28.1681 27.5272 26.8816 26.4084 25.3134
## 994
      27.5043 27.7872 26.6563 26.2804 26.0346 25.3354
## 996 28.3346 27.8762 27.5086 26.7317 26.7072 27.6692
## 997
       99.0000 27.4786 27.4813 26.9844 26.7496 27.0887
## 998
       29.0427 28.0731 27.2494 26.4329 26.4171 25.4994
## 999
       22.8522 22.5335 22.4115 22.3056 22.4846 22.4306
## 1000 27.1549 27.1965 26.7544 25.7392 25.5200 25.1315
## 1001 26.9676 26.0431 25.1754 24.5265 24.0468 23.4532
## 1002 27.0301 26.6890 25.9205 25.3490 25.3099 25.0251
## 1003 27.6234 27.3614 26.2829 25.2983 24.5128 24.1410
## 1004 30.7371 27.8503 27.3798 26.8471 26.8248 26.3747
## 1005 29.3048 27.4602 26.9292 26.5519 26.1873 26.3582
## 1006 27.3801 27.7753 26.8876 26.6231 26.6192 26.5579
## 1007 27.4922 28.0786 26.0243 24.8461 24.1697 23.9380
## 1008 26.7987 26.5922 25.8725 25.1792 24.6877 24.5623
## 1009 28.2929 27.9642 26.9065 26.5152 25.8243 25.3816
## 1010 26.9080 26.9609 26.9182 26.8749 26.6683 28.0254
## 1011 26.9770 27.8803 26.5704 26.4976 26.1083 25.7437
## 1012 29.7004 27.4600 26.6087 25.9710 25.3120 25.0154
## 1013 99.0000 27.5749 27.3549 26.9983 26.9427 26.7748
## 1014 25.8217 24.9512 24.0274 23.3816 23.2016 23.0146
## 1015 28.1371 27.6045 26.4621 26.3281 26.0957 25.9237
## 1016 99.0000 27.2407 26.6059 26.1456 26.0179 25.8543
## 1017 99.0000 27.6998 26.8209 25.8500 25.3841 24.7142
  1018 27.4847 27.5997 26.8472 25.8682 25.5953 24.6470
## 1019 29.8216 28.0767 27.3490 26.9237 26.2829 26.8813
## 1020 28.8633 27.9993 27.3640 26.4466 26.5139 25.6836
```

```
## 1021 26.2701 25.4577 24.9667 24.8439 24.6170 24.7025
## 1022 27.3748 26.9595 26.9154 26.8387 27.5289 26.0913
## 1023 30.0065 28.1578 27.8777 26.6363 26.6913 26.4959
## 1024 25.4671 25.0435 24.4404 24.3104 24.1228 24.0079
## 1025 99.0000 28.1425 26.8161 26.1785 26.8025 25.7628
## 1026 99.0000 27.3962 27.0956 26.6932 25.7213 25.5488
## 1027 27.1594 27.1026 27.0433 26.8484 26.9951 26.6852
## 1028 27.4992 27.5320 26.9905 26.7043 26.8213 99.0000
## 1029 28.2363 28.1204 26.8867 26.8951 26.4007 30.4246
## 1030 28.0212 28.4613 28.0045 26.9030 26.5852 25.9077
## 1031 29.1333 27.6307 27.2821 26.9606 26.4810 26.0335
## 1032 27.5227 26.9759 27.0141 26.7072 26.1868 25.2045
## 1033 26.1759 25.5659 24.5481 23.5837 23.0575 22.8166
## 1034 25.8162 24.1463 22.5500 21.9055 21.5650 21.3220
## 1035 26.3834 26.0173 25.4708 25.4021 25.2541 25.6241
## 1036 24.7910 23.8394 22.9218 22.6137 22.3523 22.2430
## 1037 99.0000 28.6674 26.5324 26.0616 25.6125 26.0007
## 1038 28.4686 27.2754 26.5292 26.0732 26.1278 26.6142
## 1039 99.0000 29.5516 27.3413 26.5399 25.8255 25.5565
## 1040 99.0000 26.7387 25.0506 23.8922 22.9906 22.5569
## 1041 28.1207 25.8373 25.2426 25.0194 24.7241 24.7020
## 1042 99.0000 27.9980 27.1037 26.7060 26.0470 25.4122
## 1043 28.5592 29.1221 28.2729 26.6667 24.8978 24.1125
## 1044 23.5474 22.8524 22.1509 21.7511 21.5722 21.3584
## 1045 29.8093 27.5605 26.8323 26.0645 25.6580 25.5062
## 1046 27.6795 27.9106 26.5724 25.5604 24.7535 24.5098
## 1047 99.0000 27.9249 27.4178 26.1729 25.4474 25.5452
## 1048 27.7503 28.3505 27.5745 26.1171 25.3955 24.7962
## 1049 26.8756 26.8067 25.9306 25.3676 25.0710 24.6545
## 1050 29.4741 28.2652 26.9630 25.7160 24.8815 24.1355
## 1051 26.5651 25.8880 24.1063 22.9111 22.2089 21.8995
## 1052 28.5278 27.9673 27.2502 26.5589 26.0250 25.3197
## 1053 28.2986 27.5282 26.9559 26.3842 25.5904 25.4366
## 1054 27.9255 27.5264 26.9225 26.1558 25.6218 24.8806
## 1055 25.1041 24.9402 24.7462 24.5402 24.0727 23.9284
## 1056 27.8027 27.2596 26.7656 26.3881 25.8937 25.5823
## 1057 25.5045 25.1961 24.6221 23.9910 23.8359 23.7205
## 1058 27.0675 26.0291 24.4856 23.3253 22.9427 22.6510
## 1059 26.6503 27.1454 27.0175 26.6418 27.1898 26.1395
## 1060 27.6047 27.5442 26.6069 25.5461 24.6362 24.1733
## 1061 29.1670 28.0650 26.8117 25.9146 25.3086 25.2307
## 1062 26.0878 25.4006 24.5787 24.1394 23.4483 23.0876
## 1063 26.6360 26.2411 26.2814 26.0110 25.8878 26.0179
## 1064 27.8904 27.7616 26.9194 26.3221 25.4564 25.4678
## 1065 27.2204 26.4000 25.1392 24.7187 24.4504 24.3029
## 1066 28.4854 27.9453 27.2362 26.8386 26.5119 27.4465
## 1067 29.4419 27.7413 27.6209 26.9928 26.2442 26.2096
## 1068 28.6182 27.4549 26.6721 26.3231 25.9429 26.0210
## 1069 99.0000 28.7600 27.4241 26.8660 25.8095 25.3845
## 1070 28.1718 27.8915 27.4085 26.6040 26.3446 26.2513
## 1071 27.6467 27.4015 26.3680 25.6145 24.9030 24.2496
## 1072 26.3310 26.2782 25.6684 25.3369 25.2994 25.4659
## 1073 27.0936 25.7388 25.0571 24.8147 24.4654 24.4935
## 1074 25.9136 24.8721 23.6980 23.1855 22.9227 22.6866
## 1075 25.6487 24.7713 24.1127 23.6871 23.4005 23.1601
## 1076 25.7904 25.6783 25.2574 25.1769 24.9350 25.2040
## 1077 25.4057 25.0154 23.9523 23.5918 23.3719 23.1612
## 1078 27.0446 27.2423 25.8073 24.5296 23.6977 22.8906
## 1079 20.8892 19.8159 18.8261 18.3960 18.1257 17.9239
## 1080 26.8360 26.7802 26.1193 25.4480 25.2279 25.1603
## 1081 27.0849 27.0497 26.3855 26.4199 25.9424 26.4287
## 1082 27.0405 25.8376 25.0096 24.9142 24.7175 24.6214
## 1083 27.5451 27.2699 26.1669 25.1309 24.4417 23.6727
## 1084 26.1803 26.3863 26.0092 25.9053 25.7878 25.3236
## 1085 27.0688 26.4723 25.6056 25.4008 25.1024 25.2592
## 1086 27.0767 26.9374 26.4109 25.4828 25.3905 25.2106
## 1087 26.1286 25.6004 24.8365 24.2398 23.4643 22.9760
## 1088 28.6244 27.2021 27.1909 26.9616 26.7886 26.3178
## 1089 28.5264 29.0793 26.7805 24.9282 24.2864 23.1842
## 1090 27.4529 27.1347 26.3360 26.4542 26.3333 99.0000
## 1091 27.4267 26.9516 26.0637 25.8447 25.6259 25.3037
## 1092 26.6701 25.5581 24.1179 22.9155 22.1831 21.7885
## 1093 26.6110 26.9796 27.0209 26.4039 26.5694 99.0000
## 1094 30.2787 28.0800 27.1175 26.2252 25.8406 25.7506
## 1095 31.3114 27.7224 26.6402 25.0342 24.2386 23.5013
## 1096 27.0560 26.7343 26.2941 25.8899 25.6857 25.7047
  1097 28.7477 27.5670 26.5229 24.8451 24.2077 23.2814
## 1098 25.2208 24.2195 22.8920 22.3715 22.0924 21.7066
## 1099 27.8423 27.2674 26.5028 25.7873 25.5238 25.1246
```

```
## 1100 28.5562 27.2952 26.1278 24.3005 23.5297 22.6721
## 1101 27.2871 26.9500 25.9689 25.6278 25.4632 25.5831
## 1102 28.1906 27.3883 26.7119 25.8607 25.5369 25.1088
## 1103 27.2309 28.0686 28.0228 26.9225 27.0344 28.0196
## 1104 26.9273 26.5784 25.8582 25.6874 25.4607 25.4031
## 1105 27.7543 27.3331 27.8330 26.9814 27.1438 26.9606
## 1106 26.6575 26.3304 25.7638 25.1764 24.9268 24.9167
## 1107 29.6965 27.8352 27.3655 26.5268 26.2523 25.7013
## 1108 29.5036 26.9561 25.9963 25.7911 25.8017 25.3763
## 1109 28.9546 27.9102 27.1523 26.5219 25.6163 24.8992
## 1110 27.3092 27.7668 27.4397 26.8054 26.0046 25.7275
## 1111 24.5808 24.2156 23.4343 22.5829 22.2728 21.9925
## 1112 27.8590 26.7919 25.5675 25.1847 24.8764 24.5861
## 1113 26.5717 26.6989 26.4787 26.4573 25.7646 25.8764
## 1114 27.0173 26.7209 25.9491 25.0990 24.5396 24.3601
## 1115 26.0130 26.5078 26.1907 25.6331 25.3485 26.3141
## 1116 27.8791 27.4359 26.6469 26.2544 26.3818 25.8389
## 1117 24.7781 24.4027 23.5786 23.2333 23.1067 22.7271
## 1118 27.7295 26.8582 25.9123 25.6505 25.3872 25.3876
## 1119 25.8433 25.9923 25.6318 25.7600 25.4077 26.2693
## 1120 26.6566 26.6005 26.0954 25.4378 24.9206 23.9828
## 1121 27.7097 26.9500 26.2233 25.5266 25.4894 25.3358
## 1122 25.8134 23.8655 22.5429 22.0566 21.7635 21.5315
## 1123 28.1337 26.5828 25.7676 25.0622 24.3818 24.0641
## 1124 26.8252 26.0072 25.2992 25.0447 24.7891 24.9621
## 1125 99.0000 27.9003 26.7425 25.3988 24.7536 23.7086
## 1126 29.5209 30.2247 27.7976 26.8380 26.6534 25.6335
## 1127 26.3328 26.4055 25.8555 25.0811 24.7878 24.5614
## 1128 99.0000 27.0067 26.1140 25.6883 26.0010 25.0826
## 1129 28.0302 27.9501 27.4237 26.8163 26.8667 99.0000
## 1130 27.0315 26.5995 26.4633 26.5882 26.5770 25.8336
## 1131 28.5384 27.5112 26.9729 26.0359 25.9030 29.8221
## 1132 27.2144 26.9876 26.8336 26.3711 26.2255 25.0637
## 1133 29.5502 29.9491 27.2302 26.4528 25.5241 25.0168
## 1134 26.0161 25.2077 23.6410 22.4096 21.7195 21.3979
## 1135 27.3197 27.5605 26.9522 26.2348 25.9304 25.3735
## 1136 28.1056 28.8376 27.4621 26.7955 26.9424 26.1860
## 1137 28.4598 27.3190 25.9426 25.3607 24.9951 24.7885
## 1138 27.6108 27.0762 26.3359 25.4621 24.9525 24.8414
## 1139 29.8321 28.1310 27.4236 25.9766 25.2764 25.1947
## 1140 27.1536 27.0286 26.7804 26.3718 26.5586 25.7685
## 1141 28.4115 27.4525 27.3404 26.2638 25.8509 26.7284
## 1142 28.3342 28.7335 27.5282 26.6505 26.6873 99.0000
## 1143 26.8878 26.3995 25.7862 25.3648 25.3439 25.2032
## 1144 27.7549 27.9517 27.3852 26.6263 25.8731 24.9765
## 1145 28.8762 28.1676 26.7636 25.5624 24.6836 23.8425
## 1146 22.6595 22.2776 21.3945 20.5895 20.3141 20.0662
## 1147 26.6141 24.5480 23.0186 22.0638 21.7068 21.4656
## 1148 28.2485 27.3536 26.9332 26.5154 25.6698 25.1939
## 1149 25.9591 25.6078 25.1194 24.4229 24.1146 23.9942
## 1150 28.1049 27.8367 27.3322 26.7066 26.3729 25.6862
## 1151 26.6636 26.6479 26.6058 26.6498 26.6806 26.9392
## 1152 28.0838 28.3388 27.3465 26.8946 25.8892 26.5857
## 1153 28.5199 27.0826 25.3650 24.4086 23.4572 22.9378
## 1154 23.4252 22.8090 21.6126 20.9407 20.6300 20.2282
## 1155 24.0102 23.8286 23.8481 23.7495 24.0811 24.1969
## 1156 25.3133 23.8682 22.5600 22.1315 21.7990 21.6985
## 1157 27.3229 27.0764 26.4992 26.0250 25.6089 25.2248
## 1158 25.1816 24.4785 23.6485 23.1394 22.4800 22.2677
## 1159 30.6988 28.0939 27.5877 26.9142 27.2924 25.7565
## 1160 29.9305 28.1584 26.8366 25.9579 25.5700 25.3913
## 1161 99.0000 28.4254 26.8579 26.3785 26.4718 26.2101
## 1162 28.6970 27.7282 26.8375 25.7516 25.0081 24.0774
## 1163 25.8414 25.7672 25.1564 24.8765 24.8306 24.0975
## 1164 28.6152 27.2537 27.0937 26.6255 27.0073 25.7501
## 1165 27.0330 26.9778 27.0553 26.5535 26.5571 26.2758
## 1166 27.0728 27.2483 26.5575 25.9440 25.3859 24.7465
## 1167 21.4308 19.7659 18.7135 18.2024 17.8596 17.5959
## 1168 26.4894 25.5439 24.7089 24.5622 24.4232 24.4153
## 1169 26.9507 26.5685 26.5305 26.2255 26.7447 26.0828
## 1170 22.8712 22.6676 21.9058 21.1129 20.7966 20.5253
## 1171 28.6707 27.2039 26.6301 26.5520 26.1853 25.5773
## 1172 27.5867 27.5012 27.2461 26.7046 26.1760 25.8097
## 1173 26.7352 26.6880 25.8080 25.0199 24.4484 24.1511
## 1174 27.8056 27.7887 27.2355 26.5399 26.5911 26.1134
## 1175 25.5080 25.4054 24.9194 24.8168 24.7115 24.2578
  1176 28.3717 27.6114 26.5284 26.0165 26.1128 25.1158
## 1177 24.3672 24.0456 23.4118 23.2418 23.1321 23.0168
## 1178 28.2354 26.6553 26.7646 26.6459 25.8783 25.8988
```

```
## 1179 27.3697 27.7864 26.9123 26.5626 26.6821 99.0000
## 1180 31.6250 28.0017 27.5192 26.8908 26.2438 25.5523
## 1181 28.8803 32.4159 27.5362 26.5724 25.8970 25.4910
## 1182 99.0000 29.0820 27.1303 26.3621 26.1748 27.1242
## 1183 27.2309 26.6674 25.2022 24.7844 24.4458 24.1377
## 1184 27.6577 27.8978 27.4446 26.6825 25.7474 25.7318
## 1185 27.6374 27.3490 26.3954 25.3706 24.7502 24.2731
## 1186 99.0000 27.7119 27.6429 26.8571 26.3426 25.9335
## 1187 26.3658 26.2564 25.6585 25.2327 24.4232 24.0420
## 1188 28.4813 28.3435 27.1546 26.6749 26.4884 25.3819
## 1189 99.0000 27.4873 26.6511 26.1783 26.1334 26.9426
## 1190 26.0791 24.2064 22.1092 20.8366 20.0221 19.6177
## 1191 26.8375 26.3792 25.5910 24.9598 24.1686 23.9280
## 1192 28.3410 27.3158 27.0307 26.1980 25.9307 25.5524
## 1193 27.5513 27.2681 25.5620 24.2250 23.4166 22.5115
## 1194 25.5154 25.1425 24.7472 24.5544 24.4817 24.5277
## 1195 27.4240 26.7780 25.6747 25.2270 25.1376 25.0817
## 1196 25.8016 25.2545 24.8000 24.4719 23.9130 23.5319
## 1197 25.2810 25.1305 25.1042 24.7267 24.2680 23.6350
## 1198 23.6315 22.7992 22.0396 21.7514 21.5451 21.4675
## 1199 27.5515 26.6854 25.8685 25.1122 24.8813 24.7895
## 1200 27.5271 27.4628 27.1042 26.9139 28.3623 26.0881
## 1201 27.4532 27.1903 26.9323 26.7705 26.0566 26.2708
## 1202 28.7642 28.7022 28.2134 26.8639 25.9274 25.2145
## 1203 27.6945 28.7421 26.2012 25.1860 24.3118 24.0304
## 1204 28.1628 28.4995 27.1097 26.6386 26.2699 25.8193
## 1205 28.9102 27.1321 27.1045 26.2382 26.2747 27.1496
## 1206 27.0205 26.3726 25.6060 25.0317 24.8894 24.9603
## 1207 27.6996 27.5314 26.8269 26.5025 26.9689 26.2307
## 1208 27.2302 26.7082 25.3091 24.2956 23.9445 23.6784
## 1209 26.9305 26.3064 25.4537 25.3460 25.1903 25.4444
## 1210 26.9191 26.6196 26.0329 26.0762 25.9549 25.9960
## 1211 24.4244 23.9520 23.1240 22.6027 22.4460 22.2018
## 1212 29.2947 27.5059 27.0765 26.7614 26.6889 26.4570
## 1213 26.9929 26.6055 25.9407 25.8250 25.7664 26.0235
## 1214 27.1417 27.5767 26.9106 26.1939 26.1822 26.6974
## 1215 25.6214 25.1474 24.3441 23.8476 23.6060 23.4856
## 1216 25.3531 24.9476 24.4093 23.7804 23.0844 22.4442
## 1217 27.2043 28.0166 27.2312 26.7575 25.6873 25.8999
## 1218 26.4904 26.5719 25.2324 24.3659 23.4532 22.8742
## 1219 99.0000 28.6627 27.6740 26.7204 26.5136 26.3897
## 1220 24.9942 24.7503 24.0153 23.3181 23.0278 22.8343
## 1221 28.0601 26.8715 25.9676 25.6915 25.5456 25.3928
## 1222 27.7140 26.6808 25.9639 25.8638 25.5480 25.1648
## 1223 26.5875 26.3540 25.6817 25.3380 25.2877 24.9139
## 1224 25.9238 25.1753 24.2121 23.7366 23.5358 23.2930
## 1225 28.8186 28.3419 27.3441 26.2045 25.8378 25.8308
## 1226 27.3532 26.1935 25.3540 24.8196 24.6365 24.6373
## 1227 27.6516 27.6242 26.2980 25.5656 25.3320 24.9606
## 1228 25.3921 25.0221 24.3084 23.6781 23.5195 23.4034
## 1229 29.3456 26.6850 25.5811 25.3808 25.2241 25.0757
## 1230 28.5359 29.0016 27.8531 26.9127 26.0870 26.6442
## 1231 26.9212 26.7210 26.2035 25.7279 25.0003 24.5723
## 1232 28.0761 26.8495 25.5676 24.5509 23.8386 23.5345
## 1233 27.6656 26.4458 25.6952 25.5364 25.2538 24.9789
## 1234 28.7968 27.6417 27.2591 26.4968 26.1167 26.6762
## 1235 28.3885 26.9715 25.8163 25.4449 25.4347 25.2010
## 1236 29.8697 28.5748 27.9870 26.6147 26.4173 27.1825
## 1237 27.5136 26.5784 25.9304 25.0173 24.8714 24.8304
## 1238 25.9831 25.1011 24.2245 23.6268 22.9069 22.6049
## 1239 27.0308 27.2674 26.9191 26.5552 26.1984 25.8920
## 1240 30.8000 28.3462 28.5258 26.8099 26.8802 26.0822
## 1241 29.2617 28.6062 27.0103 26.3020 26.0907 25.9953
## 1242 29.3329 28.7301 27.6525 26.3381 25.5919 24.4784
## 1243 25.5952 25.1032 24.5504 24.3863 24.2576 24.1668
## 1244 26.2257 25.4972 24.7299 24.2654 23.7881 23.3349
## 1245 28.8940 28.6044 28.6732 26.8906 27.1556 99.0000
## 1246 28.8779 28.1621 26.9515 26.2760 26.4742 25.7287
## 1247 99.0000 27.7340 27.3181 26.4074 25.5253 25.2635
## 1248 27.8028 27.8071 27.5468 26.8367 28.0849 28.4970
## 1249 23.0717 21.9049 20.5909 20.1254 19.8407 19.6622
## 1250 31.4100 28.0824 27.2193 26.4504 25.6982 25.6792
## 1251 29.7710 28.3363 27.2890 26.6474 26.8140 27.1269
## 1252 99.0000 29.1339 28.8794 26.8772 26.9426 26.1740
## 1253 29.2406 26.1312 25.3769 25.1562 24.9534 24.8571
## 1254 27.2841 25.8443 24.4598 23.3943 22.9852 22.6720
## 1255 26.1984 26.2792 26.4621 26.4845 26.6921 26.2758
## 1256 24.6979 24.5645 24.5776 24.5089 24.1269 23.8312
## 1257 99.0000 28.4380 27.4526 26.7059 25.9577 24.9595
```

```
## 1258 27.9928 27.6080 27.3574 26.4390 26.2061 26.7156
## 1259 27.7941 27.3268 26.9310 26.0885 25.6985 25.5782
## 1260 26.9231 25.8011 24.4791 23.9648 23.6948 23.4965
## 1261 26.3842 26.3357 25.8732 25.3890 24.8286 24.6059
## 1262 26.0527 25.7322 24.7686 23.8890 23.6355 23.3822
## 1263 27.4139 26.9540 26.6390 26.0936 25.7764 26.2954
## 1264 28.6722 28.0708 27.4365 26.9484 27.2050 26.2057
## 1265 29.0754 27.6532 25.4622 24.2302 23.3034 22.4837
## 1266 27.2690 27.5280 27.3621 26.8866 26.2978 25.4717
## 1267 27.3895 26.8311 25.4116 25.0293 24.8242 24.4386
## 1268 24.2291 23.9206 23.3446 22.6466 22.1788 22.0248
## 1269 28.1143 29.8667 27.8097 26.6726 25.7123 25.7520
## 1270 25.4966 24.4799 23.4746 23.1871 22.9767 22.9597
## 1271 26.9472 25.5538 24.5799 23.5510 23.2137 23.0538
## 1272 26.4580 26.8703 26.8602 26.2882 26.1718 26.6063
## 1273 99.0000 27.7017 27.0804 26.2573 25.9126 25.7573
## 1274 27.2844 27.8771 26.7798 26.5590 26.2699 25.7200
## 1275 28.2832 27.6438 27.0506 26.9804 27.8274 26.9037
## 1276 29.6987 27.2761 26.3724 25.3164 25.0380 25.3020
## 1277 27.3026 27.3082 26.7432 26.3256 25.7703 25.4925
## 1278 26.5196 25.8908 25.5154 25.4766 25.2778 25.0594
## 1279 26.9910 27.5870 26.8683 26.4107 26.3781 26.3162
## 1280 26.5481 25.7739 24.8542 24.6102 24.3396 24.1393
## 1281 29.3729 27.3491 26.9672 26.6189 26.8007 25.9600
## 1282 23.9845 23.9770 23.9016 23.8144 23.4250 23.2589
## 1283 27.0600 26.1727 25.1359 24.6219 24.3693 24.0910
## 1284 27.1179 25.6237 24.0721 23.2696 22.9178 22.6124
## 1285 26.7897 26.7767 25.6713 24.7750 24.5047 24.2422
## 1286 28.1221 27.9560 27.2920 26.5479 26.7864 25.8441
## 1287 27.5828 27.6969 27.3345 26.7616 26.6519 26.4631
## 1288 99.0000 27.5068 26.1209 25.5807 25.3409 25.2270
## 1289 23.0849 22.3647 21.5473 21.2398 21.1024 20.8931
## 1290 30.5658 28.8451 27.0947 26.3663 26.1394 25.9943
## 1291 26.8852 25.4394 24.0519 23.5704 23.2818 22.9963
## 1292 26.6097 26.2494 25.6449 25.6393 25.4549 25.2224
## 1293 99.0000 28.0440 27.4448 26.6983 26.5246 27.3021
## 1294 26.2415 26.2822 26.1901 26.0152 25.4798 25.2603
## 1295 25.6044 24.6984 24.2119 23.9487 23.8812 23.7991
## 1296 25.8261 25.4287 24.9616 24.7616 24.7573 24.6833
## 1297 27.0350 26.8546 26.5669 26.7214 26.8813 26.5004
## 1298 28.2864 27.9021 27.0617 26.5709 26.8293 26.0988
## 1299 26.9806 26.7420 26.2165 26.2415 26.2348 26.1845
## 1300 29.1510 27.1825 27.3961 26.6487 26.2395 25.5614
## 1301 25.8788 25.0606 24.0721 23.7798 23.4884 23.3434
## 1302 27.4920 26.8744 26.2411 25.2890 24.7503 24.5986
## 1303 28.7874 28.1474 27.9050 26.8860 26.3167 25.9501
## 1304 27.2420 27.6895 26.9944 26.4856 26.5096 25.5238
## 1305 28.3456 27.7762 27.6271 26.9249 26.4245 25.5740
## 1306 99.0000 28.4915 27.0320 26.6659 26.8206 26.4476
## 1307 27.2533 28.1199 27.0328 26.8448 26.7656 99.0000
## 1308 29.2821 28.0500 27.9308 26.9529 26.6548 26.8279
## 1309 28.2702 29.0302 26.9850 26.2020 25.9046 25.6699
## 1310 28.3636 25.7552 24.1215 23.4233 23.0684 22.9054
## 1311 28.7270 26.2015 24.5981 23.4618 23.0438 22.7295
## 1312 27.8826 27.1150 27.1919 26.8325 26.5341 25.5140
## 1313 28.6880 28.1596 27.1622 26.6684 26.3379 26.4302
## 1314 99.0000 29.7592 26.6953 25.1093 24.3386 23.3157
## 1315 23.5382 22.9824 22.1299 21.7351 21.6076 21.3832
## 1316 27.7600 26.8782 25.1247 23.5088 22.7740 21.7857
## 1317 27.1917 26.7760 25.9399 25.5387 25.2501 25.2693
## 1318 25.9807 25.2909 24.0287 23.1311 22.1953 21.6448
## 1319 27.9853 27.8328 27.0803 26.7879 26.5447 27.5120
## 1320 28.1720 27.4876 26.4924 24.8313 24.0774 23.0152
## 1321 27.9415 27.8287 27.0766 26.5839 26.7858 26.0485
## 1322 25.1354 24.8750 24.1212 23.3792 23.1578 23.0102
## 1323 26.7738 24.9696 23.3865 22.3064 21.9041 21.5701
## 1324 27.3255 27.6360 26.7536 26.3409 26.2196 99.0000
## 1325 27.8468 28.4563 27.8755 26.9741 26.8245 26.2493
## 1326 25.7169 25.6892 25.3056 24.6430 24.4897 24.1409
## 1327 99.0000 28.1802 27.5477 26.9497 26.5421 26.4742
## 1328 28.3041 28.1861 27.0346 26.5545 26.1252 28.4761
## 1329 25.3094 24.4113 23.7315 23.5246 23.3202 23.3665
## 1330 27.7687 27.7782 26.8172 26.0388 25.7398 27.3076
## 1331 26.2857 25.3557 23.7697 22.5534 21.9859 21.6675
## 1332 28.1318 27.6250 27.6621 26.6255 26.6604 25.5112
## 1333 29.9636 27.3343 26.6449 25.5430 25.0214 23.9231
  1334 27.9316 27.0822 26.1901 26.0768 25.5429 25.0146
## 1335 26.3920 25.9853 24.9748 24.0486 23.6980 23.4655
## 1336 26.9503 26.9335 26.9182 26.5142 26.5225 26.6053
```

```
## 1337 26.3482 25.8136 24.9447 24.6562 24.6135 24.2930
## 1338 29.4468 28.3323 26.6977 25.7321 25.5830 25.3977
## 1339 30.1484 28.2306 27.4162 26.7782 25.9424 25.5635
## 1340 99.0000 27.1424 27.0590 26.7692 25.9427 25.2998
## 1341 27.0467 27.2284 26.9590 26.2656 25.7473 26.2073
## 1342 27.6816 27.7062 26.9017 26.6408 26.9027 27.2985
## 1343 27.9489 28.7904 27.0205 25.0337 24.0058 23.4948
## 1344 27.1956 26.8975 26.3640 25.6243 25.3542 24.9257
## 1345 27.5184 28.2435 27.6596 26.7886 27.2381 26.8290
## 1346 27.9144 27.5921 26.3024 25.1248 24.5146 24.1713
## 1347 27.0278 26.9508 26.6835 26.2242 26.0722 26.0151
## 1348 24.4426 23.9007 23.0565 22.7876 22.4811 22.4374
## 1349 26.2617 25.4071 24.4469 23.7014 23.4827 23.3003
## 1350 26.6851 25.8848 24.6381 23.8939 23.6193 23.3430
## 1351 27.1546 26.5574 25.7209 24.7504 24.3502 24.2545
## 1352 99.0000 28.7199 27.8481 26.9681 26.8091 25.6428
## 1353 26.5137 26.6980 26.2224 25.8261 25.2774 25.1958
## 1354 28.4125 26.8001 25.8894 24.9873 24.6169 24.3208
## 1355 28.5070 30.4777 27.0947 26.1549 25.7058 25.3485
## 1356 27.2153 26.8973 26.0499 25.3312 24.8606 24.7844
## 1357 26.8757 26.0275 24.5413 23.5573 22.5968 22.0065
## 1358 26.4785 26.5015 26.4870 26.7396 26.6168 27.5819
## 1359 28.4132 32.2153 27.4569 26.9474 27.1992 26.2982
## 1360 30.9965 27.7042 27.2337 26.8039 26.7393 26.4378
## 1361 28.0014 28.8746 27.5416 26.9592 26.4355 26.0088
## 1362 25.2917 25.1045 24.5528 24.0550 23.9213 23.6780
## 1363 99.0000 27.5622 27.2678 26.2548 25.5316 25.5273
## 1364 27.1150 26.1186 24.9699 24.6717 24.5554 24.4938
## 1365 28.5219 28.2433 27.9487 26.9017 26.7147 26.1294
## 1366 26.5983 26.7290 25.8026 25.2724 24.6314 24.4204
## 1367 26.8570 26.6665 26.1497 25.4368 25.1459 24.9433
## 1368 29.1131 27.9733 27.3347 26.9814 26.0948 25.6888
## 1369 27.7574 27.4927 26.7307 26.0838 25.8739 25.5329
## 1370 26.3401 25.9290 25.5991 25.2853 24.4623 24.0902
## 1371 27.0832 26.1789 24.8953 24.5221 24.2561 24.1766
## 1372 99.0000 28.0848 25.9770 24.4278 23.6644 22.7077
## 1373 27.7394 26.7715 25.9429 25.3507 25.0530 24.8434
## 1374 30.3685 29.7283 27.3677 26.2175 25.2960 24.8419
## 1375 26.5612 25.9836 25.3291 24.8825 24.8690 24.9053
## 1376 25.4403 25.4014 24.9453 24.5473 23.9140 23.6835
## 1377 28.4371 27.5815 26.6988 26.7519 26.1694 27.0397
## 1378 27.8123 27.0392 26.0873 25.3432 24.4669 23.8441
## 1379 24.2316 23.9278 23.3114 22.7841 22.6388 22.4734
## 1380 26.5179 26.4444 26.5156 26.7346 27.5630 26.1183
## 1381 99.0000 29.3863 27.9953 26.9633 26.6782 25.7341
## 1382 27.1217 28.0080 27.1405 26.8263 25.8670 26.8054
## 1383 28.4629 27.3131 26.4160 26.0489 25.7763 26.2723
## 1384 27.0688 25.9659 24.6411 23.4883 22.7317 22.3306
## 1385 27.3906 27.3583 27.0274 26.1603 25.5012 24.9960
## 1386 26.8227 26.6907 26.3698 25.6301 25.3466 25.3752
## 1387 29.3635 27.7889 27.4923 26.8230 26.9889 25.7750
## 1388 25.8939 25.6718 25.1824 24.4504 24.0212 23.8379
## 1389 27.2151 26.9003 26.1516 25.9216 26.2227 26.3383
## 1390 26.7439 26.6502 25.9487 25.5217 25.4024 25.1483
## 1391 99.0000 27.7675 27.2195 26.3149 25.8818 25.1878
## 1392 27.3327 27.0452 26.4637 26.2701 25.5078 25.0769
## 1393 27.0535 26.9082 26.5608 26.6306 26.4109 28.4004
## 1394 27.9107 26.5803 25.4709 25.0944 24.9140 24.8043
## 1395 26.6544 26.3875 26.0841 25.3943 24.9202 23.8545
## 1396 27.7286 27.2508 26.9168 26.4932 25.9329 25.5499
## 1397 24.6531 23.2289 21.6640 20.4951 20.0738 19.7363
## 1398 26.1456 25.9726 25.7835 25.7067 26.0965 26.0540
## 1399 29.7088 28.6606 27.4907 25.7409 24.7922 24.1887
## 1400 27.7710 27.6318 27.2243 26.9882 26.6964 26.8460
## 1401 27.5780 26.3525 24.5520 23.3222 22.8189 22.5168
## 1402 26.9224 27.1365 26.5844 25.9323 25.6335 24.7732
## 1403 24.8403 24.3438 23.4553 22.9768 22.8629 22.7453
## 1404 27.7502 28.5346 27.9420 26.6887 26.6088 26.5500
## 1405 28.4162 28.8873 27.1292 26.7025 26.3791 27.0693
## 1406 27.7815 27.8665 26.5575 25.7233 24.8610 24.1064
## 1407 26.5205 24.5079 22.8872 21.7235 21.3102 20.9763
## 1408 29.0807 28.2981 27.9404 26.7613 26.0190 25.2355
## 1409 28.5318 28.7504 27.8460 26.8132 26.2271 26.2156
## 1410 25.4236 24.9726 24.1506 23.9028 23.8561 23.5115
## 1411 26.7729 27.1909 26.9078 26.9572 27.0289 26.5178
## 1412 30.2619 28.0731 27.6698 26.8897 27.2088 26.6135
## 1413 29.1920 28.1545 26.5971 26.4192 25.6097 26.6571
## 1414 26.9415 26.6770 25.9298 25.7681 25.7026 25.4018
## 1415 27.0909 27.1838 26.7865 25.6212 25.1676 24.6060
```

```
## 1416 28.3447 28.2849 27.6353 26.5047 25.5219 25.2617
## 1417 24.9982 23.5571 22.9897 22.6694 22.5615 22.3870
## 1418 26.3733 26.1349 25.6629 25.2057 24.6120 24.3600
## 1419 24.2006 23.8987 23.8123 23.5501 23.2160 22.6066
## 1420 26.5535 26.2510 25.5188 25.0352 24.8563 24.8512
## 1421 27.4238 26.5284 25.9076 24.8566 24.2575 23.3990
## 1422 27.5939 24.9126 23.1719 21.8581 21.2908 20.8961
## 1423 27.7997 26.6926 25.4752 24.9169 24.6574 24.2709
## 1424 26.9807 26.1557 25.1181 24.2361 23.4655 22.7704
## 1425 26.1633 26.5624 26.3738 25.8391 25.6235 25.3964
## 1426 27.2849 27.8000 27.1287 26.3272 25.8502 25.5431
## 1427 26.8855 25.9725 23.8740 22.7598 21.8251 21.3531
## 1428 27.5679 28.0929 27.1133 26.5746 26.3506 25.8788
## 1429 26.5721 26.5304 26.2097 25.6302 25.4691 24.4264
## 1430 25.8605 25.5048 25.1893 24.7858 24.6092 24.0972
## 1431 31.3225 27.8895 27.1702 26.6397 28.1263 26.9638
## 1432 23.1248 22.4240 21.4284 20.7149 20.4367 20.1871
## 1433 28.6409 27.2166 26.6659 26.5541 26.6028 25.8628
## 1434 99.0000 27.7140 26.9408 26.3488 26.6626 27.0939
## 1435 28.7323 28.6620 27.5989 25.3576 24.6664 23.6929
## 1436 24.4068 23.7841 22.7294 22.4712 22.3557 22.2531
## 1437 28.3145 26.7711 24.4293 23.2740 22.3623 22.0043
## 1438 28.0679 27.1351 26.5496 25.9680 25.4516 25.0892
## 1439 25.8917 25.3624 24.7770 24.5078 24.3523 24.2699
## 1440 28.0643 28.0573 27.4715 26.4944 26.4042 26.0201
## 1441 27.1353 26.5709 25.7873 25.5283 25.1562 25.5024
## 1442 27.9459 28.0097 26.0572 24.9562 23.9951 23.5554
## 1443 24.1375 23.6869 22.8882 22.2716 22.1035 21.9346
## 1444 28.2293 28.1339 27.5974 26.8898 27.0554 26.2814
## 1445 29.0196 27.5809 26.9583 26.1788 25.7051 25.1215
## 1446 26.1635 26.2100 26.1087 25.9493 25.7830 25.2441
## 1447 26.8926 25.9322 25.3938 24.9326 24.7707 24.8804
## 1448 24.7516 24.1529 23.7013 23.5060 23.4613 23.5373
## 1449 27.9612 27.1373 26.3547 25.9603 25.9527 25.3750
## 1450 22.1625 21.2597 20.4116 20.1120 19.8819 19.8007
## 1451 27.2966 25.0566 23.3823 22.2330 21.8110 21.4895
## 1452 25.1608 24.5250 23.6409 23.4004 23.2762 23.1357
## 1453 27.9754 28.4024 26.9246 25.9357 25.4211 24.8386
## 1454 26.7049 26.1899 25.8347 25.5270 24.9054 24.6084
## 1455 28.0228 27.7553 27.0238 26.3135 25.9297 26.4368
## 1456 24.6562 24.6241 24.5863 24.5966 24.4917 24.3309
## 1457 99.0000 27.1892 25.9477 25.0092 24.6537 24.2532
## 1458 28.4277 27.8224 27.1706 26.7541 26.9203 26.0742
## 1459 27.2139 26.9877 26.9084 26.3974 26.2546 25.9855
## 1460 29.3789 28.0072 26.0435 25.0287 24.1009 23.6192
## 1461 25.1118 24.4352 23.4579 22.9525 22.7483 22.5358
## 1462 27.7414 26.6419 26.0616 25.9879 26.0365 25.5539
## 1463 24.6573 24.6812 24.6665 24.9246 24.5710 24.9624
## 1464 28.6441 27.4064 26.2205 25.9797 25.5594 25.2578
## 1465 24.3487 23.0417 21.6415 20.6913 20.2780 19.9612
## 1466 28.5678 28.0485 27.0912 26.7757 26.8597 27.5447
## 1467 21.1878 19.6717 18.5965 18.1612 17.9308 17.7205
## 1468 26.2387 26.0743 25.5574 24.8659 24.5833 24.4369
## 1469 29.8426 28.1809 27.1558 26.6097 26.1928 26.1258
## 1470 26.2577 26.0787 26.0648 25.7281 25.8291 25.0802
## 1471 27.9506 27.5888 27.1433 26.5866 26.1490 25.7738
## 1472 25.0201 24.6022 23.6071 23.2513 23.0463 22.8016
## 1473 26.2307 26.0802 25.6803 25.1945 24.7592 24.1626
## 1474 99.0000 27.7458 27.5737 26.7477 25.8938 25.7111
## 1475 27.4632 27.0450 26.4036 26.0520 25.6872 26.3819
## 1476 29.7757 27.4123 26.5009 25.5366 24.8249 24.7488
## 1477 27.9463 27.5043 26.6890 26.1060 26.0506 27.5458
## 1478 25.9820 25.2551 24.3735 23.3372 22.9175 22.6636
## 1479 99.0000 27.5548 27.0364 26.2739 25.8051 26.3060
## 1480 28.3546 27.6891 26.9022 26.2482 26.2663 25.5388
## 1481 99.0000 28.1422 27.6752 26.8461 27.1171 27.1066
## 1482 29.1859 28.8674 28.1948 26.8235 26.6071 99.0000
## 1483 27.7458 27.2848 26.4190 26.2969 25.9345 26.8834
## 1484 26.1049 26.0908 25.6359 25.5868 25.5603 25.8853
## 1485 29.6902 27.6839 26.8875 26.6530 26.0108 25.7822
## 1486 24.6254 23.8782 23.2216 23.0968 22.9110 22.9465
## 1487 26.8379 27.3606 27.2295 26.9333 28.8353 28.0190
## 1488 27.5435 28.7009 27.4052 26.8072 26.4263 26.2349
## 1489 28.3014 28.1922 27.4364 26.9406 26.7667 99.0000
## 1490 28.5554 27.4276 26.1357 24.2702 23.5582 22.6205
## 1491 26.8460 26.4510 26.1719 25.6392 25.4707 25.1218
## 1492 99.0000 26.6513 26.0664 25.2647 24.6190 23.8856
## 1493 29.5065 27.9902 26.3751 25.0386 24.1295 23.2089
## 1494 28.9484 28.1436 26.7641 25.9365 25.6515 25.1461
```

```
## 1495 30.2021 29.6047 27.8185 26.3200 26.4831 25.7431
## 1496 24.9686 24.5464 23.9473 23.8654 23.5336 23.5468
## 1497 27.8211 27.3895 26.8889 26.3449 25.5595 24.9243
## 1498 27.2767 26.2254 25.1649 24.8074 24.5240 24.3909
## 1499 28.1697 27.2012 26.8312 26.1355 25.7221 26.3107
## 1500 25.9291 25.4895 24.6507 23.8913 23.1488 22.7697
## 1501 29.1936 27.4048 26.7910 26.6908 26.7010 25.9851
## 1502 99.0000 27.7664 26.9574 26.4268 26.3690 28.4564
## 1503 27.6787 27.5734 27.0360 26.1445 25.4411 24.7667
## 1504 99.0000 28.3670 27.8617 26.9744 28.4575 26.4952
## 1505 26.6517 25.1603 23.6142 23.0030 22.6708 22.4464
## 1506 27.9900 27.3640 26.3897 25.5780 25.2714 24.8632
## 1507 99.0000 28.9414 26.7716 25.6520 25.1129 24.5915
## 1508 28.5336 26.1989 24.6832 23.5380 23.1574 22.8101
## 1509 28.0766 26.7865 26.2404 25.8944 25.5397 25.5953
## 1510 27.2231 26.8767 26.2033 26.0960 25.7360 26.5133
## 1511 26.3494 26.2797 25.9963 25.3073 25.0646 25.2520
## 1512 29.5172 27.3193 26.2240 25.8782 25.6583 25.3706
## 1513 29.1338 28.4371 27.3016 26.7181 26.5719 26.1450
## 1514 99.0000 27.9258 27.7127 26.8954 27.0026 26.0930
## 1515 27.2172 27.3326 26.5975 25.5918 25.8276 25.2999
## 1516 25.8198 25.1148 24.0614 23.7064 23.4745 23.3348
## 1517 99.0000 27.5596 27.1249 26.6848 26.5849 26.7709
## 1518 25.3692 25.3589 25.3187 25.1608 24.7269 24.5118
## 1519 24.9982 24.9790 24.8466 24.6334 24.1554 23.9463
## 1520 26.4484 25.5143 24.9182 24.6634 24.5402 24.8067
## 1521 25.8338 24.0516 22.4493 21.3441 20.9441 20.5900
## 1522 27.9226 27.8306 27.5009 26.7190 25.9623 25.4898
## 1523 26.7273 26.7209 26.0755 25.8893 25.8407 27.0557
## 1524 32.0916 28.0604 27.7225 26.8787 26.7048 26.8423
## 1525 26.8761 25.8638 25.2766 25.1137 25.0169 25.3895
## 1526 27.8182 27.1645 26.8811 26.2950 26.3514 25.3846
## 1527 27.1547 27.1037 26.1150 25.8620 25.8286 26.1497
## 1528 27.1849 28.4974 28.0447 26.7596 26.5659 27.6137
## 1529 26.4072 25.3538 24.7961 24.5350 24.4549 24.6358
## 1530 29.0857 27.8034 26.8519 26.3687 26.4994 26.2063
## 1531 28.6764 27.6930 26.8921 25.9550 25.6846 25.4684
## 1532 28.1270 26.7683 26.1894 25.5185 25.3347 25.0968
## 1533 28.0249 27.6032 27.2513 26.8032 26.2069 28.0653
## 1534 99.0000 28.7772 28.3713 26.5697 25.6127 24.4212
## 1535 27.2210 26.2076 25.4158 25.1364 24.8253 24.8001
## 1536 27.1062 26.7896 26.6193 26.4402 26.2082 25.2893
## 1537 27.5868 26.7573 26.1565 25.7633 25.2077 24.7754
## 1538 25.8685 25.4673 24.8295 24.4327 24.3871 24.0331
## 1539 26.5799 26.1684 25.7807 25.2051 24.7771 24.5056
## 1540 28.0894 27.0736 26.8815 26.5261 26.5373 26.0624
## 1541 25.7766 23.7050 22.0363 20.8411 20.3969 20.0179
## 1542 28.9306 26.8308 26.7607 26.5094 26.4452 26.4627
## 1543 28.8981 28.8753 27.4350 26.8910 26.3755 25.5636
## 1544 25.7977 24.1892 22.6312 21.7127 21.3339 21.0318
## 1545 25.7395 25.0095 24.1326 23.6123 23.4212 23.1918
## 1546 29.0225 27.7582 26.8710 26.2727 25.8713 25.0979
## 1547 27.0493 26.7075 25.5574 24.9405 24.6334 24.5683
## 1548 28.4218 28.9422 27.7883 26.9995 27.3670 26.2861
## 1549 26.1438 25.9851 25.7413 25.4906 24.8308 24.5290
## 1550 25.1875 24.4213 23.3007 22.9558 22.7616 22.6026
## 1551 26.9336 25.5976 24.0499 22.9709 22.5310 22.1615
## 1552 27.5060 26.5129 25.8000 25.6325 25.5106 26.3266
## 1553 29.0028 27.7463 27.6521 26.8066 26.6939 26.5679
## 1554 26.3590 25.8579 25.0933 24.6760 24.5639 24.3770
## 1555 31.3467 27.9818 27.2715 26.9249 26.3532 26.1145
## 1556 26.5603 26.4484 26.3221 26.3081 25.8356 25.9265
## 1557 27.8896 27.9011 27.3903 26.5832 26.4451 26.0714
## 1558 26.3095 25.7499 24.9379 24.2150 23.6407 23.3710
## 1559 27.5083 26.7008 25.4658 24.7605 24.4275 24.3778
## 1560 27.2221 26.1061 25.5390 24.6934 23.9821 23.2407
## 1561 27.1087 26.8218 26.2569 25.6237 25.3586 25.3820
## 1562 26.1187 25.3620 24.3848 23.8571 23.6956 23.3291
## 1563 25.4223 25.4157 25.2368 24.8096 24.3244 23.8222
## 1564 23.0755 21.2033 19.6096 19.0122 18.6850 18.4585
## 1565 26.2368 26.3316 26.1667 25.7639 25.5811 24.7359
## 1566 28.9749 27.8668 27.1124 26.5418 26.6438 29.5056
## 1567 28.2901 28.0286 27.3156 25.2917 23.9877 23.3264
## 1568 26.9622 26.5029 25.6557 25.0153 24.6758 24.2695
## 1569 28.5333 27.4747 27.3091 26.3662 25.7384 25.2620
## 1570 33.0064 27.2749 25.8528 24.6955 24.2571 24.0110
## 1571 28.4506 28.7632 27.9373 26.3180 25.6576 24.7918
## 1572 28.9260 27.8906 26.9790 26.8959 26.6023 26.8000
## 1573 29.6568 27.6823 27.0134 26.4695 25.8563 25.2952
```

```
## 1574 28.6555 29.6338 27.2112 26.5053 25.5960 25.4638
## 1575 27.9022 27.2075 26.3325 25.9105 25.6367 26.0163
## 1576 27.2926 27.6846 26.7422 26.2237 26.1061 26.2975
## 1577 26.8046 26.6288 25.8058 25.2514 25.3733 25.1980
## 1578 31.5697 27.6830 27.2622 26.5940 26.1917 27.0444
## 1579 25.9772 25.5849 24.5945 23.6383 22.8893 22.0556
## 1580 99.0000 27.2349 26.8670 26.4324 25.7554 26.7323
## 1581 25.8273 26.0160 26.0430 26.2028 25.9870 25.6795
## 1582 27.3060 27.2673 26.7116 26.1523 25.6844 25.5168
## 1583 99.0000 27.9192 27.0263 26.2682 26.0343 25.2798
## 1584 25.4063 25.0405 24.1427 23.9526 23.8484 23.7753
## 1585 99.0000 27.8609 27.1282 26.6852 26.1268 25.6724
## 1586 27.9848 26.7762 25.7033 24.6150 23.9825 23.7220
## 1587 26.7745 26.4917 25.9521 25.7245 25.8194 25.7631
## 1588 26.2625 26.3947 26.2435 26.2996 25.9531 26.2083
## 1589 25.5193 25.0045 24.1574 23.4924 22.9571 22.7557
## 1590 21.8636 21.2437 20.1866 19.8889 19.7033 19.5755
## 1591 28.8465 27.7978 26.7775 26.4749 26.1361 25.9538
## 1592 27.2944 26.5131 25.9741 25.4961 24.7830 24.3699
## 1593 27.1681 27.0349 26.7409 26.2637 26.2351 25.7757
## 1594 28.1350 28.1047 26.7457 26.5030 26.3879 26.1360
## 1595 27.8182 27.5691 26.6766 26.0425 25.6718 24.7529
## 1596 27.4629 26.9755 26.3694 26.4462 25.9948 26.0125
## 1597 27.4531 26.8934 26.1124 25.2662 24.7326 24.5316
## 1598 26.5808 26.2645 25.9187 25.2465 24.8264 24.1552
## 1599 26.8463 26.0210 25.4863 24.7943 24.5989 24.4515
## 1600 99.0000 26.9969 25.9203 25.6491 25.3973 25.3484
## 1601 24.5038 23.9860 23.0910 22.2841 22.0126 21.7439
## 1602 28.8748 27.5515 26.1371 25.4055 25.0566 24.7918
## 1603 24.6503 24.3133 23.6933 23.1157 22.5535 22.3519
## 1604 28.1393 28.2271 27.7281 26.9500 27.4511 32.4268
## 1605 28.0509 27.2104 26.3247 26.1373 26.3696 26.1230
## 1606 28.2093 27.9545 26.7329 26.0409 26.1069 25.8433
## 1607 29.0908 27.7872 27.2938 26.8382 25.8131 25.4943
## 1608 99.0000 27.4803 26.9257 26.5157 27.3678 26.6744
## 1609 29.8205 26.7538 25.5862 25.2689 25.1877 24.4583
## 1610 28.4072 30.0350 27.9045 26.4550 25.6436 25.0973
## 1611 24.8662 24.5735 24.1261 23.6829 23.0827 22.5985
## 1612 24.7238 24.1956 23.3305 23.0300 22.9141 22.4809
## 1613 26.6321 25.8924 25.0177 24.3889 24.2097 23.9181
## 1614 26.1268 25.7365 25.2536 25.1798 25.0872 24.7282
## 1615 26.0521 25.7098 24.8244 23.9559 23.3985 23.1938
## 1616 29.3949 27.6971 26.6771 26.5781 26.7814 26.3032
## 1617 27.1550 27.1319 26.4174 25.7875 25.0481 24.8029
## 1618 28.3040 26.9455 26.4497 25.6963 24.8172 24.4763
## 1619 27.8711 26.9001 26.3880 25.7361 25.3880 24.6434
## 1620 25.1894 24.4684 23.5785 22.6842 22.2478 22.0284
## 1621 28.7318 27.3667 26.0082 25.1581 24.3833 23.8700
## 1622 27.6659 27.4185 26.6193 26.1398 25.8558 25.2364
## 1623 28.4675 28.9044 27.1207 26.9452 27.1556 26.9270
## 1624 28.9199 26.7605 26.1247 25.9257 25.9298 25.8342
## 1625 26.9863 27.5743 26.6107 26.0581 25.5570 25.5040
## 1626 99.0000 28.4391 27.4410 26.2781 25.7716 25.8267
## 1627 99.0000 28.6147 27.1909 26.3471 26.2417 25.7086
## 1628 22.8167 21.1833 19.7572 19.2783 18.9687 18.8080
## 1629 30.6785 28.1084 27.2943 26.5295 26.3225 26.2002
## 1630 27.3834 27.2605 25.5889 24.4745 23.7739 23.5075
## 1631 26.9082 26.8392 26.1225 25.5651 24.8916 24.6662
## 1632 27.7052 26.7805 26.0095 25.7495 25.7206 26.2290
## 1633 99.0000 27.4922 26.4017 25.7845 25.4546 25.6549
## 1634 27.2132 25.8914 25.1517 24.4786 24.2582 24.1707
## 1635 26.2821 25.4397 24.9610 24.6825 24.5340 24.2765
## 1636 28.0197 27.5954 26.8588 26.4368 25.7019 25.0833
## 1637 24.1165 23.4223 22.5778 21.8280 21.5955 21.3957
## 1638 27.6647 27.3746 26.4718 26.0495 25.2192 24.7848
## 1639 26.1331 25.8334 25.3803 25.3018 25.2560 25.0499
## 1640 26.8313 27.1448 26.5832 26.1735 25.9239 26.8944
## 1641 28.8128 27.3006 25.9613 24.6811 23.8791 22.9618
## 1642 29.3459 27.9833 26.7226 25.5870 25.2457 24.8849
## 1643 27.8673 28.1178 27.6963 26.8325 27.1821 26.1141
## 1644 28.1009 27.7347 27.2412 26.4455 26.1845 25.7743
## 1645 28.8329 27.5643 26.9713 26.4389 25.9638 26.7700
## 1646 25.8311 25.5954 24.8430 24.3167 24.1927 23.9854
## 1647 26.7983 26.9261 26.9069 26.8013 26.3210 25.6057
## 1648 28.8555 29.3919 27.8786 26.4742 25.5368 24.7718
## 1649 30.6853 28.9611 28.2593 26.8634 27.0546 27.5582
## 1650 26.6831 26.4187 26.1307 25.7070 25.0183 24.6468
## 1651 28.4820 27.4011 26.6175 26.2641 26.8070 28.2494
## 1652 24.4120 24.2234 23.8778 23.3425 22.9905 22.8935
```

```
## 1653 27.4841 28.3837 27.1189 26.3912 25.9451 25.6763
## 1654 99.0000 29.0448 26.9272 26.0920 25.8169 25.0309
## 1655 25.8932 25.1322 24.1687 23.2760 22.3964 21.8752
## 1656 27.8603 27.6000 26.8910 26.5458 25.7731 25.3716
## 1657 27.2110 27.7152 26.6859 26.3875 26.7814 26.1393
## 1658 26.4101 26.1523 25.3518 24.9898 24.8963 24.4354
## 1659 27.9200 28.6908 27.5661 26.8752 27.6295 26.6352
## 1660 26.7510 27.0151 27.1820 26.7929 27.0406 99.0000
## 1661 27.9913 27.2870 26.9209 25.9513 25.9293 26.2185
## 1662 27.9587 26.9895 26.4265 25.9147 25.7537 26.5281
## 1663 28.3890 28.4349 26.9409 26.5850 25.7435 26.5964
## 1664 25.5861 24.7234 23.4325 22.5185 22.2162 21.9003
## 1665 27.0197 27.5594 27.1814 26.9427 26.5893 25.6889
## 1666 29.7735 28.0392 27.3714 26.9269 26.5608 25.9165
## 1667 28.1582 27.1483 26.2981 25.6027 25.1604 24.7678
## 1668 26.6120 25.9353 25.5902 25.3869 25.4267 25.0119
## 1669 25.2899 24.5310 23.5638 22.6065 22.2668 21.9359
## 1670 27.2593 26.1122 24.9061 24.3935 24.1606 23.8601
## 1671 24.7556 24.5491 24.3850 24.2160 24.3366 24.2512
## 1672 27.1731 26.9024 26.6405 26.3946 27.2349 26.0855
## 1673 99.0000 28.4451 27.2330 26.3521 26.8097 26.0044
## 1674 27.3979 27.1787 25.0988 23.9429 23.0590 22.7034
## 1675 27.8449 27.5617 26.8753 26.5257 26.2248 26.7126
## 1676 31.1158 27.9612 25.7876 25.0961 24.8507 24.2002
## 1677 26.9933 26.9841 26.8032 26.4272 26.0672 26.1580
## 1678 29.0990 27.6792 26.1444 24.9187 24.0368 23.5126
## 1679 26.8181 26.8308 26.3008 25.6440 25.1160 25.1077
## 1680 26.9091 26.1876 25.7808 25.1630 25.1078 25.1499
## 1681 99.0000 27.3150 26.5922 26.4153 26.2156 25.9297
## 1682 27.3304 27.5640 26.6673 25.9224 26.0288 25.5315
## 1683 29.1833 27.4504 26.6791 26.2459 25.8768 25.9850
## 1684 25.5024 25.8393 25.8683 25.8187 25.8033 26.2875
## 1685 27.0335 27.3052 27.5672 26.9782 26.5945 26.3923
## 1686 27.4656 26.4429 25.4164 24.9888 25.0396 24.9799
## 1687 27.2542 27.1023 26.7653 26.2548 25.5811 25.2250
## 1688 28.5144 27.2009 26.3507 25.9436 25.7183 25.2918
## 1689 99.0000 27.5778 27.1194 26.9583 26.3030 25.8568
## 1690 19.5533 18.5084 18.0035 17.7448 17.5590 17.3428
## 1691 28.6026 27.0457 26.7757 26.0887 25.8621 26.0106
## 1692 26.4125 25.7442 24.8895 23.9139 23.3810 23.1038
## 1693 25.8120 24.9950 24.0639 23.7579 23.6260 23.2206
## 1694 27.1251 26.0827 25.1425 24.5033 24.3002 24.2024
## 1695 99.0000 28.7474 27.1213 26.4954 25.9398 25.8240
## 1696 25.0762 25.0233 24.3708 24.1524 24.1753 23.7327
## 1697 28.8312 29.1887 28.8417 26.8592 26.5451 26.8941
## 1698 27.2113 27.1668 26.8779 26.6052 27.0319 29.3970
## 1699 26.7468 25.9241 24.7790 24.3535 24.1524 23.7575
## 1700 27.2502 26.1206 25.2952 25.1947 25.0898 24.8835
## 1701 26.5702 26.9761 26.9833 26.6813 27.4296 29.4382
## 1702 25.6459 25.4409 24.7348 23.8592 23.5700 23.5179
## 1703 25.5926 25.3263 24.6969 24.5051 24.3372 24.4922
## 1704 26.6737 26.9635 26.8373 26.8318 27.5179 26.0136
## 1705 28.8817 28.0726 27.4274 26.9650 27.3042 27.2160
## 1706 26.7559 26.3746 26.2959 25.7851 25.2317 24.7511
## 1707 24.7953 24.5936 24.3436 23.9989 23.4422 23.1009
## 1708 24.5300 23.7423 23.4213 23.2172 23.1339 23.0750
## 1709 23.5040 22.8216 22.4849 22.2612 22.2243 22.1747
## 1710 27.6894 27.1878 25.8466 24.8333 24.4806 24.3327
## 1711 26.4304 26.8840 27.2667 26.8195 26.7560 26.1348
## 1712 27.4417 27.6605 26.6969 26.5276 26.1367 26.8109
## 1713 26.7604 25.4408 23.9780 23.2712 22.9719 22.6293
## 1714 28.3977 27.7674 27.4010 26.4804 26.3573 26.5522
## 1715 27.6040 28.2020 27.5516 26.9175 27.1736 26.8334
## 1716 28.7190 27.6583 27.4558 26.1687 25.1881 24.6850
## 1717 27.5847 26.4709 25.6861 24.9539 24.5869 23.6645
## 1718 27.4639 27.3367 27.2795 26.8364 26.1075 25.8144
## 1719 26.2706 25.8842 25.4399 24.7914 24.2523 23.4869
## 1720 26.8186 26.0636 25.7887 25.5115 25.7696 26.9891
## 1721 26.9754 25.6071 24.7244 23.3404 22.6282 21.6533
## 1722 31.1103 28.6090 26.6595 25.6695 24.8386 24.2028
## 1723 25.6534 24.7916 23.7887 23.4981 23.3528 23.2567
## 1724 26.8954 25.9788 24.9569 24.6444 24.3161 24.2301
## 1725 26.6448 26.5643 26.1540 25.6394 25.5097 25.0411
## 1726 27.4782 26.8248 24.6781 23.5512 22.5426 21.9341
## 1727 24.4677 23.8363 23.3762 23.1875 23.1562 23.1107
## 1728 28.0649 28.2403 28.0865 26.9439 26.3435 25.6813
## 1729 28.2694 27.3279 26.7693 26.7741 27.4179 29.5511
## 1730 27.6589 27.1289 26.7344 26.5980 25.7867 26.2260
## 1731 26.1234 25.4088 24.5988 24.4020 24.2575 24.1353
```

```
## 1732 27.4390 27.6907 27.3023 26.7646 26.8078 26.5744
## 1733 25.2543 25.0504 24.2856 23.4068 22.9464 22.7714
## 1734 27.6752 27.2217 26.7694 26.6983 27.0723 99.0000
## 1735 26.8655 26.9326 26.4684 25.8361 25.6817 24.8647
## 1736 26.5028 26.8674 27.0288 26.8500 26.9765 99.0000
## 1737 27.2650 25.1084 23.4900 22.2362 21.7566 21.4098
## 1738 27.1487 25.9799 25.4003 25.2438 25.1345 24.8715
## 1739 22.4385 22.0458 21.1125 20.5893 20.2890 20.0917
## 1740 99.0000 27.0841 26.6439 26.0485 25.7538 25.3588
## 1741 29.1812 28.0205 26.0115 25.0039 23.9879 23.4363
## 1742 28.7512 28.8807 27.8067 26.9670 27.4358 27.9870
## 1743 26.1629 25.8366 25.6840 25.4972 24.9158 24.9863
## 1744 25.5856 25.5643 24.8988 24.7173 24.7878 24.4227
## 1745 99.0000 29.9117 27.9072 26.2165 25.3948 24.3354
## 1746 27.8834 27.0784 25.7639 25.2175 24.8224 24.2716
## 1747 99.0000 28.4108 27.9219 26.8844 27.1940 27.1840
## 1748 28.9777 26.5848 25.6412 25.0091 24.8724 24.7175
## 1749 28.0234 27.4451 27.0241 26.8204 26.3316 25.8510
## 1750 25.6236 24.9294 24.5416 24.2664 24.4202 24.4116
## 1751 26.9572 26.8741 25.8472 25.3478 25.2868 24.7218
## 1752 24.5934 22.9068 21.3701 20.7091 20.4037 20.1565
## 1753 25.3958 25.2701 24.7985 24.0494 23.7509 23.6394
## 1754 24.8127 24.0556 23.7798 23.5636 23.5353 23.5657
## 1755 27.7764 27.0549 26.8474 26.3348 25.3467 24.6262
## 1756 28.5620 27.0695 26.2728 26.1031 26.2007 26.2992
## 1757 99.0000 28.0849 27.4469 26.9116 26.4834 25.7376
## 1758 26.3943 26.4012 25.6539 25.2034 24.5637 24.2982
## 1759 27.0797 27.0515 26.8997 26.3009 25.9627 25.9298
## 1760 28.2613 28.0587 27.1897 26.8973 27.3468 26.0596
## 1761 28.2558 28.4561 27.3133 26.7514 26.9933 27.2853
## 1762 28.6127 28.1689 26.9526 26.6032 26.2515 25.7399
## 1763 99.0000 27.0583 27.0172 26.3005 26.4769 25.9733
## 1764 28.0053 28.0264 27.2557 26.9511 26.8011 26.4520
## 1765 27.8147 26.7130 26.1542 25.6478 25.6065 25.1749
## 1766 27.4240 27.2966 26.6670 26.0698 25.9013 25.6703
## 1767 26.7132 25.9683 25.2886 24.1687 23.5141 22.6131
## 1768 25.6882 24.5432 24.0845 23.8168 23.7000 23.5846
## 1769 26.5479 25.9919 25.0585 24.5434 24.4893 24.1671
## 1770 28.2307 28.6145 26.9561 25.1407 24.4369 23.3834
## 1771 27.5854 27.0906 26.3858 25.5902 25.4607 25.2322
## 1772 26.8347 25.1903 23.6188 22.4685 22.0677 21.7278
## 1773 27.0871 27.0572 26.2036 25.4418 24.7834 23.9196
## 1774 28.6775 28.4709 26.9981 25.9371 24.9085 24.4715
## 1775 30.5084 27.5597 27.1021 26.4094 26.6267 25.3854
## 1776 23.2925 22.5732 22.0962 21.8428 21.8194 21.7429
## 1777 30.1889 27.0859 26.5761 26.2839 26.1449 25.5702
## 1778 26.6006 26.5783 26.3947 26.1141 25.8809 25.7604
## 1779 99.0000 27.9800 26.8658 25.4582 24.4605 23.9279
## 1780 29.2204 29.7032 27.6312 26.9634 26.5207 99.0000
## 1781 27.0545 26.0971 24.6795 23.6891 23.3850 23.1187
## 1782 23.6297 22.8719 22.4259 22.2086 22.2087 22.1550
## 1783 28.9594 27.0649 26.5269 26.0843 25.9934 27.4078
## 1784 99.0000 28.5472 27.1901 26.7941 26.6991 26.3129
## 1785 99.0000 99.0000 28.4684 26.2745 25.4313 24.9216
## 1786 26.2237 25.5723 24.1644 22.9490 22.2965 21.9902
## 1787 27.0989 27.0566 26.5245 25.9999 25.4540 25.3271
## 1788 99.0000 28.1017 27.6134 26.7696 26.0543 25.3117
## 1789 26.9737 26.8020 26.2736 26.0772 25.7277 24.7951
## 1790 25.7606 25.8133 25.1794 24.6269 23.9850 23.7305
## 1791 27.6833 27.0064 26.4621 26.3435 26.1232 26.8843
## 1792 27.4034 26.7828 26.0252 25.2029 24.9487 24.9048
## 1793 27.5386 26.5034 25.8587 25.2535 24.5192 23.9586
## 1794 22.5803 22.0781 21.2259 20.7531 20.5822 20.3015
## 1795 26.0707 25.5598 24.6779 24.2417 24.0915 23.9720
## 1796 26.9862 27.3324 26.9252 26.4771 25.9931 26.0509
## 1797 27.7459 27.9782 26.7151 26.1324 26.1160 25.4863
## 1798 22.8318 21.3637 20.5607 20.0058 19.7940 19.5094
## 1799 21.1363 20.4707 19.9883 19.7765 19.6777 19.6163
## 1800 23.6404 23.2919 22.6028 22.3417 22.1708 22.0905
## 1801 99.0000 28.2624 26.4014 25.7131 25.3573 25.0308
## 1802 27.2341 27.7774 27.3483 26.6703 26.2699 99.0000
## 1803 26.6502 26.0427 25.3706 25.1488 24.8730 24.4625
## 1804 25.8589 25.2689 24.3913 23.6683 22.9798 22.6094
## 1805 27.0936 26.6616 26.5719 26.0431 26.0308 25.8140
## 1806 28.3224 27.1952 27.0078 26.4829 26.3403 25.0405
## 1807 26.3847 26.2928 26.0215 25.9751 25.9078 25.0870
  1808 27.7444 28.3920 27.9766 26.9726 26.2543 26.3814
## 1809 28.4756 28.5484 27.3594 26.4624 25.9639 25.4747
## 1810 30.0499 28.6162 27.5667 26.7488 26.1249 27.2433
```

```
## 1811 26.4688 26.4729 26.1557 25.6984 25.5395 26.1141
## 1812 29.8768 28.1234 27.3120 26.2083 26.2559 25.4234
## 1813 27.4149 27.1453 26.6477 26.2558 25.7509 25.5154
## 1814 28.6847 27.9837 27.0638 26.4178 25.4503 25.2810
## 1815 26.2549 26.1157 25.6975 25.8738 25.4405 26.7159
## 1816 28.6849 28.8143 28.9069 26.7807 25.7296 25.4841
## 1817 27.1656 27.2186 26.5935 26.5009 25.8507 26.1262
## 1818 27.8789 27.7811 26.7732 26.5909 26.1299 28.8292
## 1819 99.0000 27.6836 27.6843 26.6894 26.6672 27.0305
## 1820 25.4886 25.1450 24.5726 24.0031 23.8250 23.6450
## 1821 30.9636 30.1373 28.2282 26.9811 26.3178 26.2027
## 1822 25.2228 25.0900 24.8270 24.4255 24.0786 23.6112
## 1823 27.0538 26.3971 25.6498 25.4923 25.1206 25.3443
## 1824 99.0000 27.4105 26.9156 26.0846 26.0381 26.2045
## 1825 26.1572 26.4707 25.7362 25.5876 25.1835 25.8635
## 1826 25.8419 25.8335 25.6522 25.2514 24.6829 24.2918
## 1827 99.0000 28.5658 27.9488 26.1077 24.8504 24.5413
## 1828 26.7604 25.6513 25.0731 24.8653 24.8517 24.5789
## 1829 27.0611 26.9820 26.1400 25.6014 25.5554 25.2876
## 1830 26.2723 25.7697 24.8899 23.9734 23.2990 22.9816
## 1831 26.7576 26.7701 26.2211 25.8521 25.7580 25.0978
## 1832 25.8144 25.6390 25.5235 25.2250 25.0374 24.4871
## 1833 28.5352 27.4616 25.0887 23.9205 22.8718 22.1406
## 1834 99.0000 29.0244 27.8755 26.7335 26.3215 25.9445
## 1835 30.4239 27.2844 25.6749 24.2168 23.4881 22.4588
## 1836 99.0000 27.5600 26.6915 26.3814 26.2598 25.8686
## 1837 24.9041 23.4686 22.0408 21.4672 21.1153 20.8494
## 1838 29.5226 27.9192 27.1765 26.0826 25.3619 25.3862
## 1839 23.5353 22.5922 21.7809 21.5257 21.2847 21.2674
## 1840 25.9292 25.5818 24.8732 24.0348 23.8918 23.6240
## 1841 25.9123 25.1684 24.4218 23.8919 23.3380 22.9544
## 1842 26.5405 26.2503 25.8099 25.3623 24.7586 24.5592
## 1843 27.4352 27.0799 27.2690 26.9793 27.1477 26.6312
## 1844 27.6187 27.0097 26.3808 25.9789 25.7320 26.3219
## 1845 26.1275 25.9901 25.0068 24.5648 24.3004 24.0816
## 1846 27.6137 27.6931 26.7163 26.3236 25.8580 26.1522
## 1847 27.3979 27.2299 26.7117 26.5892 25.8088 26.0058
## 1848 23.5885 22.8461 22.0503 21.8047 21.5384 21.4479
## 1849 26.5383 25.5022 24.7744 24.4456 24.2628 23.9761
## 1850 27.3051 26.6013 25.6115 25.2217 25.0600 25.2957
## 1851 26.4046 26.1914 25.6693 25.1563 24.5546 24.4766
## 1852 30.0862 28.1270 26.9964 26.7974 26.6960 26.6259
## 1853 27.5785 27.3786 26.3215 26.0339 25.9400 25.9495
## 1854 99.0000 26.6721 25.7933 25.4323 25.3155 24.8057
## 1855 27.0597 26.6255 25.6865 25.0178 24.5171 24.3410
## 1856 24.2936 23.7262 23.1882 22.9205 22.8188 22.7583
## 1857 99.0000 26.8099 26.6873 26.2967 25.8276 25.4221
## 1858 26.7673 26.1060 24.7839 24.2238 23.9822 23.7994
## 1859 26.9916 26.5482 26.4303 25.6863 25.3957 25.0438
## 1860 28.6507 27.9035 27.2270 26.8668 25.9675 25.5340
## 1861 28.0004 26.8475 26.7702 26.4552 26.1919 25.3300
## 1862 25.3137 25.4244 25.1061 24.6209 24.3242 23.9239
## 1863 29.2943 29.2599 27.9203 26.5547 26.1940 25.8377
## 1864 99.0000 30.4456 28.6172 26.9456 26.9728 26.7689
## 1865 26.5287 26.5161 25.8264 25.1910 24.7666 24.1692
## 1866 99.0000 29.9999 27.4384 26.8917 26.9435 26.0931
## 1867 25.8596 25.2704 24.5391 24.0975 24.0009 23.8922
## 1868 27.0786 26.5465 26.3371 26.1146 25.5487 25.0052
## 1869 27.1307 25.7924 24.1524 22.9915 22.5762 22.2262
## 1870 28.2566 27.6029 27.7583 26.5684 26.0461 26.4079
## 1871 27.4010 26.8619 26.0746 25.5900 24.9913 24.5563
## 1872 27.1030 25.9004 24.9442 24.6717 24.4943 24.4964
## 1873 99.0000 27.4496 27.6478 26.8702 26.5615 26.5755
## 1874 27.8112 28.0929 26.9203 26.9316 26.3849 25.6430
## 1875 28.4900 29.5875 27.5539 26.4663 26.0937 26.8606
## 1876 29.6378 99.0000 28.2308 26.8221 26.1719 25.4217
## 1877 27.7499 26.8243 26.7387 26.3786 25.5740 26.3572
## 1878 27.1145 26.5000 25.6408 24.8737 24.6243 24.2129
## 1879 99.0000 28.1680 27.0915 26.6410 25.3886 24.7219
## 1880 27.0627 26.9064 26.9913 26.8171 26.5265 28.2726
## 1881 28.3526 27.9045 27.2930 26.8733 26.4808 26.5835
## 1882 27.2626 27.1616 26.6254 26.4945 26.1787 25.3663
## 1883 29.0110 26.1841 24.6919 24.0475 23.7223 23.4537
## 1884 28.7109 27.8269 27.9648 26.8700 27.5431 26.7561
## 1885 25.9031 25.3985 24.7431 24.6315 24.3534 24.5432
## 1886 99.0000 27.9950 26.6628 26.0289 25.6592 25.5975
  1887 27.0515 26.5478 25.9050 25.6457 25.4389 25.2394
## 1888 28.7132 29.1046 27.5893 26.5130 26.6552 25.5467
## 1889 99.0000 28.0867 27.3440 26.4200 25.4731 25.1639
```

```
## 1890 29.9585 29.1956 27.6127 26.9440 26.7612 26.8393
## 1891 29.7802 26.4064 25.8744 25.7653 25.6713 26.4551
## 1892 27.6534 26.8158 25.4790 25.0177 24.7684 24.6948
## 1893 27.4765 26.6469 25.9238 25.6000 25.4447 25.2306
## 1894 23.7571 22.1921 20.6919 19.9896 19.6521 19.3608
## 1895 26.7688 26.7117 25.8724 25.4361 25.3896 25.2223
## 1896 27.7378 27.1338 27.1076 26.7100 27.2524 26.4026
## 1897 99.0000 27.5586 27.7168 25.8178 25.3389 24.0704
## 1898 27.5886 26.8929 25.7508 25.0629 24.9389 25.0489
## 1899 22.6744 21.7534 20.7757 20.4754 20.2217 20.1440
## 1900 26.7281 26.3448 25.7488 25.6698 25.5069 25.1204
## 1901 27.1866 26.7169 25.7995 24.8364 24.6291 24.3451
## 1902 23.2302 22.1864 20.9768 20.5287 20.2629 20.1222
## 1903 26.8633 26.7813 25.9474 25.2033 24.4923 23.9461
## 1904 28.3584 28.0108 27.2999 26.5004 26.1439 25.5976
## 1905 28.2257 28.5219 27.6888 25.6460 24.7784 23.9427
## 1906 27.2501 27.9725 27.0398 26.2067 25.7663 25.4676
## 1907 26.7008 27.6713 26.8757 26.8263 26.6481 26.2503
## 1908 28.3956 27.6111 26.6799 26.4113 26.7822 26.0636
## 1909 29.5911 28.2868 27.9716 26.7266 26.4559 26.7662
## 1910 24.6993 23.9574 23.1218 22.4690 22.3309 22.2222
## 1911 26.3675 26.1974 25.9663 25.7499 25.4209 24.9521
## 1912 25.1256 24.6402 24.0862 23.9380 23.7893 23.7007
## 1913 27.3421 27.4444 26.8413 26.2945 25.4335 25.6222
## 1914 27.8422 27.6183 26.0821 24.9774 24.5181 24.0239
## 1915 24.0204 23.4581 22.2477 21.7218 21.4045 20.9874
## 1916 27.3487 26.9394 26.7606 26.6955 27.0283 26.2249
## 1917 28.2531 28.4509 26.8716 25.8454 25.3076 24.8898
## 1918 24.5668 23.7643 22.8899 22.2811 22.1428 21.9773
## 1919 25.9605 25.9034 25.9139 25.8265 25.6177 25.1494
## 1920 22.9915 22.2584 21.9472 21.7004 21.7008 21.5818
## 1921 23.5121 23.2676 22.5940 21.8031 21.0569 20.6409
## 1922 24.8578 23.9164 22.9897 22.6958 22.4264 22.3532
## 1923 21.4265 20.7603 19.9376 19.7082 19.4221 19.3629
## 1924 99.0000 27.4429 26.7317 25.9358 26.1212 27.8906
## 1925 25.5277 24.4924 23.1701 22.6231 22.3117 22.1076
## 1926 27.8346 27.7681 27.6365 26.8914 26.9309 26.0012
## 1927 99.0000 28.0055 26.4339 25.5031 25.2689 25.3316
## 1928 30.1856 27.1625 27.2861 26.6631 26.6766 27.0978
## 1929 28.4511 28.2173 27.3744 26.2744 25.5012 25.1970
## 1930 26.1707 24.6701 23.1698 22.2116 21.9008 21.6454
## 1931 25.6734 25.5025 25.1555 24.6064 24.1236 23.9583
## 1932 25.9325 25.1614 24.0662 23.0567 22.7032 22.3687
## 1933 28.9047 27.9533 27.4846 26.9594 26.2553 26.0701
## 1934 26.8288 26.3024 25.5715 25.4227 25.4114 25.2667
## 1935 25.7777 25.4986 25.1797 24.7824 24.0372 23.7781
## 1936 27.9095 26.6925 26.2673 26.3658 25.7161 26.4637
## 1937 26.4834 26.9347 26.5960 26.6684 26.8362 26.2417
## 1938 29.6938 29.0110 27.8627 26.5570 26.0383 26.1254
## 1939 28.3794 27.1559 26.3472 25.5001 24.9196 25.0420
## 1940 27.3627 25.9020 24.1341 22.9448 22.2176 21.9053
## 1941 26.6318 26.5780 26.4940 26.1415 25.8265 25.6711
## 1942 26.1857 25.1266 24.6633 24.3110 24.3051 24.2208
## 1943 26.9697 26.7252 24.7234 23.6176 22.7566 22.4190
## 1944 25.1070 23.4987 22.2319 21.7440 21.4574 21.2583
## 1945 26.5871 26.7559 25.7326 25.0814 24.7863 24.3018
## 1946 29.7822 27.8467 26.2461 25.2297 24.4071 23.5370
## 1947 25.7680 25.6664 25.4220 25.0547 24.7146 24.1856
## 1948 25.1054 24.7451 24.0188 23.7231 23.5887 23.2900
## 1949 25.3090 25.1777 25.0552 25.1456 24.9799 24.7136
## 1950 27.1848 27.3501 27.1958 26.6625 26.0748 26.1636
## 1951 22.9802 22.1605 21.5181 21.2481 21.1311 21.0603
## 1952 29.5113 27.3391 25.5680 24.5183 23.4772 22.9119
## 1953 32.2899 29.3867 27.8099 26.8592 26.0537 26.4163
## 1954 24.7308 23.9022 22.6750 21.7356 21.3770 21.0575
## 1955 26.2962 26.2395 25.6346 25.1549 25.0559 24.7381
## 1956 28.0399 27.5231 26.7835 26.4404 26.8793 26.2323
## 1957 25.5410 24.8252 23.8623 23.0715 22.8027 22.5758
## 1958 27.2710 26.8459 26.2057 25.4715 25.1839 24.8837
## 1959 27.1771 27.2547 26.6997 26.0507 25.2654 24.5948
## 1960 28.3254 27.1444 27.0039 26.4257 26.2104 25.5394
## 1961 28.2305 27.5247 26.7877 26.1069 25.7708 27.4268
## 1962 26.8700 27.0206 25.9534 25.2055 24.6953 24.6417
## 1963 26.7488 26.6317 25.4326 24.4576 24.0634 23.8511
## 1964 26.4223 26.1906 25.6510 25.1713 24.6679 23.8813
## 1965 29.2080 26.7630 26.2551 25.1545 24.5110 23.5015
  1966 28.2172 27.5354 26.6192 25.9120 25.6964 25.5029
## 1967 27.2014 26.9668 26.7481 26.3139 25.5640 25.9524
## 1968 27.3625 26.3757 24.7019 23.5274 22.9215 22.5713
```

```
## 1969 28.5938 28.4344 28.3280 26.9567 27.3414 26.1092
## 1970 26.2480 26.0782 25.8624 25.8181 25.8316 25.3267
## 1971 26.3913 25.5543 24.1899 23.7259 23.3478 23.2675
## 1972 28.4200 29.7661 27.8352 26.8448 26.1442 25.7938
## 1973 25.6348 25.5335 25.0433 24.6623 23.9808 23.6394
## 1974 26.4166 26.5036 25.9401 25.4880 25.4173 25.4558
## 1975 26.7232 26.8847 26.7293 26.0805 25.7725 25.0955
## 1976 25.2793 25.0494 24.5602 24.3296 24.2552 24.1403
## 1977 27.3626 26.7908 25.1273 23.9694 23.0565 22.3283
## 1978 26.7068 26.2921 25.6334 24.9551 24.7638 24.5286
## 1979 28.1326 28.6743 27.4580 26.7962 26.2815 25.1183
## 1980 26.5028 26.1994 25.3905 25.1497 25.0160 24.8775
## 1981 99.0000 27.7333 27.0378 26.4393 25.9442 25.9438
## 1982 27.7052 27.8089 27.2410 26.6636 25.7758 25.0152
## 1983 26.4650 25.6821 25.0182 24.7543 24.6937 24.2685
## 1984 27.2944 26.9799 27.1373 26.5414 26.7417 26.2101
## 1985 26.9571 26.7063 25.8328 25.2666 25.1919 25.1529
## 1986 28.1121 26.6219 26.0079 25.6091 25.5310 25.5674
## 1987 25.3035 25.7176 25.7546 25.8383 25.9774 25.5483
## 1988 26.8674 26.4367 26.0663 25.9329 25.3935 25.3906
## 1989 29.4327 24.8673 23.1172 21.7780 21.2398 20.8499
## 1990 28.5472 28.0343 27.1754 26.2569 25.3630 24.8072
## 1991 99.0000 29.3973 28.3148 26.8422 27.3749 26.6960
## 1992 30.0277 27.4656 26.9520 26.7563 26.5984 27.8813
## 1993 28.5808 27.7329 26.3579 25.9162 25.6279 25.6836
## 1994 26.1568 26.3971 26.2479 26.1467 25.8839 25.5501
## 1995 27.7440 28.6449 28.0104 26.9558 26.6164 26.5568
## 1996 26.2138 26.1397 25.9374 25.3903 25.2280 25.1529
## 1997 28.3196 28.2546 27.1562 26.7813 26.3951 25.4245
## 1998 99.0000 27.6721 26.6729 25.7315 25.3585 24.8993
## 1999 29.4215 26.7735 25.9080 25.4256 24.6872 24.3139
## 2000 26.7299 26.2303 25.1933 24.1123 23.7109 23.6483
## 2001 26.0515 25.7862 25.2145 24.5587 24.0872 24.0108
## 2002 27.6353 26.8292 26.0476 25.6470 25.0891 24.6549
## 2003 27.1514 27.5773 27.2712 26.8335 27.1827 25.5011
## 2004 24.7328 24.0860 23.3669 23.2205 23.0639 23.0867
## 2005 26.1341 25.8511 25.9266 25.8695 26.4220 26.8375
## 2006 28.4832 28.3897 26.1796 25.1198 24.3150 23.8491
## 2007 26.2890 25.7859 24.8093 24.2680 24.0471 23.9046
## 2008 27.1421 26.7640 26.0313 25.8298 25.5292 25.6321
## 2009 29.6223 27.0421 25.9009 25.2289 25.2921 24.7619
## 2010 27.5037 27.2274 26.8484 26.4068 26.2083 25.4951
## 2011 26.3110 25.8251 25.0867 24.7817 24.5608 24.4421
## 2012 26.1374 25.8882 25.3560 24.6214 24.2408 24.1612
## 2013 23.5416 23.1693 22.4493 21.9201 21.8280 21.7160
## 2014 99.0000 26.7089 26.3805 26.1001 26.2355 25.1692
## 2015 26.8179 26.3165 26.2362 25.8332 25.2697 25.3175
## 2016 27.2224 26.9642 26.5129 26.3380 26.6850 25.6202
## 2017 29.3111 27.8003 27.2709 26.4618 25.7603 26.1058
## 2018 27.7092 27.4213 26.8196 26.2550 26.2496 26.0100
## 2019 26.0956 25.7273 24.9765 24.3443 24.2317 23.9291
## 2020 99.0000 27.4731 26.6035 26.1245 26.0196 25.2237
## 2021 23.9660 23.5923 22.9390 22.3384 22.1784 22.0076
## 2022 29.1696 28.4290 28.0389 26.7441 26.4809 26.4281
## 2023 27.8697 26.8245 25.9504 24.9383 24.6726 24.4441
## 2024 25.7282 25.1141 24.1389 23.5186 23.3438 23.1207
## 2025 27.1928 26.5631 25.5649 25.2731 25.1494 24.9041
## 2026 28.6918 27.8550 26.9189 26.8973 26.5940 99.0000
## 2027 28.9796 27.1653 26.9017 26.9956 26.7499 25.8312
## 2028 27.4880 28.5305 27.0497 26.4199 26.4115 26.5689
## 2029 27.6217 27.0065 25.4986 24.4071 23.9579 23.6351
## 2030 29.1365 28.0217 27.1248 26.3523 26.2834 25.3915
## 2031 27.3385 26.7924 26.1650 25.6649 25.4607 25.1161
## 2032 27.7698 32.0061 27.8756 26.9417 26.9115 25.9964
## 2033 26.1136 25.8107 25.2267 24.3869 23.7608 23.3849
## 2034 25.0249 24.8752 24.3727 23.7446 23.4671 23.2855
## 2035 24.4277 24.0711 23.2274 22.6386 22.4543 22.2921
## 2036 24.1374 22.1437 20.5673 19.9751 19.6583 19.4766
## 2037 27.5657 27.2199 26.6998 26.0883 25.7923 25.7952
## 2038 27.4719 27.1600 26.3151 26.2460 25.9342 26.0535
## 2039 26.5067 25.9635 24.9517 24.2892 23.4733 23.0963
## 2040 27.5951 26.4733 25.7698 25.3121 24.6554 24.0974
## 2041 28.7955 27.8677 27.1599 26.7499 26.9575 26.4087
## 2042 25.5936 25.2504 24.3342 23.3444 22.8017 22.5201
## 2043 28.4414 26.8200 26.1112 25.2941 24.6515 24.8722
## 2044 28.8656 29.2612 27.8579 26.4999 25.5586 25.4304
## 2045 29.8618 27.4440 26.6642 25.7736 25.4584 25.1025
## 2046 27.1416 27.2484 26.8078 26.1611 25.8044 25.0454
## 2047 26.6245 26.4638 26.2275 25.9023 25.4926 25.2662
```

```
## 2048 27.3956 27.8387 26.7605 26.1849 26.6703 25.5685
## 2049 28.9754 28.1504 26.4098 25.4379 24.4953 23.9023
## 2050 23.9095 23.0164 21.9142 21.0263 20.7622 20.5322
## 2051 23.6988 23.6742 23.6549 23.3779 23.1600 22.9516
## 2052 27.6950 27.9889 27.7901 26.9763 26.6869 26.5973
## 2053 26.8322 26.0367 25.2606 24.7893 24.6147 24.7201
## 2054 26.5083 26.5176 25.6136 24.7671 23.8888 23.2779
## 2055 27.9486 26.8605 26.1318 25.9427 25.8825 25.0277
## 2056 27.8311 27.2473 26.3728 25.7019 24.8779 24.3652
## 2057 23.8862 23.8703 23.7813 23.7384 23.5599 23.2423
## 2058 25.8210 24.6989 23.1828 22.3001 21.9696 21.7059
## 2059 28.6241 28.4547 27.5866 26.4978 26.4764 26.1993
## 2060 26.9564 25.9835 25.5325 25.4406 25.3660 25.2729
## 2061 25.9443 25.8430 25.8402 25.6235 25.3291 25.1618
## 2062 26.6432 26.5165 26.4466 26.4272 26.1284 25.9174
## 2063 28.0359 27.6120 27.1034 26.4213 25.6692 25.4162
## 2064 26.7343 26.9644 26.7326 26.7461 26.9012 25.9679
## 2065 27.4533 27.2072 26.0088 25.7062 25.7089 26.3157
## 2066 28.2837 28.2996 27.3166 26.1556 25.3297 24.6515
## 2067 33.5355 26.5303 24.9271 23.7639 23.1244 22.7792
## 2068 29.7215 28.7737 27.9055 26.7710 26.0397 25.5478
## 2069 25.1756 24.5291 24.0223 23.8661 23.6853 23.6123
## 2070 27.5335 26.4883 26.0558 25.7646 25.7342 25.6681
## 2071 27.2448 26.8800 26.7012 26.5546 25.8819 25.6466
## 2072 30.1723 27.3522 26.9852 26.7483 26.1138 25.6189
## 2073 26.0937 26.4003 26.1994 26.6510 26.3206 25.8234
## 2074 27.0139 26.8742 26.4731 26.0297 25.5729 25.9926
## 2075 27.7215 27.2296 26.9638 26.4902 26.1517 25.4481
## 2076 26.7360 27.9538 26.6539 26.3633 26.2053 25.9862
## 2077 27.3204 26.9114 26.2724 25.8188 25.3826 24.8446
## 2078 28.0399 28.3954 27.4562 26.7425 26.3317 26.4587
## 2079 27.4101 26.5569 25.8002 25.1755 25.1042 24.7137
## 2080 22.0813 20.5969 19.8292 19.4560 19.2409 19.0742
## 2081 29.7853 27.6803 26.8662 26.2208 26.0497 25.2857
## 2082 27.2464 26.7570 25.7093 25.4427 25.3285 24.9792
## 2083 26.9412 26.4924 25.5884 25.3389 25.2477 24.9493
## 2084 27.6373 27.3801 26.2954 26.1564 25.7906 25.2799
## 2085 32.6125 28.2929 28.0277 26.8971 27.2986 27.3471
## 2086 99.0000 28.6361 27.5266 26.9829 26.8182 26.1140
## 2087 26.0642 25.6569 25.2014 25.2020 24.9439 25.3162
## 2088 28.6077 27.9750 27.0688 26.6315 26.3465 25.1599
## 2089 28.2618 27.8091 26.7194 26.4443 26.0354 25.6211
## 2090 99.0000 28.6544 27.9728 26.5714 25.2310 24.8036
## 2091 26.2391 25.8386 25.2044 24.7944 24.7554 24.3937
## 2092 27.0681 27.0130 26.6614 26.0777 25.5809 25.0847
## 2093 30.4210 27.5194 26.8222 26.5205 26.7355 26.2567
## 2094 28.7940 29.0596 27.6416 26.7417 25.9722 25.8253
## 2095 26.2653 25.6947 25.0861 24.8784 24.7821 24.7413
## 2096 99.0000 28.4724 27.0335 26.6030 26.1936 26.0789
## 2097 29.6927 28.1327 27.3691 25.8181 25.1275 24.2129
## 2098 99.0000 27.7808 27.0428 26.4076 26.3044 27.6315
## 2099 26.9488 26.2655 25.4054 24.7684 24.5316 24.4234
## 2100 99.0000 28.0232 26.5595 26.2015 25.6471 26.5574
## 2101 26.4430 26.2017 25.8038 25.2321 24.8828 23.9907
## 2102 24.9791 24.6936 24.1665 23.7730 23.2179 22.7933
## 2103 23.8008 23.5060 23.4307 23.3306 23.5230 23.4409
## 2104 27.5201 27.6095 27.1119 26.6427 26.2932 25.9954
## 2105 25.7632 25.4931 24.9599 24.4139 23.7642 23.2333
## 2106 25.6831 25.2543 24.2265 23.7263 23.5741 23.3221
## 2107 25.7425 25.5275 24.6942 24.4057 24.1204 24.0338
## 2108 99.0000 28.2456 27.5837 25.7745 24.4913 23.8499
## 2109 27.4857 26.9124 26.2340 25.9680 25.6207 25.3715
## 2110 26.5942 26.1787 25.4826 24.6405 23.8949 23.5531
## 2111 27.9774 27.0702 24.8706 23.7695 22.8641 22.3975
## 2112 29.1551 28.0467 27.0104 26.8208 26.6171 28.2939
## 2113 31.1120 28.6822 26.9168 25.6932 24.8444 24.1680
## 2114 27.5022 27.3056 26.5329 25.9313 25.5706 25.4253
## 2115 24.5100 23.9970 23.1650 22.4986 22.3288 22.1648
## 2116 27.4099 26.8583 26.0924 25.6778 25.4983 25.4746
## 2117 26.5483 26.6043 26.6985 26.7126 27.3769 28.8090
## 2118 25.0787 24.2433 23.6077 23.3157 23.2007 23.1312
## 2119 28.2219 27.7327 27.1351 26.9237 25.9489 25.7060
## 2120 27.6995 27.7732 27.3600 26.7087 27.1425 28.0874
## 2121 26.4550 26.5890 26.3994 26.0147 25.6546 25.6019
## 2122 27.3812 28.1610 26.9746 26.6057 26.7058 25.6268
## 2123 27.2185 26.9778 26.0588 25.7173 25.3337 25.3825
## 2124 27.6100 27.4617 26.3814 26.0599 25.9649 25.5756
## 2125 29.6028 30.3515 28.4442 26.4630 25.8874 25.1989
## 2126 24.2475 23.9739 23.4223 22.7733 21.9753 21.5728
```

```
## 2127 28.2274 28.2862 27.1872 26.4046 25.6060 25.0190
## 2128 27.7194 26.9919 26.0622 25.6296 24.7183 24.7680
## 2129 28.0117 29.3536 27.4049 26.9485 25.5305 24.5022
## 2130 26.8029 27.2933 26.7688 26.5372 26.5299 25.7533
## 2131 28.5676 27.9675 26.9081 26.3802 26.0538 25.2130
## 2132 28.4035 27.6894 26.7587 25.9832 25.8643 25.4065
## 2133 26.6791 26.4855 25.4054 24.9367 24.6853 24.3993
## 2134 27.7027 27.9111 27.0384 26.1716 25.4789 25.0994
## 2135 28.2777 26.4821 25.8355 24.9932 24.4285 24.1667
## 2136 29.4357 28.2793 27.2525 26.7726 26.3112 26.1113
## 2137 99.0000 33.9851 27.8138 26.5209 25.8356 25.3668
## 2138 26.4675 26.0064 25.3502 25.1944 25.1126 25.1330
## 2139 27.7107 28.0041 27.1102 26.5142 26.2907 26.1221
## 2140 99.0000 26.8103 25.9892 25.0869 24.6748 24.7374
## 2141 31.4949 26.6263 25.8970 25.3224 24.5041 23.9082
## 2142 25.5387 24.8655 23.9331 23.3798 23.1941 22.9785
## 2143 26.3885 25.2877 24.6964 24.3750 24.2989 24.0185
## 2144 99.0000 28.3315 27.3751 26.1979 25.4084 24.8762
## 2145 26.7261 26.3804 26.2678 26.0155 25.9657 25.4581
## 2146 30.0354 27.8609 26.1996 25.3387 24.9724 24.5474
## 2147 25.6997 25.3530 24.8285 24.1071 23.6776 23.5168
## 2148 30.4207 99.0000 27.6028 26.7539 25.9280 25.3908
## 2149 26.5880 26.1829 25.5480 24.9524 24.7912 24.6369
## 2150 25.1965 24.4414 23.3650 23.0461 22.8449 22.6486
## 2151 26.5176 26.4196 25.5305 24.7934 24.3653 24.0778
## 2152 99.0000 28.3971 27.4129 26.8452 26.8406 26.4841
## 2153 25.3129 24.5159 24.1418 23.9569 23.9166 23.8715
## 2154 24.0458 23.1934 22.5787 22.2596 22.1674 22.0355
## 2155 24.7579 24.3530 23.5858 23.3290 23.1926 23.0609
## 2156 25.9028 25.8449 25.5511 25.3132 24.9507 24.6878
## 2157 27.4004 27.2141 26.9475 26.4244 26.1232 25.1356
## 2158 28.2118 26.9665 26.5221 25.8718 25.4280 25.5353
## 2159 27.8184 27.9511 27.7369 26.7866 26.6321 26.5700
## 2160 26.2877 26.0378 25.5919 25.0169 24.4566 24.1753
## 2161 26.6137 26.1243 24.1583 23.0944 22.0968 21.4728
## 2162 24.8956 23.9418 23.3676 23.1011 23.0376 22.9631
## 2163 23.8595 23.9306 23.8091 23.8631 23.9455 24.0894
## 2164 99.0000 26.9397 26.2635 26.0253 25.8270 25.5940
## 2165 31.4074 27.5963 27.1300 26.9113 26.4323 26.1868
## 2166 27.0869 26.3846 25.8623 25.3673 25.2434 25.2695
## 2167 29.2278 28.0288 26.8025 26.2477 25.3908 24.6295
## 2168 26.9511 27.2281 26.8953 26.5202 26.1076 25.7984
## 2169 24.9472 24.1369 23.3450 23.1980 22.9139 22.9781
## 2170 29.4569 28.0404 27.2333 26.6499 26.7185 26.2236
## 2171 26.7779 26.4721 25.8274 25.0695 24.5970 24.2978
## 2172 25.0670 22.9449 21.3593 20.6874 20.3492 20.1506
## 2173 26.8303 27.0274 26.6709 26.2382 25.8021 25.4143
## 2174 25.5430 25.2826 25.2450 25.0364 24.6978 24.4091
## 2175 26.8213 26.5017 25.9349 25.6312 24.8430 24.4621
## 2176 26.7141 25.3256 23.5974 22.3678 21.7304 21.3945
## 2177 31.3138 30.3469 28.0706 26.6927 25.9168 25.3806
## 2178 23.0088 21.5140 20.6995 20.2463 19.9899 19.7834
## 2179 22.7827 22.2198 21.6508 21.4222 21.2364 21.1502
## 2180 24.3287 24.0954 23.5379 23.1111 23.0597 22.9231
## 2181 99.0000 29.0731 27.3019 25.8715 25.0456 24.4536
## 2182 27.6828 26.3168 25.0383 24.0246 23.6595 23.2898
## 2183 27.3310 26.5610 25.5943 25.4010 25.2547 24.9507
## 2184 99.0000 26.9518 26.1148 25.6227 25.4036 25.0937
## 2185 26.6348 26.2389 25.3209 24.6627 24.3602 24.1096
## 2186 25.5767 25.0043 23.9825 23.0422 22.4048 22.1297
## 2187 27.6189 27.3406 26.0145 25.4808 25.3716 25.1975
## 2188 28.7271 26.3106 24.7137 23.7661 23.3934 23.1154
## 2189 28.1247 28.3339 27.8938 26.8937 26.9281 26.0301
## 2190 28.4387 28.3237 25.9763 24.8167 23.7352 23.0606
## 2191 24.1858 22.0232 20.3907 19.5766 19.1923 18.9443
## 2192 28.8543 28.9588 27.7025 26.9773 26.0595 25.7339
## 2193 25.6333 25.7081 25.6192 25.8707 25.6908 27.6428
## 2194 99.0000 31.7990 27.5102 25.7700 25.0462 24.0571
## 2195 26.6147 26.6958 26.3932 26.6829 27.0849 27.3669
## 2196 29.4115 27.7852 27.6384 26.6674 27.0481 27.6760
## 2197 27.8050 26.7650 25.8506 25.6687 25.2718 25.3594
## 2198 27.4523 28.6046 27.3666 26.7234 26.5334 26.2606
## 2199 21.6796 20.8307 20.2080 19.8987 19.7643 19.6314
## 2200 26.5746 26.1812 26.2591 26.1232 25.9533 26.8472
## 2201 29.6568 27.2956 25.9207 25.0157 24.6130 24.3374
## 2202 27.7046 27.5642 26.4346 25.6954 24.8766 24.4934
## 2203 28.4254 27.0119 26.2921 26.2894 25.9254 25.7356
## 2204 30.9680 27.8098 26.7977 26.2970 25.7899 25.7752
## 2205 27.1037 27.3418 26.9984 26.6974 26.5361 26.0185
```

```
## 2206 26.6525 26.5312 25.7481 25.6340 25.4360 25.6896
## 2207 26.0192 25.6551 25.3760 25.1228 24.7962 24.3470
## 2208 26.6571 26.1086 25.3240 25.2471 25.0929 24.7865
## 2209 27.8178 27.6494 27.2209 26.4184 26.7423 26.7506
## 2210 99.0000 28.2810 27.5228 26.5477 25.7008 25.7363
## 2211 24.8989 22.8297 21.2118 20.0455 19.6235 19.2732
## 2212 27.8553 28.3500 27.2915 26.4748 26.2583 25.8504
## 2213 28.2948 28.5584 27.2047 26.8102 26.2431 25.2914
## 2214 99.0000 28.1028 27.0114 25.6886 25.2543 24.7066
## 2215 28.9863 27.9491 26.9446 26.1056 25.2160 24.9701
## 2216 26.5956 25.9371 25.5331 25.0073 24.2666 24.0887
## 2217 27.6896 28.2510 27.1796 26.6206 26.0666 26.2727
## 2218 27.5890 27.0921 26.7132 26.3590 25.5463 25.2679
## 2219 28.3901 27.1187 26.5746 26.1211 26.3464 25.7124
## 2220 25.8965 25.2060 24.3091 24.0352 23.8228 23.7818
## 2221 25.0197 23.8337 22.4778 21.9950 21.7057 21.5289
## 2222 28.5276 26.9183 26.1444 25.6595 25.3761 25.8768
## 2223 28.6034 27.1812 25.5969 24.8928 24.6709 24.3146
## 2224 26.3254 26.5282 26.8873 26.6150 26.9815 26.8558
## 2225 28.0060 26.7121 26.3327 26.1634 25.9429 26.2837
## 2226 26.6313 26.2566 25.7764 24.9895 24.7358 24.8206
## 2227 25.9889 25.6873 24.8473 24.4229 24.3879 24.0360
## 2228 28.4593 27.4994 26.6390 26.6931 26.7657 28.8184
## 2229 27.3065 28.1254 27.2074 26.3828 26.5158 25.9743
## 2230 27.8077 27.3887 27.0258 26.4977 26.7927 27.1265
## 2231 28.2904 27.5731 27.9098 26.6954 26.4938 26.2351
## 2232 29.0184 27.3718 26.8327 26.3428 26.6650 26.9871
## 2233 27.6090 27.4854 26.6866 25.7084 24.9155 24.1637
## 2234 27.0877 26.9469 25.7857 25.6076 25.2811 25.4496
## 2235 99,0000 28,1803 27,2082 26,3867 25,4609 25,2667
## 2236 24.4314 24.0232 23.4488 23.3188 23.1493 23.1692
## 2237 27.8442 27.4036 26.6176 25.9328 25.5409 24.9552
## 2238 26.9069 26.8451 26.2967 25.9452 25.1883 24.7135
## 2239 25.2915 25.0742 24.5049 24.5101 24.2824 24.4924
## 2240 24.1135 23.4131 23.1462 22.9008 22.9788 22.8591
## 2241 27.4996 27.1481 26.5077 25.9053 25.2497 24.7184
## 2242 27.2384 27.1371 26.8269 26.3359 25.4657 24.8016
## 2243 28.4866 27.2449 26.4905 25.8753 25.5478 24.6608
## 2244 25.4067 25.5442 25.3021 25.3146 25.1738 25.4853
## 2245 27.2555 27.0917 27.3027 26.4590 26.4065 25.4083
## 2246 99.0000 25.9277 24.1938 22.9305 22.3620 22.0390
## 2247 22.2450 21.0352 19.9916 19.4520 19.1910 18.9145
## 2248 25.6108 24.8454 23.7530 23.3908 23.0964 22.8947
## 2249 21.9752 20.8390 19.4930 18.9037 18.5818 18.3120
## 2250 30.3265 27.2231 26.4899 26.0161 25.2991 25.3631
## 2251 25.8069 25.2946 25.0384 24.9097 24.9408 24.7537
## 2252 27.4346 27.5494 26.1740 25.1262 24.5236 24.4984
## 2253 27.2730 27.4927 27.7088 26.4262 26.1767 25.6647
## 2254 28.1315 28.1563 27.1999 26.9209 26.7806 27.8769
## 2255 23.4098 22.8520 22.2066 22.0462 21.7934 21.7910
## 2256 28.3871 27.4646 26.6716 25.9152 25.2097 24.8440
## 2257 27.3653 26.7172 25.7622 25.6218 25.5143 24.9552
## 2258 26.8999 26.7967 25.8983 25.6259 25.3531 26.0149
## 2259 26.6663 25.8504 24.7810 24.3521 24.1850 23.9685
## 2260 26.4386 25.6129 24.7016 24.0400 23.9102 23.8545
## 2261 27.6525 26.7129 26.0925 25.9814 25.6683 25.5088
## 2262 99.0000 28.5659 26.9822 26.3628 25.2553 24.9170
## 2263 99.0000 27.8546 27.1754 26.6532 26.5850 25.7151
## 2264 28.3181 29.3349 28.2268 26.8902 25.3482 24.9901
## 2265 25.8417 25.1328 24.2248 23.2353 22.8820 22.6359
## 2266 99.0000 28.7061 27.4154 26.5243 25.4530 24.9021
## 2267 26.7314 25.6175 24.1550 23.3911 23.1238 22.9036
## 2268 29.3965 27.3595 26.4256 25.7754 25.8241 25.0933
## 2269 26.7421 26.5482 26.1024 25.5282 25.1576 24.5430
## 2270 29.3491 28.0192 26.9877 26.4993 26.0814 25.3429
## 2271 27.5392 25.8665 24.4804 24.0324 23.6893 23.5853
## 2272 28.3120 27.9140 27.3011 26.7938 26.6897 27.8227
## 2273 26.3854 25.8671 25.0617 24.8750 24.8071 24.7030
## 2274 26.7087 26.6945 26.4075 26.0087 25.5954 25.4920
## 2275 23.9402 22.9502 21.8392 21.2969 21.0418 20.7517
## 2276 28.2098 29.0975 28.1341 26.9540 26.4327 25.9821
## 2277 26.8832 26.2236 25.5178 24.9133 24.7844 24.9174
## 2278 26.3156 27.0021 26.5530 26.4432 26.1780 26.3651
## 2279 26.4531 26.0817 25.3105 24.7187 24.5335 24.6161
## 2280 27.3423 27.4393 26.9208 26.7196 26.9923 28.5142
## 2281 25.2477 24.4148 23.3256 22.9615 22.7468 22.6034
## 2282 27.6107 27.1551 27.2166 26.5083 26.2821 25.7749
## 2283 26.1522 26.0252 25.5727 25.0927 24.3560 24.1321
## 2284 26.9154 26.7806 26.6026 26.4333 26.0641 26.8283
```

```
## 2285 27.7407 26.1811 24.8321 24.3737 24.0837 23.9600
## 2286 23.6126 22.7503 21.6636 21.3585 21.1988 21.0803
## 2287 27.4807 28.0546 27.0864 26.4063 26.2418 26.3013
## 2288 28.0135 27.4884 26.4276 26.1513 25.7309 25.8595
## 2289 25.1902 24.7001 24.0375 23.2648 22.9739 22.9010
## 2290 27.4222 27.6224 26.8578 26.3406 26.2506 26.6594
## 2291 25.1726 24.9330 24.7294 24.2210 23.8576 23.1650
## 2292 28.3383 27.6353 26.6958 26.4789 26.3977 26.0351
## 2293 27.8166 26.7627 26.2507 25.8076 25.5762 25.1659
## 2294 30.3198 28.0676 27.4267 26.1674 24.6095 23.9704
## 2295 28.5629 28.8684 27.9386 26.9270 27.0708 26.6349
## 2296 26.0329 23.5566 21.8799 21.1589 20.7944 20.5453
## 2297 24.9994 24.5566 23.6818 22.7168 22.2794 22.1038
## 2298 28.3126 28.8779 26.4608 25.2790 24.3137 23.7768
## 2299 28.6786 27.1870 26.1061 25.5051 25.2324 24.9596
## 2300 26.5055 26.3475 25.6017 25.3259 25.1390 25.9653
## 2301 99.0000 29.0581 28.4120 26.9514 26.3470 26.0822
## 2302 28.7723 26.9990 25.9832 24.0660 23.3189 22.2816
## 2303 28.7740 27.2649 26.5981 26.0040 25.3516 24.5478
## 2304 28.4255 28.3023 26.9126 26.2236 25.6180 25.5966
## 2305 28.6556 26.7253 25.8955 25.3833 25.2721 24.8191
## 2306 27.5347 27.0459 26.7447 26.7542 25.9233 26.0441
## 2307 27.4863 27.4123 27.0121 26.4074 25.8371 25.7813
## 2308 28.5916 28.1311 26.1176 25.4513 24.9203 25.0060
## 2309 29.1868 29.7352 27.2242 26.3338 26.1113 25.8384
## 2310 31.1508 27.7810 27.1593 26.5144 26.0776 26.0403
## 2311 27.8805 27.7746 27.2995 26.5021 26.1508 25.5395
## 2312 27.8922 27.3625 26.2880 25.9893 25.9958 26.2162
## 2313 29.8613 28.0292 25.4751 24.3507 23.3618 22.8793
## 2314 26.7046 27.1005 27.0189 26.6485 27.3166 26.1531
## 2315 23.8262 22.9428 21.7150 21.1301 20.8280 20.5358
## 2316 99.0000 28.2002 27.7992 26.9005 26.7069 27.3819
## 2317 28.2985 26.9357 26.4935 25.7641 25.3140 25.4528
## 2318 27.4420 26.8968 26.6599 25.9261 25.6756 25.3378
## 2319 27.8629 27.4141 26.1961 24.9959 24.4752 24.3692
## 2320 99.0000 27.3764 26.7629 26.0074 26.0242 25.7550
## 2321 23.1179 21.6014 20.0234 19.3862 19.0049 18.7145
## 2322 28.7616 27.2205 27.3531 26.9552 27.2608 27.2914
## 2323 28.6215 28.0116 27.0899 26.4211 26.5960 25.6691
## 2324 27.7415 27.6970 26.5451 25.5378 25.0418 24.6574
## 2325 26.5717 26.6563 26.7655 26.5067 26.7723 26.1259
## 2326 25.5812 24.9831 24.0070 23.3430 23.0944 22.9169
## 2327 99.0000 28.6043 27.4070 26.1105 25.7659 24.9654
## 2328 28.5896 28.3507 27.2997 26.5521 26.2351 26.1714
## 2329 26.2715 24.2134 22.5137 21.2709 20.8046 20.4146
## 2330 28.8761 27.1613 26.3792 26.0027 25.2698 25.0903
## 2331 25.7216 23.8955 22.3061 21.6689 21.3417 21.1263
## 2332 29.3546 27.9818 27.2845 26.4371 26.1421 25.9993
## 2333 26.3115 26.5820 26.2841 25.6750 25.1021 24.8982
## 2334 27.3917 27.1955 26.7478 26.7435 26.5446 26.1013
## 2335 25.9913 25.4867 24.7893 24.2189 23.5964 23.0326
## 2336 26.0417 25.8111 25.2394 24.7594 24.6067 24.4571
## 2337 26.8239 26.1511 24.8086 24.5368 24.4111 24.2238
## 2338 99.0000 27.5380 26.9120 26.0759 26.0959 26.3677
## 2339 27.9529 28.2264 27.0515 26.9920 26.4364 26.2268
## 2340 25.6445 24.7189 23.7051 23.3411 23.1277 23.0718
## 2341 26.9994 27.1179 26.9409 26.5018 26.1322 26.2821
## 2342 24.3066 23.6490 22.8860 22.6490 22.4234 22.3946
## 2343 24.4535 23.6787 22.8872 22.5826 22.3941 22.2737
## 2344 99.0000 28.8998 27.6247 26.6472 25.9913 25.6081
## 2345 26.5582 26.4950 25.5682 25.4022 25.2415 24.6390
## 2346 29.1451 27.2876 26.6096 25.8635 25.8097 25.9118
## 2347 32.5762 27.7413 27.1763 26.5127 26.2341 26.5156
## 2348 28.9332 27.4826 26.4076 24.5129 23.4205 22.8478
## 2349 32.1741 28.9744 28.2679 26.9407 26.3649 25.3374
## 2350 26.7399 26.7917 26.5757 26.1587 25.6938 25.8704
## 2351 26.9886 25.5134 24.7604 24.3687 24.2139 24.3859
## 2352 27.4938 26.8350 25.4004 24.7312 24.4477 24.4717
## 2353 28.0145 28.0001 26.8085 26.3420 26.3873 25.5646
## 2354 27.2582 28.0596 26.7883 26.8548 25.8228 25.6150
## 2355 22.0549 21.2082 20.9044 20.6982 20.6376 20.5591
## 2356 27.3625 27.2009 27.5269 26.8401 27.1784 26.2999
## 2357 27.7556 28.1907 26.3250 25.2475 24.4748 24.1974
## 2358 27.2460 27.4796 27.6002 26.9886 26.6549 99.0000
## 2359 24.8217 24.3483 23.7589 23.5626 23.4088 23.4082
## 2360 29.3343 28.4641 27.4408 26.8653 27.1104 26.9050
## 2361 26.3412 26.2018 25.4248 25.3634 24.9966 25.3332
## 2362 25.3831 24.4842 23.4526 22.5381 22.2268 21.9677
## 2363 26.9825 26.4671 26.2457 26.2026 25.8663 25.9322
```

```
## 2364 27.6903 27.3948 26.8355 26.5278 26.2741 26.9470
## 2365 27.1557 26.2321 24.3524 23.0486 22.2105 21.3225
## 2366 27.0104 26.8436 26.4407 25.7211 25.1158 24.3260
## 2367 26.4366 26.1328 25.2561 24.3572 24.0726 23.6777
## 2368 26.6920 26.8318 26.5654 26.6540 26.4524 28.5652
## 2369 25.9221 23.4093 21.7617 20.9156 20.5204 20.2502
## 2370 29.4868 27.6903 27.0940 26.3123 25.5192 25.6468
## 2371 26.3083 25.8741 25.1986 24.4286 23.9496 23.7306
## 2372 26.7308 26.1266 25.5082 24.7175 24.2784 23.5363
## 2373 26.5549 27.0703 27.4634 26.5608 26.2767 27.0018
## 2374 25.3596 23.5948 22.0321 21.3901 21.0455 20.8349
## 2375 28.6965 27.1308 25.2495 24.0140 23.0853 22.3456
## 2376 27.5320 27.1991 26.7854 26.1755 26.0640 26.4568
## 2377 26.6333 26.6831 25.8040 25.4209 25.3608 25.1872
## 2378 27.4985 27.1688 25.0844 23.4462 22.7348 21.7426
## 2379 99.0000 29.2577 26.9963 26.7559 26.6440 25.7256
## 2380 29.0709 28.0172 27.0856 26.3366 25.8842 25.8151
## 2381 24.0083 23.4478 22.5494 21.6351 21.3390 21.1345
## 2382 26.7484 26.0837 25.2326 24.3020 23.9472 23.7112
## 2383 28.1382 27.2995 26.4999 26.1946 26.2373 25.7816
## 2384 31.0761 27.7472 27.5220 26.8381 26.1738 26.7204
## 2385 23.9627 23.7079 22.9980 22.3404 22.1679 21.9459
## 2386 27.2275 25.6061 24.6082 23.0130 22.3099 21.3394
## 2387 26.5685 27.4019 26.7013 26.4000 25.7354 24.7640
## 2388 27.0015 26.0478 24.4909 23.5201 23.1872 22.9362
## 2389 26.4190 27.4300 26.8621 26.9124 27.5291 26.2253
## 2390 28.2836 27.3740 26.6927 25.7980 25.5253 25.3596
## 2391 29.6883 28.8865 26.9441 25.9310 25.6553 25.6352
## 2392 29.5855 26.8715 26.2959 25.8838 25.5512 25.4345
## 2393 28.1580 27.4448 26.7889 26.5204 26.6491 26.1039
## 2394 99.0000 28.7112 27.5077 25.8392 24.4433 23.6582
## 2395 26.4472 26.4738 26.6032 26.7384 27.1661 28.3327
## 2396 27.2566 26.9470 25.8797 25.6043 25.4255 25.0676
## 2397 27.0447 27.2689 26.4200 25.5820 25.3593 25.0365
## 2398 27.0321 25.5420 24.0643 23.4248 23.1160 22.9068
## 2399 28.2003 27.6831 26.8940 26.4885 25.6715 25.8975
## 2400 26.8785 26.0947 25.9474 25.4772 25.1990 24.8268
## 2401 29.1981 29.6575 27.8954 26.6444 26.2414 25.4322
## 2402 27.5392 27.1389 26.8252 26.0918 25.8322 25.0091
## 2403 26.0708 25.4797 24.9937 24.5326 24.0755 23.5484
## 2404 32.3005 29.7224 27.6943 26.2988 26.0669 25.4487
## 2405 28.3309 28.2904 25.8818 24.7352 23.7223 23.2059
## 2406 24.0066 23.0048 22.1800 21.9003 21.6678 21.5811
## 2407 26.6170 26.4503 25.9248 25.7824 25.5264 25.5897
## 2408 28.0629 26.6186 25.3914 25.0616 24.6807 24.5298
## 2409 24.7670 24.3971 23.8832 23.2192 23.0899 22.9292
## 2410 28.6966 27.6040 26.8326 26.3341 26.0947 25.5291
## 2411 26.6399 26.5058 25.8812 25.4724 24.8749 24.2764
## 2412 29.3674 28.3509 27.3341 26.9128 26.3416 25.6612
## 2413 26.8129 25.8126 24.9674 24.3239 23.6938 23.4738
## 2414 27.2830 26.9588 27.0343 26.8092 25.9352 26.1106
## 2415 26.6081 26.3625 25.5649 25.3907 25.6058 25.0257
## 2416 26.3169 26.1027 25.2995 24.7875 24.7329 24.4483
## 2417 27.0572 27.5533 27.1229 26.6530 26.9371 27.0617
## 2418 99.0000 27.8971 26.7753 25.8339 24.8345 24.0954
## 2419 28.4555 27.9070 26.8585 26.0012 25.2769 24.8340
## 2420 31.9343 27.4268 26.7882 25.8711 25.4695 25.2894
## 2421 25.7559 24.9945 24.6341 23.9500 23.5453 22.7408
## 2422 28.6423 28.1926 27.3277 26.7645 26.0062 25.8202
## 2423 30.3062 27.2937 26.3900 25.7544 25.6031 25.3304
## 2424 27.2240 27.7659 27.4377 26.9925 26.4968 27.3351
## 2425 26.6271 25.9814 25.7930 25.7158 25.6269 25.5000
## 2426 27.5892 27.2196 26.9999 25.9888 25.9856 25.1924
## 2427 25.7749 25.1916 24.3843 24.1259 23.8934 23.7518
## 2428 28.6032 28.3588 27.9604 26.6037 26.2190 99.0000
## 2429 26.7877 26.7290 26.1725 25.5341 25.2504 25.2898
## 2430 28.9504 27.5236 26.6440 26.2123 25.6901 24.9326
## 2431 28.7294 27.3920 26.1908 25.0806 24.3339 24.0052
## 2432 27.0313 27.2127 26.5093 25.8567 25.2626 24.9548
## 2433 29.3182 28.4752 27.6840 26.2391 25.6352 24.6095
## 2434 28.9841 27.6863 27.0789 26.9958 26.5345 25.8610
## 2435 99.0000 27.5762 27.1632 26.7361 27.0374 26.0378
## 2436 25.6701 25.1059 24.4231 24.2274 24.0575 24.0822
## 2437 26.9199 26.1684 25.8243 25.2931 24.7565 24.4516
## 2438 24.8235 24.0224 23.4559 23.1717 23.0825 22.9380
## 2439 29.4680 28.5342 27.4187 26.7581 99.0000 26.7209
## 2440 27.7909 26.9180 26.2811 25.5876 25.0928 24.3907
## 2441 24.7381 23.6793 22.4494 21.3592 20.9497 20.6242
## 2442 29.1759 28.5075 27.4201 26.8820 26.4089 26.5556
```

```
## 2443 28.4999 27.9795 26.9352 26.9925 26.3052 25.8473
## 2444 24.9090 24.3741 23.5959 23.3596 23.0827 23.0392
## 2445 27.1762 26.6408 26.1638 25.8618 26.5148 25.7025
## 2446 26.8176 25.7324 25.3000 25.1056 25.0609 24.9287
## 2447 25.9203 25.4723 24.6873 24.4187 24.2759 24.0805
## 2448 28.4143 26.8106 26.0155 25.5204 25.4007 25.3717
## 2449 27.8799 27.7442 26.2668 25.1007 25.0271 24.5842
## 2450 31.0857 26.5761 25.3195 24.4080 24.0336 23.7738
## 2451 27.7298 27.8865 28.1578 26.7519 26.8526 26.5296
## 2452 25.9040 25.6552 24.8535 24.7238 24.4867 24.6819
## 2453 25.4678 24.9658 24.0676 23.5271 23.3912 23.1689
## 2454 28.4301 27.3886 26.7126 26.0916 25.3343 24.7813
## 2455 99.0000 27.5777 27.2598 26.5432 25.9141 25.7490
## 2456 24.4539 23.3005 22.6027 22.2596 22.0870 21.9471
## 2457 27.2277 26.6868 26.3124 25.6688 25.4611 25.1676
## 2458 28.6483 28.7726 27.6049 26.8430 26.6625 26.8404
## 2459 28.7760 27.4965 27.0272 26.5200 26.2920 28.4512
## 2460 30.2333 29.7528 28.6344 26.8092 27.4585 27.9276
## 2461 24.6545 24.5499 24.5597 24.4586 24.1283 23.8552
## 2462 26.4591 27.2216 26.9467 26.6142 26.6677 25.9108
## 2463 28.6848 27.4684 26.6370 26.0856 26.1007 24.6513
## 2464 27.9188 28.0827 27.5153 26.9250 27.3265 26.4847
## 2465 27.9363 27.2699 26.6603 26.1369 25.8660 25.3535
## 2466 26.9287 26.4410 25.6271 24.8124 24.1136 23.3014
## 2467 99.0000 28.0208 27.6368 26.8787 26.4108 27.2863
## 2468 28.7570 27.2238 26.7108 25.6188 25.2509 24.2080
## 2469 27.6573 26.7548 25.9945 25.1833 24.9965 24.7153
## 2470 27.2236 27.7595 27.3525 26.7715 26.3765 26.0052
## 2471 27.9733 28.8195 27.4850 26.2203 25.6656 25.0340
## 2472 28.8324 27.9443 27.2386 26.8948 27.0284 25.9306
## 2473 31.5441 29.3395 27.6887 26.8164 26.2447 26.2792
## 2474 26.4862 25.9665 25.1461 24.8695 24.7030 24.7689
## 2475 27.5787 27.3292 26.8957 26.8935 26.5552 26.2954
## 2476 26.6186 26.0387 25.1902 24.3482 24.0379 23.7511
## 2477 24.4843 23.8182 22.8884 22.5472 22.2521 22.1140
## 2478 27.6153 28.0391 27.7910 26.7425 26.9596 26.0259
## 2479 27.5305 28.2200 27.0818 26.4824 25.4110 25.1632
## 2480 27.7382 28.0124 27.5925 26.5536 26.7209 26.2676
## 2481 26.4892 26.3792 25.7432 25.0676 24.7667 24.6051
## 2482 24.3121 23.5182 22.7727 22.4788 22.2306 22.1554
## 2483 29.6876 28.8507 26.9643 26.0071 24.9520 24.1168
## 2484 28.4859 27.8959 27.3261 26.2830 25.8443 25.5131
## 2485 99.0000 30.2574 27.9939 26.9124 25.9262 25.3056
## 2486 29.3291 27.1470 26.5728 26.0250 25.8431 25.2416
## 2487 28.4408 27.3938 27.4254 26.6436 26.4957 25.9076
## 2488 28.4275 26.4247 24.7416 23.6207 23.2279 22.9144
## 2489 28.0139 27.2557 26.6792 26.1656 26.1316 25.8168
## 2490 26.2977 27.0254 26.7703 26.9451 27.2926 26.9691
## 2491 99.0000 28.3161 26.7975 26.0306 25.9470 25.5136
## 2492 26.3712 26.6383 26.5301 26.6072 27.1113 99.0000
## 2493 27.3936 27.0717 26.3327 25.7835 25.1782 24.7084
## 2494 27.7357 27.6357 26.9991 26.5939 26.5767 25.3589
## 2495 29.0741 28.6997 27.1495 25.5339 24.8221 23.8576
## 2496 26.2035 25.2592 24.0414 23.5894 23.3890 23.0119
## 2497 25.4468 25.4486 25.0354 24.7268 24.8259 24.3219
## 2498 29.4744 28.0139 27.6831 26.3830 25.9204 25.3068
## 2499 24.6372 24.7080 24.3795 23.9339 23.7274 23.3444
## 2500 27.3041 26.4872 25.9375 25.2215 24.7127 24.4199
## 2501 27.9983 28.4754 27.0096 25.3269 24.6385 23.6477
## 2502 28.1809 27.0739 26.5810 25.8519 25.5712 26.0778
## 2503 26.4824 26.7507 26.9696 26.7195 26.8803 26.5213
## 2504 27.4300 25.8905 24.3334 23.4622 23.1008 22.7800
## 2505 28.2605 27.6195 26.5579 26.3350 26.0523 25.7959
## 2506 27.7464 27.8830 27.0174 26.2694 26.1840 25.3855
## 2507 29.6089 99.0000 27.5417 26.4395 24.9132 23.9021
## 2508 26.5482 27.0362 27.1281 26.8698 27.0271 99.0000
## 2509 27.4815 27.5822 26.9255 26.4497 25.7177 24.9853
## 2510 26.5287 25.5726 24.7001 24.4629 24.2737 24.2855
## 2511 27.7913 29.8700 27.4089 26.8066 26.1780 25.3367
## 2512 24.8608 24.0100 23.3968 22.7637 22.4230 21.6892
## 2513 27.5929 27.1349 26.7502 25.7052 25.3589 25.4642
## 2514 27.1591 24.8559 23.3236 22.2255 21.8301 21.5192
## 2515 99.0000 27.7011 27.5322 26.6771 27.1409 26.1957
## 2516 27.2252 27.9517 27.1473 26.6138 26.5299 29.7156
## 2517 27.4806 26.6533 26.0929 25.1416 24.3021 23.6210
## 2518 29.3650 27.2468 27.1836 25.5153 24.8568 23.6921
## 2519 27.4894 27.3550 26.7587 26.5880 26.9672 26.8990
## 2520 27.3421 27.3854 26.7259 26.4462 26.4677 25.6881
## 2521 25.3954 25.0681 24.4584 23.9668 23.8388 23.7130
```

```
## 2522 25.7841 25.1428 24.4545 23.6318 23.3815 23.2653
## 2523 24.8155 24.7864 24.7911 24.7277 24.5719 24.1671
## 2524 27.7660 26.7982 25.9952 25.5969 25.5624 25.2581
## 2525 26.5767 25.9816 25.4631 24.7249 24.5269 24.5559
## 2526 99.0000 27.9477 27.0016 26.3699 26.0316 25.6524
## 2527 26.1171 25.4366 24.8477 24.5976 24.4018 24.2392
## 2528 28.0311 26.9402 25.9586 25.0817 25.0788 24.5579
## 2529 26.6036 25.8164 24.6560 24.2778 24.0776 23.9822
## 2530 28.9290 27.8546 27.7591 26.8747 25.5608 25.8712
## 2531 25.5136 25.2843 25.1283 25.3942 25.0964 25.3774
## 2532 25.0512 24.0604 22.9402 22.0682 21.7855 21.5155
## 2533 26.3103 25.8660 25.4784 24.9877 24.2158 24.2068
## 2534 30.8009 28.0539 26.6665 25.8074 25.4552 25.1458
## 2535 99.0000 27.2472 26.9193 26.5953 25.9911 25.3603
## 2536 28.6294 27.8846 27.1245 26.8327 27.1714 27.1857
## 2537 26.5788 25.9715 24.9617 24.6593 24.5505 24.6237
## 2538 99.0000 28.9623 28.3353 26.9242 26.6603 26.2080
## 2539 26.8555 27.2313 26.6324 26.1490 25.6367 25.1127
## 2540 27.1339 26.4542 23.9106 22.8262 21.7869 21.1430
## 2541 27.1088 26.7036 26.7402 25.8457 25.7763 26.0624
## 2542 28.7016 27.8189 27.6557 26.9453 27.3066 99.0000
## 2543 26.8524 26.8207 25.5779 24.3999 23.8824 23.6177
## 2544 29.3888 27.0707 26.3933 26.3631 26.1324 27.5483
## 2545 28.0922 27.1189 26.0392 26.0028 25.8430 25.6232
## 2546 28.0009 28.7748 27.1465 26.9435 26.2521 26.6413
## 2547 27.1431 28.1352 27.4900 26.7164 26.6212 26.8200
## 2548 26.6182 25.2786 23.5760 22.3007 21.8102 21.4330
## 2549 26.7426 26.5540 25.7213 25.4044 25.3006 25.0836
## 2550 27.0462 26.8035 26.3040 25.5612 24.7729 24.3130
## 2551 24.4824 23.3283 22.5621 22.1990 22.0992 21.9384
## 2552 26.1559 26.5080 26.0952 25.6570 25.2215 24.9257
## 2553 26.6977 26.4739 26.1964 25.8791 25.2419 25.1298
## 2554 27.1417 27.3748 25.8219 24.7691 24.2844 23.9933
## 2555 28.9961 27.0878 25.2270 24.1469 23.2312 22.7824
## 2556 27.9802 26.5602 26.1522 25.7255 25.1291 24.8159
## 2557 30.4847 27.5788 27.2981 26.5815 26.0841 25.6424
## 2558 26.9536 26.8590 26.1516 25.7471 25.6715 26.8584
## 2559 26.4301 25.9047 25.4804 24.7614 24.2251 23.6143
## 2560 24.2470 23.9608 23.2351 22.3855 22.0385 21.8394
## 2561 27.4319 27.5911 26.9317 26.3259 25.8876 26.6671
## 2562 26.7870 26.7949 26.5762 26.1406 26.4447 26.0478
## 2563 26.2864 25.8081 24.9360 24.7754 24.7248 24.9134
## 2564 28.9589 27.4770 26.9899 26.7259 26.4819 25.7068
## 2565 99.0000 29.5320 27.8361 26.3583 25.9582 25.1855
## 2566 26.2400 26.3630 26.2972 26.0491 25.2509 25.2364
## 2567 26.8045 24.7480 23.1645 22.1421 21.7279 21.4546
## 2568 29.2068 27.9096 26.3573 24.5053 23.8511 22.8111
## 2569 28.2191 27.6945 27.0577 26.4344 25.3191 25.1665
## 2570 26.7503 26.1559 25.1643 24.3927 23.5996 23.1114
## 2571 99.0000 26.8026 26.9736 26.9635 27.8943 27.1198
## 2572 99.0000 27.4644 26.9503 25.4278 24.6380 23.9629
## 2573 28.1078 28.4389 27.7648 25.8124 25.2474 24.4452
## 2574 27.3274 26.2053 25.9436 25.5073 24.6938 24.4045
## 2575 28.7466 27.7504 26.9585 26.7524 26.6626 26.5634
## 2576 28.1367 28.1893 27.3779 26.7739 26.9221 27.3607
## 2577 26.8288 26.4815 26.1923 25.7525 25.4858 24.5197
## 2578 29.6100 27.9968 27.0481 26.6015 27.5598 99.0000
## 2579 27.0501 26.3095 25.3334 24.9407 24.6562 24.3937
## 2580 29.2864 27.2182 26.2187 26.0296 26.3036 25.4152
## 2581 26.9543 26.3693 25.5540 25.0869 24.9043 24.6363
## 2582 29.3394 27.0155 25.6622 24.8749 24.5765 24.4827
## 2583 26.8252 27.0549 25.8462 24.9273 24.3772 24.0937
## 2584 27.9793 28.0222 26.8217 26.2205 25.3940 25.4226
## 2585 25.5190 25.3501 24.8943 24.1549 23.6005 23.2783
## 2586 99.0000 28.2986 26.6068 26.6274 25.8428 26.8240
## 2587 28.1024 27.6048 27.4690 26.9910 26.4728 27.6162
## 2588 99.0000 27.4288 26.1413 25.6441 25.4107 24.8272
## 2589 27.7627 27.1011 26.8716 26.4513 25.9217 25.5026
## 2590 30.1447 28.4851 27.3789 26.5820 26.3083 25.5249
## 2591 37.3523 30.2244 27.9326 26.8567 25.4259 24.7498
## 2592 25.4026 25.0709 24.6811 24.2841 23.5723 23.3255
## 2593 25.8673 25.8718 25.3987 24.9068 24.4340 23.6443
## 2594 28.7289 28.6310 27.0117 26.6394 27.4890 25.3672
## 2595 26.1313 26.0909 25.3013 25.0658 24.8134 24.8388
## 2596 26.5621 26.1919 25.3378 25.1861 24.8832 24.5415
## 2597 25.3770 25.2209 25.0206 24.7098 24.4235 24.4649
## 2598 25.7680 25.6786 25.4267 25.2127 25.2211 25.1698
## 2599 27.1132 26.7950 26.0873 25.5763 25.4441 25.8431
## 2600 28.0271 27.0698 26.2858 25.5758 24.8689 25.0703
```

```
## 2601 27.0914 26.6535 26.6668 26.7128 26.4784 25.6205
## 2602 99.0000 28.4136 26.7054 26.2354 25.8256 25.2264
## 2603 28.1352 28.2889 27.6396 26.9639 27.1558 26.1225
## 2604 27.6880 27.7070 26.6894 26.2148 25.2357 24.9182
## 2605 29.9949 28.0535 27.3328 25.6392 24.7086 24.1307
## 2606 31.2558 28.8736 28.1510 26.6499 27.2861 25.8528
## 2607 27.0959 27.3316 26.8752 26.4014 25.8829 25.5687
## 2608 28.4284 27.9798 27.8877 26.9697 26.7197 26.3326
## 2609 28.4594 27.4768 26.7456 26.2665 26.0627 25.6276
## 2610 28.6333 28.0737 27.7006 26.9768 26.7901 25.7900
## 2611 22.0496 21.0405 20.0960 19.6694 19.4205 19.2174
## 2612 27.7368 27.6936 26.9881 26.5129 26.0856 27.8059
## 2613 27.0430 26.9026 26.3810 25.7022 25.1795 24.8439
## 2614 28.4737 27.8878 27.0304 26.8057 26.2924 25.8221
## 2615 25.8216 25.4307 25.1194 24.8138 24.2250 23.9769
## 2616 99.0000 28.8666 27.5841 26.6773 25.8543 25.3275
## 2617 99.0000 28.3029 27.3941 26.5472 25.5577 25.2216
## 2618 99.0000 28.0529 27.5842 26.9832 26.4640 26.7158
## 2619 25.8478 25.8150 25.2968 24.5557 24.2327 24.4555
## 2620 27.5247 27.8758 26.7509 26.7831 26.4486 27.3348
## 2621 27.5356 27.4280 26.6695 26.5961 26.1182 25.8214
## 2622 26.7835 26.7543 26.4506 25.8734 25.3851 24.7722
## 2623 99.0000 27.4848 26.8887 26.0769 25.3706 24.9299
## 2624 27.4765 27.1234 26.4665 25.5707 25.0689 24.8398
## 2625 27.8707 26.2913 25.5312 24.8683 24.5884 24.6456
## 2626 28.2896 27.9576 26.8534 26.2846 26.1331 25.5874
## 2627 27.6826 27.5150 26.8464 26.2468 25.5447 25.2647
## 2628 26.2197 26.2686 26.2601 25.8722 25.4120 25.2269
## 2629 27.5591 27.2734 26.7563 26.3762 26.1458 25.3453
## 2630 28.4735 29.0627 27.0170 25.7691 25.1002 24.5355
## 2631 27.8438 27.3298 27.0278 26.6797 26.9914 27.4938
## 2632 26.9859 26.5931 26.0758 25.9296 25.5409 26.2962
## 2633 26.6291 26.1745 25.1970 24.1832 23.6805 23.6838
## 2634 26.7136 25.4365 24.5321 23.8198 23.6284 23.4112
## 2635 26.0537 27.0357 26.7900 26.9462 27.0514 99.0000
## 2636 27.6115 26.5853 26.2075 26.1530 26.0424 25.4682
## 2637 25.6995 25.5117 25.1530 24.7437 24.5664 24.4051
## 2638 28.5926 28.3029 27.1668 26.9034 27.2738 27.1591
## 2639 27.4804 26.8697 25.8548 25.2312 24.9682 25.3726
## 2640 99.0000 27.1337 26.1319 26.0896 25.7025 25.8231
## 2641 26.9664 26.4556 25.7107 24.7191 24.2834 24.0634
## 2642 28.5367 27.9270 27.5828 26.4378 26.6002 26.2875
## 2643 28.9755 27.7547 27.4664 26.5439 26.2456 25.4562
## 2644 33.2375 28.0584 28.0839 26.2541 25.6753 24.7193
## 2645 27.7905 27.7216 26.0975 24.9659 24.3393 24.1263
## 2646 26.1668 25.7998 25.3056 24.5215 24.1641 24.1893
## 2647 26.8225 27.0283 27.1950 26.7887 26.4908 27.7607
## 2648 30.0471 27.6264 27.0515 26.9631 26.6208 25.7785
## 2649 29.2544 27.2436 26.4861 25.9356 25.8509 25.6814
## 2650 24.7219 24.5230 24.0525 23.5178 23.3272 23.2274
## 2651 27.3496 27.5189 27.1076 26.8743 25.9624 26.0592
## 2652 27.9299 27.6639 26.6814 26.5254 26.0600 26.8605
## 2653 26.6315 26.6435 26.3756 26.1292 25.7945 24.8668
## 2654 25.5660 25.2771 24.6943 23.9601 23.5866 23.5128
## 2655 27.2322 26.5737 26.2628 26.0893 25.7102 25.4686
## 2656 29.1837 28.4274 27.6472 26.9602 27.0405 99.0000
## 2657 26.4465 25.8787 24.7049 23.5938 22.9959 22.7113
## 2658 26.5136 26.2314 25.7541 25.5293 25.3710 25.3168
## 2659 99.0000 27.0664 25.7486 24.6913 23.7045 22.9642
## 2660 30.5546 27.9200 26.9186 26.3075 26.9864 26.7426
## 2661 26.9798 26.6111 25.9263 25.4345 25.4967 25.3000
## 2662 26.6437 26.5016 25.9752 25.1788 24.6120 24.2331
## 2663 27.0078 27.4892 27.6125 26.9273 27.1467 25.7500
## 2664 25.5340 25.0773 24.7575 24.5587 24.5845 24.3195
## 2665 99.0000 28.7339 28.4983 26.9964 26.0833 25.0020
## 2666 26.3111 26.5290 26.3349 26.0722 26.4831 99.0000
## 2667 25.2729 24.5857 24.0938 23.8669 23.7819 23.6254
## 2668 28.0325 27.2108 26.1270 25.8363 25.6019 25.0442
## 2669 24.1473 23.7167 23.2256 23.0787 22.9438 22.8608
## 2670 31.1244 27.6779 26.5350 26.3109 26.0407 25.7579
## 2671 28.2278 27.5391 26.7813 26.6696 26.0944 25.9995
## 2672 24.8574 24.6110 24.1715 23.4813 23.2872 23.1787
## 2673 27.2906 28.1002 26.9311 26.7768 26.5668 27.2515
## 2674 25.3235 24.9097 24.2801 24.1937 23.9476 23.9151
## 2675 99.0000 28.3951 27.6204 26.8903 27.7157 26.3177
## 2676 27.3661 27.4858 26.3760 25.4229 24.8045 24.3301
## 2677 21.6340 20.7315 20.0716 19.7413 19.6321 19.5083
## 2678 26.3403 25.4556 24.2503 23.4333 23.1247 22.8454
## 2679 26.3808 25.8381 25.0326 24.6939 24.6507 24.6120
```

```
## 2680 29.0151 27.5110 26.7860 26.3906 26.2394 28.5587
## 2681 28.5123 30.5773 26.7113 25.6036 24.8203 24.4324
## 2682 28.3712 26.7130 25.7826 25.1364 24.9500 24.9186
## 2683 26.8017 27.1353 26.5084 26.1221 25.6841 24.9353
## 2684 28.3710 26.3434 25.2503 24.8955 24.6305 24.2980
## 2685 27.6392 27.3782 27.3906 26.5286 25.9689 25.2766
## 2686 28.2576 25.8554 24.8809 24.3012 24.0782 23.7472
## 2687 26.4023 26.1770 25.6079 25.0971 24.4773 23.9674
## 2688 26.8966 26.2974 25.7921 24.8410 24.1795 23.2936
## 2689 27.5296 28.5737 27.7049 26.9689 26.8795 27.1172
## 2690 26.6741 26.5389 26.1827 25.7879 25.3844 25.2667
## 2691 28.5339 27.7229 27.8193 26.9177 27.2597 27.0646
## 2692 26.4426 25.6151 25.1576 24.8959 24.9102 24.5599
## 2693 24.8530 23.0320 21.4612 20.8224 20.5098 20.3001
## 2694 27.0825 27.6871 25.9578 25.0634 24.8191 24.6230
## 2695 25.8572 25.3023 24.4967 24.2421 24.1367 23.8768
## 2696 29.0954 28.2590 27.0573 26.4470 26.4085 25.7538
## 2697 28.8176 28.7739 27.1064 26.1332 25.2753 25.6782
## 2698 27.8945 27.6825 27.1101 26.6159 26.0969 25.7612
## 2699 26.5540 26.3239 25.8111 25.2198 24.9734 24.6294
## 2700 29.1745 27.6493 27.1145 26.5347 25.9885 25.3853
## 2701 27.3568 27.2676 26.6335 26.3513 26.2002 26.0366
## 2702 99.0000 28.2793 27.6415 26.7791 26.0152 26.4021
## 2703 26.6160 26.6080 26.6545 26.5346 26.7159 26.4838
## 2704 27.4199 26.2021 25.4661 25.0328 24.8685 24.7821
## 2705 26.8963 27.0367 27.3288 26.7120 26.7555 26.7294
## 2706 27.1369 26.6314 25.2743 24.7357 24.4274 24.1282
## 2707 28.6905 28.5691 28.0783 26.9608 26.7496 25.9980
## 2708 26.2813 27.0070 26.5208 26.1125 25.7168 24.9548
## 2709 99.0000 26.8188 25.7216 25.3734 25.0344 25.1237
## 2710 26.0956 25.6398 24.9080 24.2024 23.5718 23.2210
## 2711 26.7690 26.9010 26.7335 26.7245 26.2366 25.6711
## 2712 28.3427 27.6791 26.2772 26.0256 25.5696 25.5578
## 2713 26.6526 25.8081 25.3438 24.4704 23.9195 23.0398
## 2714 29.6601 28.7306 28.3335 26.9248 26.8249 26.1683
## 2715 26.7753 26.7810 26.5363 26.5331 26.4541 26.4267
## 2716 28.7440 27.1022 27.0285 26.7374 25.8307 25.3403
## 2717 26.6377 26.1988 25.4746 25.2514 24.9378 25.0417
## 2718 28.7457 27.4769 26.4634 25.6152 25.4952 25.2894
## 2719 28.0824 27.3092 26.6939 26.3900 26.4307 26.2740
## 2720 99.0000 27.5000 25.7849 24.6325 24.1313 23.7948
## 2721 27.4709 27.5784 27.4649 26.7782 26.4108 25.5724
## 2722 23.6945 23.2070 22.3313 22.0447 21.8830 21.7543
## 2723 25.5603 25.4000 25.1550 24.6727 24.3726 24.4390
## 2724 27.7117 27.7223 26.9211 25.9923 25.5800 24.6561
## 2725 27.3777 26.3432 25.9402 25.5326 24.8258 24.5353
## 2726 27.3869 27.0900 26.1059 25.2847 24.5052 24.1019
## 2727 25.1298 24.5648 23.7137 23.1727 23.0269 22.8310
## 2728 26.0385 25.9857 25.8742 25.8150 25.9827 25.9878
## 2729 27.0413 27.3379 27.1158 26.5611 25.9530 26.8729
## 2730 27.7445 27.1429 26.6679 26.2915 26.1410 27.0540
## 2731 28.4491 27.3230 27.2043 26.3203 25.8791 27.1968
## 2732 24.1810 23.4818 22.1260 20.9381 20.4009 20.0812
## 2733 28.5337 27.1526 26.4054 25.8465 25.8524 25.4443
## 2734 29.2684 28.7468 27.9298 26.6505 26.0348 25.1913
## 2735 27.2045 26.9842 26.4101 26.6437 26.1292 26.2526
## 2736 27.3337 27.2932 26.8480 26.5377 26.2136 26.3846
## 2737 29.3578 27.9978 27.7979 26.9438 26.3270 26.3831
## 2738 26.3706 26.0837 25.4322 24.7174 24.2569 23.5309
## 2739 99.0000 27.9281 27.5815 26.3713 26.1188 25.7199
## 2740 28.3932 27.3478 26.5655 26.2711 25.8894 27.5348
## 2741 28.0313 28.9826 27.2294 26.2069 25.7677 24.9368
## 2742 25.2208 23.6384 22.1152 21.3367 20.9585 20.7168
## 2743 26.0105 25.0084 23.6765 22.9109 22.5688 22.2958
## 2744 29.2434 28.1093 26.8215 25.6948 24.6056 24.0047
## 2745 28.4261 27.4100 26.1794 25.6880 25.7596 25.2005
## 2746 25.3926 24.2295 22.8430 22.2983 21.9736 21.8105
## 2747 22.9123 22.1191 21.7022 21.4471 21.5038 21.4628
## 2748 24.3347 23.7707 23.7054 23.4954 23.6570 23.7113
## 2749 26.3734 25.4035 24.4219 23.8358 23.7150 23.6365
## 2750 27.2378 26.6655 26.0330 25.1236 24.8965 24.9761
## 2751 27.0819 26.7704 25.6221 25.2833 25.3461 24.8931
## 2752 26.0137 26.1112 25.8771 25.6400 25.5572 25.1009
## 2753 26.7798 26.7041 26.3764 26.6247 26.2643 26.3649
## 2754 99.0000 28.0439 27.4243 26.9074 26.4755 27.1746
## 2755 27.3181 28.5098 27.0661 26.4477 26.1184 25.7432
## 2756 27.4545 28.0346 26.9348 26.2164 25.5570 25.3777
## 2757 27.3448 26.7486 26.1307 26.0001 25.8099 25.5834
## 2758 25.8173 25.2040 24.5104 23.6588 23.3864 23.2561
```

```
## 2759 26.9630 27.4407 26.4021 25.3497 25.1562 25.0762
## 2760 25.6670 25.4944 25.0667 24.5829 23.9568 23.4487
## 2761 26.7373 25.7111 24.6854 24.1891 24.1322 23.9057
## 2762 25.8499 25.3929 24.9441 24.4497 23.8786 23.7821
## 2763 29.1281 27.4711 25.2595 23.8464 23.0491 22.0944
## 2764 28.2240 27.0053 26.7353 26.4855 26.4233 26.2004
## 2765 28.0412 27.1132 26.3035 25.9934 26.0521 27.0567
## 2766 28.2476 28.6741 26.5296 25.3598 24.5978 24.2830
## 2767 27.6780 26.9694 25.9121 25.4869 25.1191 25.2159
## 2768 24.5936 23.9733 23.0554 22.5834 22.3961 22.1630
## 2769 28.2734 27.5389 26.7993 26.7477 26.6543 26.5607
## 2770 99.0000 28.5056 27.2215 26.4695 25.8518 26.2602
## 2771 99.0000 28.6570 27.3552 25.7299 25.0515 24.0030
## 2772 26.1770 25.8976 25.4676 25.0735 25.2007 25.3421
## 2773 30.8403 27.4302 26.9904 26.6127 26.5466 27.2489
## 2774 26.3382 26.0154 25.1068 24.2725 23.6793 23.4221
## 2775 30.0469 28.8267 27.8434 26.8755 26.9275 26.6392
## 2776 99.0000 99.0000 27.2825 25.6091 24.8518 23.7762
## 2777 26.3580 26.8554 26.4660 26.2252 25.9553 25.4441
## 2778 28.9058 27.5345 26.5256 25.7102 25.2308 24.8725
## 2779 27.0248 26.8102 26.5451 25.5592 25.0510 24.3344
## 2780 30.8193 26.8385 26.0577 25.3280 24.6541 24.7903
## 2781 25.8527 25.9034 25.8444 25.2826 25.1655 24.9687
## 2782 28.8111 27.7293 26.4302 25.9152 25.6732 25.4310
## 2783 26.9340 26.5557 25.7624 25.0394 24.5060 24.2205
## 2784 27.0345 27.9915 26.9135 26.2451 26.3371 26.0258
## 2785 99.0000 28.5252 27.4908 26.8960 26.4872 28.1416
## 2786 27.3400 27.5280 26.2913 25.6386 24.7874 24.7595
## 2787 28.5460 28.2688 27.8133 26.9011 26.1056 24.9574
## 2788 26.4271 26.4778 25.7321 24.9156 24.4554 24.0681
## 2789 99.0000 27.8071 26.9586 26.5274 26.6709 26.6057
## 2790 28.1600 27.3327 26.7044 26.0176 25.6507 25.4104
## 2791 24.5235 24.1238 23.6183 23.5060 23.3027 23.4430
## 2792 26.6913 26.7175 26.2816 25.9738 26.0375 25.5492
## 2793 28.2913 27.2302 27.2555 26.6976 26.7285 26.0252
## 2794 29.2727 29.2291 28.0122 26.5212 26.0272 26.2406
## 2795 27.7275 27.7785 26.9625 26.8070 26.0243 26.4940
## 2796 27.5110 26.4903 25.3773 24.9599 24.7062 24.4957
## 2797 25.9382 25.9502 25.6888 25.7205 25.5884 25.0716
## 2798 27.7940 26.9072 26.0459 25.1941 24.4064 24.0981
## 2799 99.0000 28.5850 27.4920 26.9283 26.5081 26.3294
## 2800 27.7259 27.6848 27.0886 26.2113 26.2624 25.9165
## 2801 28.8688 27.6697 27.3426 26.6067 26.1469 27.0429
## 2802 27.2000 27.0230 26.5341 25.7236 25.5479 25.5081
## 2803 99.0000 28.4575 27.8602 26.6572 25.0343 24.3447
## 2804 26.4295 26.3723 26.1231 25.5401 25.1373 24.9573
## 2805 24.2858 24.2752 23.8468 23.0371 22.5457 22.2351
## 2806 26.9401 26.9915 26.4237 26.1272 25.9921 25.6164
## 2807 26.9284 25.5824 23.4815 22.3417 21.4477 21.0577
## 2808 27.4053 27.1085 26.7916 26.3146 25.6321 26.1148
## 2809 27.8885 26.9374 26.4275 26.4215 26.1415 25.4690
## 2810 22.6383 21.6301 20.7251 20.4110 20.1517 20.0852
## 2811 27.9783 26.9952 26.3521 26.1827 26.2634 26.5884
## 2812 25.3318 24.6057 23.7240 23.5435 23.3854 23.2864
## 2813 28.8553 27.4625 27.2259 26.8246 26.3973 25.9301
## 2814 24.5287 24.2494 23.5799 22.9727 22.8241 22.7273
## 2815 29.6284 27.3169 26.6082 26.0395 25.5989 25.6506
## 2816 99.0000 28.2650 27.2299 26.7090 27.0568 27.0125
## 2817 26.3373 25.4702 24.4941 23.8954 23.6516 23.3406
## 2818 26.9401 25.6940 23.9785 22.7080 22.0832 21.7457
## 2819 30.9733 28.5131 27.1684 26.8335 26.4289 25.8633
## 2820 26.2745 25.8163 24.8592 24.7240 24.5980 24.4599
## 2821 25.8413 24.0595 22.5249 21.6558 21.3050 21.0012
## 2822 26.3971 25.5481 24.6481 24.3931 24.2742 24.0482
## 2823 26.0813 25.4318 24.5182 23.7649 23.5455 23.4434
## 2824 26.9008 26.2665 25.6783 24.6482 24.1323 23.1694
## 2825 25.8543 25.7028 25.0910 24.4068 23.6127 23.2077
## 2826 99.0000 28.3072 27.1778 26.6971 25.9930 26.4963
## 2827 99.0000 28.1074 27.5227 26.2566 25.9975 25.4439
## 2828 26.9936 26.6904 25.7308 25.1351 24.8091 24.6239
## 2829 28.2496 27.1122 26.6912 25.9192 25.7036 25.7389
## 2830 26.2280 25.7330 25.0361 24.8401 24.7104 24.5759
## 2831 27.1210 26.1228 25.5529 24.8684 24.6900 24.5173
## 2832 26.5875 26.0303 25.7599 25.4463 24.8869 24.5903
## 2833 29.5038 27.7660 26.6357 26.1209 26.0880 26.4806
## 2834 28.6305 28.3177 26.3049 25.2550 24.3798 23.8321
## 2835 26.7224 26.5433 26.1147 25.8727 25.4085 25.5061
## 2836 27.2091 26.8687 26.6822 26.4226 26.1586 25.5901
## 2837 27.5271 27.1540 27.1038 26.6377 27.3711 27.0109
```

```
## 2838 28.6141 27.2001 26.5903 25.9721 25.9954 25.6876
## 2839 25.8093 25.4597 24.8668 24.1531 23.9489 23.6465
## 2840 27.5041 25.8515 24.7243 24.3157 24.0696 23.9408
## 2841 26.8179 25.2491 23.8260 23.2139 22.8815 22.6381
## 2842 28.5965 27.7139 27.2392 25.6079 24.6646 23.9857
## 2843 99.0000 27.8052 26.6768 25.5032 24.8763 24.2776
## 2844 27.0681 27.3251 26.0285 25.7976 25.7141 25.7139
## 2845 29.1923 27.8775 27.4595 26.8471 26.6466 29.1076
## 2846 27.0678 26.5203 25.6569 25.1081 24.9770 24.7353
## 2847 25.1232 24.2440 23.1479 22.8140 22.5733 22.5184
## 2848 29.3655 29.5848 28.5484 26.9066 26.5129 25.9745
## 2849 99.0000 28.3168 27.1430 26.6211 25.8126 25.3086
## 2850 27.4149 27.0332 26.4220 25.9865 24.9179 24.7519
## 2851 28.3224 27.0199 26.3202 25.7794 24.9083 24.0703
## 2852 99.0000 27.8701 27.7421 26.5252 26.3078 27.1996
## 2853 25.3434 25.0465 24.2115 23.2856 22.7712 22.5205
## 2854 28.8291 27.8121 26.7559 26.0592 25.7715 25.4670
## 2855 26.4958 26.6262 26.0950 25.5548 25.1762 24.8293
## 2856 27.3709 28.6264 27.4703 26.6349 25.7138 26.1481
## 2857 25.9767 24.1001 22.4936 21.5730 21.1856 20.8890
## 2858 26.7501 25.5367 24.5531 24.1775 24.0251 23.7762
## 2859 30.5744 27.8415 26.8546 26.2045 25.8475 24.8153
## 2860 27.9301 26.7622 25.9035 25.3786 25.0537 25.1092
## 2861 26.4313 24.5734 22.8414 21.5222 20.9922 20.6053
## 2862 28.6738 27.5278 27.3705 26.9925 27.1776 25.9315
## 2863 27.6187 26.7819 25.2622 24.3503 24.0395 23.7432
## 2864 26.6019 25.3041 24.1947 23.7668 23.4745 23.3969
## 2865 27.9402 28.3982 27.0286 26.1673 25.6365 25.7170
## 2866 27.2161 26.8488 26.2436 26.0756 25.9766 25.7350
## 2867 27.7578 27.4712 27.1965 26.6950 26.9989 28.5273
## 2868 28.2227 27.9260 26.8281 26.3839 25.7269 25.7092
## 2869 29.9214 28.9540 27.3519 26.2574 25.8675 25.2696
## 2870 26.7485 26.5449 26.4394 26.2456 25.8153 25.3638
## 2871 23.7561 23.2461 22.2602 21.3599 21.0157 20.7555
## 2872 25.9340 25.7874 25.3612 24.7525 24.0809 23.7923
## 2873 29.9426 26.9332 26.5166 25.9871 25.2503 25.2496
## 2874 26.0835 25.3520 24.8982 24.6817 24.5286 24.6010
## 2875 99.0000 28.1030 27.1267 25.3650 24.3450 23.6450
## 2876 27.5655 26.7433 25.6859 25.2449 25.4091 24.9554
## 2877 26.5725 26.3441 26.1133 25.8137 25.3412 25.0250
## 2878 26.8255 26.3534 25.5749 24.9473 24.2765 24.0757
## 2879 26.2482 25.6406 24.8980 24.4943 24.3492 24.2545
## 2880 27.2458 27.1497 26.9854 26.8347 26.9882 25.9625
## 2881 27.4807 26.8321 26.0271 25.6763 25.5605 25.4674
## 2882 99.0000 29.3592 27.4845 26.5606 25.5827 24.5222
## 2883 25.5887 25.4606 25.3565 24.9772 24.5594 24.6085
## 2884 26.0138 25.5274 24.5810 24.1676 24.0051 23.7597
## 2885 22.9068 21.8863 21.3587 21.0712 20.9777 20.8521
## 2886 25.4830 25.4737 24.8788 24.2502 24.1224 23.9497
## 2887 25.7112 24.7553 24.3095 24.0578 24.0776 24.0341
## 2888 27.2016 26.7692 26.3255 25.9737 25.5121 25.3008
## 2889 29.0107 26.9130 26.0774 25.5893 25.3425 24.9886
## 2890 25.7411 25.1482 24.7152 24.1282 23.8578 23.1917
## 2891 26.5446 25.9894 25.0190 24.4331 24.3425 24.1034
## 2892 28.4545 28.0742 27.2757 26.4879 26.7428 26.2447
## 2893 24.4232 24.4087 24.3475 24.2735 24.3651 24.4664
## 2894 26.4016 25.7771 24.7103 24.2438 24.1061 23.6797
## 2895 23.6075 21.9797 20.6378 20.1172 19.8162 19.5855
## 2896 30.0311 26.5943 25.2514 24.5673 24.2860 23.8988
## 2897 99.0000 28.7100 26.8444 25.4263 24.6179 23.7596
## 2898 27.3031 26.4045 24.9543 23.9313 23.6031 23.2640
## 2899 26.7072 26.2958 25.7946 25.3345 25.0661 25.1566
## 2900 25.2611 24.9050 24.4261 24.0210 23.3983 22.9513
## 2901 26.1053 24.7844 23.6252 23.1947 22.9331 22.7924
## 2902 26.8805 26.9992 26.2980 26.3233 25.8842 26.1446
## 2903 24.9856 24.5135 24.0616 23.6956 23.2394 22.7956
## 2904 28.5181 27.2611 26.1048 24.9312 24.5075 24.2734
## 2905 26.4201 25.4467 24.8484 24.6086 24.4215 24.1837
## 2906 25.1373 24.7538 24.1656 23.3932 23.0207 22.8004
## 2907 26.7590 27.2001 26.7009 25.5460 25.2371 25.1981
## 2908 27.8320 26.6835 25.3281 24.2725 23.9430 23.7181
## 2909 25.8776 24.8353 23.6838 23.3031 22.9731 22.8884
## 2910 26.6441 26.2576 25.4746 25.4473 25.2045 24.8785
## 2911 27.1343 26.9085 26.4847 26.1360 26.0414 26.3165
## 2912 28.4471 28.3846 27.7743 26.7356 25.9858 25.7702
## 2913 23.3443 22.7197 22.0544 21.8280 21.5611 21.5228
## 2914 28.8535 27.0097 26.5889 26.2301 26.3905 25.6392
## 2915 24.3310 22.6822 21.1193 20.4872 20.1102 19.8635
## 2916 25.1562 24.8443 24.3593 23.6937 23.2345 23.0769
```

```
## 2917 27.3201 25.7391 24.0836 22.9228 22.5156 22.1842
## 2918 29.5981 27.9844 27.5932 26.8688 26.7161 27.5366
## 2919 28.3517 28.0828 27.1866 26.3693 26.5322 25.7952
## 2920 29.6185 28.6273 27.7011 26.7756 25.8635 26.2782
## 2921 27.3486 27.4759 26.2634 24.2814 23.5656 22.6040
## 2922 24.1838 23.4901 22.5357 22.2127 22.0388 21.8185
## 2923 28.5567 27.6392 26.6850 26.3526 26.3753 25.4632
## 2924 25.4737 25.1850 24.7204 24.3567 23.7897 23.5061
## 2925 28.1541 26.9694 26.1272 25.6860 25.7722 25.8922
## 2926 27.6422 27.4797 26.7657 26.3906 26.0295 25.6298
## 2927 26.9047 26.7914 26.3351 25.7633 24.8931 24.4806
## 2928 26.1902 25.3502 24.5723 23.6783 23.2911 23.0705
## 2929 25.2748 24.7471 23.6374 22.7823 21.8984 21.3165
## 2930 26.8942 27.7831 26.7095 26.3654 26.2678 26.4069
## 2931 26.6624 25.8491 25.1588 24.2484 24.0206 23.8362
## 2932 29.8820 27.6694 25.5454 24.4557 23.4254 22.7222
## 2933 27.6947 28.2342 27.9343 26.9887 27.1249 26.7426
## 2934 26.3702 26.5219 26.7615 26.9189 27.2066 26.3657
## 2935 99.0000 27.0447 25.4409 24.3233 23.8586 23.6005
## 2936 25.5752 25.0546 24.3713 23.7787 23.1279 22.8715
## 2937 27.0302 25.8543 25.0712 24.7504 24.5146 24.3510
## 2938 27.0146 26.2938 25.5979 25.2896 25.0447 24.6792
## 2939 27.5024 27.8324 27.3930 26.3336 26.0847 26.3928
## 2940 25.6948 25.8730 25.4882 25.0361 24.4348 24.4815
## 2941 29.5732 26.7805 25.8056 25.4012 25.4560 25.4460
## 2942 28.2598 28.0679 26.1285 24.9298 24.1980 23.5931
## 2943 27.0931 26.4860 24.9767 23.8762 23.5117 23.2535
## 2944 27.3247 27.2510 26.0383 25.1271 24.5332 24.5105
## 2945 26.7248 27.0579 26.7865 26.3544 25.8729 25.8319
## 2946 26.8210 27.7486 27.0887 26.8677 26.7185 26.1565
## 2947 25.7679 25.8860 26.0374 26.1183 26.1383 25.3891
## 2948 99.0000 25.9915 23.6939 22.5238 21.6267 21.2369
## 2949 26.7212 26.2997 26.1855 26.3218 26.5599 99.0000
## 2950 27.1599 27.3279 26.6598 26.3843 26.1825 26.0429
## 2951 25.7711 24.9253 23.6591 22.6510 22.3145 22.0284
## 2952 27.1163 25.7027 24.0799 22.8161 21.9870 21.1404
## 2953 99.0000 28.2388 27.1981 25.7482 24.9018 24.3475
## 2954 28.8456 27.3320 26.3607 25.9447 25.9524 26.0665
## 2955 99.0000 28.0195 27.0341 26.3287 26.9525 26.7723
## 2956 27.6459 27.1604 26.3087 25.9331 25.3696 26.7387
## 2957 26.7707 26.5494 26.3998 26.1246 26.0204 25.9501
## 2958 24.5255 22.3971 20.7686 20.1264 19.7970 19.5910
## 2959 27.6945 27.0744 26.3104 25.8614 25.9494 25.3340
## 2960 29.2586 27.8118 27.2497 26.2166 25.6514 25.7070
## 2961 26.7550 26.1872 25.9713 25.6816 25.3511 24.7548
## 2962 26.0518 26.1766 26.0220 25.7755 25.1390 24.8161
## 2963 26.6776 25.3270 23.8120 22.6179 22.0760 21.7529
## 2964 25.6625 25.0502 24.7073 24.5063 24.5722 25.0222
## 2965 25.6074 25.0335 24.1003 23.5095 23.3447 23.2270
## 2966 25.0790 23.5368 22.3642 21.9062 21.5847 21.4018
## 2967 27.9710 27.7962 26.9366 26.1747 25.9812 25.4027
## 2968 28.2939 27.7591 27.0083 26.3131 25.3545 25.0169
## 2969 27.1383 27.2994 26.9534 26.4424 26.4772 25.9095
## 2970 28.0983 27.5748 26.7663 26.0263 25.5173 25.2129
## 2971 27.0630 25.9083 24.9684 23.9867 23.6745 23.4712
## 2972 23.3219 22.8444 22.6161 22.4179 22.4044 22.3589
## 2973 99.0000 26.6386 25.1758 24.3432 24.0521 23.9400
## 2974 99.0000 28.5306 27.1089 26.6905 27.2118 26.6838
## 2975 26.9531 27.0124 26.8654 26.5588 26.3039 25.2871
## 2976 28.3567 26.5640 26.2856 25.5154 25.3389 26.1772
## 2977 27.1785 26.3667 25.1876 24.6177 24.4430 24.0723
## 2978 27.4714 26.1949 25.0037 24.3989 24.1350 23.8644
## 2979 99.0000 28.5696 27.3547 26.6943 26.3661 26.4396
## 2980 27.6084 27.3367 26.3429 26.1092 25.7116 26.1237
## 2981 28.4639 26.7139 24.9286 23.7942 22.9156 22.5458
## 2982 28.9358 27.7202 27.4876 26.7235 26.2994 25.2467
## 2983 25.2927 25.3163 24.8855 24.2546 23.9838 23.8678
## 2984 28.8688 27.9284 27.2120 26.2966 25.8346 25.9270
## 2985 99.0000 28.5319 27.6757 26.9416 27.2614 25.9015
## 2986 25.2271 25.0384 24.6006 24.5467 24.1619 24.3923
## 2987 29.8083 28.3627 27.4060 26.8897 27.1307 26.3460
## 2988 26.8629 26.8491 25.9521 25.6053 25.6907 24.8139
## 2989 25.6187 24.4588 23.2553 22.7633 22.5255 22.3229
## 2990 27.8929 26.7891 26.7761 26.1438 26.2376 25.4744
## 2991 28.2672 27.2774 26.5292 25.8749 25.3452 25.0909
## 2992 22.7180 22.1753 21.4165 20.8406 20.6980 20.5270
  2993 25.0182 24.4823 23.6962 23.2748 23.1265 22.8546
## 2994 28.0282 27.7629 26.9346 25.9513 24.6336 23.9970
## 2995 25.8868 25.9971 25.9160 25.8960 26.3449 25.8322
```

```
## 2996 26.8225 26.2167 25.4705 24.7273 24.5024 23.6838
## 2997 25.8922 26.2564 26.0926 26.2512 26.2177 27.7038
## 2998 25.4423 25.4130 25.2860 24.9985 24.6726 24.0298
## 2999 26.4157 25.5739 24.7948 24.6063 24.3876 24.3578
  3000 25.8742 25.5318 24.7009 24.4138 24.2375 24.1942
## 3001 26.5586 25.6171 24.1588 23.1839 22.3573 21.9314
## 3002 27.7669 28.2729 26.5305 25.3646 24.3582 24.1458
## 3003 26.8110 26.1837 25.5521 24.9380 24.6545 24.0387
## 3004 25.6929 25.2849 24.4321 23.7386 23.5000 23.2205
## 3005 27.3116 28.6633 27.4334 26.5129 26.1044 26.2048
  3006 28.3853 28.0667 27.2693 26.9243 26.8958 99.0000
## 3007 24.3787 24.3488 24.1002 23.6531 23.3160 23.1148
## 3008 25.7865 25.5270 25.2915 24.8941 24.6927 24.0887
## 3009 27.2151 26.4468 25.8039 25.0872 24.8118 24.7971
## 3010 25.7333 25.0914 24.1530 23.3894 22.5394 21.9426
## 3011 27.2509 27.9067 27.6172 26.5270 26.6672 26.4769
## 3012 27.6286 27.0732 26.3009 25.8975 25.9683 25.7625
## 3013 27.8364 28.5186 27.5302 26.7685 26.6323 31.0026
## 3014 29.4664 28.1444 27.1825 26.2744 25.7499 26.1400
## 3015 99.0000 28.0621 27.6907 26.6667 26.4460 26.0539
## 3016 22.9026 22.2518 21.3477 21.0691 20.8315 20.7656
## 3017 27.6914 27.3541 24.9590 23.8231 22.8336 22.0835
## 3018 25.7791 24.7962 23.8582 23.6409 23.3492 23.5349
## 3019 27.3247 26.4432 25.8457 25.2382 24.5484 24.0682
## 3020 99.0000 28.8411 26.8689 25.9389 25.1837 24.4777
## 3021 23.3677 22.6456 21.7005 21.3942 21.2306 20.9864
## 3022 22.0564 21.6172 21.5166 21.3534 21.3730 21.2774
## 3023 27.7176 28.5005 27.4733 26.8830 26.9678 27.3034
## 3024 25.8970 26.2936 26.2161 26.4454 25.9339 25.9612
## 3025 27.5186 26.5669 26.0433 25.6077 25.4184 25.1826
## 3026 28.1616 27.7708 26.6740 25.8514 25.7186 25.9464
## 3027 27.6919 26.6195 25.9667 25.3673 25.1939 24.8768
## 3028 24.4236 22.5979 21.0056 19.8446 19.4433 19.0918
## 3029 25.9304 26.0315 25.9398 25.9738 25.8515 26.3725
## 3030 29.8517 26.7365 25.9350 25.3882 25.3158 25.0324
## 3031 31.4966 27.5325 27.1445 26.3533 25.9673 24.8244
## 3032 26.1695 25.6061 24.9105 24.7420 24.6654 24.6026
## 3033 27.6933 27.9927 27.6417 26.7484 26.3785 26.0694
## 3034 99.0000 29.0139 27.5485 26.2549 25.1253 24.6412
## 3035 27.0374 26.5715 25.8449 25.6501 25.3214 25.0921
## 3036 27.5533 27.7184 27.1669 26.4977 26.1538 25.6919
## 3037 25.0434 24.4189 23.5740 23.1724 22.9422 22.7283
## 3038 26.8574 27.3938 27.0301 26.2640 26.1139 25.0615
## 3039 26.8442 27.0530 26.9902 26.7066 26.7381 26.4992
## 3040 26.1506 26.0196 25.7866 25.9956 25.3826 25.7940
## 3041 26.5943 26.1052 25.8227 25.4484 25.2140 24.6220
## 3042 27.0907 26.5501 25.9065 25.9799 25.6487 25.6795
## 3043 28.6793 30.0671 28.5549 26.8768 26.3616 27.9765
## 3044 27.2177 26.6274 26.1585 25.5951 25.1486 24.1423
## 3045 28.9842 27.4364 26.6949 25.9514 25.1236 24.7266
## 3046 28.5385 27.7514 26.8745 25.2094 24.5042 23.3903
## 3047 30.1515 27.7284 26.9349 26.3228 26.0923 25.8018
## 3048 28.1094 27.5220 26.0709 24.3182 23.5710 22.5530
## 3049 28.5170 27.8625 27.1048 26.4259 25.9618 25.2372
## 3050 26.8135 26.3616 25.6110 25.3076 25.1825 25.2128
## 3051 99.0000 27.3296 26.2614 26.0184 25.8761 26.0711
## 3052 27.8929 26.9017 25.9903 25.9148 25.5682 25.1563
## 3053 30.4568 30.6126 27.3280 26.4621 25.7577 25.2848
## 3054 28.9397 27.1869 25.8866 25.1901 24.9657 24.6439
## 3055 25.7104 25.7257 25.6035 25.6984 25.5106 26.9372
## 3056 27.5982 27.1688 26.3529 25.5473 25.2656 25.1835
## 3057 27.6652 27.3290 27.1158 26.6066 26.2553 26.1799
## 3058 26.7677 25.4742 25.0102 24.7191 24.6251 24.5688
## 3059 26.6238 26.9297 26.0453 25.8928 25.9573 25.4105
## 3060 27.6870 25.1814 23.6406 22.7534 22.4284 22.1057
## 3061 25.6626 24.6866 24.0951 23.8312 23.7239 23.6033
## 3062 26.0529 25.4413 24.3971 24.0177 23.8530 23.3097
## 3063 27.5936 27.1224 26.5534 26.0033 25.3548 25.2707
## 3064 27.7625 27.4958 27.1713 26.8030 27.2489 26.0134
  3065 30.1221 27.7176 25.9345 24.7586 23.8278 23.1638
## 3066 25.4667 24.9026 24.2473 24.0138 23.8724 23.7976
## 3067 25.6208 24.8446 23.9800 23.7847 23.6555 23.5292
## 3068 29.4248 27.8407 26.9502 25.8988 24.5396 23.6482
## 3069 26.5543 27.1260 26.5341 26.1662 25.9515 26.2225
## 3070 25.5542 25.3303 24.6548 24.4679 24.2837 24.1920
## 3071 29.3977 27.9508 27.7410 26.4943 26.8220 25.6417
  3072 26.0209 25.6280 25.1180 24.5327 24.0195 23.7718
## 3073 28.5676 28.5353 27.2774 26.5596 26.7416 27.6603
## 3074 28.3924 27.9862 26.8774 26.6352 27.0221 26.6009
```

```
## 3075 26.9500 27.0917 26.7935 26.1749 26.0774 25.5980
## 3076 24.7377 24.1411 23.1971 22.2569 21.7984 21.5730
## 3077 27.2819 27.0912 26.5699 26.1212 26.1063 25.8915
## 3078 99.0000 27.2802 26.4248 25.7873 25.7276 25.5928
  3079 27.5373 26.9637 26.1148 25.6282 25.3327 25.5419
## 3080 29.0475 27.6996 27.3659 26.4411 25.8790 25.6166
## 3081 27.0152 25.0642 23.4761 22.3006 21.8502 21.4874
## 3082 29.2080 28.6406 27.5633 26.8570 27.7316 28.2005
## 3083 27.2130 26.5810 25.5170 25.0352 25.0469 25.1079
## 3084 26.5984 26.3674 26.4831 26.4334 26.1784 26.6031
  3085 23.8633 22.6070 21.2599 20.7113 20.3700 20.1566
## 3086 27.8586 27.2582 26.6487 26.2548 25.2990 24.6508
## 3087 25.1116 23.8343 22.3946 21.7649 21.3674 21.1145
## 3088 27.6198 26.5219 25.7697 25.3646 25.2930 25.0933
## 3089 27.3487 26.9581 26.1302 25.7208 25.3866 24.7641
## 3090 28.6844 27.3896 26.9449 26.4504 26.3203 29.4901
## 3091 28.2066 29.2523 27.5890 26.6533 26.2721 25.9282
## 3092 25.5439 24.8946 24.0550 23.2956 22.8384 22.6810
## 3093 25.1386 24.3959 23.3167 22.9977 22.7898 22.6771
## 3094 27.4256 26.1692 25.5880 25.2945 25.3783 25.5422
## 3095 31.7410 27.9307 26.7703 26.6318 25.9478 25.5113
## 3096 27.0258 26.6539 26.1741 26.0960 26.0078 25.4295
## 3097 33.0696 28.2002 26.9653 26.5429 26.2456 26.1575
## 3098 28.9263 31.4260 27.8375 26.6154 25.6877 24.9323
## 3099 25.8254 25.5347 24.7890 23.8595 23.3237 23.0865
## 3100 27.7034 27.3274 26.4654 25.6728 25.4924 25.2565
## 3101 28.1657 27.0644 27.1190 26.4490 26.2124 25.6283
## 3102 26.5204 25.3628 23.8384 22.5953 22.0249 21.6781
## 3103 28.0207 28.2760 26.9078 26.5237 26.3310 99.0000
## 3104 99.0000 29.4646 28.2446 26.1901 25.0739 24.6960
## 3105 26.2865 26.3814 26.0006 26.0170 25.7156 25.6491
## 3106 99.0000 28.4255 26.9881 25.9372 25.6150 25.8983
## 3107 26.9101 25.6370 24.9180 24.5639 24.3139 24.1364
## 3108 25.8603 25.6407 24.7465 23.8478 23.5176 23.3479
## 3109 27.7387 27.8971 27.6012 26.5664 26.7569 26.0451
## 3110 27.4930 27.3175 26.4965 26.2101 26.3953 25.5797
## 3111 27.9099 26.7962 25.8338 25.6193 25.5912 25.3349
## 3112 99.0000 28.0705 27.1251 26.6891 26.4389 27.5419
## 3113 24.5382 23.4305 22.6088 22.2011 22.0247 21.8232
## 3114 26.4626 25.8906 25.2634 24.6038 24.4305 24.3961
## 3115 24.9268 24.6779 23.8815 23.1385 22.9514 22.7761
## 3116 24.2448 24.0798 23.2827 22.7616 22.6615 22.5018
## 3117 27.7970 26.9641 26.2990 25.7489 25.0301 24.6685
## 3118 26.4041 25.5203 24.5182 24.2249 24.1484 23.7858
## 3119 27.9778 26.3994 25.6324 25.0663 24.6911 24.0143
## 3120 26.5091 27.2923 26.7946 26.6750 26.5397 25.4571
## 3121 28.0027 26.8550 26.4632 26.2366 26.0215 25.0562
## 3122 28.1443 27.4376 26.5273 26.0885 26.1113 26.0526
## 3123 25.8238 25.9446 25.8567 25.7827 26.1420 25.6948
## 3124 29.7466 28.9969 27.5611 26.6481 26.1949 26.2789
## 3125 22.3873 21.6409 20.7143 20.3373 20.0264 19.8509
## 3126 99.0000 28.0580 26.8266 25.6470 25.5789 25.0411
## 3127 28.0143 27.2022 25.2579 24.1244 23.1665 22.4830
## 3128 26.9699 27.3588 27.0430 26.6038 26.5010 26.4087
## 3129 28.3542 27.8423 26.2927 25.1767 24.2014 23.7199
## 3130 28.4660 27.1877 27.1590 26.1867 25.7749 25.4274
## 3131 25.9688 25.7967 25.2565 24.4882 24.2734 24.2170
## 3132 25.0430 24.5845 24.4476 24.2460 24.5303 24.2646
## 3133 99.0000 28.4668 26.4752 24.6619 23.9355 22.9788
## 3134 26.8260 26.6417 26.2908 25.7738 25.4058 25.0654
## 3135 26.3638 26.6109 25.9707 25.1436 24.8359 24.8525
## 3136 26.2512 25.8952 25.1398 24.3898 23.7782 23.7325
## 3137 27.1910 25.5276 24.5140 24.1160 23.9928 23.7304
## 3138 27.1797 26.4934 26.1750 25.9216 25.3035 24.9089
## 3139 27.5617 28.3731 27.3733 26.9846 26.5102 26.4651
## 3140 26.3134 25.7422 24.7059 24.4585 24.1211 24.1752
## 3141 26.7156 25.5458 23.9398 22.6496 22.1208 21.7709
## 3142 27.8683 27.0833 26.3570 25.7378 25.1036 24.4416
## 3143 28.7804 29.4964 27.4380 26.1218 25.6780 24.8478
## 3144 27.5470 27.1093 27.3747 26.8712 26.3327 25.9487
## 3145 27.4079 27.9617 26.7392 25.7823 25.1884 24.7827
## 3146 24.0022 22.8807 21.6269 21.2280 20.9303 20.8139
## 3147 26.6605 26.1094 25.6559 24.9790 24.8741 24.8092
## 3148 27.8311 27.8652 27.3864 26.6275 25.9755 25.5378
## 3149 26.4162 26.0433 25.0200 24.4122 24.3047 24.0518
## 3150 99.0000 30.1799 27.2947 26.1049 26.0913 26.3267
  3151 29.7462 27.3766 27.3762 26.9591 26.4075 26.2400
## 3152 26.7545 27.0123 26.2546 25.5022 25.4019 25.0829
## 3153 24.6979 24.4434 23.4661 22.6515 22.3316 21.9968
```

```
## 3154 27.3043 27.1899 26.8185 26.6607 26.4377 25.7528
## 3155 28.4950 27.1986 26.7600 25.9924 25.5522 25.1783
## 3156 27.3699 27.3807 26.5260 25.8739 25.6550 25.1654
## 3157 28.9480 28.9041 27.7956 26.7306 25.5872 25.4390
## 3158 27.5901 27.1211 26.9638 26.5729 26.4553 25.6854
## 3159 27.0883 27.0945 26.5017 25.9776 25.2349 24.8393
## 3160 24.5627 24.3980 24.2731 24.0062 23.5930 23.0931
## 3161 27.1498 27.1493 26.3283 25.6435 25.0396 24.4140
## 3162 29.1223 27.9805 27.0530 26.4387 25.7056 24.6197
## 3163 29.1004 27.7395 28.1858 26.4805 25.7718 25.3847
## 3164 27.8268 28.1694 27.3603 26.9390 26.1512 25.7750
## 3165 28.2284 28.3831 27.3003 26.7926 27.0394 28.0324
## 3166 28.0978 27.0196 26.2619 25.3366 25.2067 24.7113
## 3167 26.1898 25.9903 25.4964 25.4949 25.3658 25.2801
## 3168 28.0199 27.0567 26.6547 26.3128 26.0268 26.2180
## 3169 25.9291 24.6175 22.8433 21.5619 20.9501 20.5725
## 3170 30.3300 27.7518 27.0487 26.9248 26.7905 26.1533
## 3171 99.0000 27.2662 26.8013 25.6334 24.7680 24.2629
## 3172 26.0717 25.3004 24.4026 23.6306 22.9870 22.7453
## 3173 26.1460 26.0106 25.4165 25.2982 25.1575 24.7919
## 3174 27.8609 27.8103 27.0185 26.6025 26.1281 26.4665
## 3175 26.6686 26.0290 25.0596 24.8367 24.5377 25.1062
## 3176 24.6999 24.3828 23.8755 23.2334 22.8399 22.7467
## 3177 28.9016 29.8130 27.5012 25.5458 24.3702 23.6794
## 3178 27.8182 27.2965 26.9840 26.7551 26.3898 99.0000
## 3179 30.3273 26.7933 26.7493 26.0140 25.5864 24.8869
## 3180 99.0000 31.0891 27.4676 26.7506 26.4178 26.2874
## 3181 27.9092 26.9564 26.7731 26.1323 25.6498 25.1178
## 3182 25.3647 25.3174 24.8833 24.3292 24.1084 24.0194
## 3183 25.8321 24.9695 24.6159 24.3870 24.3311 24.3172
## 3184 26.8378 26.7312 26.0782 25.9468 25.7107 25.8507
## 3185 25.8331 25.3875 24.5735 24.2093 24.0701 23.7269
## 3186 27.4361 26.7025 26.0114 25.4496 24.6231 24.3998
## 3187 29.3296 28.0618 27.0074 26.3350 25.8566 25.8298
## 3188 27.2449 26.3719 25.6424 25.5379 25.2003 26.3250
## 3189 99.0000 28.9994 27.4067 26.3966 26.1556 25.1814
## 3190 99.0000 28.4061 27.5842 26.8103 26.1746 27.1475
## 3191 24.8330 24.4656 23.7323 23.0057 22.7642 22.5431
## 3192 27.7447 28.1267 27.9425 26.8130 26.3089 27.5890
## 3193 24.9851 24.1677 23.1192 22.2111 21.8799 21.5906
## 3194 26.6578 26.4260 25.9390 25.4548 25.4503 26.4161
## 3195 28.5921 26.7512 25.9671 25.5231 25.2496 25.2116
## 3196 27.1014 27.4957 26.7573 26.7022 26.5990 25.9558
## 3197 26.9913 27.2617 26.3894 26.3176 25.9268 26.0917
## 3198 26.6307 26.6728 26.2662 25.7787 24.9782 24.9383
## 3199 28.6517 29.0687 26.8806 25.9366 24.8710 24.5920
## 3200 28.0135 26.6950 25.7577 25.2835 25.0859 24.7217
## 3201 99.0000 27.8410 27.1702 26.5047 25.8961 25.0264
## 3202 26.7984 26.8242 26.5014 26.3092 26.2626 26.7274
## 3203 26.5721 26.0552 25.0712 24.2532 23.9719 23.7256
## 3204 26.7182 25.8755 24.7773 24.4059 24.1938 24.1190
## 3205 25.5580 25.0193 24.1474 23.3481 22.7225 22.4426
## 3206 25.5373 25.6529 25.5418 25.5719 25.9126 25.6019
## 3207 27.0592 26.8942 26.7953 26.7844 27.2049 27.2470
## 3208 27.4666 27.2403 26.3668 25.8454 25.4973 25.2260
## 3209 28.5134 27.6828 26.8683 26.0707 25.0041 24.3453
## 3210 28.0631 26.9929 25.7874 24.8917 24.6597 24.3239
## 3211 27.3859 26.8305 25.7274 25.4306 25.3637 24.9892
## 3212 28.5714 27.8581 27.3169 26.5909 26.9005 26.8589
## 3213 26.2107 25.4247 24.0222 23.2537 23.0663 22.8345
## 3214 28.2948 27.9427 28.1569 26.6204 26.4045 25.7647
## 3215 24.6931 24.2846 23.6960 22.9827 22.7494 22.5763
## 3216 26.8831 26.8198 26.0952 25.3988 25.1466 25.3228
## 3217 27.4106 26.1597 24.8312 24.4125 24.1661 24.0753
## 3218 27.2860 26.5678 25.6594 25.3985 25.5468 24.8676
## 3219 25.2152 24.9540 24.4936 24.2049 24.2324 24.1306
## 3220 27.0706 26.6061 25.6218 24.6209 24.2802 24.1940
## 3221 26.6239 25.5140 24.1649 23.2125 22.9397 22.6881
## 3222 27.9175 27.6482 26.6205 26.1602 25.4521 25.5942
## 3223 29.2512 28.2609 27.3140 26.7538 26.3416 99.0000
## 3224 27.7954 28.7783 27.6151 26.9837 26.9647 27.1056
## 3225 27.0674 26.2259 25.4320 25.2813 25.0658 24.9792
## 3226 27.5664 27.2638 26.8347 26.0253 25.5688 26.0347
## 3227 26.3771 26.9241 26.4463 26.2840 26.3835 26.2366
## 3228 26.7166 26.5667 25.9993 25.8639 25.5747 26.2386
## 3229 99.0000 28.5720 27.3136 26.3180 25.7251 25.2074
## 3230 25.5439 25.3275 25.2335 25.0258 24.8420 24.1304
## 3231 28.0653 27.4959 27.0773 26.6194 26.2587 26.1671
## 3232 25.4885 25.0470 24.0216 23.1033 22.4830 22.2906
```

```
## 3233 29.8062 27.3050 26.6725 26.3628 26.2496 26.2297
## 3234 27.3008 27.4275 27.0166 26.8373 26.3166 26.0248
## 3235 23.6617 21.9761 20.5460 19.9459 19.5544 19.2385
## 3236 25.3458 24.3837 23.1362 22.6046 22.2977 22.0734
## 3237 26.8427 25.6178 23.9877 22.7887 22.3239 21.9783
## 3238 99.0000 28.6055 28.2953 26.8313 26.7966 27.2772
## 3239 27.9134 27.1626 26.8908 26.9003 26.7971 25.6205
## 3240 28.4880 28.4481 27.6033 26.3976 25.9219 26.2564
## 3241 29.3109 29.6550 27.4574 26.4861 25.9668 26.6473
## 3242 23.8815 23.5389 22.8161 22.4476 22.2370 22.0885
## 3243 28.6155 28.0383 27.0938 26.6550 26.0374 26.6211
## 3244 26.7309 27.0830 26.1150 25.9105 26.1130 26.3818
## 3245 24.5938 23.5660 22.7766 22.4932 22.2082 22.2056
## 3246 26.9839 26.5955 25.7861 25.0190 24.4962 24.4135
## 3247 26.1475 26.1187 25.5682 25.1572 24.4140 24.2783
## 3248 27.0814 25.9668 24.9229 24.1161 23.7623 23.5669
## 3249 26.0048 23.8766 22.2674 21.4863 21.1248 20.9003
## 3250 24.3846 23.5908 23.0967 22.8132 22.8096 22.7190
## 3251 28.4991 28.0571 27.9323 26.8036 25.8053 25.1833
## 3252 26.2105 25.8090 25.3056 25.1081 24.9578 24.8777
## 3253 24.3049 23.9243 23.1918 22.7060 22.5442 22.3647
## 3254 29.6269 28.1368 28.1133 26.7662 27.0660 25.8154
## 3255 28.1327 27.3230 26.6044 25.9022 25.7975 26.6018
## 3256 24.5488 23.8599 23.0141 22.5460 22.3796 22.2641
## 3257 25.3941 23.2033 21.5361 20.3103 19.8447 19.4776
## 3258 27.2584 27.0767 26.9237 26.4100 26.8140 26.5610
## 3259 26.3682 25.2028 24.3649 24.0352 23.7551 23.7943
## 3260 23.0623 22.9613 22.7760 22.4567 22.0997 21.9353
## 3261 27.5298 27.5730 27.7121 26.6920 26.9036 28.0316
## 3262 25.6278 25.3029 24.6843 24.6140 24.3535 24.5751
## 3263 99.0000 29.4413 27.5653 26.1894 25.1783 24.3072
## 3264 25.0992 24.6568 23.8087 23.2605 23.1330 22.9514
## 3265 28.1156 27.2857 26.4861 26.0997 26.1622 26.0078
## 3266 29.1288 27.3324 26.5214 26.0380 25.9361 25.6364
## 3267 26.5391 25.9172 25.1102 24.4907 23.7871 23.1567
## 3268 25.6181 24.9257 23.7244 23.2389 22.9863 22.6815
## 3269 27.1407 26.5420 26.1690 25.9838 25.2950 25.4751
## 3270 26.2328 25.4522 24.7122 24.5102 24.3188 24.2633
## 3271 30.9673 27.8114 27.8767 26.8643 26.4542 25.0858
## 3272 27.8235 26.9885 25.8282 25.5672 25.2127 25.3637
## 3273 29.3979 27.1426 26.6127 25.8425 25.8802 26.6620
## 3274 25.4585 24.7845 23.7674 23.0396 22.3579 22.0367
## 3275 27.8189 27.6093 27.0513 25.8726 25.1908 24.9482
## 3276 27.0509 26.6748 26.4974 26.1629 25.9341 26.1007
## 3277 27.2530 28.7512 27.1662 26.5652 26.2653 25.6626
## 3278 26.9690 26.2538 25.5720 24.9647 24.3297 23.7641
## 3279 27.4289 26.3899 26.7004 26.5916 26.2890 26.4280
## 3280 28.0736 27.9658 28.0356 26.7614 26.2814 25.3694
## 3281 23.7008 23.6887 23.4065 22.7699 22.5281 22.4671
## 3282 28.0374 27.1101 27.1119 26.5516 26.2838 28.2608
## 3283 28.5660 28.4255 27.2485 26.5904 26.5152 26.5157
## 3284 26.9811 27.0417 26.8964 26.1364 25.7702 25.0075
## 3285 26.3257 26.6521 26.5249 26.2657 25.3833 25.2899
## 3286 24.3911 22.7170 21.2758 20.7507 20.4476 20.2774
## 3287 25.9065 23.8038 22.1832 21.1457 20.7312 20.4234
## 3288 27.1571 26.4274 25.9511 25.3625 24.7871 24.0830
## 3289 19.8458 18.7869 18.2210 17.8609 17.6711 17.4633
## 3290 26.3670 23.9112 22.3122 21.2873 20.8894 20.6027
## 3291 27.2138 26.3846 26.0220 25.5838 25.6123 24.7601
## 3292 28.1143 27.5143 26.7841 26.1483 25.4326 24.7349
## 3293 99.0000 27.1060 26.7023 25.9375 25.7711 99.0000
## 3294 28.6219 28.9534 28.0604 26.6184 26.8399 25.9533
## 3295 28.1017 28.1097 27.2546 26.5438 26.1530 27.5110
## 3296 25.6159 25.6488 25.2357 24.7254 24.2145 24.0570
## 3297 28.7134 28.0120 27.5423 26.5782 26.8562 26.8608
## 3298 99.0000 27.7945 26.3486 25.9263 25.5811 25.2784
## 3299 25.7392 24.9936 24.4347 24.1679 24.0891 23.9074
## 3300 24.2316 23.8189 22.9850 22.0053 21.5819 21.3206
## 3301 29.7762 28.6863 27.3069 26.4022 25.9023 25.5473
## 3302 28.5151 27.6470 27.1571 25.3705 24.6967 23.5925
## 3303 26.2114 26.0790 25.4060 24.8151 24.5984 24.4704
## 3304 28.6184 27.1985 26.0254 25.5829 25.2622 25.0003
## 3305 29.2662 28.3182 27.0554 26.5822 26.3895 25.3206
## 3306 26.5600 26.7561 26.9684 26.7757 26.4050 25.9210
## 3307 27.6510 27.7845 26.3513 26.2095 25.8869 25.8811
## 3308 27.1647 27.0653 26.6382 25.9568 25.9094 24.9779
  3309 29.1052 28.1835 27.1281 26.6736 26.5491 29.1957
## 3310 28.0386 27.6868 27.0882 26.5509 26.2871 27.2212
## 3311 24.6180 22.8542 21.2828 20.3443 19.9662 19.6341
```

```
## 3312 29.4811 28.2158 26.7076 24.5433 23.7002 22.7491
## 3313 99.0000 99.0000 27.5420 26.6843 26.6117 26.5000
## 3314 26.7806 26.7835 26.3981 26.3248 26.2179 26.3471
## 3315 26.4131 26.7827 26.5871 26.5974 27.0644 26.2996
  3316 28.5672 27.5510 26.4304 25.6801 24.6820 24.1934
## 3317 99.0000 26.2602 25.4698 25.2358 25.0633 24.4537
## 3318 26.8535 27.6353 26.6911 26.6704 26.0990 26.6299
## 3319 26.7620 26.0622 24.5644 23.5108 22.6200 21.9410
## 3320 23.6843 23.0573 22.2558 22.1209 21.8599 21.9625
## 3321 27.2907 26.5675 25.5295 24.9079 24.7908 24.4449
## 3322 26.1994 24.8521 23.1845 21.9690 21.5047 21.1555
## 3323 99.0000 26.7565 25.1185 23.9627 23.3129 22.9985
## 3324 26.7186 26.8438 26.6212 26.1369 26.0054 25.5657
## 3325 27.1834 26.6964 25.8127 24.9191 24.3388 24.2269
## 3326 27.9972 27.7245 26.8295 26.1747 25.6618 25.5148
## 3327 27.6025 26.6882 25.8155 25.4993 25.4308 25.1754
## 3328 27.0707 26.3269 25.6373 25.4521 25.3741 25.7623
## 3329 25.4006 24.8206 23.8971 23.5381 23.3307 23.1373
## 3330 29.4503 26.7704 25.8985 25.7404 25.6257 26.4624
## 3331 25.8173 26.0102 26.0302 26.1394 26.2382 27.0720
## 3332 26.0706 25.8254 25.4551 24.8715 24.5510 23.6750
## 3333 23.7971 22.7224 21.5643 21.0468 20.7202 20.4708
## 3334 99.0000 28.0244 26.9191 26.3968 26.2044 26.9076
## 3335 26.4809 26.5026 26.0911 25.7623 25.7590 25.2320
## 3336 27.0656 27.1748 26.8059 26.4021 26.5427 26.8845
## 3337 24.9287 24.6638 23.9785 23.1932 22.9529 22.6978
## 3338 26.2886 25.4552 24.5221 24.3013 24.1083 24.3666
## 3339 28.6066 27.8051 27.1741 26.7275 27.0566 26.6810
## 3340 25.7709 24.9919 24.0822 23.8200 23.6528 23.4759
## 3341 30.6041 30.1339 27.8161 26.8596 27.6003 25.8834
## 3342 28.5577 28.8819 27.8295 26.9787 26.2380 25.6266
## 3343 26.2018 25.9137 25.3318 24.5921 24.0036 23.6889
## 3344 25.9458 24.9563 24.5492 24.3400 24.3192 24.2006
## 3345 24.4039 23.1949 22.2035 21.9961 21.6706 21.7262
## 3346 30.9512 28.9014 27.1697 25.9535 25.2746 25.3937
## 3347 25.8318 25.1024 24.1159 23.1459 22.7701 22.5834
## 3348 26.1282 25.7626 25.4680 24.9477 24.4738 23.9149
## 3349 28.4534 27.3894 26.6441 25.9517 25.3987 25.2054
## 3350 25.9871 25.3939 24.5104 24.2040 24.0227 23.8170
## 3351 26.9693 26.3294 25.8448 25.8054 25.5919 25.6610
## 3352 27.5225 26.9084 26.0743 25.3480 24.7796 24.6168
## 3353 29.0541 27.6092 26.8997 26.2972 26.4186 26.9778
## 3354 29.1734 27.7388 26.9146 26.1323 25.7351 27.2522
## 3355 25.6171 25.3251 24.8519 24.1799 23.8308 23.7327
## 3356 26.3706 26.7039 26.4969 26.1027 26.2587 25.6953
## 3357 28.6765 27.2436 26.4247 25.6349 24.8628 24.1116
## 3358 25.5798 24.8289 24.1866 23.9776 23.8069 23.7617
## 3359 25.6005 25.5100 25.0080 25.0539 24.8719 24.7546
## 3360 25.1965 24.4608 23.8894 23.6752 23.5867 23.4367
## 3361 28.2095 25.9090 24.6114 24.1611 23.8406 23.7339
## 3362 26.5936 26.9320 26.7007 26.6243 26.3530 26.2728
## 3363 28.1551 30.9339 28.5643 26.9692 26.1116 27.8750
## 3364 28.3681 26.9745 26.4189 26.1700 25.8138 26.3612
## 3365 27.3183 27.1104 26.6980 26.4714 25.8858 25.7344
## 3366 30.2478 27.3762 26.8080 25.9506 25.9828 25.4558
## 3367 25.9798 25.5270 25.2223 25.0753 25.0057 25.3964
## 3368 28.0985 28.7776 27.9446 26.4923 25.6996 25.0133
## 3369 28.6619 28.4525 26.6520 25.5218 24.6727 23.9029
## 3370 25.5548 24.8639 23.8300 23.2599 23.0921 22.9141
## 3371 27.3227 26.7298 25.9756 25.4119 24.6000 24.2371
## 3372 27.9412 28.3202 27.5744 26.6879 27.0395 26.6539
## 3373 28.3021 30.7862 27.6374 26.7959 26.7531 27.7082
## 3374 26.8722 26.6085 26.3235 26.0180 25.2934 25.6734
## 3375 26.6962 26.5262 25.8694 25.7347 25.7367 25.5612
## 3376 28.3060 28.4359 27.4487 26.8480 27.0535 26.7782
## 3377 28.4955 27.8548 27.1732 26.8723 26.9344 26.6228
## 3378 28.3587 28.6892 26.9442 26.7144 26.6545 26.4765
## 3379 24.5774 24.1318 23.0751 22.0938 21.4074 21.1148
## 3380 26.0975 26.0556 25.9905 26.1397 25.6582 99.0000
## 3381 26.7300 26.4276 25.5846 24.8132 24.6015 24.6563
## 3382 26.3512 26.0789 25.3494 24.5563 24.1204 23.9557
## 3383 25.8442 25.4038 24.9101 24.4245 23.7418 23.3630
## 3384 30.0745 99.0000 28.1605 26.9924 26.0831 25.5217
## 3385 27.2473 28.2751 27.3051 26.4056 25.9152 26.2695
## 3386 24.0716 23.3339 23.0068 22.8424 22.8188 22.8080
## 3387 25.8967 25.5780 24.9715 24.7922 24.5615 24.8062
  3388 23.9256 23.3830 23.1709 22.8639 22.8450 22.6654
## 3389 29.2748 27.7870 27.3058 26.4680 26.0942 25.7623
## 3390 27.5438 26.0697 24.8575 24.1037 23.9540 23.7594
```

```
## 3391 26.4114 25.5404 24.5966 23.8462 23.1849 22.9128
## 3392 28.3055 28.4737 25.8661 24.3231 23.5432 22.6092
## 3393 30.5622 28.2569 27.9610 26.9010 27.2648 99.0000
## 3394 26.4389 25.9686 25.7476 25.3459 25.0189 24.3387
## 3395 99.0000 28.9288 27.5332 26.9058 27.1021 99.0000
## 3396 28.9433 27.0660 26.5752 26.3598 26.2998 25.5348
## 3397 24.7436 24.4179 23.6366 22.9506 22.1960 21.7895
## 3398 26.4113 26.3661 25.8416 25.7541 25.5747 26.2142
## 3399 28.7293 27.6017 26.7520 26.4669 26.3756 26.4750
## 3400 99.0000 28.8587 27.5034 26.9004 26.4127 26.5141
## 3401 28.5450 27.9655 26.8244 25.6483 25.1538 24.7382
## 3402 24.9420 24.9580 24.5381 23.8805 23.6297 23.6051
## 3403 30.2705 28.5146 27.6209 26.8228 26.6135 26.5670
## 3404 26.6723 26.3557 26.1529 25.8643 25.5494 24.9973
## 3405 26.0911 26.2467 26.0663 26.2734 26.0815 25.7761
## 3406 29.4943 27.0599 26.0891 25.9621 25.9075 26.0332
## 3407 29.1540 26.6499 25.3318 24.9177 24.4293 24.5628
## 3408 27.0650 27.6606 26.7862 26.5361 26.3808 25.7032
## 3409 25.4349 24.6455 24.3247 24.0915 24.0585 23.9465
## 3410 28.0904 27.9112 27.5693 26.7928 26.9448 25.4769
## 3411 25.6684 25.2383 25.1027 24.8831 24.7981 24.2196
## 3412 23.8450 22.9522 21.8759 21.4170 21.2164 20.8960
## 3413 25.7488 25.6063 25.4118 24.9344 24.6394 23.8704
## 3414 24.0466 23.5915 22.7899 21.9738 21.6947 21.4691
## 3415 25.9781 25.1104 24.3961 24.1330 23.9611 23.8210
## 3416 27.9905 27.8259 26.9376 26.6044 25.7818 25.2701
## 3417 27.0624 26.7280 25.9169 25.3520 25.0627 25.2505
## 3418 29.5987 27.9555 27.1107 26.8392 26.4097 25.7265
## 3419 27.7569 27.3178 27.0231 26.3968 25.6793 24.7741
## 3420 28.5203 27.6498 26.7839 26.4986 26.5289 25.8652
## 3421 28.0594 27.9012 27.4977 26.8085 27.1320 25.5914
## 3422 24.9853 25.1070 24.8125 24.3714 23.9326 23.3401
## 3423 25.3117 25.2698 25.3035 25.2887 25.5489 25.7188
## 3424 27.5223 27.3682 26.3657 25.1188 24.6256 24.2407
## 3425 99.0000 26.6583 26.1688 25.4943 25.5130 25.2431
## 3426 29.1082 29.5354 27.2108 26.4139 26.5321 25.7385
## 3427 22.9496 22.9327 22.8308 22.4143 22.2219 22.1889
## 3428 99.0000 27.5696 26.8552 24.9924 24.0340 23.4926
## 3429 26.9262 26.8696 26.3133 25.5596 25.6730 25.6368
## 3430 27.0550 26.3771 26.3124 26.2428 26.0865 25.2552
## 3431 99.0000 30.2457 27.7108 26.5878 25.7533 25.1338
## 3432 28.0550 28.5737 27.2921 26.0129 25.2338 24.4376
## 3433 23.3540 21.6666 20.2938 19.7555 19.4453 19.1956
## 3434 99.0000 30.5332 27.7512 25.7465 24.7686 23.8829
## 3435 27.1575 26.7713 26.0289 26.0087 25.6189 25.9202
## 3436 26.0964 26.1120 25.5720 25.3352 25.2018 25.2351
## 3437 27.2453 26.3089 25.4804 24.8910 24.7229 24.5677
## 3438 26.2633 26.1111 26.1292 25.9113 25.5216 25.0372
## 3439 27.8428 26.7729 26.1230 25.6315 25.5822 25.6814
## 3440 28.9490 27.2039 24.7694 23.7041 22.7441 22.3013
## 3441 27.6738 27.3972 25.1020 24.0811 23.0948 22.5319
## 3442 26.3676 26.3031 26.2095 26.1635 26.2261 25.5491
## 3443 99.0000 27.8694 27.0542 25.6965 25.2079 24.9950
## 3444 27.0047 26.2214 25.4496 24.6344 24.3220 24.0880
## 3445 28.0125 27.2404 26.8328 26.9690 27.9012 99.0000
## 3446 27.3082 26.5446 25.4651 25.0385 24.8340 25.1218
## 3447 29.3168 28.7489 27.6939 26.9302 26.9561 26.6349
## 3448 26.9606 26.8174 26.2017 25.5397 24.7277 24.2890
## 3449 99.0000 28.9968 27.4270 26.7584 26.6911 26.0676
## 3450 27.2363 27.1599 27.3232 26.7700 27.2016 27.3942
## 3451 28.8503 29.2930 27.6009 26.7440 27.3965 26.1585
## 3452 27.0334 26.3247 26.0445 25.3259 24.9877 24.9143
## 3453 29.2890 29.2789 26.3887 24.9543 24.1644 23.2370
## 3454 99.0000 28.5993 28.3519 26.1441 24.9664 24.5721
## 3455 29.5505 27.2303 26.3040 25.5992 25.0339 24.9797
## 3456 34.3795 27.5954 26.8254 26.2120 26.4935 25.3748
## 3457 27.0180 26.5971 25.8938 25.4720 25.2244 25.4250
## 3458 27.6459 27.6380 27.3148 26.7843 26.3688 26.2820
## 3459 22.5514 20.7385 19.2514 18.6536 18.3421 18.0486
## 3460 26.8718 26.6547 26.0535 25.4247 24.7753 24.1572
## 3461 26.4753 26.0029 25.6787 25.0053 24.3934 24.6605
## 3462 99.0000 29.4695 27.8539 26.7234 26.5418 26.2814
## 3463 25.3281 24.3883 23.6251 23.3522 23.0264 22.9753
## 3464 28.9500 27.2079 26.3241 25.7537 25.2988 25.2307
## 3465 24.4567 24.2549 24.2332 24.1611 24.2799 24.3604
## 3466 28.0809 27.6356 26.9184 25.8138 25.4963 25.2225
  3467 27.9613 28.6965 26.8206 25.7429 24.6860 24.2962
## 3468 28.1305 28.2089 26.2359 25.9011 25.6119 25.3619
## 3469 99.0000 28.7382 27.4805 26.8453 26.8886 27.3199
```

```
## 3470 99.0000 26.8454 26.0460 25.8361 25.6352 25.4301
## 3471 30.4128 27.6712 26.9095 26.4807 25.7510 25.1526
## 3472 28.3386 27.5479 26.8435 26.5384 26.3751 26.6540
## 3473 27.6427 26.8955 26.1721 25.3874 25.0119 24.6313
## 3474 27.8480 28.2467 27.3907 26.6321 26.2097 25.4944
## 3475 27.9162 27.3051 27.4593 26.5354 26.7988 25.8161
## 3476 25.9450 26.2183 26.2129 26.0554 26.6586 26.6111
## 3477 26.6946 26.5964 26.3221 25.8571 25.8691 25.7926
## 3478 28.1629 27.9479 27.6941 26.5949 27.0132 26.5807
## 3479 28.1775 28.2756 27.4363 26.5435 25.8600 25.1094
## 3480 27.3508 26.6804 26.1549 25.3595 24.9671 24.2442
## 3481 29.9566 28.0834 26.8143 26.1652 25.8822 25.8172
## 3482 27.3600 27.3987 27.4878 26.9179 26.2434 26.6828
## 3483 25.6074 25.6375 25.6488 25.5435 25.5014 25.5016
## 3484 27.3773 27.4127 26.9473 26.3952 25.6489 25.2084
## 3485 25.7380 25.0720 24.2371 23.3489 22.7636 22.5223
## 3486 28.5239 28.2291 26.5781 25.9639 25.2048 24.6772
## 3487 23.5284 22.6124 21.7641 21.5069 21.2117 21.1723
## 3488 26.4429 26.6821 26.2697 25.5772 25.2110 25.0157
## 3489 26.7169 25.3254 24.4014 24.0251 23.7870 23.5733
## 3490 29.2634 28.2446 27.2371 25.8692 25.3365 24.4001
## 3491 28.8412 28.2765 27.6501 26.9005 26.8678 26.3205
## 3492 23.6656 21.6951 20.0808 19.4560 19.1093 18.8847
## 3493 27.8287 29.7786 28.0863 26.8620 26.7022 27.0884
## 3494 28.1513 28.1033 27.2404 26.3985 26.1376 26.0302
## 3495 26.6643 26.8070 26.6198 26.3774 26.0013 27.5994
## 3496 29.3649 27.9924 27.1550 26.5393 25.6885 25.3519
## 3497 27.0136 26.8962 26.9213 26.2897 25.6316 25.7670
## 3498 24.3154 23.6244 22.9298 22.7337 22.5191 22.4710
## 3499 26.4371 25.7323 25.2543 24.9284 24.5804 24.2853
## 3500 27.8238 27.2523 26.7473 26.5255 26.2564 26.4980
## 3501 23.9657 23.4160 22.4730 21.9450 21.7108 21.4156
## 3502 22.4552 21.9362 21.1547 20.9966 20.8080 20.8222
## 3503 27.1225 26.2074 25.4771 25.1987 25.1740 25.2336
## 3504 26.8833 27.5671 27.0015 26.5851 26.2341 26.5479
## 3505 22.0415 21.3248 20.8417 20.5813 20.4310 20.3325
## 3506 26.8743 25.3178 23.2953 22.0300 21.2551 20.8645
## 3507 26.8229 26.5136 25.6709 24.7226 24.4346 24.2523
## 3508 30.1125 27.7766 27.2575 26.5886 26.1435 26.1919
## 3509 27.2445 27.4762 26.9499 26.8478 27.3107 26.3974
## 3510 27.2592 27.2852 26.6564 26.3452 25.9330 26.5133
## 3511 26.1940 25.6423 24.9776 24.7904 24.5831 24.3338
## 3512 28.6544 27.4344 26.4709 26.5483 26.1205 26.4467
## 3513 28.3381 27.0929 26.9247 26.6828 26.5092 26.9017
## 3514 31.9366 26.4426 24.4482 23.2865 22.4584 22.1004
## 3515 26.8389 26.8418 26.7143 26.1007 25.7017 24.9652
## 3516 99.0000 27.5543 27.5395 26.6123 26.6051 25.9366
## 3517 27.9921 27.6310 26.7184 26.1449 25.8312 25.8843
## 3518 25.4207 25.5434 25.2384 24.8437 24.8507 24.6410
## 3519 30.5501 28.3075 27.6480 26.8709 26.9535 26.2147
## 3520 29.2238 28.9814 27.7398 26.7232 26.6809 25.7001
## 3521 29.0616 27.7515 26.8089 26.6770 26.6665 26.0159
## 3522 25.6686 25.5701 25.1581 24.4554 24.1346 24.2044
## 3523 27.0142 27.2612 26.2245 25.9505 26.1608 25.4503
## 3524 26.4044 25.3658 23.3676 22.1867 21.4090 21.0816
## 3525 26.1490 25.0347 23.5186 22.4864 22.1334 21.8034
## 3526 24.7741 24.7992 24.9364 24.9169 25.0216 25.1960
## 3527 29.8728 28.2667 26.3691 25.3449 25.0615 24.5913
## 3528 25.2907 24.7461 24.0134 23.1150 22.8457 22.6261
## 3529 28.8521 27.4686 27.0343 26.8575 25.8877 25.5852
## 3530 27.7291 27.1690 26.5096 25.7602 25.4875 25.0939
## 3531 30.5178 28.4865 29.0100 26.9413 25.9665 25.2219
## 3532 30.1068 27.9629 27.4637 26.5388 26.3098 26.3412
## 3533 28.0418 27.7469 27.0670 26.3257 25.4639 24.8979
## 3534 99.0000 27.7551 27.0721 26.2980 26.1158 25.8412
## 3535 27.8895 27.2412 26.0668 25.7274 25.6455 25.2305
## 3536 31.1093 28.2358 27.6948 26.5442 25.4909 25.1409
## 3537 27.3194 27.1907 26.3999 25.6337 25.2355 25.1459
## 3538 29.8189 27.7097 26.5140 26.5073 26.1425 25.8562
## 3539 26.5811 26.8447 26.8157 26.8085 26.5003 27.1601
## 3540 28.4564 27.5425 27.2579 26.5249 26.0584 26.5088
## 3541 29.1763 28.0089 27.1553 26.3260 26.4038 26.2591
## 3542 26.1086 25.4938 24.8228 24.3873 24.2503 24.0862
## 3543 29.4745 28.0216 26.5400 25.8155 25.3378 24.9208
## 3544 27.6528 26.7916 26.7250 26.7101 25.8776 25.5289
## 3545 99.0000 27.5252 26.6769 26.5213 26.1450 25.9935
  3546 26.6874 26.1407 25.5313 24.9356 24.2645 24.0658
## 3547 24.5233 23.9827 22.8877 22.0868 21.7666 21.4778
## 3548 29.5668 28.0474 27.2295 26.8480 25.8451 25.2915
```

```
## 3549 26.1233 24.9629 24.0279 23.6794 23.3698 23.2420
## 3550 25.0650 24.9246 24.6619 24.2754 23.5855 23.2237
## 3551 27.6034 27.7611 27.5648 26.8773 26.8629 26.4088
## 3552 26.9899 27.3478 26.6107 26.3974 25.9251 26.0754
  3553 26.2388 25.7747 25.5348 25.0470 24.6495 23.9153
## 3554 28.2580 27.2119 26.9675 26.9018 26.4248 25.7902
## 3555 25.7343 24.9128 24.4461 24.2606 24.1583 24.0237
## 3556 26.3864 25.7944 24.8777 23.9839 23.3572 23.1574
## 3557 28.1566 27.8974 26.8312 25.0601 24.2265 23.2547
## 3558 27.9277 27.7728 26.9368 26.5467 25.6696 25.0205
## 3559 28.6640 28.3720 27.2084 25.7678 25.1698 24.9750
## 3560 30.7286 29.1889 28.8647 26.7705 26.2755 99.0000
## 3561 26.5624 26.0425 25.2351 24.4197 24.1479 23.9746
## 3562 27.1965 27.0851 27.0219 26.4294 26.3375 26.7941
## 3563 27.3377 27.5065 27.2175 26.7601 26.6165 27.6725
## 3564 26.1128 25.1975 23.6161 22.9080 22.5889 22.3011
## 3565 99.0000 26.7247 25.4493 25.0312 24.7203 24.7662
## 3566 26.7932 26.3270 25.7662 25.3176 24.4392 24.3985
## 3567 27.7317 27.9504 26.6778 26.0885 25.9115 25.4688
## 3568 25.3142 25.2545 24.7732 24.3341 23.7497 23.2289
## 3569 27.2670 27.8356 26.9125 26.7588 26.4504 99.0000
## 3570 25.7723 25.5942 25.0904 25.0416 24.8527 25.0656
## 3571 26.6135 25.7185 24.8833 24.6137 24.4576 24.5575
## 3572 30.6687 28.6494 27.2975 26.7962 26.4940 26.2513
## 3573 25.7700 25.1239 24.1757 23.5212 23.3463 23.2128
## 3574 26.4968 25.5092 24.4386 24.1815 23.8963 23.9383
## 3575 28.3699 28.1950 27.0283 26.4952 26.5678 25.9102
## 3576 99.0000 27.9326 27.0167 26.1865 25.7564 25.9767
## 3577 31.2507 26.7027 24.9926 23.8722 22.9506 22.5094
## 3578 27.7323 28.1053 27.2516 26.4515 25.6132 26.1035
## 3579 29.1737 27.5400 26.6833 26.2611 25.3031 25.0754
## 3580 27.5071 27.1876 26.8152 26.4335 26.7247 25.9199
## 3581 28.7562 27.2305 27.5649 26.5286 26.5029 25.0289
## 3582 26.1127 25.5514 24.6825 23.9049 23.2778 22.9684
## 3583 26.4165 26.7203 26.5591 26.4181 26.6069 26.8605
## 3584 26.9792 26.6979 26.8375 26.5201 26.3936 27.3400
## 3585 25.2398 24.7535 23.8423 23.4772 23.3511 22.9431
## 3586 22.6141 22.0768 21.0430 20.4007 20.1794 19.9375
## 3587 26.2637 26.3556 25.8413 25.2952 24.9047 24.5584
## 3588 26.3880 25.9196 24.9223 24.7843 24.4500 24.3391
## 3589 25.2233 25.0625 24.7092 24.2895 23.7508 23.5211
## 3590 28.1228 27.2740 26.2755 25.9916 25.6824 25.7216
## 3591 25.6745 25.2565 24.4799 24.1648 23.9714 23.9408
## 3592 30.8954 28.1941 27.5281 26.8004 26.4432 25.3739
## 3593 27.6265 26.8409 25.6046 24.5872 24.3121 23.9349
## 3594 22.3148 21.5717 20.7955 20.5677 20.3569 20.3101
## 3595 99.0000 26.8586 26.2749 25.9312 25.3933 25.4439
## 3596 26.1129 25.1225 24.1104 23.8328 23.6540 23.5538
## 3597 99.0000 28.0959 27.6029 26.5694 26.7596 26.1950
## 3598 26.7917 26.9317 26.3829 26.1090 26.0509 25.8617
## 3599 31.8681 27.9412 27.2751 26.5847 26.3219 26.6098
## 3600 27.4989 25.8706 25.2724 24.5409 24.2279 23.8924
## 3601 23.9712 23.3396 23.0004 22.7735 22.7038 22.6189
## 3602 28.8065 28.5290 27.5285 26.8217 26.4706 26.0788
## 3603 26.6601 26.7476 26.8488 26.5086 27.0387 27.2855
## 3604 26.5941 26.6162 26.2830 26.1327 26.7210 26.8546
## 3605 26.7586 26.9981 26.2967 25.7226 25.3883 25.1319
## 3606 27.6924 26.9932 26.3832 25.8759 25.0459 24.6158
## 3607 26.5601 26.1696 26.3226 26.1314 26.3185 25.5142
## 3608 28.0060 26.9994 26.7307 26.1485 25.9043 25.1943
## 3609 26.5065 26.5000 25.6018 25.0215 24.8621 24.8495
## 3610 29.1397 27.4893 26.9442 26.6246 27.1027 25.9958
## 3611 99.0000 28.7895 27.0075 25.6891 25.0484 25.0065
## 3612 28.2393 28.2869 27.9284 26.6025 27.0570 26.0989
## 3613 25.0572 24.3708 23.3945 22.6019 22.3108 22.0182
## 3614 30.6715 28.1565 28.0977 26.6733 26.7243 27.0565
## 3615 25.1652 24.3134 23.3599 23.0814 22.7881 22.7303
## 3616 28.1480 27.9060 27.2558 26.5136 25.7519 24.9546
## 3617 99.0000 28.2926 28.1430 26.7556 26.4543 25.8913
## 3618 27.5603 27.0611 26.5828 26.0316 25.4354 25.3688
## 3619 28.4816 27.1070 26.5506 26.5371 25.9412 25.1725
## 3620 26.8052 27.2699 27.2142 26.8832 26.3270 26.8998
## 3621 24.9408 24.8678 24.9355 24.9047 24.7175 24.6523
## 3622 27.0248 26.8200 27.1370 26.7989 26.5122 26.3711
## 3623 28.0100 27.9503 26.9700 26.2788 26.0314 25.4687
## 3624 28.6602 28.4314 27.7222 26.9992 27.0576 26.6868
  3625 28.8016 28.4095 26.6835 26.1293 26.1578 26.3601
## 3626 23.1297 22.6634 21.6671 21.1757 20.8752 20.6975
## 3627 99.0000 27.4327 26.8280 25.9289 25.5679 25.9815
```

```
## 3628 24.2768 22.9593 22.0498 21.6607 21.4886 21.2958
## 3629 27.0764 26.6138 26.1987 25.6114 25.0947 24.3565
## 3630 26.0689 25.9061 25.1279 24.5690 24.4399 24.0153
## 3631 21.7997 21.0218 20.0561 19.7740 19.5271 19.4588
  3632 26.3438 26.2484 25.4748 25.3471 25.2494 25.1146
## 3633 28.7546 26.7245 24.9151 23.6948 22.9394 22.5689
## 3634 24.9647 24.9989 24.6267 24.1025 23.4192 22.8207
## 3635 26.5233 26.5214 25.3780 25.2178 24.8503 25.0358
## 3636 28.2893 26.4386 25.9345 25.1937 24.8085 24.7173
## 3637 26.2782 26.1584 25.6804 24.8760 24.4957 24.2177
## 3638 26.9963 27.2337 26.6924 26.6246 26.2858 25.8751
## 3639 27.7583 27.3160 25.1549 23.6368 22.8703 21.9014
## 3640 27.5158 27.3815 27.2044 26.9465 26.1187 26.1908
## 3641 26.1757 25.5984 25.4636 25.1976 24.9342 24.1533
## 3642 27.6725 27.5360 26.8122 25.6725 25.0948 24.1972
## 3643 23.4479 21.4655 19.8386 19.2377 18.9110 18.7106
## 3644 26.4705 25.6496 25.0520 24.6977 24.7717 24.6362
## 3645 27.1383 27.9658 27.1482 26.6060 25.9135 26.3634
## 3646 27.1938 25.8594 23.9360 22.8131 22.0056 21.6460
## 3647 26.2856 25.6180 24.4626 23.8166 23.5906 23.2952
## 3648 27.2999 26.0979 24.4851 23.1994 22.6696 22.3124
## 3649 28.8725 29.5030 27.3550 26.6150 26.2670 25.5889
## 3650 26.0012 25.5175 24.7223 24.5525 24.3334 24.6604
## 3651 25.1490 24.6565 23.7965 23.5907 23.4123 23.4193
## 3652 27.6787 26.3055 25.4155 24.5337 24.3928 24.4397
## 3653 25.9333 25.0668 24.1829 23.8798 23.7183 23.6019
## 3654 26.6519 26.4747 25.8264 25.7986 25.6811 25.7199
## 3655 26.9154 27.0077 24.7309 23.3345 22.4907 21.5537
## 3656 30.0203 28.8152 27.7368 26.9625 26.3471 25.9176
## 3657 31.1241 30.4364 27.6747 26.6880 28.2224 26.0296
## 3658 24.9266 23.4089 22.4509 22.0299 21.8169 21.6533
## 3659 26.1806 25.8407 25.1798 24.6660 24.5352 24.4280
## 3660 24.3510 22.1041 20.4449 19.6847 19.2919 19.0380
## 3661 99.0000 27.6314 27.1382 26.7832 26.1096 25.9505
## 3662 27.3670 25.4071 23.8163 22.6296 22.2053 21.8241
## 3663 99.0000 29.1897 28.6001 26.9661 26.7404 28.3865
## 3664 27.4065 26.5462 25.7117 24.9170 24.0442 23.5565
## 3665 28.1020 27.9104 27.3651 26.4049 26.0765 25.8095
## 3666 26.3615 25.8670 25.2036 25.0988 25.0516 25.1004
## 3667 26.4084 25.6416 25.2629 25.0274 25.0692 24.8895
## 3668 26.9317 26.8144 26.1398 26.0129 26.0606 25.4426
## 3669 25.3269 24.0098 22.4613 21.3148 20.8907 20.5369
## 3670 27.6402 28.5928 27.0290 26.5718 25.9722 25.4602
## 3671 27.2388 26.0059 25.0000 24.5661 24.4857 24.2336
## 3672 28.0313 26.6500 25.9941 25.3273 25.1620 25.0772
## 3673 27.3947 26.5832 25.9087 25.6728 24.9904 24.5953
## 3674 26.9653 27.0149 27.0757 26.8656 26.5823 25.7588
## 3675 24.7751 23.6315 22.4677 21.6643 21.3776 21.1202
## 3676 27.9288 27.4186 26.5488 25.4142 24.6353 23.8218
## 3677 31.8319 28.1787 26.8400 26.1068 26.0636 25.5980
## 3678 26.8927 26.6947 26.0642 25.5894 25.1594 25.1316
## 3679 26.9807 26.1994 25.6629 25.3264 25.3967 25.4567
## 3680 25.2311 24.4853 23.5299 23.2358 23.0611 22.9075
## 3681 27.0332 26.3702 25.5088 24.8013 24.2051 23.4673
## 3682 28.2557 28.8273 27.2098 26.7519 26.5787 26.1477
## 3683 27.2516 27.3922 26.8652 26.3584 25.8473 25.5992
## 3684 25.9888 25.5934 24.8752 24.6592 24.5227 24.2764
## 3685 27.4235 27.1243 26.8351 26.2406 26.2168 26.9630
## 3686 29.2380 28.2093 27.4276 26.7998 26.3574 26.7354
## 3687 26.9437 26.8475 25.7972 24.9561 24.4936 24.2252
## 3688 23.6019 22.4272 22.0019 21.7368 21.7211 21.6450
## 3689 24.8412 24.3935 23.7132 23.5815 23.3932 23.3183
## 3690 99.0000 28.5592 27.0770 26.2611 25.5581 25.3595
## 3691 27.8901 27.4051 26.8355 26.5613 26.0567 26.7930
## 3692 26.8993 26.0454 25.4653 25.1757 25.0635 25.0698
## 3693 28.3027 27.8042 26.5498 25.7904 25.6202 25.2071
## 3694 26.6453 26.8585 25.9547 25.2505 25.2263 25.0680
## 3695 23.3684 22.8134 22.6760 22.5266 22.5769 22.5126
## 3696 25.2933 25.2385 25.0622 24.7284 24.4669 24.0557
## 3697 26.6654 26.5057 25.3503 24.3083 23.9598 23.7595
## 3698 25.7199 25.4972 24.7340 23.7280 23.3149 23.2093
## 3699 27.2615 28.1048 27.4631 26.7537 26.5624 26.4075
## 3700 28.8812 27.6034 27.0350 26.5672 26.2489 25.6216
## 3701 25.4309 25.1464 24.8551 24.5377 24.2387 23.9845
## 3702 26.8804 26.8530 25.9987 25.6561 25.6950 25.6228
## 3703 28.0704 27.1480 26.3630 25.8699 25.5772 25.4510
  3704 26.1006 25.7279 25.0143 24.1071 23.4672 22.6797
## 3705 26.8703 26.4267 25.8772 25.6300 25.6122 25.5666
## 3706 29.5214 28.0183 27.3425 26.2102 25.8892 25.1623
```

```
## 3707 23.5560 23.3273 22.9143 22.4044 21.8455 21.6209
## 3708 27.3814 27.7799 26.6502 25.7448 24.9176 24.3992
## 3709 29.4775 27.5594 26.4641 25.3592 25.0560 24.7892
## 3710 28.0717 27.1239 26.7923 26.7373 25.8925 25.6378
## 3711 25.9148 25.3469 24.5450 24.3358 24.2386 24.1265
## 3712 27.5279 24.8916 23.2228 22.0494 21.6124 21.2559
## 3713 99.0000 28.3712 28.8582 26.8852 27.5485 99.0000
## 3714 26.5014 26.4731 25.9683 25.4782 25.1476 25.2435
## 3715 27.8559 27.3923 27.1341 26.6734 28.7581 26.2674
## 3716 27.5151 26.9781 26.6153 26.0786 25.8384 25.0776
## 3717 23.5552 21.2583 19.5962 18.8655 18.4836 18.2522
## 3718 27.3291 27.1951 26.6765 26.7676 27.0624 25.7121
## 3719 25.3157 25.1951 25.0223 24.9532 24.6591 25.1771
## 3720 20.7499 19.3800 18.5199 18.1246 17.9349 17.7596
## 3721 27.4587 27.4962 27.0519 26.6110 25.9009 25.0151
## 3722 26.1683 26.1098 25.6113 25.0127 24.9300 24.5618
## 3723 28.3936 27.3492 26.5037 26.1008 25.7566 26.0965
## 3724 28.4744 28.0799 27.0556 26.2799 26.5441 26.7033
## 3725 26.7375 25.8434 25.2478 25.0688 24.9843 24.9015
## 3726 99.0000 27.7608 26.7240 25.8200 25.2027 25.0929
## 3727 26.4526 26.0524 25.3458 25.1759 24.9301 25.0400
## 3728 26.3308 25.6949 24.9229 24.3764 23.7424 23.2453
## 3729 26.0790 25.8449 25.2754 24.6857 24.5067 24.5794
## 3730 26.4484 25.4075 24.6232 24.4922 24.3900 24.3213
## 3731 99.0000 28.3109 27.9147 26.9173 26.7691 26.4529
## 3732 25.9219 25.1376 24.2411 23.4180 23.1952 23.0225
## 3733 29.3446 29.7278 27.2749 26.4707 26.0894 26.7135
## 3734 26.2990 25.8928 25.0747 24.9703 24.7813 25.2901
## 3735 22.2635 20.7194 19.5862 19.1066 18.8514 18.6231
## 3736 32.7222 26.6987 26.2735 25.2143 25.0143 24.7399
## 3737 99.0000 29.1972 27.2662 26.7291 26.6086 26.9225
## 3738 25.5913 25.7229 25.5689 25.2445 25.0915 24.6845
## 3739 27.4954 26.9082 26.4390 26.0616 25.2944 25.0276
## 3740 27.5103 26.9591 26.3075 25.8735 25.2129 25.0013
## 3741 26.4013 25.8540 25.1457 24.9764 24.8031 24.7566
## 3742 25.4672 24.5726 23.6441 23.2728 23.0733 22.7840
## 3743 26.8420 27.0316 26.2743 25.6002 24.8004 24.5616
## 3744 28.6667 27.7408 27.5852 26.8109 26.4828 26.9925
## 3745 28.3609 27.1649 26.5780 25.8464 25.4733 24.7794
## 3746 28.4497 26.4728 25.8805 25.3638 25.0715 24.3147
## 3747 23.6131 23.1679 22.4683 21.6259 21.2968 21.1242
## 3748 27.3521 27.6446 26.8559 26.8127 26.9049 26.8936
## 3749 26.0230 25.0966 24.2592 23.9380 23.7233 23.7043
## 3750 24.6310 24.4606 23.8621 23.0670 22.6618 22.4451
## 3751 28.9387 27.2911 26.2598 26.0060 25.6800 26.3150
## 3752 28.2142 27.5792 27.0733 26.3357 26.3038 99.0000
## 3753 25.0939 24.7779 24.1045 23.5031 23.3104 23.0510
## 3754 27.0523 26.5713 26.1388 25.7610 25.2017 24.9636
## 3755 26.9188 26.8576 26.7024 26.7242 26.7962 26.1640
## 3756 26.9081 26.4743 25.7926 25.2949 24.6087 24.5040
## 3757 99.0000 28.8527 27.6260 26.5174 26.1776 26.2737
## 3758 99.0000 28.8072 27.3290 26.9471 26.4490 26.6890
## 3759 28.0602 28.1983 27.2828 26.7245 25.8476 25.2412
## 3760 26.0057 25.9309 25.7183 25.5529 25.2528 24.9309
## 3761 26.2966 25.8999 25.6298 25.4555 25.1526 24.9799
## 3762 99.0000 27.6576 26.8387 25.7242 24.8134 24.4102
## 3763 28.3214 26.6946 26.2105 25.9313 25.9510 25.5176
## 3764 27.3183 26.8603 24.4440 23.2150 22.2128 21.4456
## 3765 27.6810 27.6873 26.0132 25.2686 25.4129 24.8783
## 3766 27.2197 26.6788 25.8658 25.8172 25.5216 25.0272
## 3767 27.0502 26.4579 25.6462 25.0542 24.8830 24.5061
## 3768 28.6776 28.2298 27.4347 26.7283 25.8204 99.0000
## 3769 24.5338 23.8642 22.9004 22.5757 22.4373 22.1079
## 3770 27.5711 27.0458 26.4729 25.9472 25.3581 25.7716
## 3771 26.9709 26.2626 25.4054 25.2256 25.0368 25.0261
## 3772 26.6296 26.5988 26.6390 26.8077 27.0021 26.5314
## 3773 27.6158 27.1373 26.9951 26.3151 26.0069 24.9539
## 3774 27.9938 27.5691 26.9371 26.9400 27.5271 26.5587
## 3775 30.2235 27.6056 26.4145 25.5474 25.7137 24.9377
## 3776 25.8487 25.3963 25.0301 24.9731 24.6985 24.8853
## 3777 26.7252 26.2781 25.7418 25.6797 25.3571 25.1929
## 3778 27.8694 27.6479 26.4616 25.6885 25.1876 24.9547
## 3779 28.1952 27.6840 26.6648 26.2631 26.1383 26.4258
## 3780 27.9945 27.0879 27.2539 26.9407 26.1255 26.2824
## 3781 26.0234 26.2097 26.3943 26.4570 26.3863 26.9922
## 3782 29.4968 26.9206 26.6501 26.7634 26.1897 27.3180
## 3783 29.3090 27.7598 27.1567 26.5229 27.2217 27.7226
## 3784 27.5901 26.7990 26.8432 26.2884 26.2984 25.5757
## 3785 24.4649 23.8462 22.9079 22.0808 21.4687 21.2411
```

```
## 3786 26.7311 25.8874 24.6673 23.6188 23.0265 22.7591
## 3787 25.6495 24.7769 23.7556 23.4525 23.2544 23.1734
## 3788 28.8355 27.2612 26.7578 25.8516 25.7118 25.6631
## 3789 28.4391 26.7365 25.5648 25.0004 24.8488 24.8343
## 3790 30.4701 29.3076 28.2815 26.7723 25.9651 24.9762
## 3791 26.7451 25.4450 23.5064 22.4053 21.5443 21.1757
## 3792 26.0451 25.4771 25.1362 24.9731 25.0228 24.8715
## 3793 26.6979 25.8401 23.7356 22.5595 21.7336 21.3670
## 3794 28.2367 27.1898 26.8807 26.3246 25.6003 24.8978
## 3795 99.0000 30.3153 27.6524 26.3468 26.1441 25.8348
## 3796 29.9530 27.9246 26.9368 26.4787 25.5820 25.1473
## 3797 25.9451 25.5211 25.1654 24.6807 24.4172 23.9178
## 3798 99.0000 29.1308 28.5872 26.6596 26.0185 24.8138
## 3799 28.5692 30.1071 28.2274 26.6586 25.1932 24.0710
## 3800 23.9685 23.8182 23.1964 22.3172 21.9638 21.7964
## 3801 23.8939 23.3908 22.3722 21.3792 21.0167 20.7387
## 3802 24.4619 24.2929 23.8247 23.1359 22.9007 22.8285
## 3803 27.2696 27.4612 26.5614 26.7037 26.8309 27.4474
## 3804 99.0000 26.6895 26.2713 26.0165 25.9084 26.5422
## 3805 99.0000 28.1376 27.4308 26.6358 26.5049 25.8847
## 3806 25.4585 25.4860 25.2524 25.4071 25.1393 25.4944
## 3807 28.3434 27.3036 26.3088 26.2048 25.8117 26.3353
## 3808 29.2535 28.5433 28.1739 26.8277 26.8746 26.4392
## 3809 27.5520 27.4932 26.9695 26.7406 26.5047 25.9766
## 3810 27.2539 28.7187 27.4122 26.5009 25.6246 25.9756
## 3811 24.5769 23.9096 22.8725 22.5844 22.4076 22.3199
## 3812 27.2566 24.7846 23.1074 21.9038 21.4260 21.0404
## 3813 28.1741 28.0031 26.5850 25.4728 24.6937 24.5172
## 3814 28.0373 28.3383 27.5007 26.6188 26.1162 28.5196
## 3815 26.4228 25.5415 24.5905 24.0792 23.9197 23.6292
## 3816 23.0758 21.8429 20.3939 19.7903 19.4449 19.2345
## 3817 99.0000 27.7632 27.2195 26.5366 25.6805 24.9226
## 3818 26.7539 26.9710 26.7462 26.5373 26.1096 25.5709
## 3819 27.7390 27.7774 26.9243 26.2689 25.4937 24.8522
## 3820 99.0000 28.1528 27.5626 26.3410 26.2606 26.5378
## 3821 27.9557 27.0067 26.9931 26.8123 26.7773 25.4885
## 3822 22.1405 20.8786 19.9561 19.5388 19.2933 19.0915
## 3823 27.8437 28.2007 27.1039 26.2746 25.9695 25.8907
## 3824 28.4585 26.8598 25.3955 25.0326 24.8495 24.5122
## 3825 99.0000 28.1567 26.9710 26.3167 25.6123 26.0151
## 3826 26.1657 26.1148 25.8742 25.7693 25.6612 25.4315
## 3827 32.8733 27.1957 26.4886 25.7506 25.0420 24.9200
## 3828 28.1407 28.5003 27.0558 25.7679 25.0107 24.5070
## 3829 99.0000 27.0538 26.5696 25.5908 25.2807 25.2634
## 3830 25.9418 26.3083 26.4550 26.2733 25.9523 26.2162
## 3831 24.0605 23.9069 23.4597 22.6996 21.9994 21.2656
## 3832 29.4142 27.3581 25.9853 24.8833 24.5063 24.5231
## 3833 27.3978 27.2569 25.6834 24.5862 23.5766 22.9329
## 3834 27.5417 26.6766 25.7492 25.3741 25.1650 25.1818
## 3835 28.5578 27.3631 27.1598 26.3887 26.1719 25.7326
## 3836 99.0000 28.3111 26.3006 25.0260 24.3479 23.3789
## 3837 99.0000 29.1517 27.9890 26.8582 26.7872 27.4275
## 3838 26.2086 25.6911 25.4827 25.3048 25.1703 25.4866
## 3839 28.2100 27.2852 25.6063 24.4372 23.4937 22.7881
## 3840 28.7023 28.0132 27.3442 26.7167 26.6934 27.1193
## 3841 26.7057 25.7948 25.2268 24.9414 24.7724 24.6685
## 3842 28.7883 28.1488 27.6144 26.9541 26.1473 25.5206
## 3843 28.5846 28.6074 26.8316 26.0826 25.4059 24.9915
## 3844 26.3957 24.0005 22.3754 21.4294 21.0386 20.7453
## 3845 28.6511 28.7796 28.0029 26.7803 26.5849 26.1380
## 3846 28.3272 28.1147 26.8820 26.6100 26.5016 26.8327
## 3847 28.6743 28.7650 27.2815 26.6081 26.3807 25.4561
## 3848 28.3102 28.3407 27.5721 26.8973 25.8327 26.3791
## 3849 25.2475 25.1516 24.6696 24.5490 24.5789 24.6334
## 3850 28.0869 26.2573 24.9787 23.8176 23.1182 22.8246
## 3851 27.0987 26.4524 25.9952 25.8344 24.9279 24.7705
## 3852 28.9165 28.0527 27.3343 26.6249 26.8998 26.0418
## 3853 28.2527 27.4029 26.7865 26.5007 26.4747 25.6505
## 3854 25.4288 24.6632 23.7429 23.4774 23.2525 23.2632
## 3855 24.4280 24.0985 23.5866 23.5521 23.3003 23.5109
## 3856 28.1992 27.8629 25.8650 24.8553 24.6440 24.4472
## 3857 28.9503 27.4953 26.9887 26.5538 26.2901 26.2199
## 3858 28.6770 26.9174 26.4501 25.9492 25.9709 25.5171
## 3859 28.5354 27.8331 26.9640 26.0525 26.1538 26.7956
## 3860 29.2741 26.9544 26.2755 25.8750 25.8871 27.1499
##
  3861 26.6595 26.0131 25.4111 24.8668 24.1802 23.8314
  3862 99.0000 28.6672 28.0722 26.6993 26.3103 26.0620
## 3863 26.4612 26.1642 24.3699 23.2674 22.4275 22.0499
## 3864 28.0189 27.7142 27.0228 26.6239 26.8513 26.5793
```

```
## 3865 26.9597 26.8018 26.3570 26.5249 25.6472 25.8767
## 3866 28.4143 28.2468 26.7333 25.4087 24.8284 23.7213
## 3867 27.8102 27.1288 27.2839 26.1966 26.3445 25.5863
## 3868 27.1896 26.4980 25.9506 25.1652 24.5640 23.8411
  3869 99.0000 27.7800 27.2043 26.5971 26.1963 27.1725
## 3870 28.7429 27.1800 26.5819 26.0828 25.3846 25.1406
## 3871 28.3983 26.8836 25.5553 24.6981 24.3258 23.8618
## 3872 27.2152 26.8479 26.1818 25.4933 25.0390 24.7260
## 3873 25.1157 25.0980 24.9838 24.9676 24.9131 24.5991
## 3874 99.0000 27.1515 25.9019 24.9853 24.1083 23.7306
## 3875 28.6073 28.1488 26.7722 26.4014 26.0363 25.4709
## 3876 24.3082 23.5716 23.2689 23.0731 23.0519 23.0912
## 3877 26.4129 26.5122 26.5426 26.3643 26.6343 26.5352
## 3878 24.7177 22.7008 21.1027 20.3841 20.0139 19.7699
## 3879 28.3380 27.2833 26.5031 25.9241 25.2793 24.9859
## 3880 26.0782 25.8773 25.8979 25.8432 26.2471 99.0000
## 3881 28.6328 27.8294 26.9644 26.9746 25.8517 26.3403
## 3882 23.2103 22.5863 21.6252 21.3328 21.1405 21.0400
## 3883 27.7849 26.7088 26.0039 25.8414 25.5438 25.4163
## 3884 26.6321 26.5022 25.2462 24.1822 23.4592 23.1721
## 3885 27.8111 27.9092 27.0813 26.9609 26.4509 26.5239
## 3886 24.8680 24.1031 23.0763 22.5610 22.3425 22.0911
## 3887 26.8041 26.4434 25.3274 25.1170 24.8600 24.7372
## 3888 27.3589 26.7338 25.9514 25.3926 25.2466 24.9813
## 3889 27.3649 26.5800 25.5192 24.6043 24.3063 24.0231
## 3890 26.7650 25.7809 24.7910 24.3929 24.1201 23.9638
## 3891 27.1349 26.4607 26.3295 26.0330 26.1376 25.3430
## 3892 29.3190 28.4615 28.3575 26.8019 25.6226 25.0000
## 3893 28.9656 28.6225 27.4799 26.5727 26.6325 25.7361
## 3894 24.9580 24.6719 23.9373 23.1840 22.3453 21.8219
## 3895 24.7548 24.0676 23.1212 22.8911 22.6777 22.6971
## 3896 27.0666 27.1976 26.2797 26.2275 26.0868 25.4988
## 3897 30.6996 27.5105 26.5150 26.5458 26.5021 27.0664
## 3898 27.4201 27.2319 26.3851 26.0895 25.8682 26.0465
## 3899 28.7446 27.0046 26.6581 26.3828 25.6044 25.3227
## 3900 26.7120 26.6828 25.8870 25.2113 25.1010 24.8978
## 3901 27.3207 27.9823 27.1897 26.6668 26.0850 25.4921
## 3902 26.1572 26.5947 26.2886 26.0780 26.0493 27.0361
## 3903 24.2228 23.2320 22.3860 21.9853 21.7895 21.5813
## 3904 27.2729 27.3957 27.6748 26.5834 25.9380 25.5890
## 3905 30.1026 27.4216 26.4850 25.8818 25.7528 25.2339
## 3906 29.7818 30.6990 27.1527 26.9105 26.6201 25.4191
## 3907 99.0000 28.1931 27.3915 26.3332 26.3611 25.7887
## 3908 22.4462 20.8510 19.5821 19.0945 18.8532 18.6102
## 3909 29.7278 28.4284 27.1575 25.9030 25.5190 24.9419
## 3910 24.9108 24.7949 24.2054 23.5931 23.3958 23.1607
## 3911 99.0000 27.3314 26.8176 26.1345 26.1442 25.7709
## 3912 26.0076 25.4935 24.6958 24.5327 24.3792 24.3518
## 3913 26.8620 26.1535 25.8767 25.3419 25.1431 24.2588
## 3914 99.0000 29.1517 28.5663 26.8733 26.7487 25.2981
## 3915 29.2859 27.7908 27.0909 26.3838 25.8557 25.1490
## 3916 26.4463 25.9135 24.8469 23.8693 23.4502 23.1607
## 3917 25.0753 24.9200 24.5270 23.8561 23.5028 23.4269
## 3918 24.4450 22.9722 22.1932 21.8131 21.6048 21.4515
## 3919 27.5029 27.5186 26.3684 25.7143 25.4754 25.7028
## 3920 25.8638 25.6346 25.4127 25.0351 24.4925 24.5185
## 3921 24.9383 24.0647 22.9611 22.4081 22.1796 21.9048
## 3922 26.9585 26.6550 26.2921 25.9111 25.2577 24.9168
## 3923 28.2816 25.7989 25.0521 24.7382 24.6192 24.4874
## 3924 28.4280 27.8148 27.3134 26.6286 25.8251 25.1246
## 3925 27.9274 27.5948 27.9349 26.4891 26.5802 26.5416
## 3926 27.3381 26.7202 26.7404 26.4573 27.0364 26.5957
## 3927 26.9724 26.1248 24.7426 23.5221 22.7190 21.8760
## 3928 29.0611 27.4345 26.6587 26.3678 26.6053 26.0544
## 3929 26.8637 25.5963 23.8267 22.5798 21.9687 21.6262
## 3930 26.2975 25.8559 25.5963 25.1183 24.8288 24.1145
## 3931 30.5255 27.8444 26.4501 24.8355 24.0865 23.1019
## 3932 28.3532 27.8254 27.2574 26.6837 26.1782 26.4999
## 3933 99.0000 27.8645 27.6806 26.5842 26.1292 25.4034
## 3934 23.8877 23.9185 23.7776 23.4272 23.0178 22.7373
## 3935 28.0721 28.2129 26.9438 25.9855 25.7150 25.7664
## 3936 27.2414 26.8505 26.3472 25.8355 25.4060 25.0679
## 3937 27.4652 26.3181 25.8188 25.2957 24.8661 24.6823
## 3938 24.5716 23.6925 22.6793 22.0607 21.8279 21.6052
## 3939 27.0235 27.0392 26.9183 26.2423 26.3496 25.8464
## 3940 28.8235 29.0933 28.1775 26.8693 27.9252 27.3368
  3941 25.5064 25.8497 25.8281 25.5404 25.5730 25.9316
## 3942 99.0000 27.9446 27.1401 26.4295 26.4566 26.6194
## 3943 99.0000 27.1894 26.2314 25.8520 25.5391 25.9073
```

```
## 3944 26.7572 26.9306 26.7122 26.4128 26.3670 26.0348
## 3945 25.4544 24.6879 23.5735 23.0990 22.8870 22.4919
  3946 26.4708 26.2826 25.3846 25.2118 25.1341 24.8741
  3947 26.7902 26.8888 26.5739 26.3044 26.1583 25.8055
   3948 27.4826 27.5120 26.9083 26.2053 25.5203 25.1218
##
  3949 28.0102 27.4836 26.0120 25.1604 24.7977 24.6422
## 3950 28.5198 29.1291 27.3843 26.5979 25.8457 25.3519
  3951 26.5574 25.9939 25.1036 24.8603 24.6582 24.7485
## 3952 28.1576 26.1464 25.1807 24.5038 24.4112 24.2292
##
  3953 27.4451 26.9548 26.3113 26.2885 25.9208 25.7841
   3954 25.8469 25.8530 25.4020 24.8850 24.8032 24.6805
## 3955 25.9243 24.8972 23.8234 22.7742 22.3768 22.0707
## 3956 27.3157 26.7890 26.0436 25.8159 25.6436 25.0680
## 3957 27.5396 27.6917 27.1981 26.6823 25.9408 25.3183
## 3958 26.4279 26.0577 25.6240 25.4364 25.5347 25.3751
## 3959 26.7548 26.7082 26.8070 26.7056 26.8689 27.0449
  3960 24.1775 23.5246 22.5809 21.6534 21.1959 20.9520
##
  3961 24.0787 23.0983 22.6345 22.3714 22.3525 22.2775
  3962 27.3188 27.1874 26.2736 25.6061 25.6004 25.3874
## 3963 29.0372 27.6440 27.6004 26.9915 26.3193 25.6999
  3964 26.3731 26.2490 25.9173 25.4412 25.1415 24.6389
## 3965 27.5040 27.4615 26.8494 26.3682 25.9400 25.3719
  3966 28.4916 29.0827 28.0194 26.5202 26.3679 26.0443
##
##
  3967 27.0921 26.6557 25.7026 25.4729 25.3285 24.8701
  3968 27.7821 26.9981 25.0026 23.5516 22.6836 21.7591
## 3969 27.7506 27.1027 27.2144 26.4521 26.2550 25.4985
## 3970 99.0000 29.3088 26.6906 25.3966 24.8108 24.7654
## 3971 26.8560 27.0203 25.7138 24.9001 24.6893 24.2431
## 3972 26.6911 26.5504 26.0778 25.4922 25.0740 24.9647
  3973 26.1724 26.4099 26.0629 25.7309 25.0886 24.7747
##
  3974 26.5900 26.5599 25.9413 25.2050 24.4019 23.9020
  3975 29.4897 27.8897 27.2914 26.8476 26.2367 26.3903
## 3976 26.4557 25.5707 24.1338 22.9815 22.5412 22.1772
## 3977 26.0889 25.5461 24.7770 24.4013 24.3288 24.2735
## 3978 26.8666 26.3224 25.8120 25.6327 25.6940 25.2583
## 3979 27.7438 27.5144 26.7137 26.4555 25.7544 25.5534
##
  3980 27.9665 29.7567 27.2036 26.4134 25.6107 24.6657
  3981 29.0396 28.2416 28.5384 26.7823 26.4985 28.8714
  3982 28.6863 28.0837 27.0897 26.4992 26.0114 27.4231
##
## 3983 25.7559 25.2424 24.5728 24.1179 23.5108 23.3672
  3984 25.5724 24.1528 22.5512 21.5021 21.0707 20.6867
## 3985 27.9624 27.7839 26.1836 25.0362 24.1396 23.7304
  3986 27.9214 28.2500 26.9939 26.4325 26.3366 25.7321
##
   3987 26.0516 24.6182 22.6922 21.5433 20.7340 20.3968
  3988 27.0316 26.5737 26.4332 26.1746 25.6920 25.0306
  3989 24.0584 23.2268 21.9198 20.8655 20.4683 20.1457
  3990 27.4760 27.1404 26.9071 26.2811 26.2774 26.0811
## 3991 26.7650 26.4906 26.3550 26.2922 26.6070 26.1454
## 3992 31.6246 28.5951 27.7437 25.8916 25.2175 24.3237
  3993 28.3762 27.9908 26.4772 25.3714 24.3933 23.9108
##
  3994 26.8804 26.1671 25.2557 24.5725 23.9136 23.6754
##
## 3995 30.3357 28.8568 26.8357 25.8092 24.8037 24.0664
## 3996 28.5287 28.2745 27.6059 26.4168 26.3203 24.8008
## 3997 99.0000 28.2762 26.9750 26.5575 26.6851 28.7832
## 3998 27.4794 27.5342 26.6819 26.3471 26.0126 26.7735
## 3999 33.2755 27.5150 26.7404 25.9139 25.2774 24.8151
  4000 27.0444 26.3310 25.0928 24.6821 24.3717 24.1772
```

Question 8

Hold up...wait a minute...you just filtered the predictors data frame without filtering the response vector. So here you can perhaps do one of two things. First, you could repeat Q7, but use <code>cbind()</code> to bind the predictors and response together into one data frame (call it df), redo the filter, save the output (df.new), then extract pred.new as the first 6 columns of df.new and resp.new as the 7th column. Alternatively, you could use base R functionality to determine which (hint: which()) rows to keep or exclude using the logical operators in either Q6 or Q7, then apply the output to response directly to define <code>resp.new.(I'm sure other solutions exist as well.)</code>

Call me or the TA over (or come to office hours) if you need help with this.

```
df <- cbind(predictors, response)

df.new <- filter(df, u != 99 & g != 99 & r != 99 & i != 99 & z != 99 & y != 99)

pred.new <- select(df.new, u, g, r, i, z, y)

resp.new <- select(df.new, response)

resp.new</pre>
```

```
##
        response
## 1
        0.385261
## 2
        1.450010
## 3
        1.431700
        1.743960
## 4
## 5
        0.882537
## 6
        0.329310
## 7
        1.125750
## 8
        1.081800
## 9
        0.984996
## 10
        0.367319
## 11
        0.616165
## 12
        0.409866
## 13
        1.454670
## 14
        1.673280
## 15
        0.703766
## 16
        0.520498
## 17
        1.945500
## 18
        1.011500
## 19
        1.031820
## 20
        0.579718
## 21
        0.476257
## 22
        0.744881
## 23
        1.080800
## 24
        0.651263
## 25
        1.656140
## 26
        0.384161
## 27
        1.449090
## 28
        1.178080
## 29
        1.159000
## 30
        1.265940
## 31
        0.911993
## 32
        0.475066
## 33
        0.253240
## 34
        1.023790
## 35
        1.015450
## 36
        0.442374
## 37
        0.258702
## 38
        0.182244
## 39
        0.371196
## 40
        0.914457
## 41
        1.126180
## 42
        0.639463
## 43
        0.840406
## 44
        0.661680
## 45
        0.526496
## 46
        0.312680
## 47
        1.411950
## 48
        0.670046
## 49
        1.674670
## 50
        1.134720
## 51
        1.447110
## 52
        0.710594
## 53
        1.389650
## 54
        0.537597
## 55
        0.616506
## 56
        0.926961
## 57
        0.258341
## 58
        0.950214
## 59
        1.756280
## 60
        1.133400
## 61
        0.459499
## 62
        1.589740
## 63
        1.913790
## 64
        1.095720
## 65
        0.198030
```

```
## 66
        0.547718
## 67
        0.863533
## 68
        0.248277
## 69
        1.195460
## 70
        0.447937
## 71
        0.970278
## 72
        0.611289
## 73
        0.978076
## 74
        0.559321
## 75
        1.008800
## 76
        0.607574
## 77
        0.688688
## 78
        0.648220
## 79
        1.307330
## 80
        0.845308
## 81
        0.322257
## 82
        0.698633
## 83
        0.563424
## 84
        0.801674
## 85
        0.675525
## 86
        0.753502
## 87
        1.580820
## 88
        0.453484
## 89
        0.487364
## 90
        0.781337
## 91
        0.611086
## 92
        1.193650
## 93
        0.654859
## 94
        0.704903
## 95
        1.352590
## 96
        0.562911
## 97
        0.946446
## 98
        0.272087
## 99
        1.147370
## 100
       0.956129
## 101 1.335500
## 102
       0.276024
## 103
        0.697041
## 104
       0.537219
## 105 0.203222
## 106 1.423850
## 107 1.592290
## 108
       1.581220
## 109
       0.928648
## 110
       0.579260
## 111 0.588806
## 112 1.008810
## 113 0.845811
## 114 0.885076
## 115
       1.224630
## 116
       0.837837
## 117 0.491353
## 118 0.482608
## 119 1.653810
## 120 0.295268
## 121 0.825805
## 122
       0.868002
## 123
       0.652536
## 124 0.393475
## 125
       0.285899
## 126
       0.429629
## 127 0.775461
## 128
       0.802530
## 129
        0.606019
## 130
       1.038090
## 131 1.476540
## 132 0.096096
## 133 0.933314
## 134 0.214104
## 135
       0.738411
## 136
       1.035860
## 137
       0.598457
## 138 1.565660
## 139 0.727186
## 140 0.481247
## 141
       0.663777
## 142
       0.423714
## 143
       0.676530
## 144 1.772840
```

```
## 145 1.016070
## 146 1.036910
## 147 0.919982
## 148
      0.677316
## 149
       0.588787
## 150
       0.845933
## 151 1.340090
## 152 1.037780
## 153 0.935396
## 154 0.402269
## 155
       1.843050
## 156
       0.931798
## 157 0.400578
## 158 0.598527
## 159 0.719703
## 160 0.485355
## 161 0.523985
## 162
       0.416096
## 163 0.620631
## 164 1.366890
## 165 0.914161
## 166 0.502279
## 167
       0.926009
## 168
       1.200150
## 169
       0.916719
## 170 0.197702
## 171 0.433422
## 172 0.818803
## 173 1.207550
## 174 0.702421
## 175
       0.287784
## 176 1.059520
## 177 0.873749
## 178 0.921771
## 179 0.371940
## 180 0.311212
## 181 0.346052
## 182
       1.450840
## 183 0.990978
## 184 0.984887
## 185 0.530577
## 186 1.364290
## 187 0.919058
## 188
       0.669626
## 189
       1.957530
## 190 1.331020
## 191 0.584841
## 192 1.815370
## 193 1.635700
## 194
       1.317970
## 195
       0.656161
## 196 0.458933
## 197 0.582479
## 198 0.432736
## 199 0.781549
## 200 0.506500
## 201 0.802346
## 202
       1.256570
## 203 0.968321
## 204 0.636505
## 205 0.363768
## 206 1.016050
## 207
       1.727660
## 208
       0.918556
## 209
      0.933030
## 210 0.667587
## 211 0.143835
## 212 0.378347
## 213 0.592466
## 214 0.423955
## 215
      0.735712
## 216 0.564003
## 217 0.626238
## 218 0.807834
## 219 0.826421
## 220 0.516221
## 221 0.970493
## 222 0.201983
## 223 0.758370
```

```
## 224 0.573719
## 225 0.402785
## 226 1.133120
## 227 1.539470
## 228
       0.214044
## 229
      0.444190
## 230 0.756876
## 231 0.881670
## 232 1.043390
## 233 1.352250
## 234
       0.383797
## 235 1.427160
## 236 0.548362
## 237 1.706710
## 238 0.295591
## 239 0.074830
## 240 0.582087
## 241 0.478003
## 242 1.301520
## 243 0.781806
## 244 0.629018
## 245 0.904926
## 246 0.565782
## 247
       0.221632
## 248
       1.048230
## 249 1.287790
## 250 1.233520
## 251 0.442608
## 252 1.452060
## 253 0.930172
## 254
       0.309536
## 255 0.698751
## 256 0.665985
## 257 0.366024
## 258 0.434846
## 259 0.429065
## 260
       0.426714
## 261
       0.300672
## 262 0.440930
## 263 1.427330
## 264 1.374450
## 265 0.852262
## 266 0.460976
## 267
       0.581496
## 268
      0.729894
## 269 0.801425
## 270 0.367753
## 271 0.164298
## 272 1.111510
## 273 1.523610
## 274
       0.795782
## 275 0.777420
## 276 0.633433
## 277 0.986765
## 278 1.086160
## 279 0.567037
## 280
       1.223260
## 281
       0.665030
## 282 0.957541
## 283 0.676945
## 284 0.512240
## 285 0.653613
## 286
       0.885409
## 287
       0.834653
## 288
       0.514824
## 289 1.367950
## 290 0.636957
## 291 1.518290
## 292 0.478948
## 293
       0.536541
## 294
       0.304137
## 295 0.570203
## 296 0.476505
## 297 0.567835
## 298 1.578620
## 299 1.811750
## 300
       0.262659
## 301 1.642580
## 302 0.231224
```

```
## 303 0.617923
## 304 0.459994
## 305 1.162530
## 306 0.246630
##
  307
       0.928986
## 308 0.173964
## 309 0.628026
## 310 1.216230
## 311 0.425197
## 312 0.463960
## 313
       0.224424
## 314 1.035610
## 315 1.066760
## 316 0.515389
## 317 0.610694
## 318 0.607501
## 319 1.341610
## 320
       0.730035
## 321 0.480257
## 322 0.704611
## 323 0.838304
## 324 0.589090
## 325 0.608878
## 326
       1.161390
## 327 1.076120
## 328 1.890910
## 329 1.688400
## 330 0.957288
## 331 0.712454
## 332 1.417350
## 333
       0.407036
## 334 1.127640
## 335 0.510234
## 336 1.218020
## 337 0.946705
## 338 0.505994
## 339
       0.237332
## 340
       0.570919
## 341 0.966066
## 342 0.410603
## 343 1.796100
## 344 1.229750
## 345 1.447040
## 346
       0.906368
## 347
       0.666299
## 348 0.423708
## 349 0.581166
## 350 0.989328
## 351 0.955361
## 352
       0.268066
## 353
       0.564023
## 354 1.749770
## 355 0.677991
## 356 0.617419
## 357 1.316730
## 358 1.384790
## 359
       0.543708
## 360
       0.363554
## 361 1.536710
## 362 0.443008
## 363 0.953997
## 364 0.690036
## 365
       1.159300
## 366
       0.324669
## 367
       1.651120
## 368 0.961925
## 369 1.238030
## 370 1.721930
## 371 0.472124
## 372 0.696001
## 373
       1.150200
## 374 0.531087
## 375 1.543520
## 376 0.684575
## 377 1.060690
## 378
      0.855926
## 379
       0.786580
## 380 0.620411
## 381 0.862625
```

```
## 382 1.430040
## 383 1.261920
## 384 0.703688
## 385 1.015430
##
  386
       0.980836
## 387
       1.184570
## 388 0.521181
## 389 0.617185
## 390 1.137930
## 391 0.723405
## 392
       0.529968
## 393 1.550400
## 394 0.642104
## 395 1.308990
## 396 1.020220
## 397 1.694160
## 398 1.611470
## 399
       0.371564
## 400 0.698595
## 401 0.417832
## 402
      0.964486
## 403 0.634726
## 404
      1.197120
## 405
       0.349416
## 406
       0.948301
## 407 1.341210
## 408 0.831556
## 409 0.967563
## 410 0.747008
## 411 1.025840
## 412
       1.317180
## 413 0.722356
## 414 0.434992
## 415 1.593160
## 416 1.179950
## 417 0.674822
## 418
       0.867142
## 419
       0.761802
## 420 0.698508
## 421 1.152140
## 422 0.279011
## 423 0.263854
## 424 1.394360
## 425
       0.655833
## 426
      0.597505
## 427 0.564990
## 428 0.613031
## 429 0.212101
## 430 0.802026
## 431 0.403810
## 432
       0.371942
## 433 1.070620
## 434 0.731574
## 435 1.662450
## 436 0.541755
## 437 1.582710
## 438 1.337740
## 439
       1.086460
## 440 0.785188
## 441 1.121700
## 442 0.370232
## 443 1.027370
## 444 1.379530
## 445
       1.126890
## 446
       1.758730
## 447 0.649690
## 448 0.786278
## 449 0.548626
## 450 0.384818
## 451 0.375022
## 452
       0.371551
## 453 1.641270
## 454 0.650337
## 455 0.780084
## 456 0.729636
## 457 0.998299
## 458
       0.406696
## 459 0.848333
## 460 1.530450
```

```
## 461 0.805098
## 462 0.401968
## 463 0.779842
## 464 1.058640
## 465
       0.530677
## 466
       0.919939
## 467 0.771539
## 468
      0.868065
## 469 0.412814
## 470 0.312667
## 471
       1.939000
## 472
       0.713988
## 473 1.052160
## 474 0.268422
## 475 1.354250
## 476 1.090210
## 477 0.670064
## 478
       0.878118
## 479 0.355744
## 480 0.900543
## 481 1.161030
## 482 0.271579
## 483
      1.089000
## 484
       0.895241
## 485
       1.447480
## 486 0.374094
## 487 1.299470
## 488 0.218306
## 489 0.532059
## 490 0.452181
## 491
       1.201870
## 492
       0.176160
## 493 0.776966
## 494 0.521352
## 495 0.889703
## 496 0.840564
## 497
       0.223590
## 498
       0.936424
## 499 0.969614
## 500 0.610200
## 501 0.301749
## 502 0.173054
## 503 0.491739
## 504
       1.152960
## 505
       0.984634
## 506 0.427007
## 507 0.389895
## 508 0.808355
## 509 0.828733
## 510 0.398286
## 511
       1.103340
## 512 0.692594
## 513 0.417119
## 514 1.045570
## 515 0.578287
## 516 1.440530
## 517
       0.232141
## 518
      1.092160
## 519 0.789335
## 520 1.332230
## 521 1.741540
## 522 0.172549
## 523 0.620411
## 524
       0.950585
## 525 1.100820
## 526 0.174831
## 527 0.951560
## 528 0.435229
## 529 0.379780
## 530 0.324422
## 531 1.222120
## 532 0.709259
## 533 1.544660
## 534 1.781100
## 535 1.257290
## 536 0.534236
## 537
       0.295004
## 538 1.488120
## 539 1.173950
```

```
## 540 0.863397
## 541 0.612709
## 542 0.618976
## 543
       0.271955
## 544
       0.386399
## 545
      0.297429
## 546
      0.442029
## 547
      0.297993
## 548 1.046650
## 549
      0.561539
## 550
       0.372295
## 551 0.511069
## 552 0.889674
## 553 1.227660
## 554 0.310523
## 555 0.313226
## 556 0.602654
## 557
       0.646413
## 558 0.548850
      0.471619
## 559
## 560
      0.575499
## 561 0.941822
## 562
      0.673993
## 563
       0.928864
## 564
       0.349234
## 565 1.735380
## 566 1.809570
## 567 0.395249
## 568 0.769590
## 569 0.461501
## 570
       0.854837
## 571 1.485530
## 572 0.841169
## 573 0.608539
## 574 1.875890
## 575 0.540821
## 576
       0.512632
## 577
       0.372514
## 578 1.197450
## 579 0.528083
## 580 0.762124
## 581 0.898723
## 582 0.280509
## 583
       0.306155
## 584
       1.163670
## 585 1.903380
## 586 0.389398
## 587 0.436314
## 588 0.862637
## 589
       1.315310
## 590
       1.350060
## 591 1.522780
## 592 1.173460
## 593 0.408859
## 594 1.043780
## 595 0.710145
## 596
       1.259010
## 597
       0.804665
## 598 0.675848
      0.129908
## 599
## 600
      0.652542
## 601 0.648347
## 602
       0.715671
## 603
       0.966612
## 604
       1.540920
## 605 0.769736
## 606 0.801938
## 607 1.784220
## 608 1.012080
## 609
       0.424209
## 610
      0.977063
## 611 1.515110
## 612 0.696417
## 613 0.422414
## 614 0.389891
## 615 0.288233
## 616
       1.325100
## 617 0.724624
## 618 0.204380
```

```
## 619 0.187784
## 620 0.610613
## 621 1.017910
## 622 0.334709
## 623
       0.961143
## 624
      0.719341
## 625 1.784280
## 626 0.658529
## 627 0.575619
## 628 0.531595
## 629
       0.879845
## 630 1.539400
## 631 0.313020
## 632 1.620890
## 633 1.324810
## 634 0.523812
## 635 0.296016
## 636
       1.172690
## 637 1.433800
## 638 0.686906
## 639
      0.761800
## 640 0.307690
## 641 0.777019
## 642
       1.022860
## 643
       0.915036
## 644 1.460130
## 645 0.569047
## 646 0.350679
## 647 0.415507
## 648 0.378559
## 649
       0.349272
## 650 1.905790
## 651 1.027580
## 652 0.190653
## 653 0.982497
## 654 1.388970
## 655
       0.453531
## 656
       0.395385
## 657 1.418990
## 658 1.725740
## 659 0.743631
## 660 0.482932
## 661 0.915711
## 662
       1.244900
## 663
       0.695939
## 664
      1.404620
## 665 0.717230
## 666 1.572060
## 667 1.212910
## 668
      1.992090
## 669
       0.428608
## 670 1.145010
## 671 0.988919
## 672 0.306205
## 673 0.570605
## 674 0.642125
## 675
       0.436438
## 676
       0.744178
## 677 1.325880
## 678 0.633400
## 679 0.448167
## 680 0.347247
## 681
       0.520964
## 682
       0.666776
## 683
       0.880831
## 684 0.667454
## 685 1.619130
## 686 0.777382
## 687 0.678877
## 688
       0.424178
## 689
       1.417610
## 690 1.063510
## 691 0.983836
## 692 0.696381
## 693 0.511657
## 694 1.391550
## 695
       1.703500
## 696
       0.326719
## 697 0.796012
```

```
## 698 1.713660
## 699 0.952812
## 700 0.481638
## 701 0.659161
##
  702
       0.866611
## 703
       0.807370
## 704
       1.756310
## 705
       0.561439
## 706
      1.141850
## 707
       0.841651
## 708
       0.281756
## 709
       1.278280
## 710 0.688765
## 711 0.681796
## 712 0.131000
## 713 0.769820
## 714 1.144640
## 715
       1.601650
## 716
       1.154360
## 717 1.747390
## 718 0.709150
## 719 1.048790
## 720
       1.777630
## 721
       0.595498
## 722
       1.708470
## 723 0.202266
## 724 0.464318
## 725 1.255790
## 726 0.573068
## 727
       0.157311
## 728
       0.563411
## 729
       1.999750
## 730 0.688940
## 731 1.177360
## 732 0.983485
## 733 0.491706
## 734
       1.299640
## 735
       1.373960
## 736 0.610608
## 737 1.297030
## 738 0.466223
## 739 0.452559
## 740 0.758272
## 741
       0.718608
## 742
       1.690570
## 743
       0.801683
## 744
       0.884278
## 745
      1.450800
## 746 0.179524
## 747
       0.962452
## 748
       1.541760
## 749
       0.711263
## 750 0.541484
## 751 0.737803
## 752 0.650789
## 753 0.586952
## 754
       1.715330
## 755
       0.484700
## 756
      0.211350
## 757
       1.382020
## 758
      0.654825
## 759 0.275558
## 760
       0.399529
## 761
       1.368310
## 762
       1.045760
## 763 0.338066
## 764 0.167505
## 765 0.651249
## 766 0.671399
## 767
       1.523610
## 768
       1.067240
## 769
       0.537037
## 770
      0.076395
## 771 0.436812
## 772 0.613688
## 773 0.323959
## 774
       1.452180
## 775 0.781020
## 776 0.272550
```

```
## 777 0.956832
## 778 0.889898
## 779 1.298330
## 780 0.321149
##
  781
       0.544732
       1.758440
## 782
## 783 0.723634
## 784 0.439204
## 785 1.907240
## 786
      0.555972
## 787
       0.767344
## 788
      1.364260
## 789 0.574947
## 790 0.350032
## 791 0.200013
## 792 0.623309
## 793 0.444849
## 794
       0.981692
## 795 0.673549
## 796 1.285300
## 797
      0.812728
## 798 0.929329
## 799
      1.829800
## 800
       1.103610
## 801
       0.450938
## 802 0.786503
## 803 0.555961
## 804 1.444580
## 805 0.915759
## 806 0.797113
## 807
       0.918825
## 808 1.244650
## 809 0.359905
## 810 0.384856
## 811 1.284690
## 812 1.521660
## 813 0.454266
## 814 1.100720
## 815 0.296649
## 816 0.590995
## 817 1.759760
## 818 0.580394
## 819 1.184840
## 820
       0.798344
## 821 0.507399
## 822 0.139078
## 823 0.562353
## 824 0.912336
## 825 0.705228
## 826
       0.637968
## 827
       0.405569
## 828 0.278717
## 829 0.658491
## 830 1.153620
## 831 0.684541
## 832 0.268929
## 833
       0.872776
## 834
       0.631762
## 835 0.647203
## 836 0.889893
## 837 0.712916
## 838 0.605177
## 839
       0.648684
## 840
       1.822160
## 841
       0.588660
## 842 0.641714
## 843 0.544146
## 844 0.936851
## 845 0.480721
## 846
      0.483366
## 847
       1.351680
## 848 0.729471
## 849 0.568118
## 850 1.475570
## 851 0.313808
## 852 0.433506
## 853
       0.793115
## 854 0.696927
## 855 0.618978
```

```
## 856 0.827636
## 857 1.395520
## 858 0.509914
## 859 1.133290
## 860
       1.033800
## 861 1.329920
## 862 0.305729
## 863
      1.116910
## 864 0.634140
## 865
      0.748596
## 866
       0.892455
## 867
       0.632463
## 868 1.964550
## 869 1.007470
## 870 1.042920
## 871 1.594860
## 872 0.920326
## 873
       0.808711
## 874 0.616502
## 875 0.598060
## 876 0.789569
## 877 0.793823
## 878
      1.577760
## 879
       1.426110
## 880
       0.784364
## 881 0.184738
## 882 1.882910
## 883 1.114880
## 884 1.005970
## 885
      1.129950
## 886
       0.819274
## 887 0.544098
## 888 0.769383
## 889 1.645730
## 890 0.389985
## 891 1.219490
## 892 0.384126
## 893
       1.030110
## 894 0.409148
## 895 1.160370
## 896 0.385244
## 897 0.686904
## 898 0.687556
## 899
       0.164506
## 900
       0.791404
## 901 1.283780
## 902 0.653855
## 903 0.950765
## 904 0.440546
## 905
       0.411476
## 906
       0.576010
## 907 0.845372
## 908 1.711830
## 909 1.190610
## 910 0.424468
## 911 0.459487
## 912 1.002450
## 913
       0.642470
## 914 0.566719
## 915 1.448990
## 916 0.902860
## 917 0.625509
## 918
      0.399357
## 919
       1.066130
## 920 0.890052
## 921 0.284800
## 922 1.700870
## 923 0.358096
## 924 1.127890
## 925 0.818683
## 926
       1.338150
## 927 0.855141
## 928 0.421220
## 929 0.359827
## 930 0.309881
## 931 0.664733
## 932 0.252191
## 933 1.933820
## 934 0.223148
```

```
## 935 0.294844
## 936 0.960195
## 937 0.994816
## 938 0.713644
## 939
       1.208030
## 940 0.812628
## 941 1.087820
## 942 1.106350
## 943 1.361730
## 944 1.119300
## 945
       1.847060
## 946
       0.702590
## 947 0.710949
## 948 0.581404
## 949 1.155710
## 950 0.828378
## 951 1.147100
## 952
       1.891730
## 953 1.063300
## 954 0.380254
## 955 0.627867
## 956 1.074360
## 957 0.423756
## 958
       0.903178
## 959
       1.696920
## 960 0.384738
## 961 0.272981
## 962 0.450567
## 963 0.194929
## 964 0.330330
## 965
       0.446724
## 966
      1.250940
## 967 0.266936
## 968 0.795238
## 969 0.310011
## 970 0.441653
## 971 1.282920
## 972
       0.479331
## 973 0.359701
## 974 0.731712
## 975 1.183490
## 976 1.961030
## 977 1.326240
## 978
      0.460027
## 979 0.834811
## 980 0.509927
## 981 1.510680
## 982 0.631836
## 983 1.352270
## 984
      0.485178
## 985
       0.605580
## 986 1.424510
## 987 0.426535
## 988 0.766946
## 989 0.570010
## 990 0.363068
## 991 0.882841
## 992
       0.845515
## 993 1.332660
## 994 0.357051
## 995 1.866900
## 996 1.303380
## 997 0.725370
## 998 0.434724
## 999 1.241660
## 1000 0.974806
## 1001 0.824111
## 1002 0.446104
## 1003 0.523178
## 1004 0.372520
## 1005 0.356415
## 1006 1.449790
## 1007 0.713642
## 1008 0.317569
## 1009 1.119470
## 1010 0.288390
## 1011 0.437353
## 1012 0.828483
## 1013 1.926660
```

```
## 1014 0.569327
## 1015 1.355420
## 1016 0.986298
## 1017 0.837283
## 1018 0.899295
## 1019 0.724936
## 1020 0.500149
## 1021 0.800730
## 1022 0.850340
## 1023 0.651312
## 1024 0.699849
## 1025 0.230300
## 1026 1.238010
## 1027 1.162570
## 1028 0.654413
## 1029 0.580463
## 1030 1.246980
## 1031 0.809042
## 1032 1.482510
## 1033 0.522195
## 1034 1.097830
## 1035 1.038510
## 1036 0.520126
## 1037 0.148531
## 1038 0.349564
## 1039 1.128230
## 1040 1.082290
## 1041 0.712848
## 1042 0.929697
## 1043 1.115120
## 1044 0.514160
## 1045 0.498821
## 1046 1.582500
## 1047 1.206440
## 1048 0.130146
## 1049 0.443536
## 1050 0.706122
## 1051 0.679018
## 1052 0.613701
## 1053 0.900330
## 1054 0.819765
## 1055 0.830085
## 1056 0.514380
## 1057 0.601901
## 1058 0.474169
## 1059 1.135650
## 1060 1.480690
## 1061 0.916790
## 1062 0.379365
## 1063 1.096660
## 1064 0.984317
## 1065 1.120650
## 1066 0.930353
## 1067 0.823104
## 1068 1.042620
## 1069 0.917421
## 1070 1.235700
## 1071 0.165272
## 1072 0.409244
## 1073 1.212220
## 1074 1.397400
## 1075 0.257817
## 1076 0.723725
## 1077 0.957841
## 1078 1.103810
## 1079 1.620440
## 1080 0.940488
## 1081 0.924112
## 1082 0.631864
## 1083 0.624216
## 1084 0.422205
## 1085 0.702783
## 1086 0.441948
## 1087 0.316079
## 1088 0.561905
## 1089 0.391024
## 1090 0.550212
## 1091 0.848594
## 1092 0.566419
```

```
## 1093 1.237500
## 1094 1.078360
## 1095 1.074300
## 1096 0.680615
## 1097 0.367060
## 1098 0.293368
## 1099 0.291682
## 1100 0.545128
## 1101 0.733073
## 1102 0.540185
## 1103 0.573199
## 1104 0.688033
## 1105 0.358122
## 1106 0.875972
## 1107 1.289200
## 1108 0.877714
## 1109 0.344043
## 1110 0.785911
## 1111 0.538164
## 1112 0.687100
## 1113 0.756096
## 1114 1.069440
## 1115 1.179080
## 1116 0.775820
## 1117 0.472218
## 1118 1.419480
## 1119 0.314888
## 1120 1.263080
## 1121 0.492123
## 1122 1.037260
## 1123 0.420162
## 1124 1.033080
## 1125 0.489579
## 1126 0.325234
## 1127 0.694452
## 1128 0.476270
## 1129 1.327020
## 1130 0.784673
## 1131 1.071510
## 1132 0.451943
## 1133 1.039300
## 1134 0.668662
## 1135 0.939006
## 1136 0.640858
## 1137 1.152670
## 1138 1.078150
## 1139 0.488463
## 1140 0.945476
## 1141 1.014100
## 1142 0.390529
## 1143 0.797857
## 1144 0.723854
## 1145 0.418973
## 1146 1.519930
## 1147 0.779494
## 1148 0.970911
## 1149 0.261153
## 1150 0.611420
## 1151 0.383420
## 1152 0.358975
## 1153 1.206910
## 1154 0.582114
## 1155 0.530403
## 1156 0.709551
## 1157 0.799067
## 1158 1.475290
## 1159 0.523821
## 1160 0.606739
## 1161 0.389029
## 1162 0.360421
## 1163 1.352220
## 1164 0.175962
## 1165 0.218345
## 1166 1.393990
## 1167 0.679190
## 1168 0.261937
## 1169 1.239160
## 1170 0.314527
## 1171 0.954719
```

```
## 1172 1.376290
## 1173 1.064090
## 1174 1.691250
## 1175 0.855680
## 1176 0.843612
## 1177 0.447211
## 1178 0.642737
## 1179 1.627670
## 1180 0.605234
## 1181 0.547324
## 1182 1.271340
## 1183 0.554164
## 1184 1.069720
## 1185 0.471086
## 1186 1.405760
## 1187 0.745824
## 1188 0.713022
## 1189 0.580605
## 1190 1.633760
## 1191 0.784732
## 1192 0.697142
## 1193 0.285707
## 1194 0.745663
## 1195 0.787895
## 1196 1.185900
## 1197 1.453690
## 1198 0.521189
## 1199 0.773442
## 1200 0.337535
## 1201 0.486471
## 1202 0.616958
## 1203 1.787400
## 1204 0.732669
## 1205 0.381414
## 1206 1.565830
## 1207 0.885095
## 1208 0.566536
## 1209 0.863136
## 1210 0.885677
## 1211 0.355174
## 1212 0.669552
## 1213 0.581995
## 1214 0.828182
## 1215 1.216150
## 1216 0.780261
## 1217 0.765861
## 1218 0.865040
## 1219 1.049540
## 1220 1.742520
## 1221 0.409766
## 1222 0.599780
## 1223 0.644713
## 1224 0.655711
## 1225 0.456572
## 1226 0.785593
## 1227 0.996509
## 1228 0.840855
## 1229 1.017790
## 1230 0.730941
## 1231 1.824470
## 1232 0.414657
## 1233 0.645733
## 1234 1.142080
## 1235 0.575610
## 1236 1.070210
## 1237 0.370442
## 1238 1.071470
## 1239 0.648668
## 1240 1.579200
## 1241 1.101320
## 1242 0.477839
## 1243 0.859494
## 1244 1.305210
## 1245 0.898126
## 1246 1.159200
## 1247 0.835378
## 1248 0.558851
## 1249 0.680760
## 1250 1.346330
```

```
## 1251 1.157940
## 1252 0.478218
## 1253 1.431560
## 1254 1.895360
## 1255 0.681743
## 1256 0.548267
## 1257 1.602740
## 1258 0.638555
## 1259 0.695966
## 1260 0.903930
## 1261 0.582420
## 1262 0.841607
## 1263 0.676322
## 1264 1.202290
## 1265 0.645718
## 1266 1.239870
## 1267 1.215980
## 1268 0.479970
## 1269 1.100210
## 1270 0.402212
## 1271 0.297780
## 1272 0.513706
## 1273 1.379420
## 1274 1.300940
## 1275 0.075805
## 1276 1.791590
## 1277 1.508480
## 1278 0.592881
## 1279 1.451630
## 1280 0.747513
## 1281 0.503258
## 1282 1.147370
## 1283 0.860344
## 1284 1.048740
## 1285 0.976286
## 1286 0.548142
## 1287 1.423180
## 1288 1.528590
## 1289 0.602567
## 1290 0.588359
## 1291 0.328814
## 1292 1.426700
## 1293 0.439689
## 1294 0.915544
## 1295 0.921431
## 1296 0.205381
## 1297 0.955635
## 1298 0.328117
## 1299 1.011270
## 1300 0.639028
## 1301 1.350890
## 1302 1.093130
## 1303 1.713150
## 1304 0.645538
## 1305 0.219772
## 1306 0.564301
## 1307 0.297510
## 1308 0.613757
## 1309 0.415940
## 1310 0.940923
## 1311 1.168910
## 1312 0.942364
## 1313 1.643160
## 1314 0.586762
## 1315 1.100010
## 1316 1.037340
## 1317 0.551559
## 1318 0.434362
## 1319 0.292508
## 1320 0.302978
## 1321 0.571322
## 1322 0.443982
## 1323 0.191725
## 1324 0.770242
## 1325 0.953808
## 1326 1.416880
## 1327 1.754080
## 1328 0.448860
## 1329 1.214760
```

```
## 1330 0.412240
## 1331 0.935388
## 1332 0.562872
## 1333 0.790934
## 1334 0.585440
## 1335 0.552576
## 1336 0.363238
## 1337 1.276550
## 1338 0.294981
## 1339 0.597356
## 1340 0.712063
## 1341 1.371300
## 1342 1.665900
## 1343 1.171630
## 1344 0.560910
## 1345 0.801453
## 1346 0.333923
## 1347 1.387210
## 1348 0.367148
## 1349 0.693863
## 1350 1.018160
## 1351 0.406435
## 1352 1.267410
## 1353 0.442792
## 1354 0.936959
## 1355 0.680798
## 1356 0.701540
## 1357 0.270258
## 1358 0.889667
## 1359 0.391867
## 1360 0.871539
## 1361 0.771241
## 1362 0.476663
## 1363 1.148780
## 1364 1.151010
## 1365 0.233060
## 1366 0.637631
## 1367 1.081790
## 1368 0.342263
## 1369 0.686977
## 1370 0.218406
## 1371 1.408580
## 1372 0.402825
## 1373 0.774171
## 1374 0.199270
## 1375 0.593285
## 1376 0.761258
## 1377 1.917070
## 1378 1.115660
## 1379 0.380604
## 1380 1.668510
## 1381 1.079470
## 1382 0.530083
## 1383 0.937668
## 1384 0.547977
## 1385 0.660215
## 1386 1.496280
## 1387 0.960974
## 1388 0.548942
## 1389 0.585941
## 1390 1.028450
## 1391 0.574318
## 1392 0.752318
## 1393 1.173380
## 1394 0.423648
## 1395 0.585281
## 1396 0.324737
## 1397 0.859174
## 1398 0.599588
## 1399 0.682985
## 1400 1.712800
## 1401 0.779542
## 1402 0.958524
## 1403 0.579707
## 1404 1.285540
## 1405 0.760851
## 1406 0.545932
## 1407 1.014640
## 1408 0.368329
```

```
## 1409 1.418500
## 1410 0.499849
## 1411 1.693730
## 1412 0.604443
## 1413 0.965271
## 1414 0.709661
## 1415 1.714180
## 1416 0.613908
## 1417 0.971819
## 1418 1.038430
## 1419 0.302527
## 1420 0.643119
## 1421 0.609966
## 1422 0.794049
## 1423 1.243820
## 1424 0.331349
## 1425 1.058200
## 1426 0.428184
## 1427 0.911584
## 1428 0.253190
## 1429 1.683400
## 1430 0.976822
## 1431 0.426907
## 1432 0.508998
## 1433 1.849810
## 1434 0.520402
## 1435 0.470458
## 1436 1.217300
## 1437 0.318606
## 1438 0.954700
## 1439 1.354310
## 1440 0.777454
## 1441 0.663707
## 1442 0.510672
## 1443 1.016380
## 1444 0.687875
## 1445 0.319455
## 1446 0.560477
## 1447 1.092730
## 1448 0.507216
## 1449 1.246270
## 1450 1.262540
## 1451 0.499691
## 1452 0.654138
## 1453 0.263147
## 1454 0.938424
## 1455 0.346395
## 1456 1.067250
## 1457 1.107850
## 1458 1.018560
## 1459 0.810421
## 1460 1.069010
## 1461 0.746632
## 1462 0.429100
## 1463 0.372589
## 1464 0.698854
## 1465 0.352130
## 1466 1.025270
## 1467 0.876508
## 1468 0.951112
## 1469 0.344208
## 1470 0.677931
## 1471 0.185498
## 1472 1.445080
## 1473 0.685786
## 1474 1.761300
## 1475 0.364135
## 1476 0.669262
## 1477 1.213990
## 1478 0.713284
## 1479 0.750376
## 1480 0.802985
## 1481 1.148010
## 1482 0.582800
## 1483 1.008050
## 1484 1.478380
## 1485 0.665949
## 1486 1.190420
## 1487 0.383590
```

```
## 1488 0.884826
## 1489 1.065030
## 1490 1.132260
## 1491 1.391140
## 1492 0.507004
## 1493 0.194687
## 1494 0.698277
## 1495 0.654896
## 1496 0.620046
## 1497 0.573484
## 1498 0.656321
## 1499 0.723766
## 1500 0.597333
## 1501 1.010160
## 1502 0.200854
## 1503 0.721141
## 1504 0.412756
## 1505 0.206867
## 1506 1.764530
## 1507 0.906648
## 1508 0.353796
## 1509 0.492927
## 1510 1.755950
## 1511 0.963683
## 1512 0.929503
## 1513 0.678801
## 1514 0.708006
## 1515 0.495512
## 1516 0.926115
## 1517 1.034000
## 1518 0.442400
## 1519 1.239060
## 1520 0.296031
## 1521 0.037134
## 1522 0.813583
## 1523 0.921292
## 1524 0.500316
## 1525 0.663053
## 1526 0.493683
## 1527 0.734364
## 1528 0.603122
## 1529 0.494158
## 1530 0.426118
## 1531 1.774390
## 1532 0.771747
## 1533 0.374195
## 1534 0.630627
## 1535 0.589804
## 1536 1.095490
## 1537 1.239110
## 1538 0.134534
## 1539 0.149830
## 1540 0.757973
## 1541 1.128460
## 1542 0.666177
## 1543 0.516973
## 1544 0.721917
## 1545 0.478661
## 1546 1.032990
## 1547 1.374430
## 1548 1.703560
## 1549 1.288070
## 1550 0.201025
## 1551 1.345940
## 1552 1.215220
## 1553 0.445665
## 1554 0.347439
## 1555 0.900991
## 1556 1.033670
## 1557 0.204368
## 1558 1.033830
## 1559 0.488756
## 1560 1.064170
## 1561 0.447658
## 1562 0.455726
## 1563 0.861593
## 1564 1.436010
## 1565 0.716506
## 1566 0.336042
```

```
## 1567 0.434734
## 1568 1.077440
## 1569 0.898129
## 1570 1.170210
## 1571 0.455617
## 1572 0.511851
## 1573 0.713641
## 1574 0.410245
## 1575 0.198883
## 1576 0.547030
## 1577 0.471747
## 1578 0.882290
## 1579 0.135107
## 1580 1.152560
## 1581 0.277048
## 1582 1.087560
## 1583 1.034040
## 1584 0.674701
## 1585 0.609764
## 1586 0.578637
## 1587 0.522281
## 1588 0.757685
## 1589 0.766725
## 1590 1.368550
## 1591 0.102226
## 1592 0.605568
## 1593 1.431400
## 1594 0.693565
## 1595 0.656387
## 1596 1.345310
## 1597 1.006090
## 1598 1.451400
## 1599 0.196377
## 1600 0.469586
## 1601 1.747850
## 1602 0.613317
## 1603 0.192320
## 1604 0.737520
## 1605 0.852167
## 1606 0.963136
## 1607 1.910970
## 1608 1.050510
## 1609 0.315302
## 1610 0.677292
## 1611 1.819150
## 1612 0.546421
## 1613 0.557063
## 1614 1.712010
## 1615 0.468225
## 1616 0.175766
## 1617 0.228706
## 1618 0.407367
## 1619 0.480432
## 1620 1.002230
## 1621 1.361500
## 1622 1.424130
## 1623 1.481850
## 1624 1.048760
## 1625 0.710991
## 1626 0.976414
## 1627 0.715076
## 1628 0.879828
## 1629 1.981940
## 1630 1.179270
## 1631 0.314311
## 1632 1.676000
## 1633 0.833629
## 1634 0.475117
## 1635 0.651442
## 1636 0.803416
## 1637 1.609680
## 1638 0.399545
## 1639 0.416215
## 1640 1.139410
## 1641 0.205073
## 1642 0.591492
## 1643 0.933854
## 1644 0.475998
## 1645 1.615550
```

```
## 1646 1.077460
## 1647 1.266230
## 1648 0.348812
## 1649 0.987938
## 1650 0.287928
## 1651 0.745778
## 1652 1.228300
## 1653 1.231470
## 1654 1.184300
## 1655 0.585152
## 1656 0.550375
## 1657 0.981300
## 1658 1.060710
## 1659 0.308967
## 1660 0.264381
## 1661 0.281884
## 1662 1.088520
## 1663 0.536362
## 1664 0.444004
## 1665 0.948768
## 1666 0.227378
## 1667 0.471569
## 1668 0.883171
## 1669 1.280050
## 1670 1.708910
## 1671 1.662130
## 1672 0.657238
## 1673 0.953176
## 1674 0.605167
## 1675 1.653330
## 1676 0.689870
## 1677 1.010320
## 1678 0.966781
## 1679 0.409017
## 1680 0.497700
## 1681 0.712291
## 1682 1.051120
## 1683 0.753509
## 1684 0.711402
## 1685 1.119160
## 1686 1.420530
## 1687 0.453817
## 1688 0.646297
## 1689 0.376051
## 1690 0.362994
## 1691 0.725510
## 1692 0.617719
## 1693 0.239677
## 1694 0.375714
## 1695 0.229144
## 1696 0.486188
## 1697 0.507596
## 1698 0.593852
## 1699 0.661241
## 1700 0.353709
## 1701 0.392430
## 1702 0.726006
## 1703 0.411620
## 1704 0.945634
## 1705 0.725326
## 1706 1.494270
## 1707 0.959115
## 1708 0.448842
## 1709 0.559716
## 1710 0.907093
## 1711 0.685235
## 1712 1.636770
## 1713 0.307398
## 1714 1.019860
## 1715 0.700114
## 1716 0.475013
## 1717 1.878690
## 1718 0.859715
## 1719 0.640525
## 1720 0.994939
## 1721 0.116466
## 1722 1.011680
## 1723 0.302182
## 1724 0.341642
```

```
## 1725 0.459364
## 1726 0.788513
## 1727 1.751530
## 1728 1.141050
## 1729 0.632825
## 1730 0.955716
## 1731 0.699748
## 1732 1.157310
## 1733 0.436747
## 1734 1.178740
## 1735 0.310017
## 1736 0.432849
## 1737 0.943067
## 1738 0.957862
## 1739 0.817730
## 1740 1.445470
## 1741 0.144417
## 1742 0.945615
## 1743 0.286063
## 1744 0.569839
## 1745 1.163380
## 1746 1.551940
## 1747 0.518770
## 1748 1.862060
## 1749 0.914323
## 1750 0.236115
## 1751 1.046790
## 1752 0.946085
## 1753 0.602572
## 1754 0.676096
## 1755 0.521128
## 1756 0.690098
## 1757 0.819575
## 1758 1.179400
## 1759 1.407580
## 1760 0.713486
## 1761 0.914585
## 1762 0.638407
## 1763 1.327170
## 1764 1.363380
## 1765 0.637703
## 1766 1.014350
## 1767 0.818845
## 1768 0.565849
## 1769 1.484200
## 1770 0.403319
## 1771 0.928627
## 1772 1.108480
## 1773 0.624988
## 1774 0.912487
## 1775 0.537951
## 1776 1.145380
## 1777 0.829634
## 1778 1.180590
## 1779 0.467754
## 1780 1.082620
## 1781 0.499494
## 1782 0.962159
## 1783 0.594640
## 1784 0.256087
## 1785 0.719669
## 1786 1.627970
## 1787 0.707902
## 1788 1.064770
## 1789 0.483774
## 1790 0.393174
## 1791 0.436310
## 1792 1.241820
## 1793 0.748787
## 1794 1.675890
## 1795 1.913960
## 1796 0.850355
## 1797 0.941600
## 1798 1.976360
## 1799 1.569130
## 1800 0.364457
## 1801 0.442527
## 1802 0.536035
## 1803 0.572135
```

```
## 1804 0.231885
## 1805 0.590159
## 1806 1.157980
## 1807 0.165821
## 1808 0.905339
## 1809 0.631061
## 1810 1.205720
## 1811 0.320317
## 1812 0.794620
## 1813 0.313082
## 1814 0.651011
## 1815 0.667036
## 1816 0.848759
## 1817 0.728958
## 1818 0.625503
## 1819 0.493391
## 1820 1.198010
## 1821 0.739233
## 1822 0.709308
## 1823 0.360064
## 1824 0.593953
## 1825 0.909473
## 1826 0.899514
## 1827 0.771310
## 1828 0.616977
## 1829 0.378247
## 1830 0.733610
## 1831 0.552532
## 1832 1.106380
## 1833 1.182280
## 1834 0.669713
## 1835 0.815844
## 1836 0.945051
## 1837 0.973604
## 1838 0.817829
## 1839 1.440550
## 1840 0.975419
## 1841 0.631608
## 1842 1.196380
## 1843 0.688684
## 1844 0.978718
## 1845 0.897120
## 1846 0.619950
## 1847 1.039660
## 1848 0.293327
## 1849 1.189360
## 1850 1.681170
## 1851 0.579294
## 1852 1.541280
## 1853 0.214447
## 1854 1.116390
## 1855 1.726950
## 1856 1.207470
## 1857 1.375900
## 1858 0.437372
## 1859 1.176630
## 1860 0.805761
## 1861 0.868705
## 1862 0.273688
## 1863 0.309356
## 1864 1.131670
## 1865 0.391051
## 1866 1.184810
## 1867 1.064840
## 1868 0.766496
## 1869 0.600255
## 1870 1.703850
## 1871 1.328250
## 1872 0.692426
## 1873 0.087135
## 1874 1.295780
## 1875 0.410054
## 1876 0.412164
## 1877 0.368688
## 1878 0.768016
## 1879 0.288372
## 1880 1.217150
## 1881 0.298517
## 1882 0.603110
```

```
## 1883 1.581550
## 1884 0.430294
## 1885 0.964261
## 1886 0.382226
## 1887 1.375270
## 1888 0.617831
## 1889 1.464280
## 1890 1.235680
## 1891 0.157483
## 1892 0.626918
## 1893 1.187140
## 1894 0.566454
## 1895 0.443458
## 1896 0.263871
## 1897 1.021330
## 1898 0.964114
## 1899 0.714067
## 1900 1.118100
## 1901 0.703183
## 1902 0.658407
## 1903 0.542431
## 1904 1.731200
## 1905 0.223274
## 1906 1.794210
## 1907 0.677900
## 1908 1.572090
## 1909 0.854981
## 1910 0.356776
## 1911 0.292623
## 1912 1.017340
## 1913 1.132920
## 1914 0.991783
## 1915 1.071450
## 1916 1.996240
## 1917 0.346988
## 1918 0.981939
## 1919 0.802231
## 1920 0.487106
## 1921 0.956676
## 1922 0.952727
## 1923 0.961886
## 1924 0.307958
## 1925 0.970351
## 1926 1.798450
## 1927 0.589566
## 1928 0.168024
## 1929 1.540520
## 1930 0.490747
## 1931 0.968359
## 1932 0.670747
## 1933 0.466957
## 1934 0.953932
## 1935 0.181079
## 1936 0.206745
## 1937 0.435895
## 1938 1.280410
## 1939 1.456560
## 1940 0.973714
## 1941 0.982865
## 1942 0.999182
## 1943 1.061790
## 1944 0.207878
## 1945 0.409475
## 1946 0.765828
## 1947 0.618792
## 1948 1.242170
## 1949 1.570690
## 1950 0.313651
## 1951 0.701307
## 1952 0.953696
## 1953 0.432201
## 1954 1.394650
## 1955 1.204230
## 1956 1.154560
## 1957 0.793402
## 1958 1.011420
## 1959 0.117655
## 1960 0.262249
## 1961 0.597506
```

```
## 1962 0.647057
## 1963 0.425536
## 1964 0.621241
## 1965 0.907387
## 1966 0.451684
## 1967 0.562044
## 1968 0.761562
## 1969 1.030830
## 1970 0.478264
## 1971 1.162090
## 1972 0.380242
## 1973 0.380200
## 1974 0.484741
## 1975 0.333844
## 1976 0.827930
## 1977 0.190393
## 1978 1.148760
## 1979 0.648809
## 1980 1.044310
## 1981 0.306797
## 1982 1.300470
## 1983 0.898689
## 1984 0.384211
## 1985 1.962170
## 1986 0.410636
## 1987 0.660295
## 1988 0.644797
## 1989 1.035450
## 1990 0.595141
## 1991 1.059320
## 1992 1.088940
## 1993 1.039120
## 1994 1.140410
## 1995 0.727620
## 1996 0.404495
## 1997 0.415504
## 1998 0.620765
## 1999 0.488381
## 2000 0.907096
## 2001 1.625890
## 2002 0.773170
## 2003 0.557766
## 2004 0.391367
## 2005 0.791434
## 2006 0.856032
## 2007 1.737910
## 2008 0.546267
## 2009 1.317090
## 2010 0.372951
## 2011 0.348080
## 2012 1.065620
## 2013 1.089950
## 2014 0.375759
## 2015 0.118587
## 2016 1.664100
## 2017 1.166490
## 2018 1.517390
## 2019 0.377348
## 2020 1.493190
## 2021 0.227303
## 2022 0.352574
## 2023 0.473913
## 2024 1.211330
## 2025 0.154615
## 2026 0.882432
## 2027 0.904132
## 2028 0.696150
## 2029 0.305971
## 2030 1.171670
## 2031 0.362470
## 2032 0.479317
## 2033 0.440919
## 2034 0.667409
## 2035 0.379599
## 2036 1.047650
## 2037 0.780163
## 2038 0.582353
## 2039 0.653980
## 2040 1.556330
```

```
## 2041 1.756430
## 2042 0.422341
## 2043 0.602816
## 2044 0.391428
## 2045 1.574870
## 2046 0.509371
## 2047 0.934813
## 2048 0.596894
## 2049 0.477056
## 2050 0.646251
## 2051 0.479859
## 2052 0.427156
## 2053 0.841467
## 2054 1.087780
## 2055 1.585040
## 2056 0.356579
## 2057 0.438602
## 2058 0.829298
## 2059 0.522186
## 2060 0.822945
## 2061 0.591316
## 2062 1.386710
## 2063 0.526186
## 2064 1.835050
## 2065 1.799960
## 2066 0.575451
## 2067 0.421997
## 2068 0.804091
## 2069 1.011250
## 2070 0.542745
## 2071 0.414857
## 2072 1.419940
## 2073 1.521850
## 2074 0.700285
## 2075 0.544895
## 2076 1.982470
## 2077 0.880023
## 2078 0.451484
## 2079 0.681481
## 2080 1.108120
## 2081 0.869616
## 2082 0.451724
## 2083 0.972313
## 2084 1.351570
## 2085 0.487448
## 2086 0.880430
## 2087 1.187210
## 2088 0.886551
## 2089 0.453395
## 2090 0.909936
## 2091 0.498968
## 2092 0.631419
## 2093 0.818603
## 2094 0.587522
## 2095 1.345320
## 2096 0.667529
## 2097 0.978918
## 2098 0.421662
## 2099 0.846761
## 2100 0.983800
## 2101 0.645472
## 2102 1.260670
## 2103 0.660209
## 2104 0.426212
## 2105 0.455294
## 2106 0.440813
## 2107 1.637440
## 2108 0.285910
## 2109 0.301329
## 2110 0.482456
## 2111 0.536310
## 2112 0.940249
## 2113 1.617230
## 2114 1.366040
## 2115 1.580340
## 2116 0.250178
## 2117 0.438126
## 2118 0.547351
## 2119 1.044550
```

```
## 2120 0.065272
## 2121 1.335180
## 2122 1.020240
## 2123 0.257973
## 2124 0.539673
## 2125 0.316878
## 2126 0.707050
## 2127 1.812660
## 2128 0.515585
## 2129 1.194880
## 2130 1.461950
## 2131 0.697681
## 2132 0.777872
## 2133 0.494159
## 2134 1.130680
## 2135 0.892978
## 2136 1.543080
## 2137 1.937160
## 2138 0.431048
## 2139 1.131640
## 2140 0.852991
## 2141 0.430063
## 2142 1.277340
## 2143 0.842303
## 2144 0.759625
## 2145 0.771889
## 2146 0.510934
## 2147 0.652479
## 2148 0.649587
## 2149 1.366040
## 2150 1.557780
## 2151 0.598272
## 2152 0.481712
## 2153 0.850136
## 2154 0.694542
## 2155 0.553285
## 2156 0.395912
## 2157 1.121120
## 2158 0.477931
## 2159 0.843165
## 2160 0.449630
## 2161 1.036800
## 2162 0.994543
## 2163 0.938758
## 2164 1.309930
## 2165 1.750490
## 2166 0.965320
## 2167 1.045860
## 2168 0.278865
## 2169 0.246507
## 2170 0.381487
## 2171 0.743218
## 2172 0.731493
## 2173 1.295660
## 2174 0.735227
## 2175 1.012110
## 2176 1.172230
## 2177 0.494578
## 2178 0.585214
## 2179 0.572768
## 2180 1.079910
## 2181 0.834190
## 2182 1.484790
## 2183 0.678854
## 2184 0.484299
## 2185 1.367800
## 2186 1.686740
## 2187 1.369870
## 2188 0.343976
## 2189 0.842710
## 2190 1.954470
## 2191 0.930361
## 2192 1.062300
## 2193 1.374190
## 2194 0.459092
## 2195 0.333493
## 2196 1.377370
## 2197 0.185170
## 2198 1.420200
```

```
## 2199 0.698676
## 2200 0.710570
## 2201 0.519731
## 2202 0.352496
## 2203 0.263355
## 2204 0.183413
## 2205 0.437419
## 2206 0.646223
## 2207 0.721329
## 2208 0.642392
## 2209 0.795316
## 2210 0.379370
## 2211 0.583043
## 2212 1.180930
## 2213 0.157698
## 2214 0.881550
## 2215 1.073410
## 2216 0.851979
## 2217 0.795175
## 2218 1.287200
## 2219 1.303810
## 2220 1.423270
## 2221 1.735810
## 2222 1.327030
## 2223 1.266110
## 2224 1.467350
## 2225 0.665015
## 2226 1.869350
## 2227 1.177080
## 2228 0.673566
## 2229 0.570157
## 2230 0.436924
## 2231 1.851200
## 2232 0.714395
## 2233 0.383240
## 2234 0.739011
## 2235 1.166460
## 2236 0.799122
## 2237 0.697574
## 2238 0.263173
## 2239 1.330330
## 2240 0.978522
## 2241 0.819173
## 2242 1.560220
## 2243 0.663067
## 2244 0.535367
## 2245 0.710611
## 2246 0.978859
## 2247 0.985690
## 2248 1.266950
## 2249 0.493247
## 2250 0.559576
## 2251 0.985508
## 2252 0.599300
## 2253 0.925334
## 2254 1.343560
## 2255 0.748247
## 2256 0.853689
## 2257 0.509381
## 2258 0.968696
## 2259 0.470751
## 2260 1.163540
## 2261 0.421062
## 2262 1.181400
## 2263 1.398960
## 2264 0.920662
## 2265 0.609242
## 2266 0.743642
## 2267 1.275350
## 2268 1.397610
## 2269 0.427103
## 2270 0.424674
## 2271 0.615439
## 2272 0.778626
## 2273 1.467730
## 2274 0.329193
## 2275 0.791551
## 2276 0.142072
## 2277 0.690250
```

```
## 2278 0.471862
## 2279 1.087520
## 2280 0.352458
## 2281 0.667100
## 2282 1.078060
## 2283 0.569642
## 2284 0.376598
## 2285 0.449901
## 2286 0.965345
## 2287 1.048400
## 2288 0.775534
## 2289 0.742674
## 2290 0.426125
## 2291 0.358031
## 2292 1.081650
## 2293 0.712110
## 2294 0.712953
## 2295 0.539543
## 2296 1.046780
## 2297 0.202432
## 2298 1.018780
## 2299 1.222640
## 2300 0.773322
## 2301 0.966777
## 2302 1.033350
## 2303 1.296920
## 2304 0.313027
## 2305 1.521100
## 2306 0.785860
## 2307 0.670840
## 2308 0.883260
## 2309 0.438957
## 2310 1.918650
## 2311 1.157320
## 2312 0.566602
## 2313 1.345830
## 2314 1.576030
## 2315 1.168080
## 2316 1.397110
## 2317 1.168050
## 2318 0.426396
## 2319 1.738750
## 2320 1.419580
## 2321 0.388240
## 2322 0.335572
## 2323 0.544260
## 2324 0.590039
## 2325 0.922777
## 2326 1.146350
## 2327 0.961369
## 2328 1.910400
## 2329 1.050760
## 2330 1.868820
## 2331 1.772200
## 2332 1.156740
## 2333 1.306150
## 2334 0.614442
## 2335 0.467777
## 2336 0.511031
## 2337 1.680240
## 2338 0.620572
## 2339 0.607380
## 2340 1.078690
## 2341 1.673220
## 2342 0.597732
## 2343 1.073970
## 2344 1.532480
## 2345 0.720106
## 2346 1.539030
## 2347 0.797301
## 2348 0.562038
## 2349 0.716477
## 2350 0.250036
## 2351 0.969002
## 2352 1.036400
## 2353 0.448776
## 2354 1.250990
## 2355 0.791790
## 2356 0.450640
```

```
## 2357 1.088680
## 2358 1.311270
## 2359 0.878185
## 2360 0.718803
## 2361 0.637234
## 2362 1.013470
## 2363 1.244040
## 2364 1.423620
## 2365 1.197200
## 2366 0.554595
## 2367 0.294562
## 2368 0.906728
## 2369 0.655755
## 2370 0.253611
## 2371 0.709790
## 2372 0.452516
## 2373 0.598898
## 2374 0.795879
## 2375 0.685139
## 2376 1.391920
## 2377 1.648810
## 2378 0.848588
## 2379 0.769432
## 2380 1.151350
## 2381 1.032480
## 2382 0.616258
## 2383 0.688781
## 2384 1.329980
## 2385 0.528425
## 2386 1.520480
## 2387 0.917140
## 2388 1.808950
## 2389 0.965828
## 2390 0.430012
## 2391 0.451199
## 2392 0.579968
## 2393 0.969615
## 2394 1.431390
## 2395 0.170732
## 2396 0.181610
## 2397 0.413367
## 2398 0.297855
## 2399 0.379168
## 2400 1.273900
## 2401 0.748677
## 2402 0.405166
## 2403 0.361744
## 2404 1.005840
## 2405 0.214309
## 2406 0.618714
## 2407 0.511687
## 2408 0.564892
## 2409 0.914455
## 2410 0.679259
## 2411 1.991690
## 2412 0.491155
## 2413 1.902570
## 2414 0.565565
## 2415 1.216700
## 2416 1.466320
## 2417 0.820653
## 2418 0.896999
## 2419 0.849536
## 2420 0.215945
## 2421 0.428915
## 2422 0.606263
## 2423 0.474281
## 2424 0.653192
## 2425 0.837302
## 2426 1.088040
## 2427 0.940079
## 2428 1.097420
## 2429 0.577143
## 2430 1.216370
## 2431 0.590146
## 2432 0.805657
## 2433 0.495137
## 2434 1.038830
## 2435 1.582650
```

```
## 2436 0.985983
## 2437 1.888420
## 2438 0.564124
## 2439 1.419340
## 2440 0.788189
## 2441 0.540771
## 2442 1.285460
## 2443 0.326030
## 2444 0.722312
## 2445 0.546414
## 2446 1.355370
## 2447 0.438781
## 2448 0.915020
## 2449 1.259400
## 2450 1.312880
## 2451 1.051640
## 2452 0.593929
## 2453 0.591676
## 2454 0.863310
## 2455 0.594734
## 2456 0.827336
## 2457 0.779652
## 2458 0.587084
## 2459 1.682110
## 2460 0.354442
## 2461 1.412300
## 2462 0.660725
## 2463 1.380280
## 2464 0.428044
## 2465 0.899404
## 2466 0.488470
## 2467 0.526193
## 2468 1.676380
## 2469 0.358789
## 2470 0.398169
## 2471 0.193764
## 2472 0.094428
## 2473 0.621618
## 2474 0.825114
## 2475 0.471158
## 2476 1.650750
## 2477 1.161220
## 2478 0.897864
## 2479 1.163400
## 2480 0.295884
## 2481 0.763916
## 2482 0.752000
## 2483 1.253290
## 2484 0.569594
## 2485 1.034940
## 2486 1.224760
## 2487 0.344553
## 2488 0.377132
## 2489 0.818437
## 2490 0.480036
## 2491 0.545165
## 2492 0.359181
## 2493 0.627843
## 2494 0.689785
## 2495 0.967835
## 2496 0.715471
## 2497 1.135550
## 2498 0.967946
## 2499 1.350560
## 2500 0.889164
## 2501 0.937770
## 2502 0.470957
## 2503 0.941352
## 2504 0.560781
## 2505 1.055680
## 2506 1.298380
## 2507 0.942740
## 2508 1.058460
## 2509 0.301011
## 2510 1.647190
## 2511 1.666830
## 2512 0.749718
## 2513 1.949880
## 2514 0.313412
```

```
## 2515 0.484609
## 2516 1.034940
## 2517 0.759574
## 2518 0.977115
## 2519 0.770711
## 2520 0.922044
## 2521 0.763243
## 2522 0.558152
## 2523 0.932910
## 2524 0.936239
## 2525 0.286249
## 2526 0.301844
## 2527 0.291442
## 2528 0.437614
## 2529 1.048060
## 2530 0.672955
## 2531 0.938989
## 2532 0.588052
## 2533 0.775625
## 2534 0.362786
## 2535 0.423353
## 2536 0.542412
## 2537 0.423995
## 2538 0.638464
## 2539 1.382890
## 2540 1.069850
## 2541 0.665070
## 2542 0.945679
## 2543 0.391404
## 2544 0.718094
## 2545 1.074020
## 2546 0.615160
## 2547 1.073700
## 2548 1.177290
## 2549 1.595510
## 2550 1.379280
## 2551 0.386966
## 2552 0.699293
## 2553 0.299693
## 2554 0.440056
## 2555 1.487120
## 2556 0.404064
## 2557 0.712559
## 2558 0.580535
## 2559 0.374332
## 2560 0.894367
## 2561 1.077700
## 2562 1.956430
## 2563 0.846376
## 2564 0.492032
## 2565 1.061880
## 2566 0.832860
## 2567 0.543351
## 2568 0.486133
## 2569 1.533050
## 2570 0.617671
## 2571 0.715329
## 2572 1.354160
## 2573 0.562755
## 2574 0.330846
## 2575 1.008330
## 2576 0.557627
## 2577 0.779642
## 2578 0.994047
## 2579 0.682780
## 2580 1.497300
## 2581 0.577804
## 2582 1.096380
## 2583 1.169200
## 2584 0.215427
## 2585 0.554105
## 2586 1.216700
## 2587 1.086360
## 2588 0.580324
## 2589 1.211630
## 2590 0.468955
## 2591 1.058210
## 2592 0.488716
## 2593 0.161166
```

```
## 2594 0.677705
## 2595 0.201464
## 2596 1.136610
## 2597 0.485879
## 2598 1.479420
## 2599 0.634080
## 2600 0.626614
## 2601 0.598637
## 2602 0.524057
## 2603 0.315193
## 2604 0.562640
## 2605 0.647660
## 2606 0.654990
## 2607 1.248710
## 2608 0.290834
## 2609 0.456419
## 2610 1.291140
## 2611 0.716844
## 2612 0.245625
## 2613 0.823428
## 2614 0.870828
## 2615 0.770451
## 2616 0.359921
## 2617 0.486222
## 2618 0.731840
## 2619 0.958051
## 2620 0.295089
## 2621 0.395421
## 2622 0.438205
## 2623 0.934457
## 2624 0.687532
## 2625 1.159190
## 2626 0.602227
## 2627 1.022890
## 2628 1.401650
## 2629 0.469005
## 2630 0.396627
## 2631 1.238550
## 2632 0.413418
## 2633 0.904285
## 2634 1.514490
## 2635 0.701072
## 2636 1.115600
## 2637 0.423657
## 2638 0.770018
## 2639 1.060760
## 2640 0.666945
## 2641 1.382740
## 2642 1.047590
## 2643 0.254905
## 2644 0.305797
## 2645 0.720751
## 2646 0.994369
## 2647 0.594352
## 2648 0.929206
## 2649 0.692309
## 2650 0.849768
## 2651 1.180190
## 2652 1.320390
## 2653 1.418230
## 2654 0.324195
## 2655 0.672188
## 2656 1.184500
## 2657 0.385709
## 2658 0.593324
## 2659 0.796947
## 2660 0.405450
## 2661 0.477758
## 2662 0.770270
## 2663 1.524960
## 2664 1.763890
## 2665 0.770801
## 2666 0.188167
## 2667 0.598498
## 2668 0.275947
## 2669 0.740639
## 2670 1.701210
## 2671 1.362120
## 2672 1.638680
```

```
## 2673 0.742310
## 2674 0.130121
## 2675 1.356060
## 2676 0.779995
## 2677 0.585826
## 2678 0.566509
## 2679 0.580269
## 2680 0.946400
## 2681 0.706939
## 2682 0.817018
## 2683 0.831886
## 2684 0.317491
## 2685 0.490594
## 2686 0.521260
## 2687 0.446831
## 2688 1.544730
## 2689 1.814350
## 2690 0.648697
## 2691 0.550325
## 2692 1.810940
## 2693 0.659282
## 2694 1.454650
## 2695 0.399058
## 2696 1.421250
## 2697 0.382943
## 2698 0.416749
## 2699 0.982990
## 2700 0.999668
## 2701 1.456450
## 2702 0.664961
## 2703 0.807995
## 2704 0.966311
## 2705 1.432600
## 2706 0.778177
## 2707 1.175970
## 2708 0.731754
## 2709 0.312121
## 2710 0.930215
## 2711 0.696117
## 2712 0.390964
## 2713 1.084460
## 2714 0.346586
## 2715 1.535130
## 2716 0.483093
## 2717 0.062755
## 2718 0.633745
## 2719 1.628620
## 2720 0.722948
## 2721 0.746755
## 2722 0.667697
## 2723 0.661301
## 2724 0.355846
## 2725 0.674716
## 2726 1.292540
## 2727 0.390088
## 2728 0.891258
## 2729 0.513778
## 2730 0.712573
## 2731 0.422879
## 2732 1.279110
## 2733 0.787261
## 2734 0.279519
## 2735 1.611950
## 2736 0.400497
## 2737 1.066840
## 2738 1.381290
## 2739 1.132840
## 2740 1.402140
## 2741 0.675028
## 2742 1.360240
## 2743 1.190900
## 2744 0.307669
## 2745 0.395931
## 2746 0.936828
## 2747 0.643576
## 2748 0.380840
## 2749 0.727491
## 2750 0.921197
## 2751 0.172722
```

```
## 2752 0.404497
## 2753 0.553030
## 2754 0.166600
## 2755 0.501730
## 2756 1.009220
## 2757 1.905080
## 2758 1.105760
## 2759 0.300293
## 2760 0.393736
## 2761 1.851050
## 2762 0.483223
## 2763 0.385589
## 2764 0.718024
## 2765 0.985809
## 2766 0.559109
## 2767 0.537645
## 2768 0.657006
## 2769 0.819496
## 2770 0.395688
## 2771 0.594486
## 2772 0.894385
## 2773 0.678645
## 2774 0.521584
## 2775 0.558885
## 2776 1.589780
## 2777 0.367542
## 2778 1.211290
## 2779 0.424631
## 2780 0.580500
## 2781 0.478537
## 2782 0.636308
## 2783 1.033410
## 2784 0.913376
## 2785 0.435795
## 2786 0.239374
## 2787 0.460837
## 2788 0.530130
## 2789 0.485708
## 2790 1.259680
## 2791 0.804199
## 2792 0.693273
## 2793 1.545930
## 2794 0.766121
## 2795 0.382702
## 2796 0.142410
## 2797 0.799686
## 2798 0.735745
## 2799 0.402923
## 2800 0.413703
## 2801 0.203497
## 2802 0.704052
## 2803 0.692620
## 2804 0.603527
## 2805 1.104580
## 2806 0.465348
## 2807 1.598720
## 2808 1.165150
## 2809 1.525900
## 2810 0.569595
## 2811 0.934521
## 2812 0.570700
## 2813 0.316656
## 2814 1.104950
## 2815 0.615006
## 2816 1.063970
## 2817 1.360230
## 2818 0.740640
## 2819 0.128547
## 2820 1.685830
## 2821 0.767191
## 2822 0.943547
## 2823 0.244629
## 2824 1.958330
## 2825 1.606010
## 2826 0.401799
## 2827 0.740696
## 2828 1.241720
## 2829 1.501010
## 2830 1.015340
```

```
## 2831 0.687708
## 2832 0.394424
## 2833 0.835553
## 2834 0.940445
## 2835 0.633442
## 2836 1.357070
## 2837 0.829054
## 2838 0.668636
## 2839 1.683940
## 2840 0.889358
## 2841 0.745642
## 2842 0.669442
## 2843 0.817061
## 2844 1.196570
## 2845 1.296980
## 2846 1.174310
## 2847 1.419700
## 2848 1.461440
## 2849 1.209830
## 2850 0.537447
## 2851 0.783884
## 2852 0.359608
## 2853 0.656895
## 2854 0.769653
## 2855 0.488418
## 2856 0.981359
## 2857 0.402660
## 2858 0.567020
## 2859 0.298250
## 2860 0.919114
## 2861 1.680110
## 2862 1.406900
## 2863 1.622010
## 2864 0.720544
## 2865 0.145112
## 2866 0.246248
## 2867 0.498223
## 2868 1.050710
## 2869 0.655759
## 2870 0.312353
## 2871 0.710533
## 2872 0.825286
## 2873 0.665349
## 2874 0.713707
## 2875 0.254463
## 2876 0.426237
## 2877 0.437983
## 2878 1.163610
## 2879 0.916863
## 2880 0.571603
## 2881 0.373697
## 2882 0.666569
## 2883 0.255598
## 2884 0.973138
## 2885 0.587952
## 2886 1.031840
## 2887 0.365410
## 2888 1.237060
## 2889 0.692888
## 2890 0.365774
## 2891 0.667563
## 2892 0.604572
## 2893 0.817428
## 2894 0.717854
## 2895 0.701891
## 2896 0.436256
## 2897 0.447682
## 2898 0.546702
## 2899 0.720137
## 2900 0.653756
## 2901 0.993217
## 2902 0.608487
## 2903 0.363660
## 2904 0.874510
## 2905 0.486329
## 2906 0.400137
## 2907 1.397280
## 2908 0.451003
## 2909 0.957026
```

```
## 2910 0.385207
## 2911 0.642819
## 2912 0.315332
## 2913 0.444611
## 2914 0.692567
## 2915 1.291420
## 2916 0.864896
## 2917 0.969320
## 2918 0.442471
## 2919 0.382089
## 2920 0.441793
## 2921 0.273551
## 2922 1.046060
## 2923 1.141410
## 2924 0.660430
## 2925 0.469963
## 2926 0.213491
## 2927 1.206220
## 2928 0.246809
## 2929 0.561680
## 2930 1.606160
## 2931 0.763651
## 2932 0.582511
## 2933 0.677424
## 2934 0.643585
## 2935 0.254035
## 2936 1.023840
## 2937 0.816498
## 2938 0.386036
## 2939 0.610731
## 2940 0.374875
## 2941 0.386078
## 2942 1.211220
## 2943 0.483794
## 2944 1.745270
## 2945 0.331123
## 2946 1.546780
## 2947 0.382879
## 2948 0.712835
## 2949 1.002510
## 2950 1.431470
## 2951 0.679331
## 2952 1.326160
## 2953 1.171690
## 2954 1.270270
## 2955 1.409670
## 2956 0.829738
## 2957 0.670065
## 2958 0.608564
## 2959 1.096500
## 2960 1.086720
## 2961 0.362443
## 2962 0.583697
## 2963 1.320200
## 2964 0.074968
## 2965 0.577734
## 2966 1.463460
## 2967 1.037610
## 2968 0.843680
## 2969 0.780733
## 2970 1.000970
## 2971 0.945342
## 2972 0.192663
## 2973 0.755512
## 2974 0.691214
## 2975 1.436910
## 2976 0.710065
## 2977 0.499177
## 2978 1.353060
## 2979 1.061230
## 2980 0.469226
## 2981 0.806343
## 2982 0.393716
## 2983 0.417575
## 2984 0.554145
## 2985 1.420600
## 2986 0.275432
## 2987 0.769586
## 2988 1.036530
```

```
## 2989 0.386674
## 2990 1.139240
## 2991 0.356045
## 2992 0.525784
## 2993 0.692365
## 2994 1.536620
## 2995 0.925024
## 2996 0.636422
## 2997 0.379947
## 2998 0.297521
## 2999 0.480200
## 3000 0.391240
## 3001 0.305750
## 3002 1.371840
## 3003 0.316587
## 3004 0.569913
## 3005 1.053430
## 3006 0.698158
## 3007 0.414905
## 3008 0.427542
## 3009 0.445889
## 3010 0.909935
## 3011 1.066500
## 3012 0.956664
## 3013 0.213503
## 3014 0.322650
## 3015 0.663189
## 3016 0.765507
## 3017 1.334510
## 3018 0.972165
## 3019 0.332685
## 3020 0.472507
## 3021 0.968979
## 3022 0.676591
## 3023 0.744267
## 3024 0.855417
## 3025 0.630372
## 3026 1.238460
## 3027 0.255396
## 3028 0.318682
## 3029 0.243558
## 3030 0.348057
## 3031 0.856091
## 3032 0.858146
## 3033 0.670398
## 3034 1.043260
## 3035 0.502682
## 3036 0.190267
## 3037 0.991152
## 3038 1.237030
## 3039 0.576802
## 3040 1.171750
## 3041 0.840427
## 3042 0.641978
## 3043 1.078570
## 3044 0.383253
## 3045 1.870120
## 3046 0.486437
## 3047 0.554872
## 3048 0.942434
## 3049 0.689841
## 3050 0.904774
## 3051 1.024180
## 3052 0.931662
## 3053 0.155489
## 3054 0.253903
## 3055 0.101096
## 3056 0.719298
## 3057 0.579369
## 3058 0.981890
## 3059 1.240560
## 3060 1.308400
## 3061 0.350673
## 3062 1.031700
## 3063 0.249433
## 3064 0.520692
## 3065 0.740986
## 3066 0.794191
## 3067 1.749090
```

```
## 3068 1.470130
## 3069 0.387207
## 3070 0.405359
## 3071 0.385918
## 3072 0.480489
## 3073 0.122378
## 3074 1.434240
## 3075 1.539950
## 3076 0.507936
## 3077 1.446510
## 3078 0.712941
## 3079 0.281417
## 3080 1.035260
## 3081 0.576785
## 3082 1.549240
## 3083 1.586020
## 3084 0.448499
## 3085 0.634181
## 3086 1.619760
## 3087 0.583986
## 3088 0.783195
## 3089 0.483701
## 3090 0.911876
## 3091 0.679072
## 3092 1.400740
## 3093 1.495380
## 3094 0.306378
## 3095 0.350364
## 3096 0.253518
## 3097 0.639478
## 3098 1.109430
## 3099 0.561936
## 3100 0.957598
## 3101 1.011400
## 3102 1.554740
## 3103 0.864888
## 3104 0.254019
## 3105 0.949185
## 3106 1.185910
## 3107 0.970372
## 3108 0.611364
## 3109 0.950124
## 3110 1.229820
## 3111 1.009790
## 3112 1.273040
## 3113 0.619242
## 3114 0.682612
## 3115 0.319669
## 3116 1.245210
## 3117 0.976836
## 3118 0.287320
## 3119 0.903033
## 3120 0.192483
## 3121 0.793527
## 3122 1.088690
## 3123 0.434532
## 3124 1.941480
## 3125 0.474055
## 3126 0.908311
## 3127 1.448650
## 3128 1.325360
## 3129 0.732532
## 3130 0.773396
## 3131 0.789235
## 3132 1.376490
## 3133 1.501420
## 3134 0.632234
## 3135 1.424550
## 3136 0.959199
## 3137 1.564400
## 3138 0.884012
## 3139 1.226360
## 3140 0.305343
## 3141 0.967633
## 3142 0.284064
## 3143 1.161900
## 3144 1.653550
## 3145 0.379750
## 3146 0.705056
```

```
## 3147 0.660711
## 3148 1.108570
## 3149 1.085600
## 3150 1.115730
## 3151 0.306942
## 3152 0.986848
## 3153 0.356968
## 3154 0.518768
## 3155 0.394511
## 3156 0.573692
## 3157 0.962624
## 3158 0.123961
## 3159 0.809140
## 3160 0.801954
## 3161 1.867770
## 3162 0.451311
## 3163 0.923507
## 3164 0.261753
## 3165 0.343688
## 3166 1.834960
## 3167 0.842965
## 3168 1.480660
## 3169 0.665883
## 3170 0.727653
## 3171 0.753940
## 3172 0.954174
## 3173 0.505207
## 3174 0.862233
## 3175 0.471124
## 3176 0.828245
## 3177 0.622118
## 3178 0.962166
## 3179 0.510593
## 3180 0.753237
## 3181 1.245710
## 3182 0.706391
## 3183 1.648280
## 3184 0.692901
## 3185 1.106810
## 3186 0.532946
## 3187 1.059290
## 3188 0.611447
## 3189 0.327928
## 3190 0.966332
## 3191 0.620840
## 3192 0.697941
## 3193 0.547640
## 3194 0.482994
## 3195 1.957170
## 3196 1.034170
## 3197 0.605001
## 3198 1.243700
## 3199 0.306300
## 3200 1.152460
## 3201 1.128710
## 3202 0.393618
## 3203 1.567490
## 3204 1.156840
## 3205 0.246259
## 3206 0.921414
## 3207 1.492180
## 3208 1.151410
## 3209 0.802729
## 3210 0.743294
## 3211 0.775883
## 3212 0.847783
## 3213 0.481525
## 3214 1.115540
## 3215 0.819552
## 3216 1.231270
## 3217 0.389099
## 3218 0.425687
## 3219 0.464241
## 3220 0.634468
## 3221 0.386166
## 3222 0.852753
## 3223 0.985563
## 3224 0.623919
## 3225 1.089850
```

```
## 3226 0.480791
## 3227 1.518670
## 3228 0.982573
## 3229 1.087180
## 3230 1.578630
## 3231 0.519213
## 3232 0.572368
## 3233 0.981690
## 3234 0.367352
## 3235 1.154830
## 3236 0.380509
## 3237 0.544455
## 3238 1.213070
## 3239 0.710431
## 3240 0.324084
## 3241 0.406635
## 3242 0.596235
## 3243 0.761703
## 3244 0.787018
## 3245 0.130701
## 3246 1.529910
## 3247 0.795025
## 3248 0.579171
## 3249 0.848215
## 3250 1.192410
## 3251 1.334740
## 3252 1.373870
## 3253 0.706717
## 3254 0.487922
## 3255 0.920781
## 3256 0.645976
## 3257 0.834584
## 3258 0.345704
## 3259 1.142110
## 3260 1.113190
## 3261 1.692570
## 3262 1.425150
## 3263 1.210270
## 3264 1.536750
## 3265 0.630116
## 3266 0.661058
## 3267 0.587137
## 3268 0.383997
## 3269 0.194090
## 3270 1.311450
## 3271 0.631769
## 3272 0.375009
## 3273 0.335484
## 3274 0.845157
## 3275 1.198820
## 3276 0.405720
## 3277 0.722313
## 3278 0.888577
## 3279 0.482167
## 3280 1.234150
## 3281 0.708737
## 3282 1.358770
## 3283 1.411310
## 3284 0.378798
## 3285 0.206158
## 3286 1.074570
## 3287 0.863309
## 3288 0.568578
## 3289 0.745976
## 3290 0.620596
## 3291 0.373530
## 3292 0.388161
## 3293 0.730188
## 3294 0.435887
## 3295 0.304556
## 3296 1.187280
## 3297 1.090590
## 3298 0.558855
## 3299 0.166516
## 3300 0.587236
## 3301 0.445455
## 3302 0.655610
## 3303 1.068110
## 3304 0.739338
```

```
## 3305 0.430713
## 3306 0.165164
## 3307 0.279813
## 3308 0.681355
## 3309 1.217570
## 3310 0.586642
## 3311 0.765889
## 3312 1.259460
## 3313 1.718320
## 3314 0.607773
## 3315 1.291200
## 3316 0.591852
## 3317 0.967259
## 3318 0.246898
## 3319 0.428177
## 3320 1.296830
## 3321 1.091990
## 3322 1.123450
## 3323 0.436938
## 3324 0.778772
## 3325 0.828444
## 3326 0.877961
## 3327 0.129711
## 3328 0.388447
## 3329 0.487563
## 3330 0.246048
## 3331 0.682279
## 3332 0.671519
## 3333 0.071244
## 3334 1.755780
## 3335 0.757034
## 3336 0.801913
## 3337 0.800492
## 3338 1.017380
## 3339 1.791900
## 3340 0.390497
## 3341 0.594553
## 3342 1.313110
## 3343 0.209320
## 3344 1.422450
## 3345 1.034910
## 3346 0.937443
## 3347 0.661313
## 3348 1.156640
## 3349 0.423759
## 3350 0.620096
## 3351 0.699418
## 3352 0.446351
## 3353 1.583690
## 3354 0.428491
## 3355 0.501158
## 3356 1.956580
## 3357 0.156207
## 3358 1.365590
## 3359 0.743177
## 3360 0.258495
## 3361 0.751742
## 3362 0.372479
## 3363 0.420484
## 3364 1.144890
## 3365 0.685350
## 3366 0.393996
## 3367 0.717889
## 3368 0.664041
## 3369 0.390920
## 3370 0.207976
## 3371 0.849405
## 3372 0.783710
## 3373 1.192900
## 3374 1.115070
## 3375 0.355111
## 3376 0.496549
## 3377 1.131900
## 3378 0.811292
## 3379 1.583300
## 3380 1.343710
## 3381 0.812316
## 3382 0.427439
## 3383 0.319134
```

```
## 3384 0.791308
## 3385 0.306315
## 3386 0.657138
## 3387 1.173930
## 3388 0.587435
## 3389 1.026160
## 3390 1.173580
## 3391 1.949520
## 3392 1.671730
## 3393 0.422723
## 3394 1.107480
## 3395 0.560692
## 3396 0.369294
## 3397 0.658170
## 3398 0.493003
## 3399 0.711897
## 3400 0.411973
## 3401 1.245660
## 3402 1.401340
## 3403 0.402247
## 3404 0.639877
## 3405 0.303783
## 3406 0.326821
## 3407 0.805413
## 3408 0.384365
## 3409 1.278570
## 3410 1.080730
## 3411 0.352252
## 3412 0.414468
## 3413 0.988940
## 3414 0.972248
## 3415 0.792704
## 3416 0.414502
## 3417 0.731350
## 3418 0.476762
## 3419 1.551150
## 3420 0.924313
## 3421 0.166377
## 3422 0.836555
## 3423 1.319180
## 3424 1.179960
## 3425 1.713530
## 3426 1.951410
## 3427 0.788413
## 3428 0.722028
## 3429 0.780974
## 3430 0.436308
## 3431 0.330500
## 3432 0.409328
## 3433 1.253990
## 3434 0.540012
## 3435 0.829820
## 3436 0.419559
## 3437 0.632701
## 3438 0.828232
## 3439 0.838853
## 3440 0.587076
## 3441 0.400794
## 3442 1.782280
## 3443 1.074000
## 3444 1.660580
## 3445 0.183433
## 3446 0.560975
## 3447 0.387340
## 3448 0.567893
## 3449 1.022630
## 3450 1.058500
## 3451 0.835798
## 3452 1.220080
## 3453 0.707049
## 3454 1.086540
## 3455 0.508899
## 3456 1.182010
## 3457 0.186958
## 3458 1.107320
## 3459 0.634342
## 3460 0.226186
## 3461 1.089660
## 3462 0.656069
```

```
## 3463 0.546769
## 3464 1.423800
## 3465 0.454385
## 3466 0.647287
## 3467 1.136690
## 3468 0.420525
## 3469 0.841314
## 3470 1.169900
## 3471 0.398576
## 3472 0.455139
## 3473 0.375849
## 3474 0.351446
## 3475 0.661580
## 3476 0.659850
## 3477 0.568764
## 3478 0.683436
## 3479 0.249893
## 3480 1.042490
## 3481 0.940758
## 3482 0.776059
## 3483 1.924340
## 3484 1.351910
## 3485 0.812490
## 3486 1.461380
## 3487 1.015340
## 3488 0.550422
## 3489 0.748033
## 3490 1.837930
## 3491 0.379207
## 3492 0.099304
## 3493 0.431676
## 3494 0.449880
## 3495 1.159250
## 3496 1.060990
## 3497 0.414935
## 3498 0.410800
## 3499 0.871459
## 3500 0.535491
## 3501 0.549084
## 3502 0.361537
## 3503 0.621432
## 3504 0.761113
## 3505 0.251027
## 3506 1.654930
## 3507 1.697360
## 3508 0.698320
## 3509 1.198670
## 3510 0.407887
## 3511 0.306785
## 3512 0.413497
## 3513 0.515911
## 3514 1.415610
## 3515 0.652534
## 3516 1.061300
## 3517 0.634123
## 3518 0.225647
## 3519 0.782743
## 3520 0.627144
## 3521 0.463141
## 3522 0.247512
## 3523 0.918242
## 3524 0.691403
## 3525 0.433926
## 3526 1.437730
## 3527 1.115710
## 3528 0.695917
## 3529 0.897010
## 3530 0.130250
## 3531 0.604007
## 3532 1.212630
## 3533 0.557026
## 3534 1.303040
## 3535 0.167485
## 3536 1.190120
## 3537 0.812731
## 3538 1.071990
## 3539 1.224500
## 3540 0.431148
## 3541 0.778143
```

```
## 3542 1.495860
## 3543 1.315130
## 3544 0.439371
## 3545 1.003920
##
   3546 1.225390
## 3547 1.124760
## 3548 1.209490
## 3549 0.563718
## 3550 0.775939
## 3551 0.996019
## 3552 0.842896
## 3553 0.773781
## 3554 0.515378
## 3555 0.372457
## 3556 1.327240
## 3557 1.090320
## 3558 0.528929
## 3559 0.805433
## 3560 0.450417
## 3561 0.669310
## 3562 0.315142
## 3563 0.744409
## 3564 0.750115
## 3565 0.644434
## 3566 1.253550
## 3567 0.431480
## 3568 1.543780
## 3569 0.828357
## 3570 0.169492
## 3571 0.574670
## 3572 1.324360
## 3573 1.684530
## 3574 1.149260
## 3575 1.317320
## 3576 0.562638
## 3577 1.211860
## 3578 1.472000
## 3579 0.638107
## 3580 1.026220
## 3581 1.123900
## 3582 1.090780
## 3583 1.955540
## 3584 0.716952
##
  3585 0.215375
## 3586 0.264562
## 3587 1.002130
## 3588 1.040450
## 3589 0.924104
## 3590 0.703326
## 3591 1.119340
## 3592 0.601981
## 3593 0.916685
## 3594 0.578253
## 3595 0.877260
## 3596 1.495850
## 3597 0.661393
## 3598 0.927781
## 3599 0.562196
## 3600 1.500550
## 3601 1.118320
## 3602 0.943774
## 3603 1.074030
## 3604 1.270970
  3605 0.426381
## 3606 1.779200
## 3607 0.354399
```

The data we are working with have no factor variables, so I'm going to create one. (Uncomment the lines below, then run them. To uncomment all lines at once, try highlighting all of them, then under the Code pull-down menu, click on Comment/Uncomment Lines ...or utilize the displayed keyboard shortcut.)

```
type = rep("FAINT",nrow(pred.new))
w = which(pred.new$i<25)
type[w] = "BRIGHT"
type = factor(type)
unique(type)</pre>
```

```
## [1] BRIGHT FAINT
## Levels: BRIGHT FAINT
```

```
pred.new = cbind(type,pred.new)
```

So I defined my factor variable using character strings, and then coerced the vector of strings into a factor variable with two levels. Note that by default, the levels order themselves into alphabetical order. You can override that default behavior if there is actually a natural ordering to your factor variables. See the documentation for factor() to see how to do that.

Question 9

Use group_by() and summarize() to determine the numbers of BRIGHT and FAINT galaxies. (However, look up the tally() function for future reference.)

```
pred.new %>% group_by(.,type) %>% summarize(.,Number=n())

## # A tibble: 2 × 2
## type Number
## <fct> <int>
## 1 BRIGHT 1295
## 2 FAINT 2312
```

Question 10

Repeat Q9, but show the median value of the u magnitude instead of the numbers in each factor group.

```
pred.new %>% group_by(.,) %>% summarize(.,Median=median(u))

## # A tibble: 1 × 1
## Median
## <dbl>
## 1 27.2
```

Time for yet another digression.

Magnitudes of galaxies at particular wavelengths are heavily influenced by two factors: physics (what is going on with the gas, dust, and stars within the galaxy itself), and distance (the further away a galaxy is, the less bright it tends to be, so the magnitude generally goes up). To attempt to mitigate (somewhat, not necessarily completely) the effect of distance, astronomers often use *colors*, which are differences in magnitude for two adjacent filters.

Question 11

Use mutate() to define two new columns for pred.new: gr, which would be the g magnitude minus the r magnitude, and ri, for r and i. Save your result.

```
pred.new.column <- pred.new %>% mutate(.,gr = g - r, ri = r - i)
pred.new.column
```

```
##
                                                                    gr
## 1
        BRIGHT 23.5907 21.6827 20.0759 19.4611 19.0885 18.8831
                                                                1.6068
                                                                        0.6148
## 2
        FAINT 27.1252 26.2652 25.5893 25.0175 24.6461 24.0259
                                                                0.6759
                                                                        0.5718
## 3
         FAINT 27.4013 26.7235 26.6074 26.5520 25.7460 25.4095 0.1161
## 4
         FAINT 27.9354 27.0586 26.3402 25.6980 25.0166 24.2701 0.7184
                                                                        0.6422
         FAINT 27.7733 27.4076 26.0681 25.3545 25.0698 24.9984
## 5
                                                                1.3395
                                                                        0.7136
##
  6
         FAINT 27.1742 26.9353 26.2515 26.2313 26.0436 25.3952
                                                                0.6838
                                                                        0.0202
## 7
        BRIGHT 25.3228 24.9353 24.5632 24.1697 23.5369 23.2099
                                                                0.3721
                                                                        0.3935
## 8
        FAINT 27.4160 27.5820 26.8848 26.1395 25.3435 25.8520
                                                                0.6972
                                                                        0.7453
## 9
        BRIGHT 27.2069 27.4311 25.5344 24.4186 23.5194 23.0643 1.8967
                                                                        1.1158
## 10
         FAINT 28.8780 27.5836 26.3113 26.1606 25.8048 26.1740 1.2723 0.1507
## 11
        FAINT 28.3921 27.9233 26.8904 26.3605 26.4174 25.7329 1.0329 0.5299
##
  12
        BRIGHT 26.6773 26.0998 25.2068 24.9732 24.8651 24.6902
                                                                0.8930
                                                                        0.2336
         FAINT 27.2278 26.3539 25.9111 25.2846 25.0043 24.1177
##
  13
                                                                0.4428
## 14
         FAINT 26.9538 27.1541 27.3460 26.5548 25.9525 25.3050 -0.1919
                                                                        0.7912
## 15
         FAINT 26.8456 27.0187 26.1422 25.4837 25.5677 25.3532 0.8765
                                                                        0.6585
## 16
         FAINT 28.0052 27.7457 26.4383 26.0616 25.7784 26.1672 1.3074 0.3767
## 17
        BRIGHT 25.2085 25.1535 24.9196 24.8335 24.6124 24.3069 0.2339
                                                                       0.0861
## 18
        FAINT 29.2546 30.8355 27.7408 26.8231 25.9516 26.2909
                                                                3.0947
                                                                        0.9177
## 19
         FAINT 26.1497 26.2192 26.0955 25.6397 25.4075 25.0130 0.1237 0.4558
```

```
FAINT 26.5509 26.4818 25.5536 25.2270 25.2445 24.9525 0.9282
## 20
## 21
        BRIGHT 24.5290 23.9741 23.0932 22.6841 22.4904 22.2640
## 22
        BRIGHT 28.2080 28.0037 26.2904 24.9391 24.4180 24.1830 1.7133
## 23
        FAINT 28.9982 28.8441 27.2527 26.5719 25.5759 25.8044
                                                                1.5914
                                                                        0.6808
## 24
        BRIGHT 24.8240 24.8536 24.6835 24.5371 24.6220 24.6840
                                                                0.1701
## 25
        FAINT 27.0908 27.5066 27.4050 26.4532 26.6131 26.2317
                                                                0.1016
                                                                        0.9518
## 26
        BRIGHT 26.6189 25.2088 23.8330 23.3868 23.1178 23.0027
                                                                1.3758
                                                                        0.4462
## 27
        BRIGHT 26.4905 26.0486 25.3823 24.7199 24.4525 23.6197
## 28
         FAINT 28.3465 27.4630 26.5717 25.7214 24.7746 23.9812
                                                                0.8913
                                                                        0.8503
## 29
         FAINT 28.4209 28.2880 27.4080 26.6403 26.5285 26.5848
                                                                0 8800
                                                                        0 7677
## 30
         FAINT 31.5726 27.3192 27.1310 26.5103 26.4225 25.6176
                                                                0.1882
                                                                        0 6207
## 31
         FAINT 28.1489 27.8916 27.5010 26.6906 25.6706 26.5114
                                                                0.3906
                                                                        0.8104
## 32
         FAINT 29.1256 27.9763 27.0292 26.7976 26.9672 26.2662 0.9471
                                                                        0.2316
## 33
         FAINT 27.6598 26.3224 25.8027 25.7159 25.4798 25.2686
                                                               0.5197 0.0868
## 34
        BRIGHT 27.1932 26.1313 25.5652 24.8539 24.2522 24.1523 0.5661 0.7113
## 35
         FAINT 26.9505 26.5753 26.0784 25.4054 24.8646 24.5873 0.4969 0.6730
## 36
         FAINT 26.6317 26.6204 25.8408 25.3731 25.2625 25.2317
                                                                0.7796
                                                                       0.4677
## 37
        BRIGHT 23.7494 22.7033 21.6606 21.1618 20.8411 20.5920
                                                                1.0427
## 38
        BRIGHT 24.8429 23.5477 22.6904 22.2319 22.0422 21.8155
                                                                0.8573
                                                                        0.4585
## 39
        FAINT 27.5204 27.7285 26.9929 26.6925 26.6048 26.3440
                                                                0.7356
                                                                        0.3004
## 40
         FAINT 27.5168 29.4731 27.4634 26.2148 25.6620 25.4156
                                                                2.0097
## 41
         FAINT 26.2940 26.0667 25.7064 25.3692 24.7137 24.4754
                                                               0.3603
                                                                       0.3372
## 42
        BRIGHT 28.3053 26.8101 25.7267 24.9689 24.8305 24.8043
                                                               1.0834
                                                                        0.7578
                                                                        0.5342
## 43
        FAINT 27.7512 26.9047 26.5232 25.9890 25.4380 26.1799
                                                                0.3815
## 44
        BRIGHT 26.1591 24.9571 23.4138 22.3028 21.9225 21.5656
                                                                1.5433
        BRIGHT 27.0744 26.0737 25.2942 24.8377 24.7759 24.6305
## 45
                                                               0.7795
                                                                        0.4565
## 46
        BRIGHT 25.7862 25.1911 24.6239 24.4655 24.4099 24.3539
                                                               0.5672 0.1584
## 47
         FAINT 26.3847 26.0648 25.8074 25.2263 24.7896 23.8893 0.2574 0.5811
         FAINT 27.8197 28.0456 27.0652 26.5326 25.9764 28.1821 0.9804 0.5326
## 48
## 49
         FAINT 25.6431 25.6287 25.4379 25.0704 24.7970 24.5576
                                                               0.1908
                                                                       0.3675
## 50
        BRIGHT 27.2264 26.6165 25.6304 24.9386 24.0875 23.6585
                                                                0.9861
## 51
        FAINT 28.8194 28.2238 27.6085 26.0116 25.2318 24.4592
                                                                0.6153
                                                                        1.5969
## 52
        BRIGHT 27.2091 25.9012 24.3842 23.1960 22.7635 22.4243
                                                               1.5170
                                                                        1.1882
## 53
        BRIGHT 26.5874 25.9783 25.5048 24.9143 24.5030 23.9024
                                                               0.4735
## 54
        BRIGHT 26.5267 26.2025 24.9746 24.4122 24.2170 23.9205
                                                               1.2279
## 55
        BRIGHT 25.7664 25.0661 23.9577 23.2849 23.1373 22.8929
                                                               1.1084
                                                                        0.6728
## 56
         FAINT 28.1760 27.3996 27.4028 26.8932 27.2581 25.7115 -0.0032
                                                                        0.5096
## 57
         FAINT 26.3381 26.1001 25.6144 25.5268 25.3847 25.5478
                                                               0.4857
## 58
        BRIGHT 26.9933 26.1939 25.5789 24.8870 24.2727 24.0573
                                                                0.6150
                                                                        0.6919
## 59
        FAINT 27.2710 26.0094 25.5536 25.0561 24.6234 24.4312
                                                               0.4558
                                                                        0.4975
## 60
        BRIGHT 28.1292 27.0356 24.9791 23.7826 22.8522 22.0419
                                                               2.0565
## 61
         FAINT 29.1440 28.2120 27.0214 26.8139 26.6610 26.7252 1.1906 0.2075
## 62
         FAINT 26.6734 26.9618 26.7649 26.5744 26.6068 25.5605
                                                               0.1969 0.1905
## 63
         FAINT 26.7420 26.4678 26.1872 25.9182 25.4729 24.9277
                                                                0.2806
                                                                        0.2690
## 64
         FAINT 27.5620 27.4842 26.3191 25.7195 25.0682 24.5815
                                                                1.1651
                                                                        0.5996
## 65
        BRIGHT 25.5645 24.6126 23.9909 23.7564 23.6159 23.5673
                                                                0.6217
                                                                        0.2345
## 66
        FAINT 26.2779 26.4544 25.8065 25.3685 25.4078 24.9253
                                                               0.6479
## 67
         FAINT 28.2189 26.6906 26.3069 25.6792 25.4269 26.4898
                                                               0.3837
## 68
        BRIGHT 25.5887 25.1474 24.6842 24.4974 24.3467 24.3638
                                                                0.4632
                                                                        0.1868
## 69
        FAINT 28.0681 27.6013 26.9489 26.4647 25.6820 25.0125
                                                                0.6524
                                                                        0.4842
## 70
        BRIGHT 25.2554 24.8657 24.0349 23.7949 23.6688 23.5896
                                                                0.8308
## 71
        BRIGHT 26.1032 25.3681 23.4371 22.3180 21.4136 20.9592
                                                               1.9310
                                                                        1.1191
## 72
        BRIGHT 26.2473 25.8953 25.1163 24.5955 24.3804 24.4361 0.7790
## 73
         FAINT 28.3330 27.8871 27.1012 26.9542 26.1834 26.2996 0.7859
## 74
         FAINT 29.9067 29.1769 27.9319 26.9695 26.9588 29.6223 1.2450 0.9624
## 75
        BRIGHT 25.2596 24.5702 23.4889 22.6959 21.9383 21.5542 1.0813 0.7930
## 76
         FAINT 27.8407 27.5703 26.9581 26.2224 25.9186 25.8953
                                                                0.6122
                                                                        0.7357
## 77
         FAINT 27.0065 26.5739 25.7851 25.1745 25.0848 24.9713
                                                                0.7888
                                                                        0.6106
## 78
         FAINT 27.7584 27.9356 26.8045 26.2979 26.6657 25.8988
                                                               1.1311
                                                                        0.5066
## 79
         FAINT 26.8458 26.3254 26.2689 25.7780 25.2112 24.7541
                                                               0.0565
                                                                        0.4909
## 80
        BRIGHT 25.5016 25.3407 24.9019 24.2711 24.0173 23.9559
                                                                0.4388
## 81
        FAINT 26.3515 26.1852 25.7143 25.6401 25.4113 25.2629
                                                                0.4709
                                                                        0.0742
        BRIGHT 26.3581 26.0194 25.3646 24.6924 24.4506 24.3314
                                                                0.6548
## 82
                                                                        0.6722
## 83
        BRIGHT 26.7498 26.1775 25.0547 24.5991 24.2826 24.1428
                                                                1.1228
## 84
         FAINT 27.1613 28.3186 28.2976 26.8731 27.6306 26.7550
                                                                0.0210
                                                                        1.4245
## 85
         FAINT 27.3878 28.2304 27.2710 26.9600 26.2623 27.4151
                                                               0.9594
                                                                        0.3110
## 86
        BRIGHT 26.7702 25.9774 25.1721 24.1824 23.8712 23.6064
                                                               0.8053 0.9897
## 87
         FAINT 29.5105 28.6623 27.3934 25.4760 24.5108 24.0294 1.2689 1.9174
## 88
         FAINT 28.7677 28.1083 27.3822 26.7579 26.8036 26.4309 0.7261 0.6243
## 89
         FAINT 27.3849 26.7923 25.5132 25.1705 24.9947 24.4100
                                                                1.2791
                                                                        0.3427
## 90
        BRIGHT 24.4493 23.9789 23.4495 22.7737 22.5904 22.4742
                                                                0.5294
         FAINT 27.0086 26.1973 25.8617 25.6216 25.4212 25.4239
## 91
                                                                0.3356
                                                                        0.2401
## 92
         FAINT 27.0037 26.8867 26.4836 25.9131 25.1681 24.7888
                                                               0.4031
## 93
         FAINT 27.7149 27.4305 26.0949 25.2065 24.9376 24.4327
## 94
         FAINT 28.3965 28.5976 27.5629 26.9222 26.6820 26.8252
                                                               1.0347
                                                                        0.6407
## 95
        BRIGHT 30.1858 28.1109 26.4871 24.7450 24.0867 22.9911
                                                               1.6238
                                                                        1.7421
## 96
         FAINT 29.1098 30.2545 28.4310 26.9262 26.7440 31.5682
                                                                1.8235
                                                                        1.5048
## 97
        BRIGHT 25.4800 25.0120 23.6072 22.5956 21.7975 21.4625
                                                                1.4048
                                                                        1.0116
## 98
        BRIGHT 26.0449 25.5407 24.9566 24.8194 24.6210 24.8078 0.5841 0.1372
```

```
## 99
         FAINT 28.9737 26.7347 26.3124 25.8207 25.0124 24.8154 0.4223 0.4917
## 100
         FAINT 27.8048 27.7558 26.6794 25.9711 25.0937 24.6453 1.0764 0.7083
## 101
       BRIGHT 26.9322 26.3646 25.6975 24.6761 24.0238 23.2902 0.6671 1.0214
        BRIGHT 24.3764 22.7359 21.4422 20.9512 20.6848 20.4670
                                                                1.2937
## 102
                                                                        0.4910
         FAINT 27.8039 27.5786 26.7804 26.0302 25.9373 25.6887
##
  103
                                                                0.7982
## 104
         FAINT 27.4302 27.4222 26.4625 25.9584 25.8212 25.7474
                                                                0.9597
                                                                        0.5041
## 105
        BRIGHT 25.3025 24.3001 23.6234 23.2673 23.1538 22.9817
                                                               0.6767 0.3561
## 106
         FAINT 26.3901 26.4997 26.7621 26.8865 26.4839 26.6713 -0.2624 -0.1244
## 107
         FAINT 27.9830 27.4822 26.9654 26.0706 25.3717 25.3478
                                                               0.5168 0.8948
## 108
         FAINT 28.0418 27.9294 27.1045 26.4524 26.0929 25.2800
                                                                0 8249
                                                                        0 6521
## 109
        BRIGHT 26.2505 25.4146 24.5361 23.6009 23.0824 22.9120
                                                                0.8785
                                                                        0 9352
## 110
         FAINT 28.4583 26.9024 26.2961 25.8636 25.5368 25.5522
                                                                0.6063
                                                                        0.4325
         FAINT 27.4011 27.5427 26.6247 26.0721 26.3974 27.0641 0.9180
## 111
                                                                       0.5526
## 112
        BRIGHT 26.9429 26.0693 23.6378 22.5234 21.5045 20.9203 2.4315 1.1144
## 113
         FAINT 31.0711 29.3700 28.3446 26.9023 27.0790 26.9673 1.0254 1.4423
         FAINT 28.1587 27.4872 26.6918 25.8740 25.5831 25.0922 0.7954 0.8178
## 114
## 115
        BRIGHT 27.9147 26.7582 25.5385 24.3470 23.5299 22.7669
                                                                1.2197
                                                                        1.1915
## 116
         FAINT 27.1589 27.1902 26.8306 26.2868 26.5366 25.6409
                                                                0.3596
## 117
         FAINT 28.1642 27.9889 26.3037 25.9457 25.7511 25.1839
                                                                1.6852
                                                                        0.3580
## 118
         FAINT 28.1295 27.1672 26.7560 26.6055 26.2648 25.8942
                                                                0.4112
                                                                        0.1505
## 119
         FAINT 27.7412 27.2165 26.7459 26.0424 25.5664 25.1168
                                                                0.4706
## 120
         FAINT 28.1492 27.0302 26.3259 26.0324 25.7576 25.4970
                                                                0.7043
                                                                       0.2935
## 121
        BRIGHT 26.7010 26.3689 25.5601 24.7597 24.3197 24.1195
                                                                0.8088
                                                                        0.8004
## 122
         FAINT 26.8484 27.2735 26.7470 26.2125 26.1539 25.5416
                                                                0.5265
                                                                        0.5345
## 123
         FAINT 28.7864 27.6317 26.7267 26.2818 26.2873 25.8843
                                                                0.9050
                                                                        0.4449
         FAINT 27.8443 26.7471 26.3115 26.3039 26.1726 25.7483
## 124
                                                               0.4356
                                                                        0.0076
## 125
        BRIGHT 23.9544 22.9458 22.1460 21.9357 21.6788 21.7137
                                                                0.7998 0.2103
        BRIGHT 25.6743 24.4970 23.1968 22.9228 22.7628 22.6715 1.3002 0.2740
## 126
## 127
        BRIGHT 25.4266 24.6804 24.0356 23.3232 23.1673 23.0210 0.6448 0.7124
## 128
        BRIGHT 25.7028 25.2798 24.6677 23.8431 23.5382 23.4780
                                                                0.6121 0.8246
## 129
        FAINT 30.2659 28.8755 27.8752 26.6219 26.2718 28.0630
                                                                1.0003
                                                                        1.2533
## 130
        BRIGHT 26.2713 26.0686 25.1629 24.4653 23.7420 23.4440
                                                                0.9057
                                                                        0.6976
## 131
        FAINT 27.7527 27.3598 26.8755 26.6431 26.3616 26.0163
                                                               0.4843 0.2324
## 132
        BRIGHT 23.7350 22.9648 22.6422 22.4577 22.3946 22.2956
                                                               0.3226
                                                                       0.1845
## 133
         FAINT 26.5354 26.8726 26.4999 26.0153 25.6725 25.2609
                                                               0.3727
                                                                        0.4846
## 134
         FAINT 27.5456 26.3197 25.4028 25.1169 24.8863 24.6371 0.9169
                                                                        0.2859
## 135
         FAINT 27.2383 27.4337 26.2674 25.5955 25.4162 25.2546
                                                                1.1663
                                                                        0.6719
## 136
        BRIGHT 24.9897 24.8440 24.1627 23.5813 22.8814 22.6009
                                                                0.6813
        FAINT 27.3800 27.9628 27.2757 26.9270 27.0203 25.6807
## 137
                                                                0.6871
                                                                        0.3487
## 138
         FAINT 27.9541 26.9499 26.9739 26.6286 26.1495 25.8430 -0.0240
                                                                       0.3453
## 139
        BRIGHT 26.1539 25.8538 25.0840 24.4084 24.1900 23.9655
                                                               0.7698 0.6756
## 140
         FAINT 28.9731 27.8204 26.6721 26.3613 26.1606 26.3381 1.1483 0.3108
## 141
         FAINT 29.9981 28.4193 27.0202 26.0424 25.9001 25.1539 1.3991 0.9778
## 142
        BRIGHT 27.8540 26.0984 24.6875 24.1125 23.8925 23.8547
                                                                1.4109
## 143
        BRIGHT 24.7922 23.8921 22.6739 21.6964 21.3536 21.0321
                                                                1.2182
                                                                        0.9775
## 144
        FAINT 28.4482 27.9130 27.2787 26.5101 25.9948 25.2235
                                                               0.6343
                                                                        0.7686
## 145
         FAINT 28.0492 27.7464 27.0177 26.3825 26.1431 26.4445
                                                               0.7287
                                                                        0.6352
## 146
         FAINT 31.2265 27.7647 26.5378 25.8716 24.7222 24.1823
                                                               1.2269
## 147
         FAINT 27.8728 27.9822 27.2647 26.7756 26.0814 25.7971
                                                               0.7175
                                                                        0.4891
## 148
        BRIGHT 26.3357 26.0166 25.2859 24.6200 24.3970 24.4394
                                                                0.7307
                                                                        0.6659
## 149
         FAINT 27.9109 28.2089 27.3425 26.9665 27.7448 25.9759
                                                                0.8664
## 150
         FAINT 26.8943 27.8515 27.0970 26.1868 25.7756 25.9312
                                                                0.7545
                                                                        0.9102
       BRIGHT 27.3914 25.8844 25.2107 24.3047 23.6853 22.8502 0.6737
## 151
                                                                       0.9060
## 152
        BRIGHT 28.3369 27.2243 25.4916 24.5312 23.5198 23.0325
                                                               1.7327 0.9604
## 153
         FAINT 28.4870 27.8588 27.1438 26.9717 26.3082 25.6752 0.7150 0.1721
## 154
         FAINT 27.7209 27.7136 27.0732 26.4383 26.6934 27.4961 0.6404 0.6349
## 155
         FAINT 30.3440 27.8508 27.3069 26.7490 26.0978 26.5945
                                                                0.5439
                                                                        0.5579
## 156
        BRIGHT 25.5889 25.4814 25.1112 24.5348 24.0782 23.8003
                                                                0.3702
                                                                        0.5764
       BRIGHT 24.6205 23.8978 22.9914 22.7124 22.5107 22.4058
## 157
                                                                0.9064
                                                                        0.2790
        BRIGHT 25.2231 24.6784 23.7423 23.0379 22.7700 22.5108
## 158
                                                               0.9361
                                                                        0.7044
        BRIGHT 26.2904 25.6074 24.5648 23.6138 23.3474 23.1130
## 159
                                                               1.0426
## 160
       BRIGHT 26.9743 25.6516 24.8453 24.6112 24.4283 24.3514
                                                               0.8063
                                                                       0.2341
## 161
                                                                0.4870
         FAINT 26.6690 27.1101 26.6231 26.2105 26.5872 25.5480
                                                                        0.4126
## 162
         FAINT 27.2795 27.4140 27.0228 26.7156 26.5943 26.3928
                                                                0.3912
## 163
         FAINT 26.8811 26.4115 25.9688 25.7964 25.7123 25.4065
                                                                0.4427
                                                                        0.1724
## 164
        BRIGHT 25.1236 24.7740 24.6409 24.0948 23.6550 22.9186
                                                               0.1331 0.5461
## 165
        BRIGHT 25.8806 25.5724 25.0070 24.3168 23.9644 23.7055
                                                               0.5654 0.6902
## 166
         FAINT 27.1791 28.0240 27.3065 26.9033 26.8668 26.8150 0.7175 0.4032
## 167
        BRIGHT 27.4578 27.0182 25.2897 24.1771 23.3858 23.0770 1.7285 1.1126
## 168
         FAINT 28.5485 28.2122 27.3295 26.9860 26.4146 25.8162
                                                                0.8827
                                                                        0.3435
## 169
         FAINT 29.2743 27.3675 27.1547 26.5708 26.4545 26.1016
                                                                0.2128
                                                                       0.5839
        BRIGHT 25.9150 24.8299 24.2145 23.9237 23.8521 23.6882
## 170
                                                                0.6154 0.2908
        FAINT 26.1898 26.1435 26.0303 26.0957 26.0745 26.4451 0.1132 -0.0654
## 171
## 172
        BRIGHT 26.4759 25.7340 24.9832 24.1781 23.8794 23.8258
## 173
         FAINT 29.6979 29.1416 27.4330 26.8687 26.3781 25.1857
                                                               1.7086 0.5643
## 174
         FAINT 27.4047 26.7019 25.9933 25.4014 25.2697 24.9195
                                                                0.7086
                                                                        0.5919
## 175
        BRIGHT 27.3043 25.4635 24.5850 24.3198 23.9955 24.1169
                                                                0.8785
## 176
        FAINT 27.9925 28.5425 27.4970 26.5000 25.6171 25.1065
                                                                1.0455
                                                                       0.9970
## 177
         FAINT 28.2699 27.9365 27.3141 26.5184 26.0188 25.8093 0.6224 0.7957
```

```
## 178
         FAINT 27.3854 27.0924 26.6447 25.6993 25.2596 25.1425
                                                               0.4477 0.9454
## 179
         FAINT 26.8994 27.3040 26.6729 26.3870 26.3461 25.8577
                                                               0.6311 0.2859
## 180
        BRIGHT 25.1525 24.4345 23.7243 23.5500 23.3449 23.3436
                                                                0.7102 0.1743
        BRIGHT 26.5090 25.0922 24.1846 23.8581 23.6128 23.4565
                                                                0.9076
## 181
                                                                        0.3265
         FAINT 28.9295 29.4774 27.9687 26.4322 25.5572 24.6287
##
  182
                                                                1.5087
## 183
         FAINT 26.5055 26.6887 26.7953 26.5512 26.4997 26.3223 -0.1066
                                                                        0.2441
## 184
         FAINT 28.5546 27.8309 26.3221 25.3246 24.4609 23.8040
                                                               1.5088
## 185
         FAINT 28.5829 29.6314 27.0514 26.4505 25.9460 25.5217
                                                                2.5800
## 186
         FAINT 29.9024 29.6355 28.2893 26.8018 26.0478 25.2392
                                                               1.3462
                                                                        1.4875
## 187
         FAINT 29.2746 27.6786 26.7385 25.9063 25.5569 25.3625
                                                                0 9401
                                                                        0 8322
## 188
         FAINT 29.7040 27.5801 27.0003 26.4159 26.0531 25.8030
                                                                0.5798
                                                                        0 5844
## 189
         FAINT 27.3490 26.7342 26.3188 26.1716 25.9898 25.7575
                                                                0.4154
                                                                        0.1472
## 190
         FAINT 29.3489 27.1732 26.6207 25.6039 24.9995 24.0020 0.5525
                                                                       1.0168
## 191
        BRIGHT 26.3758 26.0851 24.9389 24.3107 24.1835 24.0248 1.1462 0.6282
## 192
         FAINT 27.6691 27.6645 27.9776 26.8253 26.7963 26.6239 -0.3131 1.1523
## 193
         FAINT 27.4113 27.2869 26.9432 26.2856 26.5674 26.3558 0.3437 0.6576
## 194
        BRIGHT 25.3609 24.9915 24.7860 24.3007 23.7713 23.0884
                                                                0.2055
                                                                        0.4853
## 195
         FAINT 26.5259 26.4330 25.6487 25.1605 25.1626 24.9870
                                                                0.7843
## 196
         FAINT 27.4816 27.3624 26.7097 26.4239 26.2845 26.6014
                                                                0.6527
                                                                        0.2858
## 197
        BRIGHT 24.6115 24.3220 23.7486 23.3858 23.2784 23.1158
                                                                0.5734
                                                                        0.3628
## 198
         FAINT 29.2160 27.3207 26.0026 25.4335 25.1291 25.2439
                                                               1.3181
## 199
         FAINT 26.1998 26.7701 26.2982 25.4596 25.1919 24.8276
                                                               0.4719
        BRIGHT 25.0611 24.2325 23.0461 22.6794 22.5632 22.0676
## 200
                                                               1.1864
                                                                        0.3667
## 201
         FAINT 26.5231 26.6545 26.7881 26.5354 26.4665 26.7244
                                                               -0.1336
                                                                        0.2527
## 202
         FAINT 27.4804 26.9306 26.5425 26.3554 26.0311 26.0034 0.3881
                                                                        0.1871
        BRIGHT 27.5706 27.1727 25.2802 24.1328 23.2094 22.7795
## 203
                                                                1.8925
                                                                        1.1474
## 204
        BRIGHT 26.7203 26.2785 25.5208 24.8969 24.8000 24.5367
                                                               0.7577 0.6239
         FAINT 27.3394 27.1136 26.5688 26.6547 25.9026 25.7241 0.5448 -0.0859
## 205
## 206
         FAINT 27.1835 27.1312 26.4483 25.9404 25.2465 24.7676 0.6829 0.5079
## 207
         FAINT 29.2901 27.4031 26.4799 25.3716 24.1894 23.4281 0.9232
                                                                        1.1083
## 208
         FAINT 26.7516 26.8355 26.4599 25.9113 25.5734 25.5324
                                                                0.3756
## 209
         FAINT 30.0203 28.5565 26.5653 25.9269 25.4033 25.3213
                                                               1.9912
                                                                        0.6384
         FAINT 31.8338 28.3780 27.4987 26.6002 26.2079 26.3430
## 210
                                                               0.8793
                                                                        0.8985
## 211
        BRIGHT 24.1920 23.2495 22.8330 22.5775 22.5543 22.4797
                                                               0.4165
## 212
        BRIGHT 25.4163 24.6864 23.8872 23.7146 23.4775 23.4722 0.7992
## 213
        BRIGHT 25.9189 24.7587 23.5415 22.6452 22.3150 22.0131 1.2172
                                                                        0.8963
## 214
        BRIGHT 24.6137 23.9098 22.9748 22.7258 22.5224 22.4076
                                                               0.9350
                                                                        0.2490
## 215
         FAINT 28.8215 27.9027 28.0318 26.9091 27.3873 26.5991 -0.1291
## 216
       BRIGHT 28.2767 27.0880 25.4964 24.6125 24.2038 23.7262 1.5916
                                                                        0.8839
        BRIGHT 29.4886 26.0339 24.4363 23.3704 22.9474 22.6162
## 217
                                                               1.5976
                                                                       1.0659
## 218
         FAINT 27.7852 27.3995 26.9649 26.0663 25.7275 25.3595
## 219
        BRIGHT 25.1686 24.4366 23.7160 22.8933 22.5949 22.5029 0.7206 0.8227
## 220
         FAINT 27.7207 27.6168 27.2030 26.9507 27.6593 26.3545
                                                               0.4138
                                                                       0.2523
##
  221
         FAINT 25.7857 25.8311 25.7036 25.4962 25.2241 25.0584
                                                                0.1275
                                                                        0.2074
## 222
        BRIGHT 24.5733 23.6259 23.0989 22.8068 22.8217 22.7626
                                                                0.5270
                                                                        0.2921
## 223
        FAINT 27.1773 27.2377 26.2175 25.4284 25.1440 24.8004
                                                               1.0202
                                                                        0.7891
## 224
         FAINT 30.4945 28.7568 27.7862 26.7975 26.5748 31.1654
                                                               0.9706
## 225
        BRIGHT 26.0950 25.7198 24.8857 24.6412 24.4460 24.4576
                                                                0.8341 0.2445
## 226
         FAINT 26.9306 27.8026 27.3713 26.7824 26.4045 26.1327
                                                                0.4313 0.5889
## 227
         FAINT 25.8317 25.9284 25.8888 25.9903 25.8364 26.1279
                                                                0.0396 -0.1015
## 228
        BRIGHT 24.7065 23.8727 23.3566 23.0875 23.0608 22.9915
                                                                0.5161
        FAINT 28.9057 28.4634 27.4390 26.9665 27.0937 28.3587
## 229
                                                                1.0244
                                                                        0.4725
## 230
         FAINT 28.2352 28.7892 27.2325 26.7313 26.4119 25.7329
                                                               1.5567
## 231
         FAINT 30.0616 28.6757 27.5908 26.6463 25.9732 25.6289
                                                               1.0849 0.9445
## 232
         FAINT 27.0827 27.1259 26.6606 25.9520 25.2261 25.0813 0.4653 0.7086
## 233
         FAINT 27.5345 27.8980 27.1990 26.7940 26.7085 26.2121 0.6990 0.4050
## 234
        BRIGHT 23.6374 23.6058 23.4835 23.5266 23.3802 23.5975
                                                                0.1223 -0.0431
## 235
         FAINT 28.2907 28.1309 28.1115 26.5720 26.6339 24.7430
                                                                0.0194 1.5395
         FAINT 29.0198 28.5486 27.6762 26.7724 26.8705 26.3936
## 236
                                                                0.8724
                                                                        0.9038
         FAINT 28.7076 27.8768 27.0204 25.9323 24.9549 24.2832
## 237
                                                                0.8564
                                                                       1.0881
         FAINT 27.1215 26.8389 26.0548 25.8286 25.4567 25.7342
## 238
                                                                0.7841
## 239
        BRIGHT 22.3166 21.2894 20.9855 20.7307 20.7679 20.6636
                                                               0.3039
                                                                       0.2548
## 240
        BRIGHT 25.7614 24.9523 23.9009 23.2561 23.0492 22.8666
                                                                1.0514
                                                                        0.6448
## 241
         FAINT 27.2999 26.9944 26.4685 26.3690 26.1835 25.8627
                                                                0.5259
## 242
         FAINT 27.9110 28.1863 27.1829 26.6275 25.8866 25.3501
                                                                1.0034
                                                                        0.5554
## 243
        BRIGHT 26.4190 26.0822 25.4824 24.6624 24.4234 23.8931
                                                               0.5998
                                                                       0 8200
## 244
         FAINT 27.2775 28.3120 27.2403 26.8655 27.5668 27.0860
                                                               1.0717 0.3748
## 245
        BRIGHT 25.2727 25.0660 24.4699 23.6175 23.0784 22.8796 0.5961 0.8524
## 246
        FAINT 29.1233 28.3727 27.2154 26.5866 26.1899 25.7558 1.1573 0.6288
## 247
        BRIGHT 24.8072 24.0427 23.5370 23.2752 23.2248 23.1337
                                                                0.5057
                                                                       0.2618
## 248
         FAINT 26.8832 26.5329 25.9390 25.2791 24.6338 24.3605
                                                                0.5939
                                                                       0.6599
         FAINT 28.1037 27.1396 26.6674 26.6544 26.0169 26.2482
## 249
                                                                0.4722
                                                                        0.0130
## 250
        BRIGHT 27.7770 27.2678 25.5836 24.1244 23.2885 22.3944
                                                               1.6842
## 251
         FAINT 27.5462 27.1953 26.6801 26.5046 26.3454 26.7845
                                                               0.5152
## 252
         FAINT 27.6319 27.6448 27.1339 26.4573 26.1365 24.9105
                                                                0.5109
                                                                        0.6766
## 253
         FAINT 27.2613 27.5616 26.4575 25.5710 25.2111 25.2449
                                                                1.1041
                                                                        0.8865
## 254
         FAINT 26.7704 26.8603 25.9755 25.7477 25.5171 26.1309
                                                                0.8848
                                                                        0.2278
## 255
        BRIGHT 23.9710 23.5709 22.8093 22.0265 21.7688 21.5762
                                                                0.7616
                                                                       0.7828
       BRIGHT 25.1796 25.2382 24.9767 24.5991 24.4420 24.4974 0.2615 0.3776
## 256
```

```
BRIGHT 26.8010 25.7050 24.8199 24.7048 24.4768 24.5575 0.8851 0.1151
## 258
         FAINT 29.4283 28.5292 27.9942 26.9834 26.7393 27.4991 0.5350
## 259
        BRIGHT 24.2883 23.7950 22.9175 22.6544 22.4912 22.4001 0.8775
        FAINT 26.3545 26.3690 25.8236 25.5020 25.5249 25.4959
                                                                0.5454
## 260
                                                                        0.3216
##
  261
        BRIGHT 24.8075 24.0819 23.4243 23.2637 23.0450 23.0344
                                                                0.6576
## 262
        FAINT 26.4293 25.8556 25.3158 25.1653 25.3088 24.8675
                                                                0.5398
                                                                        0.1505
## 263
         FAINT 27.5794 27.4447 26.8744 26.4159 25.7007 25.1779
                                                               0.5703
                                                                        0.4585
## 264
         FAINT 26.1811 26.1644 26.0297 25.5455 25.2171 24.6337
                                                               0.1347
## 265
         FAINT 27.4860 27.4976 27.0352 26.1723 26.2596 26.1796
                                                               0.4624
                                                                        0.8629
## 266
         FAINT 27.2355 28.0731 26.5439 26.2420 25.9587 26.6581
                                                               1 5292
                                                                        0 3019
## 267
         FAINT 27.6446 27.1509 26.5123 25.9446 25.9659 25.7566
                                                                0.6386
                                                                        0 5677
## 268
         FAINT 27.8040 27.8649 27.3994 26.3391 26.3632 26.1668
                                                               0.4655
                                                                        1.0603
         FAINT 27.8760 28.4269 27.5830 26.9057 26.1273 26.0858 0.8439
## 269
                                                                       0.6773
## 270
         FAINT 27.1968 27.0074 26.3118 26.2657 26.0292 26.4381 0.6956
## 271
        BRIGHT 21.6873 20.4499 19.5755 19.1232 18.8656 18.6434 0.8744 0.4523
        BRIGHT 26.9665 26.1637 25.4043 24.8479 24.2100 23.8191 0.7594 0.5564
## 272
## 273
        BRIGHT 26.8048 25.8854 25.3757 24.6218 24.1977 23.4293
                                                               0.5097
                                                                        0.7539
## 274
         FAINT 29.2085 27.4839 27.2256 26.3085 25.9378 27.9218
                                                                0.2583
## 275
        BRIGHT 28.1552 25.9818 24.1900 22.9332 22.2884 21.9262
                                                               1.7918
                                                                       1.2568
## 276
        BRIGHT 27.3601 26.3564 25.5474 24.9197 24.7969 24.8793
                                                               0.8090
                                                                       0.6277
## 277
        BRIGHT 25.2395 24.6228 23.7385 22.9710 22.3451 22.1204
                                                               0.8843
## 278
         FAINT 28.8261 28.6991 27.2724 26.9349 25.9719 26.4202
                                                               1.4267
## 279
         FAINT 27.4381 27.0683 26.6647 26.3621 25.9861 29.5161
                                                               0.4036
                                                                        0.3026
## 280
         FAINT 29.1394 27.3283 26.3147 26.1152 25.3485 24.8797
                                                               1.0136
                                                                        0.1995
## 281
        BRIGHT 26.1619 25.0246 23.9160 23.1041 22.8819 22.6594
                                                               1.1086
                                                                        0.8119
       BRIGHT 27.0795 26.5640 25.6492 24.8543 24.2193 23.9436
## 282
                                                               0.9148
                                                                       0.7949
## 283
        BRIGHT 26.4757 26.0536 24.8386 23.8353 23.4547 23.1078 1.2150
                                                                       1.0033
         FAINT 28.2775 28.0559 27.6431 26.9405 27.3009 27.1922 0.4128 0.7026
## 284
## 285
        BRIGHT 26.3620 25.4121 24.7912 24.2133 24.0862 23.9184 0.6209 0.5779
## 286
        BRIGHT 25.5444 24.8224 23.0869 21.9483 21.1685 20.8509
                                                               1.7355
                                                                        1.1386
##
  287
         FAINT 27.9280 27.5027 26.7065 25.8048 25.3964 24.9324
                                                               0.7962
## 288
        BRIGHT 25.6719 23.2983 21.5768 20.6211 20.1689 19.8174
                                                               1.7215
                                                                       0.9557
## 289
        BRIGHT 26.0619 25.3231 24.6838 23.7068 23.1723 22.3419
                                                               0.6393
                                                                       0.9770
## 290
        FAINT 28.1511 27.7563 26.8076 26.2364 25.8604 25.5708
                                                               0.9487
## 291
         FAINT 26.4886 25.8615 25.6854 25.3709 25.1218 24.4128
                                                               0.1761
## 292
        BRIGHT 27.0981 25.5626 24.1937 23.5414 23.2173 22.8866
                                                               1.3689
                                                                        0.6523
## 293
         FAINT 28.2892 27.0647 25.9409 25.5703 25.3897 24.8883
                                                               1.1238
                                                                        0.3706
## 294
         FAINT 30.5953 27.1761 26.2294 26.0583 25.6133 25.6942
                                                               0.9467
         FAINT 27.5246 26.8663 25.9165 25.4535 25.1709 25.6851 0.9498
## 295
                                                                       0.4630
## 296
         FAINT 27.1674 26.8636 25.8991 25.5645 25.4573 25.4461 0.9645 0.3346
## 297
         FAINT 29.4042 26.9885 26.2571 25.9231 25.8393 25.3588
                                                               0.7314 0.3340
## 298
         FAINT 28.7547 27.8734 27.2197 26.1786 25.5188 25.2576 0.6537 1.0411
                                                               0.3702 1.1592
## 299
         FAINT 29.6318 28.4991 28.1289 26.9697 25.4754 24.9997
##
  300
         FAINT 25.0971 24.9977 24.9805 25.0839 24.9136 25.2994
                                                               0.0172 -0.1034
## 301
         FAINT 27.2369 27.9851 27.4042 26.6975 26.5859 26.4729
                                                               0.5809 0.7067
## 302
        BRIGHT 23.3320 22.4142 21.6669 21.3121 21.1440 21.0031 0.7473 0.3548
## 303
        FAINT 27.7036 26.6694 25.8184 25.2886 25.1650 25.2189
                                                               0.8510 0.5298
## 304
        BRIGHT 27.4932 25.2233 23.7021 23.1245 22.8128 22.5786
                                                               1.5212 0.5776
## 305
        FAINT 26.3960 26.2331 25.9770 25.7317 25.1671 24.8280
                                                               0.2561 0.2453
## 306
        BRIGHT 24.6924 24.5916 24.5401 24.5696 24.5907 24.8867
                                                               0.0515 -0.0295
        BRIGHT 29.0881 27.2543 25.1092 24.0162 23.1388 22.7461
## 307
                                                               2.1451
## 308
       BRIGHT 22.8386 21.3461 20.3679 19.9478 19.7254 19.5353
                                                               0.9782
                                                                        0.4201
## 309
       BRIGHT 26.4437 26.2098 25.2938 24.6654 24.3597 24.2184 0.9160 0.6284
## 310
        BRIGHT 27.4873 27.3498 25.3703 23.9112 23.1417 22.1805 1.9795 1.4591
## 311
        BRIGHT 25.2004 24.3724 23.4452 23.1264 22.9235 22.8189 0.9272 0.3188
## 312
        FAINT 25.9258 26.0576 25.8099 25.9452 26.0454 25.4083 0.2477 -0.1353
## 313
        BRIGHT 23.2300 22.5759 22.0202 21.7439 21.6785 21.6027
                                                               0.5557 0.2763
## 314
        FAINT 28.9676 27.3083 26.9103 26.7290 26.0699 25.7044
                                                               0.3980
                                                                       0.1813
        BRIGHT 28.5888 28.1393 25.9376 24.8915 23.8993 23.1113
## 315
                                                               2.2017
                                                                       1.0461
        FAINT 26.7504 28.0525 27.0944 26.9766 27.2288 26.5844
## 316
                                                               0.9581 0.1178
        BRIGHT 24.9299 24.1194 23.2028 22.6157 22.4073 22.2263
## 317
                                                               0.9166
## 318
       BRIGHT 25.0551 23.9324 22.5934 21.8402 21.5836 21.3413
                                                               1.3390
                                                                       0.7532
## 319
        BRIGHT 26.8157 26.1021 25.2980 24.8096 24.3187 23.7652
                                                               0.8041
                                                                        0.4884
## 320
         FAINT 27.9254 28.1287 26.9084 26.1392 25.5210 25.3747
                                                                1.2203
## 321
        BRIGHT 26.4327 25.8844 24.9883 24.6789 24.6144 24.3048
                                                               0.8961
                                                                        0.3094
        FAINT 26.5292 26.5555 25.9100 25.2183 25.0642 24.8849
## 322
                                                               0.6455
                                                                       0 6917
## 323
         FAINT 27.9650 28.0733 27.3581 26.4545 25.9370 26.9657
                                                               0.7152 0.9036
## 324
         FAINT 29.1260 27.1312 26.4099 25.7791 25.7062 25.4330 0.7213 0.6308
         FAINT 28.1365 26.4782 25.9140 25.4864 25.2284 25.2720 0.5642 0.4276
## 325
## 326
         FAINT 29.7193 28.1666 26.9776 26.0931 25.3884 24.5807
                                                               1.1890
                                                                       0.8845
## 327
         FAINT 27.3177 27.2095 26.3470 25.9069 25.2528 24.8578
                                                               0.8625
                                                                        0.4401
         FAINT 26.8396 26.8304 26.1507 25.9990 25.5460 25.5913
## 328
                                                               0.6797
                                                                        0.1517
## 329
         FAINT 28.6787 27.1088 26.8697 26.3146 26.0983 25.4232
                                                               0.2391
## 330
         FAINT 29.9623 27.5598 26.3882 25.3785 24.7099 24.9046
                                                               1.1716
## 331
         FAINT 28.4327 27.5443 27.1582 26.9393 26.8831 26.7725
                                                               0.3861
                                                                       0.2189
## 332
        BRIGHT 24.5708 24.2739 24.1071 23.6633 23.3095 22.5616
                                                               0.1668
                                                                       0.4438
## 333
         FAINT 27.0537 27.6282 26.7704 26.3727 26.4145 26.8237
                                                               0.8578
                                                                        0.3977
## 334
         FAINT 27.1552 26.9384 27.2080 26.9332 26.3650 26.5818 -0.2696
                                                                       0.2748
## 335
         FAINT 26.7584 26.5855 25.5746 25.2324 25.0854 24.8602 1.0109 0.3422
```

```
## 336
         FAINT 26.4698 27.3062 27.2018 26.9748 25.9974 25.5285
                                                               0.1044 0.2270
## 337
         FAINT 28.1960 28.0293 27.3904 26.7053 26.2285 25.6643 0.6389
## 338
         FAINT 27.8720 28.2135 27.3194 26.6130 26.9643 27.4424
                                                               0.8941
## 339
         FAINT 27.6210 26.5751 25.7979 25.5315 25.4021 24.9908
                                                                0.7772
                                                                        0.2664
         FAINT 27.7019 30.6803 27.0571 26.7395 26.2717 26.0022
##
  340
                                                                3.6232
## 341
         FAINT 26.9279 27.4404 27.0264 26.7069 26.8628 26.2111
                                                                0.4140
                                                                        0.3195
## 342
        BRIGHT 25.7661 25.3532 24.5376 24.3308 24.2392 24.1038
                                                                0.8156
                                                                        0.2068
## 343
         FAINT 27.3069 26.9516 26.6377 26.3065 26.3433 26.1522
                                                                0.3139
## 344
        BRIGHT 28.1813 27.0512 25.8545 24.4429 23.6203 22.7383
                                                               1.1967
## 345
         FAINT 30.4115 29.1409 28.8788 26.5663 25.6585 24.9808
                                                               0 2621 2 3125
## 346
         FAINT 25.9681 26.2468 26.3212 26.5362 26.3258 26.3985 -0.0744 -0.2150
## 347
        BRIGHT 26.7369 26.0739 25.3442 24.7081 24.5114 24.2101 0.7297
                                                                       0.6361
        FAINT 27.9913 26.5464 25.6682 25.5565 25.2542 25.8206 0.8782 0.1117
## 348
## 349
         FAINT 27.7527 27.7199 26.6912 26.6980 26.9500 26.0309 1.0287 -0.0068
## 350
         FAINT 25.9718 26.0551 25.6356 25.1516 24.7178 24.5267 0.4195 0.4840
## 351
         FAINT 28.5138 27.7720 26.8745 26.1886 25.5848 26.0083 0.8975 0.6859
## 352
         FAINT 29.1739 27.1409 26.2971 26.0327 25.9454 25.5055
                                                                0.8438 0.2644
## 353
         FAINT 27.2267 27.1441 26.8448 26.9160 27.1844 27.4267
                                                                0.2993 -0.0712
## 354
         FAINT 26.0008 25.8306 25.3311 25.0558 24.7118 24.1275
                                                                0.4995 0.2753
## 355
         FAINT 27.8822 27.3867 26.7021 25.8557 25.7375 25.2689
                                                                0.6846
## 356
        BRIGHT 25.1018 23.8720 22.6351 21.7404 21.4122 21.1443
                                                               1.2369
## 357
        BRIGHT 24.6706 24.2920 23.9063 23.3079 22.7215 22.0351
                                                                0.3857
                                                                        0.5984
## 358
        BRIGHT 26.3241 25.6706 25.4153 24.9061 24.6092 23.8275
                                                                0.2553
                                                                        0 5092
## 359
        BRIGHT 25.8011 23.8701 22.2826 21.3428 20.9600 20.6611
                                                                1.5875
                                                                        0.9398
## 360
        BRIGHT 22.5812 21.7168 20.6161 20.1850 19.8880 19.7253
                                                                1.1007
                                                                        0.4311
        FAINT 28.0217 27.3121 26.9752 26.2261 25.9022 25.3277
## 361
                                                                0.3369
                                                                        0.7491
## 362
         FAINT 27.2196 27.6401 26.6676 26.4311 26.9254 25.6194 0.9725
         FAINT 28.7960 28.0796 27.3208 26.6399 25.9041 25.7477
## 363
                                                                0.7588 0.6809
## 364
         FAINT 27.1865 26.6528 26.6435 26.3348 26.1293 26.5912 0.0093 0.3087
## 365
         FAINT 28.5259 26.8555 26.1152 25.5696 24.6987 24.2525
                                                                0.7403
                                                                        0.5456
##
  366
        BRIGHT 26.8214 25.5879 24.8212 24.5888 24.4119 24.4516
                                                                0.7667
## 367
        FAINT 27.1077 26.6432 26.4086 25.8784 25.5995 25.1518
                                                                0.2346
                                                                        0.5302
## 368
        BRIGHT 24.8688 24.4109 23.6191 22.9803 22.4857 22.2897
                                                                0.7918
                                                                        0.6388
## 369
        BRIGHT 25.6291 25.2631 24.5914 24.2100 23.7112 23.4264
                                                                0.6717
## 370
         FAINT 27.0824 27.8641 27.0244 26.2309 25.8891 25.5651
                                                                0.8397
## 371
        BRIGHT 26.9633 26.5040 24.9983 24.3745 24.0376 23.7127
                                                                1.5057
                                                                        0.6238
## 372
         FAINT 27.4384 27.0193 26.4778 26.0300 25.6776 27.2406
                                                                0.5415
                                                                        0.4478
## 373
        BRIGHT 25.4327 25.3389 25.1078 24.8268 24.0545 23.9357
                                                                0.2311
        FAINT 27.4180 26.7883 25.7337 25.3566 25.2013 25.1973
## 374
                                                                1.0546
                                                                        0.3771
## 375
         FAINT 29.6378 27.5679 26.7593 25.5798 24.9041 24.1532
                                                               0.8086
## 376
         FAINT 27.0858 27.1514 26.5105 25.9775 25.8720 25.7691 0.6409
## 377
         FAINT 26.6070 26.6807 26.3724 25.7372 25.0698 25.1631 0.3083 0.6352
         FAINT 28.3209 27.8608 28.0972 26.8695 26.4928 26.4666 -0.2364
## 378
                                                                        1.2277
## 379
         FAINT 26.5913 26.3888 26.1456 25.8008 25.4410 26.1185
                                                                0.2432
## 380
         FAINT 30.4623 28.4717 27.3977 26.8484 26.2192 26.7747
                                                                1.0740
                                                                        0.5493
## 381
        BRIGHT 24.2495 24.1038 23.7381 23.0610 22.7255 22.6113 0.3657
                                                                        0.6771
## 382
        FAINT 27.2677 27.1237 26.5940 26.0902 25.4854 24.9502
                                                               0.5297
## 383
         FAINT 26.5037 26.3746 26.1710 25.8088 25.6609 25.8071 0.2036
## 384
        BRIGHT 24.4721 24.1113 23.4038 22.6820 22.4672 22.3041 0.7075
                                                                        0.7218
## 385
        BRIGHT 26.4263 25.9821 25.3470 24.5989 23.9383 23.6625
                                                               0.6351
                                                                        0.7481
## 386
         FAINT 26.0529 25.9678 26.0370 25.9573 25.6888 25.9325
                                                               -0.0692
## 387
        BRIGHT 24.9561 24.5894 23.8193 23.2226 22.4808 21.9802
                                                               0.7701
                                                                        0.5967
       BRIGHT 25.1409 24.7017 23.8425 23.4831 23.3074 22.9382 0.8592
## 388
## 389
        BRIGHT 25.3603 24.9437 24.0099 23.4284 23.2757 23.1293 0.9338 0.5815
## 390
         FAINT 27.9759 27.4812 27.2326 26.9173 26.0529 26.8451 0.2486 0.3153
## 391
         FAINT 28.0215 27.5136 27.3587 26.9735 26.9605 27.1345 0.1549 0.3852
## 392
         FAINT 36.8527 28.1223 27.4664 26.9222 27.2035 26.1811
                                                                0.6559
                                                                        0.5442
## 393
         FAINT 26.5886 26.4862 26.1316 25.6222 25.1638 24.5615
                                                                0.3546
                                                                        0.5094
         FAINT 29.2602 28.4396 27.7512 26.9853 26.9415 26.7895
## 394
                                                                0.6884
                                                                        0.7659
         FAINT 28.5650 27.4239 26.8621 26.0129 25.4275 24.6237
## 395
                                                                0.5618
                                                                        0.8492
## 396
         FAINT 28.6534 27.4907 26.7689 26.4240 25.5601 25.4161
                                                                0.7218
## 397
         FAINT 26.9923 27.0030 27.0482 26.8303 26.7900 26.2877 -0.0452
                                                                        0.2179
        BRIGHT 25.3396 25.1020 24.8580 24.4604 23.9999 23.3708
## 398
                                                                0.2440
                                                                        0.3976
##
  399
         FAINT 28.4757 26.5628 25.7166 25.6753 25.2348 25.6116
                                                                0.8462
## 400
        BRIGHT 24.1339 23.5940 22.7074 21.8922 21.6332 21.4041
                                                                0.8866
                                                                        0.8152
## 401
        BRIGHT 22.6300 22.0843 21.0751 20.6234 20.3237 20.1244
                                                               1.0092
## 402
        BRIGHT 29.2234 27.4039 25.8067 24.6990 23.9300 23.5476
                                                               1.5972
## 403
         FAINT 30.4434 26.9048 26.2395 25.6262 25.6254 25.3120 0.6653 0.6133
         FAINT 28.7953 28.8206 27.2457 26.6838 26.1226 25.2870 1.5749 0.5619
## 404
## 405
        BRIGHT 24.6118 23.9994 23.2444 23.0573 22.8076 22.8496
                                                                0.7550
## 406
         FAINT 29.7204 30.5478 28.3367 26.7854 26.2727 25.8919
                                                                2.2111
## 407
         FAINT 27.1568 26.7610 26.2951 25.6248 25.1256 24.5691
                                                                0.4659
                                                                        0.6703
## 408
         FAINT 26.7897 26.4556 25.8084 25.0601 24.8813 24.9142
                                                                0.6472
## 409
         FAINT 27.8769 27.0131 26.2492 25.5382 25.0346 24.9083
## 410
         FAINT 27.7941 27.3949 26.9648 26.5272 25.9680 25.4661 0.4301
         FAINT 26.9730 27.0152 26.6842 25.8275 25.4063 25.0061
## 411
                                                                0.3310
                                                                        0.8567
## 412
         FAINT 27.8043 27.3665 26.9136 26.2790 25.7776 25.7091
                                                                0.4529
## 413
         FAINT 28.3432 27.4456 26.8201 26.0890 26.1401 25.4619
                                                                0.6255
                                                                        0.7311
## 414
         FAINT 25.9190 25.8925 25.3778 25.2675 25.1101 25.0951 0.5147 0.1103
```

```
## 415
         FAINT 29.9161 32.4665 27.9783 26.6219 25.7315 25.4538
## 416
         FAINT 27.7642 27.3223 26.9128 26.7561 26.0082 26.0299 0.4095
## 417
        BRIGHT 27.7357 26.3638 25.5966 24.9377 24.8730 24.4524
                                                                0.7672 0.6589
## 418
         FAINT 27.0055 27.3891 26.5685 25.7963 25.4506 25.5542
                                                                0.8206
                                                                        0.7722
         FAINT 28.6864 28.4416 27.3685 26.6392 26.4050 26.3856
## 419
                                                                1.0731
## 420
         FAINT 27.0240 27.0869 26.3579 25.5985 25.5028 25.1125
                                                                0.7290
                                                                        0.7594
## 421
         FAINT 27.4184 26.5722 26.1933 25.7248 25.2979 25.0994
                                                                0.3789
                                                                        0.4685
## 422
         FAINT 26.9122 26.2573 25.7954 25.7503 25.6103 26.4167
                                                                0.4619
## 423
         FAINT 25.8619 25.6739 25.1418 25.0036 24.8946 24.8689
                                                                0.5321
                                                                        0.1382
## 424
        BRIGHT 25.1489 24.6614 24.1470 23.5442 23.1606 22.4196
                                                                0 5144
                                                                        0 6028
## 425
         FAINT 27.7158 28.1063 27.3071 26.7766 26.2363 25.7883
                                                                0 7992
                                                                        0 5305
## 426
         FAINT 28.1183 27.8389 27.1839 26.3593 26.1057 25.8542
                                                                0.6550
                                                                        0.8246
        BRIGHT 23.6918 22.3866 20.9285 20.1120 19.7955 19.5006 1.4581
## 427
                                                                        0.8165
## 428
        FAINT 29.1071 27.4319 26.4241 25.4854 25.3063 24.6604 1.0078
## 429
        BRIGHT 25.0708 24.4945 24.0282 23.8188 23.8238 23.6736 0.4663 0.2094
## 430
       BRIGHT 25.8734 25.1373 24.0903 23.0846 22.6466 22.4242 1.0470 1.0057
        BRIGHT 25.4724 24.8429 23.9024 23.6406 23.4441 23.3422
## 431
                                                                0.9405
                                                                        0.2618
## 432
        BRIGHT 25.0214 24.3539 23.5432 23.2352 22.9978 22.9497
                                                                0.8107
## 433
        BRIGHT 26.6916 26.1220 24.3054 23.2714 22.3116 21.7051 1.8166
                                                                        1.0340
## 434
        FAINT 27.8292 26.4764 26.0206 25.4698 25.3302 25.2302
                                                                0.4558
                                                                        0.5508
## 435
         FAINT 26.9031 26.7317 26.0738 25.4176 24.8468 24.5785
                                                                0.6579
## 436
         FAINT 28.0485 28.1161 26.7137 26.0573 25.6166 25.2817
                                                               1.4024
## 437
         FAINT 27.3858 26.8991 26.5494 26.2847 26.2551 25.1931
                                                                0.3497
                                                                        0.2647
## 438
        BRIGHT 25.7238 24.9959 24.3375 23.6463 23.1835 22.4983
                                                                0.6584
                                                                        0.6912
## 439
        BRIGHT 24.8792 24.7031 24.1169 23.4312 22.6603 22.1395
                                                                0.5862
        BRIGHT 24.0746 23.8517 23.3592 22.6523 22.3796 22.2524
## 440
                                                                0.4925
                                                                        0.7069
## 441
        FAINT 30.3184 28.9308 27.0892 26.0542 25.1234 24.4976
                                                               1.8416
## 442
         FAINT 27.6724 27.8668 26.5792 26.3482 25.9893 26.1264
                                                               1.2876 0.2310
## 443
         FAINT 26.9647 26.9162 26.6271 26.2248 25.6015 25.2289
                                                               0.2891 0.4023
## 444
         FAINT 26.7790 27.3469 27.1749 26.5051 26.1767 25.3288
                                                                0.1720
                                                                        0.6698
## 445
         FAINT 27.5221 27.1847 26.7483 26.1970 25.5555 25.4206
                                                                0.4364
## 446
         FAINT 27.1201 26.9017 26.7579 26.1021 25.7410 25.1021
                                                                0.1438
                                                                        0.6558
## 447
        BRIGHT 25.6586 25.0334 24.1676 23.5733 23.4234 23.2502
                                                                0.8658
                                                                        0.5943
## 448
        BRIGHT 26.9739 26.4675 25.8159 24.9026 24.5389 24.4032
                                                                0.6516
                                                                        0.9133
## 449
        BRIGHT 25.1000 24.4403 23.4762 22.9054 22.6844 22.4158
                                                               0.9641
        BRIGHT 26.0476 25.4110 24.4310 24.2124 23.9887 24.0026
## 450
                                                                0.9800
                                                                        0.2186
## 451
        FAINT 27.3194 27.6462 27.4336 26.7274 26.7220 28.5262
                                                                0.2126
                                                                        0.7062
## 452
        BRIGHT 23.1165 22.8691 22.3760 22.3484 22.1504 22.2738
                                                                0.4931
        FAINT 26.7333 26.4687 25.9343 25.2369 24.8354 24.1756
## 453
                                                                0.5344
                                                                        0.6974
        BRIGHT 26.2093 25.6822 25.0678 24.5428 24.4143 24.3305
## 454
                                                               0.6144
## 455
         FAINT 27.0399 26.3052 26.2008 25.7301 25.9988 26.0179
                                                               0.1044 0.4707
## 456
         FAINT 27.6123 27.8677 26.8972 25.8972 25.9160 26.6250 0.9705 1.0000
## 457
         FAINT 29.8842 29.6865 26.9195 25.9302 25.1146 24.4270
                                                                2.7670
                                                                       0.9893
## 458
        BRIGHT 24.6347 24.1052 23.2741 23.0388 22.8009 22.8012
                                                                0.8311
                                                                        0.2353
## 459
         FAINT 27.6762 27.5243 27.4234 26.9345 26.4387 26.1565
                                                                0.1009
                                                                        0.4889
         FAINT 25.6138 25.3977 25.3032 25.0375 24.7027 24.2910
## 460
                                                                0.0945
                                                                        0.2657
## 461
        BRIGHT 25.5740 25.2959 24.5977 23.7623 23.4284 23.2391 0.6982 0.8354
         FAINT 26.7361 26.9623 26.5855 26.6204 26.1224 26.5830
## 462
                                                               0.3768 -0.0349
## 463
         FAINT 28.7148 29.5105 27.2290 26.2922 26.0931 25.2527
                                                                2.2815
                                                                       0.9368
## 464
        BRIGHT 26.3355 25.7632 24.6097 23.7609 22.8670 22.4774
                                                                1.1535
                                                                        0.8488
## 465
         FAINT 28.1864 27.7824 27.2089 26.6748 27.0741 26.3367
                                                                0.5735
## 466
         FAINT 28.7646 28.1991 27.6200 26.9656 26.7275 26.0238
                                                                0.5791
                                                                        0.6544
## 467
         FAINT 28.9227 28.9022 27.5893 26.8314 26.9021 26.7571 1.3129
## 468
        BRIGHT 27.0059 26.3299 24.9842 23.9079 23.1379 22.7821 1.3457 1.0763
## 469
         FAINT 27.1001 27.3545 26.7444 26.8197 26.0579 26.3186 0.6101 -0.0753
## 470
        BRIGHT 23.6058 22.8714 21.9877 21.6584 21.3693 21.2226 0.8837 0.3293
## 471
         FAINT 27.6490 26.7442 26.8898 26.6067 26.4354 25.7125 -0.1456 0.2831
## 472
         FAINT 28.0604 29.2126 27.7439 26.5592 26.3708 26.6367
                                                               1.4687
                                                                        1.1847
## 473
         FAINT 28.2873 27.7504 27.6390 26.9688 27.0349 26.4308
                                                               0.1114 0.6702
         FAINT 27.6199 26.3002 25.9438 26.0126 25.4684 25.5076
## 474
                                                               0.3564 -0.0688
         FAINT 25.8020 25.8617 25.6155 25.1860 24.7998 24.3668
## 475
                                                                0.2462 0.4295
## 476
         FAINT 26.7132 26.8980 26.7679 26.2050 25.6667 25.2602
                                                               0.1301 0.5629
## 477
         FAINT 31.1815 27.5236 27.0347 26.4087 26.3759 25.6546
                                                                0.4889
                                                                        0.6260
## 478
         FAINT 28.0821 27.2160 26.8038 25.8944 25.7195 26.0702
                                                                0.4122
## 479
         FAINT 27.0674 26.9086 26.4179 26.3024 26.2647 26.0541
                                                                0.4907
                                                                        0.1155
## 480
         FAINT 27.3848 27.5687 27.1519 26.0297 25.8223 25.8201 0.4168
## 481
         FAINT 27.6319 26.8675 26.2518 25.7940 25.1676 24.5073
                                                               0.6157
## 482
         FAINT 27.2315 26.7870 26.2018 26.0950 25.8687 25.9616 0.5852 0.1068
## 483
         FAINT 25.7239 25.9963 25.7341 25.2148 24.7583 24.9269
                                                               0.2622 0.5193
## 484
         FAINT 28.8682 28.6631 27.0142 25.9159 25.2048 24.7385
                                                                1.6489
                                                                        1.0983
## 485
         FAINT 28.2425 30.5076 27.6542 26.8447 26.4761 25.6493
                                                                2.8534
         FAINT 27.8159 26.6229 25.7376 25.5433 25.1807 25.6213
## 486
                                                                0.8853
                                                                        0.1943
        BRIGHT 27.4223 26.7003 25.6606 24.3950 23.6042 22.6951
## 487
                                                               1.0397
                                                                        1.2656
## 488
        BRIGHT 26.2515 25.3375 24.4930 24.1330 23.8939 23.7426
## 489
        BRIGHT 26.8693 26.2582 25.1227 24.6605 24.5925 24.1767
                                                               1.1355
                                                                        0.4622
## 490
        FAINT 29.6689 27.5444 26.7855 26.5447 26.5815 26.1559
                                                                0.7589
                                                                        0.2408
## 491
        BRIGHT 27.0461 25.9907 24.9853 24.3265 23.5836 23.0732
                                                                1.0054
                                                                        0.6588
## 492
        FAINT 25.6388 25.2209 25.2205 25.0823 25.4731 25.2266
                                                                0.0004
                                                                        0.1382
## 493
        BRIGHT 26.0285 25.8239 25.4234 24.7892 24.6452 24.4958 0.4005 0.6342
```

```
## 494
         FAINT 28.7302 28.2004 27.1892 26.6220 26.5873 26.5238 1.0112 0.5672
## 495
         FAINT 27.4215 27.3367 26.5447 25.5612 25.1779 25.4205 0.7920 0.9835
## 496
        BRIGHT 28.0226 26.4217 24.4191 23.2229 22.3823 22.0273 2.0026 1.1962
## 497
        FAINT 26.1695 25.7124 25.4275 25.3119 25.3214 26.1417
                                                               0.2849
                                                                        0.1156
        BRIGHT 26.9307 26.7803 25.7519 24.6302 24.2334 24.1036
## 498
                                                               1.0284
                                                                        1.1217
## 499
        FAINT 28.1019 28.0327 27.0455 26.4218 25.8209 25.2894
                                                               0.9872
                                                                        0.6237
## 500
         FAINT 30.8422 29.0325 27.3424 26.8363 26.9582 26.2325
                                                               1.6901
## 501
        BRIGHT 26.1806 25.2720 24.1508 23.6976 23.4230 23.2300
                                                               1.1212
## 502
        BRIGHT 20.2639 19.4075 18.8305 18.5348 18.4000 18.2745
                                                               0.5770
                                                                        0.2957
## 503
        BRIGHT 24.4447 23.6163 22.4218 22.0092 21.8186 21.4201 1.1945
                                                                       0 4126
## 504
         FAINT 28.4739 26.9513 26.6372 26.3389 25.7025 25.3830
                                                               0 3141
                                                                        0 2983
## 505
         FAINT 27.6617 28.0888 26.6617 25.4990 24.5369 24.1753
                                                               1.4271
                                                                        1.1627
        FAINT 29.1909 27.9193 26.4086 26.1388 25.5457 25.3637 1.5107
## 506
## 507
        BRIGHT 23.0128 21.3579 19.8800 19.3776 19.0498 18.9045 1.4779 0.5024
## 508
        BRIGHT 25.5479 25.8267 25.2174 24.4558 24.2055 24.2442 0.6093 0.7616
        FAINT 28.4472 27.1085 26.3938 25.4386 24.9748 24.8311 0.7147 0.9552
## 509
        BRIGHT 22.9788 22.2445 21.2250 20.9376 20.6814 20.6079
## 510
                                                               1.0195
                                                                       0.2874
## 511
        BRIGHT 27.6612 28.6202 25.7107 24.4703 23.5188 22.7133
                                                               2.9095
## 512
        FAINT 28.0762 27.8640 27.7373 26.8451 28.2721 26.2001 0.1267
                                                                        0.8922
## 513
         FAINT 27.0217 27.1235 26.2985 26.0331 26.0401 26.0192 0.8250
                                                                       0.2654
## 514
         FAINT 28.3422 27.6058 27.4801 26.7419 26.5549 28.2737
                                                               0.1257
## 515
        BRIGHT 25.8172 25.5616 24.6561 23.9209 23.6670 23.3983
                                                               0.9055
## 516
        FAINT 25.7962 25.4935 25.3700 25.0707 24.7355 24.2288
                                                               0.1235
                                                                       0.2993
                                                                       0.2523
## 517
        BRIGHT 26.0703 25.2355 24.6052 24.3529 24.3053 24.2128
                                                               0.6303
## 518
         FAINT 27.0891 26.4536 26.5474 26.6934 25.8185 26.1152 -0.0938 -0.1460
        BRIGHT 26.6229 26.1552 25.1175 24.0637 23.5936 23.2623 1.0377 1.0538
## 519
## 520
        FAINT 27.6830 27.5915 27.1536 26.1960 25.3805 24.4897
                                                               0.4379 0.9576
         FAINT 27.1098 26.8451 26.0134 25.4687 24.9263 24.8137 0.8317 0.5447
## 521
## 522
        BRIGHT 23.3165 22.3395 21.7222 21.3974 21.2748 21.1485 0.6173 0.3248
## 523
        FAINT 27.0575 26.6007 25.7109 25.1956 24.9735 24.3877
                                                               0.8898 0.5153
## 524
        BRIGHT 25.3016 25.3157 24.7639 24.0785 23.4769 23.2545
                                                               0.5518 0.6854
## 525
        FAINT 28.3696 27.0106 26.9621 26.8926 27.2439 27.2430
                                                               0.0485 0.0695
## 526
        BRIGHT 25.6665 24.6201 23.9360 23.6201 23.5089 23.4223
                                                               0.6841 0.3159
## 527
        BRIGHT 26.4734 26.1020 24.6635 23.5215 22.6677 22.2391 1.4385 1.1420
## 528
         FAINT 28.1430 26.5729 25.3849 25.0080 24.8239 24.4767
                                                               1.1880 0.3769
## 529
         FAINT 25.1355 25.2514 25.1287 25.2592 25.2431 25.5396
                                                               0.1227 -0.1305
## 530
         FAINT 26.0570 26.0643 25.4370 25.4105 24.9558 25.3071
                                                               0.6273 0.0265
## 531
        BRIGHT 28.9154 27.7748 26.1331 24.5945 23.8967 22.9252
                                                               1.6417
        FAINT 28.8341 28.2610 29.0120 26.8491 29.3536 29.4473 -0.7510
## 532
                                                                       2.1629
## 533
         FAINT 30.0770 29.2246 28.1935 26.1588 25.4681 24.5143 1.0311 2.0347
## 534
         FAINT 26.8355 26.8470 26.0517 25.5071 24.9643 24.7531 0.7953 0.5446
## 535
         FAINT 27.7603 27.1476 27.0173 26.3089 25.8770 25.7524 0.1303 0.7084
## 536
        BRIGHT 22.4467 21.6359 20.5706 20.0357 19.8010 19.4866
                                                              1.0653 0.5349
## 537
        BRIGHT 24.5933 23.9372 23.2778 23.0985 22.8414 22.8609
                                                               0.6594
                                                                       0.1793
## 538
        FAINT 27.3691 26.2312 25.6523 25.0648 24.8015 23.9538
                                                               0.5789
                                                                       0.5875
         FAINT 27.6566 27.8425 27.5933 26.8087 26.2809 32.0570 0.2492
## 539
                                                                       0.7846
## 540
         FAINT 28.2388 27.3617 26.9664 26.6674 25.9703 26.1305
                                                              0.3953
                                                                       0.2990
## 541
        BRIGHT 23.9659 23.5582 22.7772 22.1860 22.0021 21.8036 0.7810
## 542
       BRIGHT 25.6980 23.3357 21.6949 20.5325 20.1028 19.7526 1.6408
                                                                       1.1624
## 543
        BRIGHT 24.7895 24.0067 23.4142 23.2343 23.0046 23.0352
                                                               0.5925
                                                                        0.1799
## 544
         FAINT 25.9012 25.7579 25.2469 25.1725 24.9747 25.1911
                                                               0.5110
        BRIGHT 23.2140 22.2042 21.2896 21.0100 20.7518 20.6995
## 545
                                                               0.9146
                                                                       0.2796
        FAINT 27.1556 26.9311 25.7750 25.4462 25.3962 25.1837 1.1561
## 546
## 547
         FAINT 26.5626 26.6419 25.7785 25.7744 25.3959 25.6107 0.8634 0.0041
## 548
         FAINT 28.9460 27.2009 26.4971 25.9624 25.3233 25.1552 0.7038 0.5347
## 549
         FAINT 29.5818 29.2373 26.7837 26.1100 25.8768 25.5572 2.4536 0.6737
## 550
        FAINT 28.0883 27.7839 26.0242 25.5055 25.2617 24.9525
                                                               1.7597
                                                                        0.5187
## 551
        BRIGHT 26.8765 25.7741 24.7312 24.3067 24.1297 23.6958
                                                               1.0429
                                                                        0.4245
        FAINT 27.2801 27.2023 26.6469 26.0903 25.8149 25.4587
## 552
                                                               0.5554
                                                                        0.5566
         FAINT 27.5045 27.6131 26.2268 25.3565 24.5486 23.7443
## 553
                                                               1.3863
                                                                       0.8703
        BRIGHT 28.3174 25.7828 24.5730 24.1637 23.8641 23.6642
## 554
## 555
       BRIGHT 24.3582 23.7813 23.0748 22.8645 22.6087 22.5929
                                                               0.7065
                                                                       0.2103
## 556
         FAINT 27.7747 27.5889 26.8566 26.3438 26.5341 25.7917
                                                               0.7323
                                                                        0.5128
## 557
         FAINT 27.1329 26.8958 26.1553 25.5551 25.2125 25.0532
                                                               0.7405
## 558
        BRIGHT 24.9059 24.7000 24.0431 23.5919 23.4302 23.1884
                                                               0.6569
                                                                        0.4512
## 559
        FAINT 28.6326 27.7432 27.3650 26.6810 26.5319 27.1445 0.3782
                                                                       0.6840
## 560
        BRIGHT 25.8826 25.6394 24.9397 24.6905 24.4763 24.4631 0.6997 0.2492
## 561
         FAINT 27.4140 27.3241 26.7838 26.1540 25.5733 25.1285 0.5403 0.6298
## 562
        BRIGHT 25.0089 23.2159 21.5783 20.3853 19.9409 19.6037 1.6376 1.1930
## 563
        BRIGHT 26.5729 25.9211 25.1454 24.3587 23.9061 23.6062
                                                               0.7757
                                                                        0.7867
## 564
        BRIGHT 26.8958 25.7837 25.0978 24.9707 24.6494 24.7591
                                                               0.6859
        FAINT 26.7940 26.5083 26.2783 26.0564 25.8902 26.4286
## 565
                                                               0.2300
                                                                       0.2219
## 566
         FAINT 26.6354 27.0321 26.5552 26.4331 26.1446 26.0224
                                                               0.4769
                                                                       0.1221
## 567
         FAINT 27.5683 27.3667 26.7367 26.5808 26.2604 25.6098
                                                               0.6300
## 568
         FAINT 28.8450 27.3708 26.3713 25.4366 25.1953 26.0430
                                                               0.9995
                                                                       0.9347
## 569
         FAINT 27.2710 27.5724 26.6630 26.4198 26.1735 25.8297
                                                               0.9094
                                                                        0.2432
##
  570
        BRIGHT 26.3485 25.7506 24.9821 24.1739 23.7665 23.5599
                                                               0.7685
## 571
        BRIGHT 25.8774 25.5212 25.2111 24.5947 24.1053 23.3105
                                                               0.3101
                                                                       0.6164
## 572
        FAINT 28.0426 27.4919 26.4493 25.7114 25.3578 24.9979 1.0426 0.7379
```

```
FAINT 27.1621 27.0493 26.8377 26.5805 26.1399 26.6994 0.2116 0.2572
## 574
         FAINT 26.0923 25.9598 25.8256 25.5216 25.3309 25.2875
                                                               0.1342 0.3040
## 575
         FAINT 27.0079 28.0138 27.0824 26.9590 27.0024 26.1845
                                                                0.9314 0.1234
## 576
        BRIGHT 25.0770 25.0070 24.9274 24.9539 25.1225 24.5462
                                                                0.0796 -0.0265
         FAINT 28.2178 26.9856 25.9280 25.8168 25.6644 25.4804
## 577
                                                                1.0576
         FAINT 30.4923 28.0408 27.6787 26.9712 25.8640 25.6226
## 578
                                                                0.3621
                                                                        0.7075
         FAINT 28.6084 26.8151 26.1246 25.7877 25.9309 25.7472
## 579
                                                                0.6905
                                                                        0.3369
## 580
         FAINT 27.0915 26.8823 26.1233 25.3155 25.1000 25.0657
## 581
        BRIGHT 26.0832 25.4133 24.2836 23.1989 22.5120 22.2239
                                                               1.1297
                                                                        1.0847
## 582
        BRIGHT 25.8708 25.3421 24.8113 24.6024 24.4580 24.2040
                                                                0 5308
                                                                       0 2089
## 583
        BRIGHT 23.4418 23.3832 23.2349 23.4289 23.1276 23.5903
                                                                0 1483 -0 1940
## 584
        FAINT 27.5112 27.2312 26.8901 26.6998 25.9744 26.2950
                                                                0.3411 0.1903
## 585
        FAINT 26.3440 26.1971 25.6750 25.5880 24.6433 24.2450 0.5221 0.0870
## 586
        BRIGHT 27.1922 25.8440 24.3274 23.7169 23.3909 23.3133 1.5166 0.6105
## 587
        BRIGHT 26.4877 25.2843 24.3980 24.2160 24.0621 24.1084 0.8863 0.1820
        FAINT 27.0348 27.5402 26.7943 26.0020 25.5316 25.3647 0.7459 0.7923
## 588
         FAINT 28.6693 28.1162 27.7643 26.4768 26.5379 25.7896
                                                                0.3519
## 589
                                                                        1.2875
## 590
        BRIGHT 26.9222 26.4698 25.8894 24.9666 24.3467 23.6223
                                                                0.5804
## 591
        FAINT 27.2493 27.6024 26.9934 26.8539 26.3635 26.1279
                                                                0.6090
                                                                        0.1395
## 592
         FAINT 27.0509 27.0331 26.9321 26.1739 25.8860 25.2565
                                                                0.1010
                                                                        0.7582
## 593
        BRIGHT 25.9335 25.7030 24.9480 24.7782 24.5129 24.5124
                                                                0.7550
## 594
         FAINT 27.5501 27.6871 27.0015 26.8139 26.3678 25.8594
                                                                0.6856
## 595
        BRIGHT 24.9931 24.5359 23.8763 23.1259 22.8556 22.6224
                                                                0.6596
                                                                        0.7504
## 596
         FAINT 28.7489 28.7292 27.7945 26.9603 26.7445 26.3388
                                                                0.9347
                                                                        0.8342
## 597
         FAINT 27.4180 27.4651 26.6157 25.8952 25.9444 26.3932
                                                                0.8494
                                                                        0.7205
        BRIGHT 26.6397 26.2915 25.5664 24.8883 24.6813 24.6323
## 598
                                                                0.7251
                                                                        0.6781
## 599
        BRIGHT 22.7401 22.2104 22.0282 21.8814 21.9122 21.8986
                                                               0.1822
         FAINT 27.3024 27.2163 26.5463 25.9016 26.2000 25.3249 0.6700
## 600
## 601
         FAINT 28.1582 27.4714 27.0678 26.1705 26.4845 25.6541 0.4036 0.8973
## 602
         FAINT 27.3820 27.7415 27.2049 26.7675 27.3187 28.3076
                                                               0.5366
                                                                        0.4374
## 603
         FAINT 29.8635 29.1922 27.9199 26.9022 25.8421 25.9109
                                                                1.2723
## 604
         FAINT 27.1120 26.7614 26.3121 26.0764 25.7854 24.8768
                                                                0.4493
                                                                        0.2357
         FAINT 27.8316 28.3147 27.4205 26.6772 26.3173 25.5986
## 605
                                                               0.8942
                                                                        0.7433
## 606
         FAINT 29.7973 29.3991 27.5698 26.3791 26.9954 26.0468
                                                               1.8293
## 607
         FAINT 28.4362 27.1428 26.2244 25.7117 25.3231 25.1149
                                                               0.9184
         FAINT 27.3721 26.6920 26.0402 25.3071 24.6131 24.1386
## 608
                                                                0.6518
                                                                        0.7331
## 609
        BRIGHT 24.1385 22.7327 21.3337 20.9243 20.6939 20.5681
                                                                1.3990
                                                                        0.4094
        BRIGHT 25.8630 25.4471 24.7808 24.0665 23.4590 23.1986
                                                                0.6663
## 610
## 611
        FAINT 26.8488 26.5854 26.0119 25.2686 24.8260 24.1527
                                                                0.5735
                                                                        0.7433
         FAINT 26.2779 26.1817 25.7776 25.4182 25.5378 25.2095
## 612
                                                               0.4041
                                                                        0.3594
## 613
         FAINT 28.0566 28.1656 26.8990 26.6234 26.2563 26.2184
                                                               1.2666
## 614
         FAINT 26.8922 26.8536 26.4868 26.1823 26.0600 26.8419
                                                               0.3668 0.3045
## 615
        BRIGHT 26.7156 25.4224 24.7155 24.4364 24.3013 24.2063
                                                               0.7069
                                                                       0.2791
## 616
         FAINT 29.1934 28.2053 26.6776 25.4455 24.7023 23.8130
                                                                1.5277
                                                                        1.2321
## 617
         FAINT 28.0025 27.6442 27.2204 26.3755 26.2448 25.5939
                                                                0.4238
                                                                        0.8449
## 618
        BRIGHT 19.9762 19.0557 18.4569 18.0945 18.0385 17.8989
                                                                0.5988
                                                                        0.3624
## 619
        BRIGHT 24.9933 24.3763 24.0741 23.9415 23.8545 23.8197
                                                                0.3022
                                                                        0.1326
         FAINT 29.7575 28.4009 27.4614 26.5193 26.7550 26.5651
                                                               0.9395
## 620
## 621
         FAINT 27.3395 27.5624 26.4405 25.9388 25.1057 25.1708
                                                                1.1219
                                                                        0.5017
## 622
        BRIGHT 26.1251 25.5543 24.6669 24.3666 24.1199 23.9340
                                                                0.8874
                                                                        0.3003
         FAINT 28.4766 28.2511 27.6187 26.8846 26.7318 26.4062
## 623
                                                                0.6324
## 624
        BRIGHT 26.6499 26.1341 25.4576 24.6754 24.4884 24.4935
                                                                0.6765
                                                                        0.7822
## 625
        FAINT 26.5171 27.0042 26.3750 26.1686 25.5679 25.4298 0.6292 0.2064
## 626
         FAINT 28.3758 26.9838 26.7541 26.4631 27.2039 26.7701 0.2297 0.2910
## 627
         FAINT 27.7174 27.8671 26.8295 26.5440 26.3099 25.4986 1.0376 0.2855
## 628
         FAINT 27.7751 27.1470 26.9989 26.6076 26.6416 26.0205
                                                               0.1481 0.3913
## 629
        BRIGHT 23.5153 23.2699 22.6597 21.8594 21.4056 21.2361
                                                                0.6102 0.8003
## 630
         FAINT 28.4761 28.0962 27.2142 26.5877 25.8510 25.5064
                                                                0.8820
                                                                       0.6265
         FAINT 27.1495 26.5000 25.9463 26.1650 25.8643 25.9543
## 631
                                                                0.5537 -0.2187
         FAINT 28.7399 27.9479 27.0984 25.7151 24.8497 24.0517
## 632
                                                               0.8495 1.3833
         FAINT 27.8107 26.7526 25.9857 25.3928 24.8109 24.0491 0.7669 0.5929
## 633
## 634
         FAINT 26.6129 26.4366 26.5681 26.8074 26.7949 26.5036 -0.1315 -0.2393
         FAINT 29.3587 26.4010 26.1707 26.1996 25.5491 26.9453
## 635
                                                                0.2303 -0.0289
         FAINT 27.3074 26.6258 25.9973 25.4779 24.7861 24.3359
## 636
                                                                0.6285
## 637
         FAINT 26.5395 26.7814 26.9901 25.9538 25.5925 24.8298 -0.2087
                                                                        1.0363
## 638
         FAINT 27.0094 26.9176 25.9512 25.2421 25.4112 25.0116 0.9664 0.7091
## 639
         FAINT 26.6288 26.4024 26.3490 26.2776 26.3300 26.1695
                                                               0.0534 0.0714
## 640
        BRIGHT 25.9028 25.4124 24.8235 24.7330 24.5973 24.4821 0.5889 0.0905
        FAINT 28.4119 27.9291 27.4877 26.4137 26.0595 25.7010
## 641
                                                               0 4414 1 0740
## 642
        BRIGHT 25.2019 25.2242 25.1346 24.7450 24.4134 24.2186
                                                                0.0896
                                                                        0.3896
## 643
         FAINT 26.9482 26.5323 25.8731 25.2150 24.8205 24.8485
                                                                0.6592
                                                                        0.6581
         FAINT 27.2643 26.7579 26.5240 26.2477 26.2140 26.3592
## 644
                                                                0.2339
                                                                        0.2763
## 645
         FAINT 27.5321 27.7479 26.9908 26.9268 26.5838 25.9915
                                                                0.7571
## 646
         FAINT 27.7173 27.7929 26.5073 26.2083 26.4241 25.8621
## 647
        BRIGHT 28.8467 26.8203 25.2470 24.7442 24.3852 24.1830
                                                               1.5733
                                                                        0.5028
## 648
        BRIGHT 26.8350 25.8237 24.5850 24.3922 24.0665 24.0854
                                                                1.2387
                                                                        0.1928
## 649
        BRIGHT 25.1631 24.6294 24.0094 23.8564 23.6622 23.7008
                                                                0.6200
                                                                        0.1530
## 650
        FAINT 28.1518 29.1289 27.8095 26.9207 24.9791 24.0251
                                                                1.3194
                                                                        0.8888
## 651
         FAINT 26.7530 26.4950 26.4352 26.2391 25.9712 25.5300 0.0598 0.1961
```

```
## 652
        BRIGHT 24.4279 23.7453 23.2688 23.0013 22.9587 22.8954 0.4765
## 653
         FAINT 26.8035 26.7433 26.6533 26.3361 25.7171 25.8009 0.0900
## 654
         FAINT 28.7811 27.5019 26.6088 25.9921 25.5102 24.7198
                                                               0.8931
## 655
         FAINT 29.3899 28.6912 27.7836 26.9528 26.2946 25.8551
                                                                0.9076
                                                                        0.8308
##
  656
        BRIGHT 25.8465 24.8110 24.0954 23.9011 23.7465 23.8182
                                                                0.7156
## 657
        BRIGHT 28.7464 26.7935 25.7819 23.8680 23.1131 22.0911
                                                                1.0116
                                                                        1.9139
## 658
        FAINT 27.6194 26.8368 26.4548 25.8131 25.3908 25.0678
                                                                0.3820
                                                                        0.6417
## 659
         FAINT 26.9892 27.8964 27.4530 26.6692 26.4597 26.1218
## 660
         FAINT 28.1638 27.1619 26.3723 26.2182 25.6826 25.9989
                                                                0.7896
                                                                        0.1541
## 661
         FAINT 26.9896 27.0399 26.0198 25.2138 24.6417 24.4897
                                                                1 0201
                                                                        0 8060
## 662
         FAINT 27.9930 27.8644 26.3957 25.0787 24.2376 23.3662
                                                                1.4687
                                                                        1.3170
## 663
         FAINT 27.7334 27.4050 26.4771 25.5148 25.4553 24.7178
                                                                0.9279
                                                                        0.9623
        BRIGHT 26.3412 26.0033 25.6003 24.9510 24.5995 24.0068 0.4030
## 664
                                                                        0.6493
## 665
         FAINT 26.1349 26.7305 26.5350 26.1353 26.1861 26.1410 0.1955
## 666
         FAINT 27.1515 27.3057 27.1437 25.9098 25.2738 24.6821 0.1620 1.2339
         FAINT 27.7041 27.0821 26.6329 26.0001 25.7705 25.2782 0.4492 0.6328
## 667
         FAINT 26.6644 26.7770 26.6267 26.7237 26.4372 26.5900
                                                                0.1503 -0.0970
## 668
## 669
         FAINT 25.7410 26.3187 26.1884 26.1027 26.0958 27.1428
                                                                0.1303
## 670
         FAINT 26.9012 26.4165 26.2988 26.1255 26.1148 25.5678
                                                                0.1177
                                                                        0.1733
## 671
        BRIGHT 25.8828 25.0580 24.2515 23.6811 23.1798 22.9835
                                                                0.8065
                                                                        0.5704
## 672
         FAINT 26.9608 27.0465 26.3697 26.2700 26.2190 25.8667
                                                                0.6768
                                                                        0.0633
## 673
         FAINT 26.9922 26.9800 26.9511 26.8878 27.7265 26.5438
                                                                0.0289
## 674
         FAINT 28.0674 28.0202 27.2809 26.9605 27.3514 26.3589
                                                                0.7393
                                                                        0.3204
## 675
        BRIGHT 24.6645 22.5436 20.9118 20.2203 19.8550 19.6338
                                                                1.6318
                                                                        0.6915
## 676
         FAINT 29.5551 27.2525 26.8792 26.3103 26.2714 26.5334
                                                                0.3733
                                                                        0.5689
## 677
        BRIGHT 25.4626 25.2729 24.8489 24.6526 24.3866 23.9877
                                                                0.4240
                                                                        0.1963
## 678
        FAINT 28.2475 28.3282 26.9434 26.2687 26.3868 26.0122 1.3848 0.6747
         FAINT 27.8485 27.2948 26.1193 25.6470 25.4799 24.9331
## 679
                                                               1.1755
## 680
         FAINT 28.3711 27.5056 26.8019 26.4948 26.5868 25.9298
                                                               0.7037
                                                                        0.3071
         FAINT 26.4126 26.6296 26.3488 25.9955 26.2372 25.4924
                                                                0.2808
## 681
                                                                        0.3533
##
  682
        BRIGHT 26.1009 25.6011 24.8512 24.1613 24.0219 23.9994
                                                                0.7499
## 683
       BRIGHT 25.4490 25.3558 25.0249 24.5062 24.1466 23.9723
                                                                0.3309
                                                                        0.5187
## 684
        BRIGHT 25.5948 25.0593 24.0972 23.3792 23.1700 22.9654
                                                                0.9621
                                                                        0.7180
## 685
        FAINT 31.3421 29.3940 29.1376 26.9787 25.9819 25.2804
                                                               0.2564
## 686
         FAINT 28.4407 27.3208 27.6826 26.8927 26.6854 27.2617 -0.3618
        BRIGHT 25.5583 25.5793 24.9156 24.3657 24.1502 24.0166
                                                                0.6637
## 687
                                                                        0.5499
## 688
        BRIGHT 25.7951 25.5425 24.9694 24.7643 24.7582 24.7452
                                                                0.5731
                                                                        0.2051
        BRIGHT 27.3278 25.9651 25.2427 24.2586 23.7638 22.8840
                                                                0.7224
## 689
        FAINT 26.6701 27.0507 26.9534 26.3692 25.6042 25.4900
## 690
                                                                0.0973
                                                                        0.5842
         FAINT 26.4885 26.0154 25.5884 25.1061 24.7754 24.4775
## 691
                                                               0.4270 0.4823
## 692
         FAINT 27.4272 27.1817 26.4120 25.8322 26.0377 25.6555
## 693
        BRIGHT 24.4307 24.4831 24.3180 24.3657 24.5185 24.1745
                                                               0.1651 -0.0477
        BRIGHT 28.6113 27.8474 26.6800 24.9486 24.2933 23.3947
## 694
                                                                1.1674 1.7314
##
  695
        FAINT 29.9889 28.4232 27.7492 26.9615 26.2671 25.3650
                                                                0.6740
## 696
        BRIGHT 24.5049 23.7876 22.9964 22.7659 22.5265 22.4745
                                                                0.7912
                                                                        0.2305
## 697
        FAINT 28.5580 26.9408 26.3938 25.5753 25.3122 25.1769
                                                                0.5470
                                                                        0.8185
## 698
         FAINT 26.4892 26.4942 26.3643 26.1354 26.4937 25.7970
                                                                0.1299
                                                                        0.2289
## 699
         FAINT 29.3407 32.3031 28.1429 26.9143 26.6633 26.4688
                                                                4.1602
                                                                        1.2286
## 700
        BRIGHT 23.2148 22.3941 21.3457 21.0036 20.8348 20.5427
                                                                1.0484
                                                                        0.3421
##
        BRIGHT 25.3161 25.1454 24.5848 24.0893 23.9432 23.9309
                                                                0.5606
  701
                                                                        0.4955
## 702
        BRIGHT 26.0145 25.5579 25.0323 24.2871 23.9484 23.7754
                                                                0.5256
                                                                        0.7452
## 703
       BRIGHT 26.4107 25.9316 25.2600 24.4715 24.3057 24.1356
                                                                0.6716
                                                                        0.7885
        BRIGHT 25.1487 25.0724 24.9554 24.8550 24.6934 24.2742 0.1170
## 704
         FAINT 27.4361 27.9825 26.9155 26.4879 26.2968 28.4916
## 705
## 706
         FAINT 25.9756 26.1835 25.6067 25.0817 24.4447 24.0942 0.5768 0.5250
## 707
         FAINT 26.9858 26.8166 26.5112 25.6065 25.5684 24.9817
                                                                0.3054 0.9047
##
  708
        BRIGHT 21.7215 20.7672 19.9819 19.7292 19.4735 19.4461
                                                                0.7853
                                                                        0.2527
##
  709
        BRIGHT 24.8509 24.6580 24.3731 23.8711 23.2913 22.7088
                                                                0.2849
                                                                        0.5020
        FAINT 28.9774 28.1734 27.3782 26.8960 26.4855 26.2335
## 710
                                                                0.7952
                                                                        0.4822
        BRIGHT 27.5113 27.0579 25.6235 24.5289 24.2416 23.8103
## 711
                                                                1.4344
                                                                        1.0946
        BRIGHT 25.7052 24.4781 23.9758 23.6352 23.5175 23.3387
## 712
                                                               0.5023
## 713
         FAINT 26.9136 26.7263 26.8978 26.7754 27.4267 26.7343 -0.1715
                                                                        0.1224
## 714
         FAINT 26.6506 26.7749 26.5828 26.2014 26.2575 25.5754
                                                                0.1921
                                                                        0.3814
## 715
         FAINT 27.3916 27.4414 27.2265 26.8522 26.4722 26.1142
                                                                0.2149
## 716
        BRIGHT 28.1099 26.4051 25.0618 23.9375 22.9633 22.2044
                                                                1.3433
                                                                        1.1243
## 717
         FAINT 30.5556 28.5376 27.4216 25.7560 24.6030 23.8133 1.1160
## 718
        BRIGHT 23.3144 23.1315 22.5990 21.9830 21.8420 21.7913
## 719
        BRIGHT 25.0927 24.8315 23.6063 22.6589 21.6757 21.0691 1.2252 0.9474
## 720
        BRIGHT 27.2286 26.2200 25.5109 24.8386 24.0476 23.7709
                                                               0.7091 0.6723
## 721
        BRIGHT 24.3435 23.8622 23.1087 22.6515 22.5174 22.4038
                                                                0.7535
                                                                        0.4572
## 722
         FAINT 26.5972 26.3227 25.8365 25.3666 24.8251 24.7748
                                                                0.4862
                                                                        0.4699
## 723
         FAINT 26.5416 25.8031 25.2296 25.0393 24.9600 25.3456
                                                                0.5735
                                                                        0.1903
        BRIGHT 24.8174 24.7016 24.2389 24.0397 23.9958 23.8177
## 724
                                                                0.4627
                                                                        0.1992
## 725
         FAINT 27.4402 27.6345 26.6912 26.0877 25.6573 25.0772
## 726
         FAINT 28.5363 27.4053 26.7100 26.0640 26.2714 25.2417
                                                                0.6953
                                                                        0.6460
## 727
        BRIGHT 24.1342 22.9769 22.3293 21.9968 21.8628 21.7306
                                                                0.6476
                                                                        0.3325
##
  728
         FAINT 26.7814 26.8832 26.5360 26.0011 26.2026 25.6532
                                                                0.3472
                                                                        0.5349
## 729
         FAINT 26.2668 26.1109 26.0153 25.9878 25.9726 25.6165
                                                                0.0956
                                                                        0.0275
## 730
       BRIGHT 24.7036 24.5121 24.0194 23.5128 23.3780 23.2564 0.4927 0.5066
```

```
## 731
         FAINT 28.8032 27.9682 27.0796 26.0774 25.3250 24.3312 0.8886
## 732
         FAINT 27.0899 26.5964 26.1370 25.6555 24.9988 24.4830 0.4594 0.4815
## 733
         FAINT 26.3468 26.3092 25.6387 25.3830 25.2432 25.2133
                                                                0.6705
## 734
        BRIGHT 26.6872 25.9890 25.1308 24.3830 23.8257 23.1229
                                                                0.8582
                                                                        0.7478
##
  735
         FAINT 27.5627 27.6210 27.0398 26.4532 25.8537 25.3688
                                                                0.5812
## 736
         FAINT 29.5245 27.9911 27.2229 26.7647 26.5536 26.3514
                                                                0.7682
                                                                        0.4582
## 737
         FAINT 28.9612 28.6634 28.1678 26.3595 25.8875 24.9158
                                                                0.4956
                                                                        1.8083
## 738
        BRIGHT 24.9580 22.7981 21.1401 20.3251 19.9303 19.6578
## 739
         FAINT 27.4121 27.3996 26.6346 26.5729 26.0584 26.0138
                                                                0.7650
                                                                        0.0617
## 740
        BRIGHT 24.5656 24.1491 23.3821 22.5344 22.2246 22.0387
                                                                0 7670
                                                                        0 8477
##
  741
        BRIGHT 23.8137 23.0285 22.3177 21.6227 21.4548 21.2749
                                                                0 7108
                                                                        0 6950
## 742
         FAINT 27.0253 26.6497 26.6514 26.0881 25.6297 25.1678 -0.0017
                                                                        0.5633
         FAINT 27.5982 27.2545 26.4385 25.8653 25.5067 25.1635 0.8160
## 743
                                                                        0.5732
## 744
         FAINT 27.4586 26.8496 26.3403 25.5644 25.0496 25.1186
                                                               0.5093
## 745
         FAINT 26.8179 27.2903 26.9057 26.3391 25.7969 25.2109
                                                               0.3846
        BRIGHT 25.6623 25.0498 24.6855 24.5248 24.4359 24.1475 0.3643 0.1607
## 746
## 747
         FAINT 26.9838 27.8966 26.6227 25.8357 25.3789 24.8486
                                                                1.2739
                                                                        0.7870
## 748
         FAINT 26.6945 26.4067 26.3602 25.9315 25.6986 25.0812
                                                                0.0465
## 749
         FAINT 28.2123 32.3913 27.1901 26.5166 26.3533 25.6037
                                                                5.2012
                                                                        0.6735
## 750
         FAINT 27.6479 26.4666 25.7451 25.4450 25.3114 25.3922
                                                                0.7215
                                                                        0.3001
## 751
         FAINT 27.0335 28.1300 27.5699 26.7675 26.6550 26.6812
                                                                0.5601
## 752
        BRIGHT 26.6463 25.8386 24.8303 24.0730 23.9191 23.6230
                                                                1.0083
                                                                        0.7573
## 753
         FAINT 27.1786 27.5678 27.1779 26.7521 26.3139 27.1624
                                                                0.3899
                                                                        0.4258
## 754
         FAINT 30.7587 28.4034 27.4576 26.7073 25.2414 24.4158
                                                                0.9458
                                                                        0.7503
## 755
        BRIGHT 25.6882 25.6761 24.9967 24.7307 24.6732 24.1380
                                                                0.6794
                                                                        0.2660
         FAINT 28.4695 26.7311 25.8324 25.3807 25.2008 24.8744
## 756
                                                                0.8987
                                                                        0.4517
## 757
         FAINT 26.1190 26.0932 25.9420 25.7274 25.4476 25.1663
                                                                0.1512 0.2146
         FAINT 27.3215 26.9466 26.1038 25.3679 25.3477 25.2460
## 758
                                                               0.8428 0.7359
## 759
        BRIGHT 22.4724 20.8844 19.5779 19.0539 18.7436 18.4975
                                                               1.3065 0.5240
## 760
        BRIGHT 27.6427 26.4094 24.9952 24.5269 24.2564 24.0512
                                                                1.4142
                                                                        0.4683
##
  761
         FAINT 27.3650 27.0471 26.6265 26.4512 26.0680 25.9384
                                                                0.4206
## 762
         FAINT 27.5439 27.0483 26.7956 26.4784 25.6716 24.8203
                                                                0.2527
                                                                        0.3172
        BRIGHT 24.4468 24.1425 23.5624 23.4532 23.1703 23.1720
                                                                0.5801 0.1092
## 763
## 764
        BRIGHT 26.3756 25.6556 25.1799 24.8893 24.7418 24.7670
                                                                0.4757
## 765
        BRIGHT 25.9924 25.9385 24.8044 23.8177 23.4069 22.9936
                                                                1.1341
         FAINT 28.1133 27.5612 26.6047 26.1764 25.8956 27.0384
## 766
                                                                0.9565
                                                                        0.4283
## 767
         FAINT 25.6965 25.5062 25.4558 25.3545 25.1461 24.9326
                                                                0.0504
                                                                        0.1013
        BRIGHT 24.9158 24.6546 24.1205 23.5586 22.8694 22.5552
                                                                0.5341
## 768
        FAINT 28.7130 27.2050 26.0268 25.5257 25.2406 25.0302
## 769
                                                                1.1782
                                                                        0.5011
## 770
        BRIGHT 23.0820 21.8536 21.2260 20.8811 20.6910 20.5125
                                                                0.6276 0.3449
## 771
        BRIGHT 26.2769 26.0296 25.1024 24.8189 24.5930 24.6789
## 772
         FAINT 26.5944 26.5918 26.1139 25.9309 25.9006 27.0051 0.4779 0.1830
## 773
        BRIGHT 25.0702 24.2162 23.3516 23.1184 22.8794 22.7804
                                                                0.8646 0.2332
##
  774
         FAINT 28.5514 27.8474 26.8164 25.0289 24.2560 23.3862
                                                                1.0310
                                                                        1.7875
## 775
         FAINT 27.4436 27.5904 27.5729 26.5546 26.3239 26.9693
                                                                0.0175
                                                                        1.0183
         FAINT 27.2312 26.5164 26.1476 26.1232 25.6657 28.1914
## 776
                                                                0.3688
                                                                        0.0244
## 777
         FAINT 28.4791 28.3536 27.2811 26.9559 26.8652 27.1983
                                                                1.0725
                                                                        0.3252
        BRIGHT 28.2548 27.2703 25.7738 24.6697 23.9836 23.7116
## 778
                                                                1.4965
## 779
         FAINT 28.7975 28.0722 26.5327 25.1567 24.2840 23.3888
                                                                1.5395
                                                                        1.3760
## 780
        BRIGHT 26.0294 24.8679 23.8951 23.5356 23.2537 22.9948
                                                                0.9728
                                                                        0.3595
         FAINT 28.1827 28.5560 26.9267 26.3981 26.2152 25.4071
## 781
                                                                1.6293
## 782
         FAINT 27.3733 27.4616 27.6103 26.9759 26.5029 26.0879 -0.1487
                                                                        0.6344
        BRIGHT 27.9433 26.7587 25.9411 24.9012 24.4472 24.2167 0.8176 1.0399
## 783
## 784
        BRIGHT 26.3689 25.4854 24.0475 23.6222 23.4289 23.1723
                                                               1.4379 0.4253
## 785
         FAINT 25.5983 25.4544 25.3599 25.4151 25.3740 25.9791 0.0945 -0.0552
        BRIGHT 26.5926 25.7011 24.8743 24.5010 24.3353 24.1178
## 786
                                                               0.8268 0.3733
##
  787
         FAINT 27.4126 27.5081 26.8570 25.8799 25.9490 25.5199
                                                                0.6511
                                                                        0.9771
##
  788
         FAINT 26.2324 26.5076 26.4010 25.9595 25.5844 24.8432
                                                                0.1066
                                                                        0.4415
        FAINT 27.4705 27.1082 26.2692 25.8760 25.8190 26.1706
## 789
                                                                0.8390
                                                                        0.3932
        BRIGHT 25.8021 24.8071 23.9116 23.6134 23.3923 23.3438
## 790
                                                                0.8955
                                                                        0.2982
        BRIGHT 25.8944 25.3133 24.9336 24.7141 24.6091 24.8702
## 791
                                                                0.3797
## 792
        BRIGHT 26.1081 25.6966 24.7463 24.2345 24.0246 23.9258
                                                                0.9503 0.5118
         FAINT 26.8424 26.8126 26.6439 26.7884 26.9223 26.8273
## 793
                                                                0.1687 -0.1445
##
  794
        BRIGHT 25.9159 25.5547 24.9184 24.2610 23.7302 23.4796
                                                                0.6363
## 795
         FAINT 27.8035 27.3554 26.7106 26.2154 26.0957 25.4892
                                                                0.6448
                                                                        0.4952
         FAINT 27.8094 27.6105 27.1544 26.6892 26.2200 25.5422
## 796
                                                                0.4561
                                                                        0 4652
## 797
         FAINT 29.8832 28.2209 28.0881 26.7137 26.2103 26.9049
                                                                0.1328 1.3744
## 798
         FAINT 28.8852 27.7260 27.1473 26.2552 25.9114 26.7082 0.5787 0.8921
## 799
         FAINT 28.1386 27.5976 27.0436 26.6854 26.6067 25.8586
                                                                0.5540 0.3582
##
  800
        BRIGHT 26.2652 25.6942 24.8527 24.0960 23.2645 22.7420
                                                                0.8415
        BRIGHT 26.6181 26.3253 25.1227 24.8906 24.7495 24.6070
                                                                1.2026
## 801
                                                                        0.2321
        FAINT 26.7327 27.2942 26.4775 25.6340 25.4055 25.1346
## 802
                                                                0.8167
                                                                        0.8435
## 803
         FAINT 28.0317 28.6924 27.5428 26.8557 26.4794 27.8476
                                                                1.1496
## 804
         FAINT 29.3944 27.9080 27.4128 25.5085 24.9029 23.9331
## 805
         FAINT 29.0179 29.5258 27.4417 26.4034 25.4697 25.0811
                                                                2.0841
                                                                        1.0383
## 806
         FAINT 28.1807 28.1373 27.1585 26.8917 26.7597 26.4737
                                                                0.9788
                                                                        0.2668
## 807
         FAINT 27.5455 28.3773 27.2858 26.6989 26.0581 25.5398
                                                                1.0915
                                                                        0.5869
## 808
         FAINT 28.2762 27.6864 26.9354 25.9274 25.0444 24.5315
                                                                0.7510
                                                                        1.0080
## 809
        BRIGHT 24.7724 24.0567 23.2628 23.0076 22.8031 22.7278 0.7939 0.2552
```

```
## 810
       BRIGHT 26.7355 26.3366 25.0203 24.4978 24.2311 23.9471 1.3163 0.5225
## 811
         FAINT 26.2352 25.7467 25.4683 25.0718 24.5965 24.1116 0.2784 0.3965
## 812
         FAINT 26.7398 26.7200 26.8981 26.5635 27.3971 26.7306 -0.1781 0.3346
        BRIGHT 24.1342 23.1664 21.8972 21.3238 21.0251 20.8116
## 813
                                                               1.2692
                                                                        0.5734
         FAINT 26.6927 27.1312 26.3949 26.0334 25.6009 26.1640
## 814
## 815
        BRIGHT 24.1264 22.5053 21.1854 20.6748 20.3862 20.1718
                                                                1.3199
                                                                        0.5106
## 816
        FAINT 29.8482 28.5203 27.4654 26.6239 26.9109 28.0026
                                                               1.0549
                                                                        0.8415
## 817
         FAINT 28.3169 27.6915 27.3250 26.8882 26.4065 25.7291
## 818
        BRIGHT 28.5031 27.3456 25.7321 24.8915 24.4738 24.2431
                                                               1.6135
                                                                        0.8406
## 819
         FAINT 27.7736 26.4277 25.9133 25.5489 25.0028 24.2262
                                                                0 5144
                                                                        0 3644
## 820
        BRIGHT 26.5527 25.9201 25.4569 24.8000 24.4665 24.3808
                                                                0 4632
                                                                        0 6569
## 821
         FAINT 29.5539 27.2447 26.3646 25.8458 25.7528 25.3403
                                                                0.8801
                                                                        0.5188
        BRIGHT 24.5544 23.6987 23.3385 23.1336 23.0879 23.0394 0.3602
## 822
                                                                        0.2049
## 823
        FAINT 28.9012 28.5700 27.1297 26.9313 27.2705 26.4141 1.4403 0.1984
## 824
        BRIGHT 25.0233 24.4147 23.0338 22.0240 21.2965 21.0033 1.3809
## 825
       BRIGHT 26.3696 26.2757 25.2217 24.3862 24.2057 24.0928 1.0540 0.8355
        BRIGHT 25.0938 23.4788 21.9935 20.9463 20.5793 20.2627
## 826
                                                                1.4853
                                                                        1.0472
## 827
         FAINT 29.7791 28.2584 27.2820 26.6169 27.0076 26.0568
                                                                0.9764
## 828
        BRIGHT 25.5522 24.8686 24.3449 24.2009 24.0831 24.0799
                                                                0.5237
                                                                        0.1440
## 829
        FAINT 30.3310 28.8665 27.7019 26.9887 26.3040 26.0218
                                                                1.1646
                                                                        0.7132
## 830
         FAINT 27.5183 26.3577 26.0194 25.5855 25.0024 24.7623
                                                                0.3383
## 831
         FAINT 26.5594 26.9035 26.0912 25.3296 25.2193 25.2240
                                                                0.8123
                                                                        0.7616
## 832
        BRIGHT 24.8167 24.0351 23.3940 23.2290 23.0202 23.0578
                                                                0.6411
                                                                        0.1650
## 833
        BRIGHT 25.2073 25.0366 24.3394 23.5194 23.0463 22.9388
                                                                0.6972
                                                                        0.8200
## 834
         FAINT 29.6790 28.5377 27.6517 26.8324 26.9125 28.4815
                                                                0.8860
                                                                        0.8193
        BRIGHT 26.9319 25.8755 24.5532 23.5884 23.2927 23.0469
## 835
                                                                1.3223
                                                                        0.9648
## 836
        FAINT 27.6088 27.1341 26.6044 25.8334 25.4546 25.2727
                                                                0.5297
        BRIGHT 26.4426 24.9453 23.2420 21.9423 21.4435 21.0509
## 837
## 838
         FAINT 29.3577 27.9935 27.2049 26.7411 26.6078 26.6299
                                                               0.7886 0.4638
## 839
        BRIGHT 23.5436 23.0393 22.1155 21.4071 21.2047 20.9997
                                                                0.9238
                                                                        0.7084
## 840
         FAINT 26.9547 27.3115 26.9594 26.8531 26.3067 26.4064
                                                                0.3521
                                                                        0.1063
## 841
         FAINT 26.4925 26.8121 26.0499 25.6012 25.5388 25.4938
                                                                0.7622
                                                                        0.4487
## 842
         FAINT 26.0287 26.2472 25.9212 25.8124 25.9006 27.4840
                                                                0.3260
                                                                        0.1088
## 843
        BRIGHT 26.7255 25.9846 25.2791 24.8494 24.7546 24.4863
                                                                0.7055
## 844
         FAINT 27.2143 26.9368 26.7010 25.8982 25.9076 25.1857
                                                                0.2358
                                                                        0.8028
## 845
         FAINT 28.1400 27.3496 26.6537 26.4233 26.4724 27.1668
                                                                0.6959
                                                                        0.2304
## 846
        BRIGHT 27.4525 27.0121 25.6109 24.9863 24.7131 24.4749
                                                                1.4012
                                                                        0.6246
## 847
         FAINT 27.5361 27.9712 27.6643 26.9894 26.3135 25.8121
                                                                0.3069
## 848
         FAINT 30.1824 28.5213 27.6915 26.3552 26.3407 26.1702
                                                                0.8298
                                                                        1.3363
## 849
         FAINT 26.9452 26.3059 25.5264 25.2507 25.0267 24.8298
                                                               0.7795
## 850
         FAINT 28.4075 27.1414 26.9242 26.5714 26.4399 25.1770
                                                               0.2172
## 851
         FAINT 27.2630 26.2672 25.5703 25.3097 25.0801 24.9174
                                                               0.6969
                                                                       0.2606
## 852
        BRIGHT 32.7086 26.4397 25.0351 24.6717 24.4696 24.4534
                                                                1.4046
                                                                        0.3634
## 853
        BRIGHT 26.8276 26.4237 25.3800 24.3315 24.0352 23.9359
                                                                1.0437
                                                                        1.0485
## 854
        BRIGHT 25.1567 24.3907 22.9699 21.9316 21.5355 21.1897
                                                                1.4208
                                                                        1.0383
        BRIGHT 26.6489 25.8602 25.0554 24.5719 24.4030 23.9470
## 855
                                                                0.8048
                                                                        0 4835
## 856
        BRIGHT 25.9108 25.5931 24.7475 23.7250 23.3021 23.1534
                                                                0.8456
                                                                        1.0225
## 857
        BRIGHT 26.2346 25.7475 25.1161 24.2872 23.7775 23.0090
                                                                0.6314
                                                                        0.8289
                                                                        0.3548
## 858
       BRIGHT 25.5733 24.8879 23.9127 23.5579 23.4414 23.0124
                                                                0.9752
## 859
        BRIGHT 25.5478 25.2481 24.7153 24.2121 23.5765 23.2045
                                                                0.5328
                                                                        0.5032
## 860
         FAINT 27.3804 26.5709 26.4449 26.0284 25.6131 25.3837
                                                                0.1260
                                                                        0.4165
## 861
         FAINT 27.9360 27.0701 26.4170 25.5389 24.6874 23.8475
                                                                0.6531
                                                                        0.8781
        BRIGHT 21.9722 20.5482 19.2293 18.7054 18.4347 18.1962
## 862
                                                               1.3189
                                                                        0.5239
## 863
         FAINT 27.4759 26.9354 25.8489 25.0233 24.1742 23.9280
## 864
         FAINT 27.7327 27.7697 27.0539 26.4928 26.0763 25.7696 0.7158 0.5611
## 865
        FAINT 31.8332 27.9320 27.0242 25.8032 25.3267 24.9874 0.9078 1.2210
## 866
        BRIGHT 26.4260 26.2525 25.6396 24.9397 24.4922 24.6369
                                                                0.6129
## 867
        BRIGHT 26.6427 26.2199 25.5141 24.9918 24.8732 24.9867
                                                                0.7058
                                                                       0.5223
        FAINT 25.8257 26.0866 25.9088 26.0530 25.8923 25.7783
## 868
                                                                0.1778 -0.1442
         FAINT 26.5660 26.4342 26.4191 26.2247 26.0092 25.4375
## 869
                                                                0.0151 0.1944
         FAINT 27.6686 27.0220 26.8758 26.7332 26.6972 26.0247
## 870
                                                                0.1462
## 871
         FAINT 30.0829 28.6000 27.3384 25.5883 24.4321 23.7244
                                                               1.2616
                                                                        1.7501
         FAINT 29.2309 27.4021 26.6628 25.3637 24.8371 24.2408
## 872
                                                                0.7393
                                                                        1.2991
## 873
         FAINT 27.3503 27.5931 26.8709 26.0587 26.1847 25.8477
                                                                0.7222
## 874
        BRIGHT 24.8263 24.2837 23.1998 22.3431 22.0554 21.7264
                                                                1.0839
                                                                        0.8567
        FAINT 28.7335 28.2178 27.6009 26.8691 26.6352 26.7683
## 875
                                                               0.6169
                                                                        0.7318
## 876
        BRIGHT 25.0087 24.3866 23.3178 22.2682 21.7539 21.4374
                                                               1.0688 1.0496
## 877
         FAINT 27.1923 27.2328 26.5064 25.6545 25.3454 25.8039 0.7264 0.8519
         FAINT 29.2898 28.7567 28.2962 26.8806 25.9478 25.8033
## 878
                                                               0.4605 1.4156
## 879
         FAINT 28.0745 27.5201 27.3510 26.7355 27.3968 28.1622
                                                                0.1691
                                                                        0.6155
## 880
        BRIGHT 25.2339 25.1736 24.7621 24.0571 23.8218 23.7901
                                                                0.4115
                                                                        0.7050
## 881
        BRIGHT 28.1250 25.7418 24.8291 24.4826 24.2138 24.0651
                                                                0.9127
                                                                        0.3465
## 882
         FAINT 26.2840 26.6206 26.7324 26.5684 28.2541 30.6207 -0.1118
                                                                        0.1640
## 883
         FAINT 25.9049 26.0664 25.8510 25.4694 25.2737 25.2212
## 884
         FAINT 28.3228 28.1346 27.1668 26.7707 26.5065 25.9408
                                                                0.9678
                                                                        0.3961
         FAINT 27.3836 27.3110 26.8683 26.5563 25.7521 26.8088
## 885
                                                                0.4427
                                                                        0.3120
## 886
         FAINT 31.6187 28.4729 28.1338 26.9063 27.0378 26.2216
                                                                0.3391
                                                                        1.2275
## 887
        BRIGHT 26.6915 26.0478 25.1444 24.7347 24.5526 24.3025
                                                                0.9034
                                                                        0.4097
## 888
        FAINT 28.1822 27.0771 26.1748 25.0914 24.7942 24.3203 0.9023 1.0834
```

```
## 889
         FAINT 27.5875 27.0131 26.6877 26.3224 25.9569 25.2696 0.3254 0.3653
## 890
         FAINT 27.8976 26.9159 25.6058 25.0754 24.9848 24.5854 1.3101 0.5304
## 891
        BRIGHT 28.5033 26.8434 25.5259 24.2345 23.4230 22.5275
                                                               1.3175
        BRIGHT 23.5139 22.7743 21.7418 21.3646 21.1068 21.0201
## 892
                                                                1.0325
                                                                        0.3772
         FAINT 27.9641 26.8856 26.0505 25.3450 24.9125 24.2459
## 893
                                                                0.8351
## 894
         FAINT 28.0921 27.5300 26.3568 25.9457 25.6424 25.8704
                                                                1.1732
                                                                        0.4111
## 895
         FAINT 27,7328 28,1681 27,5272 26,8816 26,4084 25,3134
                                                                0.6409
                                                                        0.6456
## 896
         FAINT 27.5043 27.7872 26.6563 26.2804 26.0346 25.3354
                                                                1.1309
## 897
         FAINT 28.3346 27.8762 27.5086 26.7317 26.7072 27.6692
                                                                0.3676
                                                                        0.7769
## 898
         FAINT 29.0427 28.0731 27.2494 26.4329 26.4171 25.4994
                                                                0 8237
                                                                        0 8165
## 899
        BRIGHT 22.8522 22.5335 22.4115 22.3056 22.4846 22.4306
                                                                0.1220
                                                                        0.1059
                                                                        1.0152
## 900
         FAINT 27.1549 27.1965 26.7544 25.7392 25.5200 25.1315
                                                                0.4421
        BRIGHT 26.9676 26.0431 25.1754 24.5265 24.0468 23.4532 0.8677
## 901
                                                                        0.6489
## 902
         FAINT 27.0301 26.6890 25.9205 25.3490 25.3099 25.0251 0.7685 0.5715
## 903
         FAINT 27.6234 27.3614 26.2829 25.2983 24.5128 24.1410 1.0785 0.9846
## 904
         FAINT 30.7371 27.8503 27.3798 26.8471 26.8248 26.3747
                                                               0.4705 0.5327
## 905
         FAINT 29.3048 27.4602 26.9292 26.5519 26.1873 26.3582
                                                                0.5310
                                                                       0.3773
## 906
         FAINT 27.3801 27.7753 26.8876 26.6231 26.6192 26.5579
                                                                0.8877
## 907
        BRIGHT 27.4922 28.0786 26.0243 24.8461 24.1697 23.9380
                                                                2.0543
                                                                        1.1782
## 908
        FAINT 26.7987 26.5922 25.8725 25.1792 24.6877 24.5623
                                                                0.7197
                                                                        0.6933
## 909
         FAINT 28.2929 27.9642 26.9065 26.5152 25.8243 25.3816
                                                               1.0577
## 910
         FAINT 26.9080 26.9609 26.9182 26.8749 26.6683 28.0254
                                                               0.0427
         FAINT 26.9770 27.8803 26.5704 26.4976 26.1083 25.7437
                                                                1.3099
## 911
                                                                        0.0728
## 912
         FAINT 29.7004 27.4600 26.6087 25.9710 25.3120 25.0154
                                                                0.8513
                                                                        0.6377
## 913
        BRIGHT 25.8217 24.9512 24.0274 23.3816 23.2016 23.0146
                                                                0.9238
                                                                        0.6458
        FAINT 28.1371 27.6045 26.4621 26.3281 26.0957 25.9237
## 914
                                                                1.1424
                                                                        0.1340
## 915
         FAINT 27.4847 27.5997 26.8472 25.8682 25.5953 24.6470
                                                               0.7525 0.9790
         FAINT 29.8216 28.0767 27.3490 26.9237 26.2829 26.8813
## 916
                                                               0.7277 0.4253
## 917
         FAINT 28.8633 27.9993 27.3640 26.4466 26.5139 25.6836
                                                               0.6353 0.9174
## 918
        BRIGHT 26.2701 25.4577 24.9667 24.8439 24.6170 24.7025
                                                                0.4910 0.1228
## 919
         FAINT 27.3748 26.9595 26.9154 26.8387 27.5289 26.0913
                                                                0.0441
                                                                        1.2414
## 920
         FAINT 30.0065 28.1578 27.8777 26.6363 26.6913 26.4959
                                                                0.2801
## 921
        BRIGHT 25.4671 25.0435 24.4404 24.3104 24.1228 24.0079
                                                                0.6031 0.1300
## 922
         FAINT 27.1594 27.1026 27.0433 26.8484 26.9951 26.6852
                                                                0.0593 0.1949
## 923
         FAINT 28.2363 28.1204 26.8867 26.8951 26.4007 30.4246
                                                               1.2337 -0.0084
         FAINT 28.0212 28.4613 28.0045 26.9030 26.5852 25.9077
## 924
                                                                0.4568
                                                                       1.1015
## 925
         FAINT 29.1333 27.6307 27.2821 26.9606 26.4810 26.0335
                                                                0.3486
                                                                        0.3215
## 926
         FAINT 27.5227 26.9759 27.0141 26.7072 26.1868 25.2045 -0.0382
        BRIGHT 26.1759 25.5659 24.5481 23.5837 23.0575 22.8166 1.0178
## 927
                                                                        0.9644
        BRIGHT 25.8162 24.1463 22.5500 21.9055 21.5650 21.3220
## 928
                                                               1.5963
## 929
         FAINT 26.3834 26.0173 25.4708 25.4021 25.2541 25.6241 0.5465 0.0687
## 930
        BRIGHT 24.7910 23.8394 22.9218 22.6137 22.3523 22.2430 0.9176 0.3081
## 931
         FAINT 28.4686 27.2754 26.5292 26.0732 26.1278 26.6142 0.7462 0.4560
## 932
         FAINT 28.1207 25.8373 25.2426 25.0194 24.7241 24.7020
                                                                0.5947
                                                                        0.2232
## 933
         FAINT 28.5592 29.1221 28.2729 26.6667 24.8978 24.1125
                                                                0.8492
                                                                        1.6062
        BRIGHT 23.5474 22.8524 22.1509 21.7511 21.5722 21.3584
## 934
                                                                0.7015
                                                                        0.3998
## 935
        FAINT 29.8093 27.5605 26.8323 26.0645 25.6580 25.5062
                                                                0.7282
                                                                        0.7678
## 936
         FAINT 27.6795 27.9106 26.5724 25.5604 24.7535 24.5098
                                                               1.3382
## 937
         FAINT 27.7503 28.3505 27.5745 26.1171 25.3955 24.7962
                                                               0.7760
                                                                        1.4574
## 938
         FAINT 26.8756 26.8067 25.9306 25.3676 25.0710 24.6545
                                                                0.8761
                                                                        0.5630
## 939
         FAINT 29.4741 28.2652 26.9630 25.7160 24.8815 24.1355
                                                                1.3022
## 940
        BRIGHT 26.5651 25.8880 24.1063 22.9111 22.2089 21.8995
                                                                1.7817
                                                                        1.1952
## 941
        FAINT 28.5278 27.9673 27.2502 26.5589 26.0250 25.3197
                                                               0.7171 0.6913
## 942
         FAINT 28.2986 27.5282 26.9559 26.3842 25.5904 25.4366
                                                               0.5723 0.5717
## 943
         FAINT 27.9255 27.5264 26.9225 26.1558 25.6218 24.8806 0.6039 0.7667
## 944
        BRIGHT 25.1041 24.9402 24.7462 24.5402 24.0727 23.9284
                                                               0.1940 0.2060
## 945
        FAINT 27.8027 27.2596 26.7656 26.3881 25.8937 25.5823
                                                                0.4940
                                                                        0.3775
## 946
        BRIGHT 25.5045 25.1961 24.6221 23.9910 23.8359 23.7205
                                                                0.5740
                                                                        0.6311
        BRIGHT 27.0675 26.0291 24.4856 23.3253 22.9427 22.6510
## 947
                                                                1.5435
                                                                        1.1603
        FAINT 26.6503 27.1454 27.0175 26.6418 27.1898 26.1395
## 948
                                                                0.1279
                                                                        0.3757
         FAINT 27.6047 27.5442 26.6069 25.5461 24.6362 24.1733
## 949
                                                                0.9373
## 950
         FAINT 29.1670 28.0650 26.8117 25.9146 25.3086 25.2307
                                                                1.2533
                                                                        0.8971
## 951
        BRIGHT 26.0878 25.4006 24.5787 24.1394 23.4483 23.0876
                                                               0.8219
                                                                        0.4393
## 952
         FAINT 26.6360 26.2411 26.2814 26.0110 25.8878 26.0179
                                                               -0.0403
## 953
         FAINT 27.8904 27.7616 26.9194 26.3221 25.4564 25.4678
                                                               0.8422
                                                                        0.5973
        BRIGHT 27.2204 26.4000 25.1392 24.7187 24.4504 24.3029
## 954
                                                                1.2608
                                                                        0 4205
## 955
         FAINT 28.4854 27.9453 27.2362 26.8386 26.5119 27.4465
                                                               0.7091
## 956
         FAINT 29.4419 27.7413 27.6209 26.9928 26.2442 26.2096 0.1204 0.6281
         FAINT 28.6182 27.4549 26.6721 26.3231 25.9429 26.0210 0.7828 0.3490
## 957
## 958
         FAINT 28.1718 27.8915 27.4085 26.6040 26.3446 26.2513
                                                                0.4830
                                                                        0.8045
## 959
         FAINT 27.6467 27.4015 26.3680 25.6145 24.9030 24.2496
                                                                1.0335
                                                                        0.7535
         FAINT 26.3310 26.2782 25.6684 25.3369 25.2994 25.4659
## 960
                                                                0.6098
                                                                        0.3315
        BRIGHT 27.0936 25.7388 25.0571 24.8147 24.4654 24.4935
## 961
                                                                0.6817
                                                                        0.2424
## 962
        BRIGHT 25.9136 24.8721 23.6980 23.1855 22.9227 22.6866
                                                               1.1741
## 963
        BRIGHT 25.6487 24.7713 24.1127 23.6871 23.4005 23.1601
                                                               0.6586
                                                                        0.4256
## 964
        FAINT 25.7904 25.6783 25.2574 25.1769 24.9350 25.2040
                                                                0.4209
                                                                        0.0805
##
  965
        BRIGHT 25.4057 25.0154 23.9523 23.5918 23.3719 23.1612
                                                                1.0631
## 966
        BRIGHT 27.0446 27.2423 25.8073 24.5296 23.6977 22.8906
                                                                1.4350
                                                                        1.2777
## 967
       BRIGHT 20.8892 19.8159 18.8261 18.3960 18.1257 17.9239 0.9898 0.4301
```

```
## 968
        FAINT 26.8360 26.7802 26.1193 25.4480 25.2279 25.1603 0.6609 0.6713
## 969
         FAINT 27.0849 27.0497 26.3855 26.4199 25.9424 26.4287 0.6642 -0.0344
## 970
       BRIGHT 27.0405 25.8376 25.0096 24.9142 24.7175 24.6214 0.8280 0.0954
## 971
        FAINT 27.5451 27.2699 26.1669 25.1309 24.4417 23.6727
                                                               1.1030
                                                                       1.0360
         FAINT 26.1803 26.3863 26.0092 25.9053 25.7878 25.3236
## 972
                                                               0.3771
## 973
        FAINT 27.0688 26.4723 25.6056 25.4008 25.1024 25.2592
                                                               0.8667
                                                                       0.2048
## 974
        FAINT 27.0767 26.9374 26.4109 25.4828 25.3905 25.2106
                                                               0.5265 0.9281
## 975
        BRIGHT 26.1286 25.6004 24.8365 24.2398 23.4643 22.9760
## 976
        FAINT 28.6244 27.2021 27.1909 26.9616 26.7886 26.3178 0.0112
                                                                       0.2293
## 977
        BRIGHT 28.5264 29.0793 26.7805 24.9282 24.2864 23.1842 2.2988
                                                                       1 8523
## 978
        FAINT 27.4267 26.9516 26.0637 25.8447 25.6259 25.3037
                                                               0 8879
                                                                       0.2190
## 979
        BRIGHT 26.6701 25.5581 24.1179 22.9155 22.1831 21.7885
                                                               1.4402
                                                                       1.2024
        FAINT 30.2787 28.0800 27.1175 26.2252 25.8406 25.7506 0.9625
## 980
                                                                       0.8923
## 981
        FAINT 31.3114 27.7224 26.6402 25.0342 24.2386 23.5013 1.0822 1.6060
## 982
        FAINT 27.0560 26.7343 26.2941 25.8899 25.6857 25.7047 0.4402 0.4042
       BRIGHT 28.7477 27.5670 26.5229 24.8451 24.2077 23.2814 1.0441 1.6778
## 983
        BRIGHT 25.2208 24.2195 22.8920 22.3715 22.0924 21.7066
## 984
                                                              1.3275
                                                                       0.5205
## 985
        FAINT 27.8423 27.2674 26.5028 25.7873 25.5238 25.1246
                                                               0.7646
## 986
        BRIGHT 28.5562 27.2952 26.1278 24.3005 23.5297 22.6721 1.1674
                                                                       1.8273
## 987
        FAINT 27.2871 26.9500 25.9689 25.6278 25.4632 25.5831 0.9811
                                                                       0.3411
## 988
         FAINT 28.1906 27.3883 26.7119 25.8607 25.5369 25.1088
                                                              0.6764
## 989
        FAINT 27.2309 28.0686 28.0228 26.9225 27.0344 28.0196
                                                              0.0458
        FAINT 26.9273 26.5784 25.8582 25.6874 25.4607 25.4031 0.7202
## 990
                                                                       0.1708
## 991
         FAINT 27.7543 27.3331 27.8330 26.9814 27.1438 26.9606
                                                              -0.4999
                                                                       0.8516
## 992
         FAINT 26.6575 26.3304 25.7638 25.1764 24.9268 24.9167
                                                               0.5666
                                                                       0.5874
        FAINT 29.6965 27.8352 27.3655 26.5268 26.2523 25.7013
## 993
                                                               0.4697
                                                                       0.8387
## 994
        FAINT 29.5036 26.9561 25.9963 25.7911 25.8017 25.3763
                                                              0.9598 0.2052
## 995
        FAINT 28.9546 27.9102 27.1523 26.5219 25.6163 24.8992 0.7579 0.6304
## 996
        FAINT 27.3092 27.7668 27.4397 26.8054 26.0046 25.7275 0.3271 0.6343
## 997
        BRIGHT 24.5808 24.2156 23.4343 22.5829 22.2728 21.9925
                                                              0.7813 0.8514
## 998
        FAINT 27.8590 26.7919 25.5675 25.1847 24.8764 24.5861
                                                               1.2244
## 999
        FAINT 26.5717 26.6989 26.4787 26.4573 25.7646 25.8764
                                                               0.2202 0.0214
        FAINT 27.0173 26.7209 25.9491 25.0990 24.5396 24.3601 0.7718 0.8501
## 1000
## 1001
        FAINT 26.0130 26.5078 26.1907 25.6331 25.3485 26.3141 0.3171 0.5576
## 1002
        FAINT 27.8791 27.4359 26.6469 26.2544 26.3818 25.8389
                                                              0.7890 0.3925
## 1003 BRIGHT 24.7781 24.4027 23.5786 23.2333 23.1067 22.7271 0.8241 0.3453
## 1004
        FAINT 27.7295 26.8582 25.9123 25.6505 25.3872 25.3876
                                                               0.9459
                                                                      0.2618
         FAINT 25.8433 25.9923 25.6318 25.7600 25.4077 26.2693
                                                               0.3605 -0.1282
## 1005
## 1006
        FAINT 26.6566 26.6005 26.0954 25.4378 24.9206 23.9828
                                                               0.5051 0.6576
## 1007
        FAINT 27.7097 26.9500 26.2233 25.5266 25.4894 25.3358 0.7267 0.6967
## 1008 BRIGHT 25.8134 23.8655 22.5429 22.0566 21.7635 21.5315 1.3226 0.4863
## 1009
        FAINT 28.1337 26.5828 25.7676 25.0622 24.3818 24.0641 0.8152 0.7054
## 1010
        FAINT 26.8252 26.0072 25.2992 25.0447 24.7891 24.9621 0.7080 0.2545
##
  1011
        FAINT 29.5209 30.2247 27.7976 26.8380 26.6534 25.6335
                                                               2.4271 0.9596
## 1012
        FAINT 26.3328 26.4055 25.8555 25.0811 24.7878 24.5614
                                                               0.5500 0.7744
## 1013
        FAINT 27.0315 26.5995 26.4633 26.5882 26.5770 25.8336 0.1362 -0.1249
## 1014
        FAINT 28.5384 27.5112 26.9729 26.0359 25.9030 29.8221 0.5383 0.9370
## 1015
        FAINT 27.2144 26.9876 26.8336 26.3711 26.2255 25.0637
                                                              0.1540
## 1016
       FAINT 29.5502 29.9491 27.2302 26.4528 25.5241 25.0168 2.7189
                                                                      0.7774
## 1017 BRIGHT 26.0161 25.2077 23.6410 22.4096 21.7195 21.3979
                                                               1.5667
                                                                       1.2314
## 1018
        FAINT 27.3197 27.5605 26.9522 26.2348 25.9304 25.3735
                                                               0.6083
## 1019
        FAINT 28.1056 28.8376 27.4621 26.7955 26.9424 26.1860
                                                               1.3755
                                                                       0.6666
        FAINT 28.4598 27.3190 25.9426 25.3607 24.9951 24.7885 1.3764 0.5819
## 1020
        FAINT 27.6108 27.0762 26.3359 25.4621 24.9525 24.8414 0.7403 0.8738
## 1022
        FAINT 29.8321 28.1310 27.4236 25.9766 25.2764 25.1947 0.7074 1.4470
## 1023
        FAINT 27.1536 27.0286 26.7804 26.3718 26.5586 25.7685 0.2482 0.4086
## 1024
        FAINT 28.4115 27.4525 27.3404 26.2638 25.8509 26.7284
                                                               0.1121
                                                                       1.0766
## 1025
        FAINT 26.8878 26.3995 25.7862 25.3648 25.3439 25.2032
                                                               0.6133
                                                                       0.4214
        FAINT 27.7549 27.9517 27.3852 26.6263 25.8731 24.9765
## 1026
                                                               0.5665
                                                                       0.7589
        FAINT 28.8762 28.1676 26.7636 25.5624 24.6836 23.8425
## 1027
                                                              1.4040
                                                                       1.2012
## 1028 BRIGHT 22.6595 22.2776 21.3945 20.5895 20.3141 20.0662
                                                              0.8831
## 1029 BRIGHT 26.6141 24.5480 23.0186 22.0638 21.7068 21.4656
                                                              1.5294
                                                                       0.9548
       FAINT 28.2485 27.3536 26.9332 26.5154 25.6698 25.1939
## 1030
                                                               0.4204
                                                                       0.4178
## 1031 BRIGHT 25.9591 25.6078 25.1194 24.4229 24.1146 23.9942
                                                               0.4884
## 1032
        FAINT 28.1049 27.8367 27.3322 26.7066 26.3729 25.6862
                                                               0.5045
                                                                      0.6256
## 1033
        FAINT 26.6636 26.6479 26.6058 26.6498 26.6806 26.9392
                                                               0.0421 -0.0440
        FAINT 28.0838 28.3388 27.3465 26.8946 25.8892 26.5857
## 1035 BRIGHT 28.5199 27.0826 25.3650 24.4086 23.4572 22.9378 1.7176 0.9564
## 1036 BRIGHT 23.4252 22.8090 21.6126 20.9407 20.6300 20.2282 1.1964 0.6719
  1037 BRIGHT 24.0102 23.8286 23.8481 23.7495 24.0811 24.1969 -0.0195 0.0986
## 1038 BRIGHT 25.3133 23.8682 22.5600 22.1315 21.7990 21.6985
                                                              1.3082
                                                                       0.4285
       FAINT 27.3229 27.0764 26.4992 26.0250 25.6089 25.2248
## 1039
                                                              0.5772
                                                                       0.4742
## 1040 BRIGHT 25.1816 24.4785 23.6485 23.1394 22.4800 22.2677
                                                               0.8300
        FAINT 30.6988 28.0939 27.5877 26.9142 27.2924 25.7565
## 1042
        FAINT 29.9305 28.1584 26.8366 25.9579 25.5700 25.3913 1.3218
## 1043
        FAINT 28.6970 27.7282 26.8375 25.7516 25.0081 24.0774
                                                               0.8907
                                                                       1.0859
  1044 BRIGHT 25.8414 25.7672 25.1564 24.8765 24.8306 24.0975
                                                               0.6108
## 1045
        FAINT 28.6152 27.2537 27.0937 26.6255 27.0073 25.7501 0.1600
                                                                      0.4682
## 1046
       FAINT 27.0330 26.9778 27.0553 26.5535 26.5571 26.2758 -0.0775 0.5018
```

```
## 1047 FAINT 27.0728 27.2483 26.5575 25.9440 25.3859 24.7465 0.6908 0.6135
## 1048 BRIGHT 21.4308 19.7659 18.7135 18.2024 17.8596 17.5959 1.0524 0.5111
## 1049 BRIGHT 26.4894 25.5439 24.7089 24.5622 24.4232 24.4153 0.8350 0.1467
       FAINT 26.9507 26.5685 26.5305 26.2255 26.7447 26.0828
                                                             0.0380 0.3050
## 1050
  1051 BRIGHT 22.8712 22.6676 21.9058 21.1129 20.7966 20.5253
                                                               0.7618
## 1052
       FAINT 28.6707 27.2039 26.6301 26.5520 26.1853 25.5773
                                                              0.5738
                                                                      0.0781
        FAINT 27.5867 27.5012 27.2461 26.7046 26.1760 25.8097 0.2551
## 1053
                                                                      0.5415
        FAINT 26.7352 26.6880 25.8080 25.0199 24.4484 24.1511 0.8800
## 1055
       FAINT 27.8056 27.7887 27.2355 26.5399 26.5911 26.1134 0.5532 0.6956
## 1056 BRIGHT 25.5080 25.4054 24.9194 24.8168 24.7115 24.2578 0.4860
                                                                      0 1026
## 1057
        FAINT 28.3717 27.6114 26.5284 26.0165 26.1128 25.1158
                                                              1.0830
                                                                      0 5119
## 1058 BRIGHT 24.3672 24.0456 23.4118 23.2418 23.1321 23.0168 0.6338
                                                                      0.1700
## 1059 FAINT 28.2354 26.6553 26.7646 26.6459 25.8783 25.8988 -0.1093
                                                                      0.1187
## 1060
       FAINT 31.6250 28.0017 27.5192 26.8908 26.2438 25.5523 0.4825 0.6284
## 1061 FAINT 28.8803 32.4159 27.5362 26.5724 25.8970 25.4910 4.8797 0.9638
## 1062 BRIGHT 27.2309 26.6674 25.2022 24.7844 24.4458 24.1377 1.4652 0.4178
        FAINT 27.6577 27.8978 27.4446 26.6825 25.7474 25.7318 0.4532
## 1063
                                                                      0.7621
## 1064
        FAINT 27.6374 27.3490 26.3954 25.3706 24.7502 24.2731
                                                              0.9536
## 1065
        FAINT 26.3658 26.2564 25.6585 25.2327 24.4232 24.0420
                                                              0.5979
                                                                      0.4258
## 1066
       FAINT 28.4813 28.3435 27.1546 26.6749 26.4884 25.3819
                                                              1.1889
## 1067 BRIGHT 26.0791 24.2064 22.1092 20.8366 20.0221 19.6177
                                                              2.0972
## 1068 BRIGHT 26.8375 26.3792 25.5910 24.9598 24.1686 23.9280 0.7882 0.6312
## 1069
       FAINT 28.3410 27.3158 27.0307 26.1980 25.9307 25.5524 0.2851
                                                                      0.8327
## 1070 BRIGHT 27.5513 27.2681 25.5620 24.2250 23.4166 22.5115
                                                              1.7061
                                                                      1.3370
## 1071 BRIGHT 25.5154 25.1425 24.7472 24.5544 24.4817 24.5277
                                                              0.3953
## 1072 FAINT 27.4240 26.7780 25.6747 25.2270 25.1376 25.0817 1.1033
## 1073 BRIGHT 25.8016 25.2545 24.8000 24.4719 23.9130 23.5319 0.4545 0.3281
## 1074 BRIGHT 25.2810 25.1305 25.1042 24.7267 24.2680 23.6350 0.0263 0.3775
## 1075 BRIGHT 23.6315 22.7992 22.0396 21.7514 21.5451 21.4675 0.7596 0.2882
## 1076
       FAINT 27.5515 26.6854 25.8685 25.1122 24.8813 24.7895
                                                             0.8169 0.7563
## 1077
        FAINT 27.5271 27.4628 27.1042 26.9139 28.3623 26.0881
                                                              0.3586
## 1078
        FAINT 27.4532 27.1903 26.9323 26.7705 26.0566 26.2708
                                                              0.2580
                                                                      0.1618
## 1079
        FAINT 28.7642 28.7022 28.2134 26.8639 25.9274 25.2145 0.4888
                                                                      1.3495
        FAINT 27.6945 28.7421 26.2012 25.1860 24.3118 24.0304 2.5409
## 1081
        FAINT 28.1628 28.4995 27.1097 26.6386 26.2699 25.8193 1.3898
                                                                      0.4711
## 1082
        FAINT 28.9102 27.1321 27.1045 26.2382 26.2747 27.1496
                                                              0.0276
                                                                      0.8663
## 1083
        FAINT 27.0205 26.3726 25.6060 25.0317 24.8894 24.9603
                                                             0.7666
                                                                      0.5743
        FAINT 27.6996 27.5314 26.8269 26.5025 26.9689 26.2307
                                                              0.7045
## 1084
## 1085 BRIGHT 27.2302 26.7082 25.3091 24.2956 23.9445 23.6784 1.3991 1.0135
## 1086
       FAINT 26.9305 26.3064 25.4537 25.3460 25.1903 25.4444 0.8527 0.1077
        FAINT 26.9191 26.6196 26.0329 26.0762 25.9549 25.9960 0.5867 -0.0433
## 1088 BRIGHT 24.4244 23.9520 23.1240 22.6027 22.4460 22.2018 0.8280 0.5213
## 1089 FAINT 29.2947 27.5059 27.0765 26.7614 26.6889 26.4570 0.4294 0.3151
## 1090
        FAINT 26.9929 26.6055 25.9407 25.8250 25.7664 26.0235
                                                              0.6648 0.1157
## 1091 FAINT 27.1417 27.5767 26.9106 26.1939 26.1822 26.6974
                                                              0.6661
                                                                      0.7167
## 1092 BRIGHT 25.6214 25.1474 24.3441 23.8476 23.6060 23.4856 0.8033 0.4965
## 1093 BRIGHT 25.3531 24.9476 24.4093 23.7804 23.0844 22.4442 0.5383 0.6289
## 1094
       FAINT 27.2043 28.0166 27.2312 26.7575 25.6873 25.8999 0.7854
## 1095 BRIGHT 26.4904 26.5719 25.2324 24.3659 23.4532 22.8742 1.3395
                                                                      0.8665
## 1096 BRIGHT 24.9942 24.7503 24.0153 23.3181 23.0278 22.8343
                                                              0.7350
                                                                      0.6972
        FAINT 28.0601 26.8715 25.9676 25.6915 25.5456 25.3928
                                                              0.9039
## 1097
## 1098
        FAINT 27.7140 26.6808 25.9639 25.8638 25.5480 25.1648 0.7169
                                                                      0.1001
## 1099 FAINT 26.5875 26.3540 25.6817 25.3380 25.2877 24.9139 0.6723 0.3437
## 1100 BRIGHT 25.9238 25.1753 24.2121 23.7366 23.5358 23.2930 0.9632 0.4755
## 1101 FAINT 28.8186 28.3419 27.3441 26.2045 25.8378 25.8308 0.9978 1.1396
## 1102 BRIGHT 27.3532 26.1935 25.3540 24.8196 24.6365 24.6373 0.8395 0.5344
## 1103 FAINT 27.6516 27.6242 26.2980 25.5656 25.3320 24.9606
                                                              1.3262
                                                                      0.7324
## 1104 BRIGHT 25.3921 25.0221 24.3084 23.6781 23.5195 23.4034
                                                              0.7137
                                                                      0.6303
## 1105 FAINT 29.3456 26.6850 25.5811 25.3808 25.2241 25.0757 1.1039
                                                                      0.2003
        FAINT 28.5359 29.0016 27.8531 26.9127 26.0870 26.6442 1.1485
## 1106
                                                                      0.9404
        FAINT 26.9212 26.7210 26.2035 25.7279 25.0003 24.5723
                                                             0.5175
## 1108 BRIGHT 28.0761 26.8495 25.5676 24.5509 23.8386 23.5345 1.2819
## 1109
       FAINT 27.6656 26.4458 25.6952 25.5364 25.2538 24.9789
                                                              0.7506
                                                                      0.1588
## 1110
        FAINT 28.7968 27.6417 27.2591 26.4968 26.1167 26.6762
                                                              0.3826
## 1111
        FAINT 28.3885 26.9715 25.8163 25.4449 25.4347 25.2010
                                                              1.1552
                                                                      0.3714
## 1112
        FAINT 29.8697 28.5748 27.9870 26.6147 26.4173 27.1825 0.5878
        FAINT 27.5136 26.5784 25.9304 25.0173 24.8714 24.8304 0.6480 0.9131
## 1114 BRIGHT 25.9831 25.1011 24.2245 23.6268 22.9069 22.6049 0.8766 0.5977
## 1115 FAINT 27.0308 27.2674 26.9191 26.5552 26.1984 25.8920 0.3483 0.3639
## 1116
        FAINT 30.8000 28.3462 28.5258 26.8099 26.8802 26.0822 -0.1796
                                                                      1.7159
        FAINT 29.2617 28.6062 27.0103 26.3020 26.0907 25.9953 1.5959
## 1117
## 1118 FAINT 29.3329 28.7301 27.6525 26.3381 25.5919 24.4784 1.0776
                                                                      1.3144
## 1119 BRIGHT 25.5952 25.1032 24.5504 24.3863 24.2576 24.1668 0.5528
                                                                      0.1641
## 1120 BRIGHT 26.2257 25.4972 24.7299 24.2654 23.7881 23.3349 0.7673
## 1121 FAINT 28.8779 28.1621 26.9515 26.2760 26.4742 25.7287 1.2106
                                                                      0.6755
## 1122
       FAINT 27.8028 27.8071 27.5468 26.8367 28.0849 28.4970
                                                              0.2603
                                                                      0.7101
  1123 BRIGHT 23.0717 21.9049 20.5909 20.1254 19.8407 19.6622
                                                              1.3140
## 1124 FAINT 31.4100 28.0824 27.2193 26.4504 25.6982 25.6792 0.8631 0.7689
## 1125 FAINT 29.7710 28.3363 27.2890 26.6474 26.8140 27.1269 1.0473 0.6416
```

```
## 1126 FAINT 29.2406 26.1312 25.3769 25.1562 24.9534 24.8571 0.7543 0.2207
## 1127 BRIGHT 27.2841 25.8443 24.4598 23.3943 22.9852 22.6720 1.3845 1.0655
## 1128 FAINT 26.1984 26.2792 26.4621 26.4845 26.6921 26.2758 -0.1829 -0.0224
## 1129 BRIGHT 24.6979 24.5645 24.5776 24.5089 24.1269 23.8312 -0.0131 0.0687
        FAINT 27.9928 27.6080 27.3574 26.4390 26.2061 26.7156
## 1130
                                                              0.2506
## 1131
        FAINT 27.7941 27.3268 26.9310 26.0885 25.6985 25.5782
                                                              0.3958
                                                                      0.8425
## 1132 BRIGHT 26.9231 25.8011 24.4791 23.9648 23.6948 23.4965
                                                             1.3220
                                                                      0.5143
       FAINT 26.3842 26.3357 25.8732 25.3890 24.8286 24.6059
                                                              0.4625
## 1134 BRIGHT 26.0527 25.7322 24.7686 23.8890 23.6355 23.3822 0.9636 0.8796
## 1135
       FAINT 27.4139 26.9540 26.6390 26.0936 25.7764 26.2954
                                                              0 3150
                                                                      0 5454
## 1136
        FAINT 28.6722 28.0708 27.4365 26.9484 27.2050 26.2057
                                                              0.6343
                                                                      0 4881
## 1137 BRIGHT 29.0754 27.6532 25.4622 24.2302 23.3034 22.4837
                                                              2.1910
                                                                      1.2320
## 1138 FAINT 27.2690 27.5280 27.3621 26.8866 26.2978 25.4717 0.1659 0.4755
## 1139 FAINT 27.3895 26.8311 25.4116 25.0293 24.8242 24.4386 1.4195 0.3823
## 1140 BRIGHT 24.2291 23.9206 23.3446 22.6466 22.1788 22.0248 0.5760 0.6980
## 1141 FAINT 28.1143 29.8667 27.8097 26.6726 25.7123 25.7520 2.0570 1.1371
## 1142 BRIGHT 25.4966 24.4799 23.4746 23.1871 22.9767 22.9597
                                                              1.0053 0.2875
## 1143 BRIGHT 26.9472 25.5538 24.5799 23.5510 23.2137 23.0538
                                                              0.9739
## 1144 FAINT 26.4580 26.8703 26.8602 26.2882 26.1718 26.6063 0.0101
                                                                      0.5720
## 1145
        FAINT 27.2844 27.8771 26.7798 26.5590 26.2699 25.7200
                                                              1.0973 0.2208
        FAINT 28.2832 27.6438 27.0506 26.9804 27.8274 26.9037
                                                              0.5932
## 1147
        FAINT 29.6987 27.2761 26.3724 25.3164 25.0380 25.3020
                                                             0.9037
## 1148
        FAINT 27.3026 27.3082 26.7432 26.3256 25.7703 25.4925
                                                              0.5650
                                                                      0.4176
## 1149
        FAINT 26.5196 25.8908 25.5154 25.4766 25.2778 25.0594
                                                              0.3754
                                                                      0.0388
## 1150
        FAINT 26.9910 27.5870 26.8683 26.4107 26.3781 26.3162
                                                              0.7187
                                                                      0.4576
## 1151 BRIGHT 26.5481 25.7739 24.8542 24.6102 24.3396 24.1393 0.9197
                                                                      0.2440
## 1152 FAINT 29.3729 27.3491 26.9672 26.6189 26.8007 25.9600 0.3819 0.3483
## 1153 BRIGHT 23.9845 23.9770 23.9016 23.8144 23.4250 23.2589 0.0754 0.0872
## 1154 BRIGHT 27.0600 26.1727 25.1359 24.6219 24.3693 24.0910 1.0368 0.5140
## 1155 BRIGHT 27.1179 25.6237 24.0721 23.2696 22.9178 22.6124 1.5516 0.8025
## 1156 BRIGHT 26.7897 26.7767 25.6713 24.7750 24.5047 24.2422
                                                              1.1054
## 1157 FAINT 28.1221 27.9560 27.2920 26.5479 26.7864 25.8441 0.6640
                                                                      0.7441
## 1158 FAINT 27.5828 27.6969 27.3345 26.7616 26.6519 26.4631 0.3624 0.5729
## 1159 BRIGHT 23.0849 22.3647 21.5473 21.2398 21.1024 20.8931 0.8174 0.3075
## 1160 FAINT 30.5658 28.8451 27.0947 26.3663 26.1394 25.9943 1.7504
                                                                      0.7284
## 1161 BRIGHT 26.8852 25.4394 24.0519 23.5704 23.2818 22.9963 1.3875
                                                                      0.4815
## 1162
        FAINT 26.6097 26.2494 25.6449 25.6393 25.4549 25.2224
                                                              0.6045
                                                                      0.0056
        FAINT 26.2415 26.2822 26.1901 26.0152 25.4798 25.2603
                                                              0.0921
## 1163
## 1164 BRIGHT 25.6044 24.6984 24.2119 23.9487 23.8812 23.7991 0.4865 0.2632
## 1165 BRIGHT 25.8261 25.4287 24.9616 24.7616 24.7573 24.6833 0.4671 0.2000
       FAINT 27.0350 26.8546 26.5669 26.7214 26.8813 26.5004 0.2877 -0.1545
## 1167
        FAINT 28.2864 27.9021 27.0617 26.5709 26.8293 26.0988 0.8404 0.4908
## 1168
       FAINT 26.9806 26.7420 26.2165 26.2415 26.2348 26.1845 0.5255 -0.0250
## 1169
        FAINT 29.1510 27.1825 27.3961 26.6487 26.2395 25.5614 -0.2136 0.7474
## 1170 BRIGHT 25.8788 25.0606 24.0721 23.7798 23.4884 23.3434 0.9885
                                                                      0.2923
## 1171 FAINT 27.4920 26.8744 26.2411 25.2890 24.7503 24.5986 0.6333 0.9521
## 1172
        FAINT 28.7874 28.1474 27.9050 26.8860 26.3167 25.9501 0.2424 1.0190
        FAINT 27.2420 27.6895 26.9944 26.4856 26.5096 25.5238
## 1173
                                                              0.6951 0.5088
## 1174
        FAINT 28.3456 27.7762 27.6271 26.9249 26.4245 25.5740
                                                              0.1491
                                                                      0.7022
## 1175
        FAINT 29.2821 28.0500 27.9308 26.9529 26.6548 26.8279
                                                              0.1192
                                                                      0.9779
        FAINT 28.2702 29.0302 26.9850 26.2020 25.9046 25.6699
## 1176
                                                              2.0452
## 1177 BRIGHT 28.3636 25.7552 24.1215 23.4233 23.0684 22.9054 1.6337
                                                                      0.6982
## 1178 BRIGHT 28.7270 26.2015 24.5981 23.4618 23.0438 22.7295 1.6034 1.1363
       FAINT 27.8826 27.1150 27.1919 26.8325 26.5341 25.5140 -0.0769 0.3594
## 1180 FAINT 28.6880 28.1596 27.1622 26.6684 26.3379 26.4302 0.9974 0.4938
## 1181 BRIGHT 23.5382 22.9824 22.1299 21.7351 21.6076 21.3832 0.8525 0.3948
## 1182 BRIGHT 27.7600 26.8782 25.1247 23.5088 22.7740 21.7857
                                                              1.7535
                                                                      1.6159
## 1183 FAINT 27.1917 26.7760 25.9399 25.5387 25.2501 25.2693
                                                              0.8361
## 1184 BRIGHT 25.9807 25.2909 24.0287 23.1311 22.1953 21.6448 1.2622
                                                                      0.8976
## 1185 FAINT 27.9853 27.8328 27.0803 26.7879 26.5447 27.5120 0.7525
                                                                      0.2924
## 1186 BRIGHT 28.1720 27.4876 26.4924 24.8313 24.0774 23.0152 0.9952
## 1187 FAINT 27.9415 27.8287 27.0766 26.5839 26.7858 26.0485 0.7521 0.4927
## 1188 BRIGHT 25.1354 24.8750 24.1212 23.3792 23.1578 23.0102 0.7538
                                                                      0.7420
## 1189 BRIGHT 26.7738 24.9696 23.3865 22.3064 21.9041 21.5701
                                                              1.5831
## 1190 FAINT 27.8468 28.4563 27.8755 26.9741 26.8245 26.2493 0.5808
                                                                      0.9014
## 1191 BRIGHT 25.7169 25.6892 25.3056 24.6430 24.4897 24.1409 0.3836
                                                                      0.6626
## 1192 FAINT 28.3041 28.1861 27.0346 26.5545 26.1252 28.4761 1.1515 0.4801
## 1193 BRIGHT 25.3094 24.4113 23.7315 23.5246 23.3202 23.3665 0.6798 0.2069
## 1194 FAINT 27.7687 27.7782 26.8172 26.0388 25.7398 27.3076 0.9610 0.7784
## 1195 BRIGHT 26.2857 25.3557 23.7697 22.5534 21.9859 21.6675 1.5860 1.2163
       FAINT 28.1318 27.6250 27.6621 26.6255 26.6604 25.5112 -0.0371
## 1196
## 1197
        FAINT 29.9636 27.3343 26.6449 25.5430 25.0214 23.9231 0.6894
                                                                      1.1019
## 1198 FAINT 27.9316 27.0822 26.1901 26.0768 25.5429 25.0146 0.8921 0.1133
## 1199 BRIGHT 26.3920 25.9853 24.9748 24.0486 23.6980 23.4655 1.0105 0.9262
## 1200 FAINT 26.9503 26.9335 26.9182 26.5142 26.5225 26.6053 0.0153 0.4040
## 1201 BRIGHT 26.3482 25.8136 24.9447 24.6562 24.6135 24.2930 0.8689
                                                                      0.2885
        FAINT 29.4468 28.3323 26.6977 25.7321 25.5830 25.3977
                                                              1.6346
        FAINT 30.1484 28.2306 27.4162 26.7782 25.9424 25.5635
                                                              0.8144 0.6380
## 1203
## 1204 FAINT 27.0467 27.2284 26.9590 26.2656 25.7473 26.2073 0.2694 0.6934
```

```
FAINT 27.6816 27.7062 26.9017 26.6408 26.9027 27.2985 0.8045 0.2609
        FAINT 27.9489 28.7904 27.0205 25.0337 24.0058 23.4948 1.7699 1.9868
## 1207
        FAINT 27.1956 26.8975 26.3640 25.6243 25.3542 24.9257 0.5335 0.7397
        FAINT 27.5184 28.2435 27.6596 26.7886 27.2381 26.8290 0.5839
## 1208
                                                                      0.8710
## 1209
        FAINT 27.9144 27.5921 26.3024 25.1248 24.5146 24.1713
                                                              1.2897
                                                                       1.1776
## 1210
        FAINT 27.0278 26.9508 26.6835 26.2242 26.0722 26.0151
                                                              0.2673
                                                                      0.4593
## 1211 BRIGHT 24.4426 23.9007 23.0565 22.7876 22.4811 22.4374 0.8442
                                                                      0.2689
## 1212 BRIGHT 26.2617 25.4071 24.4469 23.7014 23.4827 23.3003
                                                             0.9602
## 1213 BRIGHT 26.6851 25.8848 24.6381 23.8939 23.6193 23.3430 1.2467
                                                                      0.7442
## 1214 BRIGHT 27.1546 26.5574 25.7209 24.7504 24.3502 24.2545
                                                              0 8365
                                                                      0 9705
## 1215
        FAINT 26.5137 26.6980 26.2224 25.8261 25.2774 25.1958
                                                              0 4756
                                                                      0 3963
## 1216 BRIGHT 28.4125 26.8001 25.8894 24.9873 24.6169 24.3208
                                                              0.9107
                                                                      0.9021
## 1217 FAINT 28.5070 30.4777 27.0947 26.1549 25.7058 25.3485 3.3830 0.9398
## 1218 FAINT 27.2153 26.8973 26.0499 25.3312 24.8606 24.7844 0.8474 0.7187
## 1219 BRIGHT 26.8757 26.0275 24.5413 23.5573 22.5968 22.0065 1.4862 0.9840
## 1220 FAINT 26.4785 26.5015 26.4870 26.7396 26.6168 27.5819 0.0145 -0.2526
## 1221
        FAINT 28.4132 32.2153 27.4569 26.9474 27.1992 26.2982 4.7584 0.5095
## 1222
        FAINT 30.9965 27.7042 27.2337 26.8039 26.7393 26.4378
                                                              0.4705
## 1223 FAINT 28.0014 28.8746 27.5416 26.9592 26.4355 26.0088 1.3330
                                                                      0.5824
## 1224 BRIGHT 25.2917 25.1045 24.5528 24.0550 23.9213 23.6780 0.5517
                                                                      0.4978
## 1225 BRIGHT 27.1150 26.1186 24.9699 24.6717 24.5554 24.4938
                                                             1.1487
## 1226
       FAINT 28.5219 28.2433 27.9487 26.9017 26.7147 26.1294 0.2946
## 1227
        FAINT 26.5983 26.7290 25.8026 25.2724 24.6314 24.4204 0.9264
                                                                      0.5302
## 1228
        FAINT 26.8570 26.6665 26.1497 25.4368 25.1459 24.9433
                                                              0.5168
                                                                      0.7129
## 1229
        FAINT 29.1131 27.9733 27.3347 26.9814 26.0948 25.6888
                                                              0.6386
                                                                      0.3533
## 1230
        FAINT 27.7574 27.4927 26.7307 26.0838 25.8739 25.5329 0.7620
                                                                      0.6469
## 1231
        FAINT 26.3401 25.9290 25.5991 25.2853 24.4623 24.0902 0.3299 0.3138
## 1232 BRIGHT 27.0832 26.1789 24.8953 24.5221 24.2561 24.1766 1.2836 0.3732
## 1233
       FAINT 27.7394 26.7715 25.9429 25.3507 25.0530 24.8434 0.8286 0.5922
## 1234
        FAINT 30.3685 29.7283 27.3677 26.2175 25.2960 24.8419 2.3606 1.1502
## 1235 BRIGHT 26.5612 25.9836 25.3291 24.8825 24.8690 24.9053
                                                              0.6545 0.4466
## 1236 BRIGHT 25.4403 25.4014 24.9453 24.5473 23.9140 23.6835
                                                             0.4561 0.3980
## 1237 FAINT 28.4371 27.5815 26.6988 26.7519 26.1694 27.0397 0.8827 -0.0531
       FAINT 27.8123 27.0392 26.0873 25.3432 24.4669 23.8441 0.9519 0.7441
## 1239 BRIGHT 24.2316 23.9278 23.3114 22.7841 22.6388 22.4734 0.6164 0.5273
## 1240
       FAINT 26.5179 26.4444 26.5156 26.7346 27.5630 26.1183 -0.0712 -0.2190
## 1241
        FAINT 27.1217 28.0080 27.1405 26.8263 25.8670 26.8054 0.8675 0.3142
        FAINT 28.4629 27.3131 26.4160 26.0489 25.7763 26.2723
## 1242
                                                              0.8971
## 1243 BRIGHT 27.0688 25.9659 24.6411 23.4883 22.7317 22.3306 1.3248 1.1528
## 1244 FAINT 27.3906 27.3583 27.0274 26.1603 25.5012 24.9960 0.3309 0.8671
## 1245
        FAINT 26.8227 26.6907 26.3698 25.6301 25.3466 25.3752 0.3209 0.7397
## 1246
       FAINT 29.3635 27.7889 27.4923 26.8230 26.9889 25.7750 0.2966 0.6693
## 1247 BRIGHT 25.8939 25.6718 25.1824 24.4504 24.0212 23.8379 0.4894 0.7320
## 1248
       FAINT 27.2151 26.9003 26.1516 25.9216 26.2227 26.3383
                                                              0.7487
                                                                      0.2300
## 1249
        FAINT 26.7439 26.6502 25.9487 25.5217 25.4024 25.1483
                                                              0.7015
                                                                      0.4270
        FAINT 27.3327 27.0452 26.4637 26.2701 25.5078 25.0769 0.5815 0.1936
## 1250
## 1251
        FAINT 27.0535 26.9082 26.5608 26.6306 26.4109 28.4004 0.3474 -0.0698
        FAINT 27.9107 26.5803 25.4709 25.0944 24.9140 24.8043
## 1252
                                                              1.1094 0.3765
## 1253
        FAINT 26.6544 26.3875 26.0841 25.3943 24.9202 23.8545
                                                              0.3034
                                                                      0.6898
## 1254
        FAINT 27.7286 27.2508 26.9168 26.4932 25.9329 25.5499
                                                              0.3340
                                                                      0.4236
## 1255 BRIGHT 24.6531 23.2289 21.6640 20.4951 20.0738 19.7363
                                                              1.5649
## 1256
        FAINT 26.1456 25.9726 25.7835 25.7067 26.0965 26.0540
                                                              0.1891
                                                                      0.0768
        FAINT 29.7088 28.6606 27.4907 25.7409 24.7922 24.1887 1.1699 1.7498
## 1257
       FAINT 27.7710 27.6318 27.2243 26.9882 26.6964 26.8460 0.4075 0.2361
## 1259 BRIGHT 27.5780 26.3525 24.5520 23.3222 22.8189 22.5168 1.8005 1.2298
## 1260 FAINT 26.9224 27.1365 26.5844 25.9323 25.6335 24.7732 0.5521 0.6521
## 1261 BRIGHT 24.8403 24.3438 23.4553 22.9768 22.8629 22.7453 0.8885 0.4785
## 1262
       FAINT 27.7502 28.5346 27.9420 26.6887 26.6088 26.5500
                                                              0.5926
                                                                      1.2533
        FAINT 28.4162 28.8873 27.1292 26.7025 26.3791 27.0693 1.7581
## 1263
                                                                      0.4267
        FAINT 27.7815 27.8665 26.5575 25.7233 24.8610 24.1064 1.3090 0.8342
## 1264
## 1265 BRIGHT 26.5205 24.5079 22.8872 21.7235 21.3102 20.9763 1.6207 1.1637
## 1266
       FAINT 29.0807 28.2981 27.9404 26.7613 26.0190 25.2355 0.3577 1.1791
        FAINT 28.5318 28.7504 27.8460 26.8132 26.2271 26.2156
                                                              0.9044 1.0328
## 1267
## 1268 BRIGHT 25.4236 24.9726 24.1506 23.9028 23.8561 23.5115
                                                              0.8220 0.2478
## 1269
        FAINT 26.7729 27.1909 26.9078 26.9572 27.0289 26.5178
                                                              0.2831 -0.0494
## 1270
        FAINT 30.2619 28.0731 27.6698 26.8897 27.2088 26.6135 0.4033 0.7801
        FAINT 29.1920 28.1545 26.5971 26.4192 25.6097 26.6571 1.5574 0.1779
## 1272
        FAINT 26.9415 26.6770 25.9298 25.7681 25.7026 25.4018 0.7472 0.1617
## 1273
        FAINT 27.0909 27.1838 26.7865 25.6212 25.1676 24.6060 0.3973 1.1653
## 1274
        FAINT 28.3447 28.2849 27.6353 26.5047 25.5219 25.2617
                                                              0.6496 1.1306
## 1275 BRIGHT 24.9982 23.5571 22.9897 22.6694 22.5615 22.3870
                                                              0.5674
## 1276 FAINT 26.3733 26.1349 25.6629 25.2057 24.6120 24.3600 0.4720 0.4572
## 1277 BRIGHT 24.2006 23.8987 23.8123 23.5501 23.2160 22.6066 0.0864 0.2622
## 1278 FAINT 26.5535 26.2510 25.5188 25.0352 24.8563 24.8512 0.7322 0.4836
## 1279 BRIGHT 27.4238 26.5284 25.9076 24.8566 24.2575 23.3990 0.6208 1.0510
## 1280 BRIGHT 27.5939 24.9126 23.1719 21.8581 21.2908 20.8961 1.7407
                                                                      1.3138
  1281 BRIGHT 27.7997 26.6926 25.4752 24.9169 24.6574 24.2709
                                                              1.2174
## 1282 BRIGHT 26.9807 26.1557 25.1181 24.2361 23.4655 22.7704 1.0376 0.8820
## 1283 FAINT 26.1633 26.5624 26.3738 25.8391 25.6235 25.3964 0.1886 0.5347
```

```
## 1284 FAINT 27.2849 27.8000 27.1287 26.3272 25.8502 25.5431 0.6713 0.8015
## 1285 BRIGHT 26.8855 25.9725 23.8740 22.7598 21.8251 21.3531 2.0985 1.1142
       FAINT 27.5679 28.0929 27.1133 26.5746 26.3506 25.8788 0.9796 0.5387
## 1286
        FAINT 26.5721 26.5304 26.2097 25.6302 25.4691 24.4264
                                                             0.3207
## 1287
                                                                      0.5795
## 1288 BRIGHT 25.8605 25.5048 25.1893 24.7858 24.6092 24.0972
                                                              0.3155
## 1289
       FAINT 31.3225 27.8895 27.1702 26.6397 28.1263 26.9638
                                                              0.7193
                                                                      0.5305
## 1290 BRIGHT 23.1248 22.4240 21.4284 20.7149 20.4367 20.1871 0.9956
                                                                      0.7135
       FAINT 28.6409 27.2166 26.6659 26.5541 26.6028 25.8628
## 1292
       FAINT 28.7323 28.6620 27.5989 25.3576 24.6664 23.6929 1.0631
## 1293 BRIGHT 24.4068 23.7841 22.7294 22.4712 22.3557 22.2531 1.0547
                                                                      0 2582
                                                                      1.1553
## 1294 BRIGHT 28.3145 26.7711 24.4293 23.2740 22.3623 22.0043
                                                              2.3418
## 1295
       FAINT 28.0679 27.1351 26.5496 25.9680 25.4516 25.0892 0.5855
                                                                      0.5816
## 1296 BRIGHT 25.8917 25.3624 24.7770 24.5078 24.3523 24.2699 0.5854
                                                                      0.2692
       FAINT 28.0643 28.0573 27.4715 26.4944 26.4042 26.0201 0.5858 0.9771
## 1298 FAINT 27.1353 26.5709 25.7873 25.5283 25.1562 25.5024 0.7836 0.2590
## 1299 BRIGHT 27.9459 28.0097 26.0572 24.9562 23.9951 23.5554 1.9525 1.1010
## 1300 BRIGHT 24.1375 23.6869 22.8882 22.2716 22.1035 21.9346 0.7987 0.6166
## 1301
        FAINT 28.2293 28.1339 27.5974 26.8898 27.0554 26.2814
                                                              0.5365
## 1302
        FAINT 29.0196 27.5809 26.9583 26.1788 25.7051 25.1215
                                                             0.6226
                                                                      0.7795
## 1303 FAINT 26.1635 26.2100 26.1087 25.9493 25.7830 25.2441 0.1013 0.1594
## 1304 BRIGHT 26.8926 25.9322 25.3938 24.9326 24.7707 24.8804
                                                             0.5384 0.4612
## 1305 BRIGHT 24.7516 24.1529 23.7013 23.5060 23.4613 23.5373 0.4516 0.1953
## 1306
       FAINT 27.9612 27.1373 26.3547 25.9603 25.9527 25.3750
                                                              0.7826
                                                                      0.3944
## 1307 BRIGHT 22.1625 21.2597 20.4116 20.1120 19.8819 19.8007
                                                              0.8481
                                                                      0.2996
## 1308 BRIGHT 27.2966 25.0566 23.3823 22.2330 21.8110 21.4895
                                                              1.6743
## 1309 BRIGHT 25.1608 24.5250 23.6409 23.4004 23.2762 23.1357
                                                              0.8841 0.2405
## 1310 FAINT 27.9754 28.4024 26.9246 25.9357 25.4211 24.8386 1.4778 0.9889
## 1311 FAINT 26.7049 26.1899 25.8347 25.5270 24.9054 24.6084 0.3552 0.3077
## 1312 FAINT 28.0228 27.7553 27.0238 26.3135 25.9297 26.4368 0.7315 0.7103
## 1313 BRIGHT 24.6562 24.6241 24.5863 24.5966 24.4917 24.3309 0.0378 -0.0103
## 1314
       FAINT 28.4277 27.8224 27.1706 26.7541 26.9203 26.0742
                                                              0.6518 0.4165
        FAINT 27.2139 26.9877 26.9084 26.3974 26.2546 25.9855
## 1315
                                                              0.0793 0.5110
## 1316 FAINT 29.3789 28.0072 26.0435 25.0287 24.1009 23.6192 1.9637 1.0148
## 1317 BRIGHT 25.1118 24.4352 23.4579 22.9525 22.7483 22.5358
                                                             0.9773 0.5054
## 1318 FAINT 27.7414 26.6419 26.0616 25.9879 26.0365 25.5539
                                                             0.5803 0.0737
## 1319 BRIGHT 24.6573 24.6812 24.6665 24.9246 24.5710 24.9624 0.0147 -0.2581
## 1320 FAINT 28.6441 27.4064 26.2205 25.9797 25.5594 25.2578 1.1859 0.2408
## 1321 BRIGHT 24.3487 23.0417 21.6415 20.6913 20.2780 19.9612
                                                              1.4002
## 1322 FAINT 28.5678 28.0485 27.0912 26.7757 26.8597 27.5447
                                                             0.9573
                                                                      0.3155
## 1323 BRIGHT 21.1878 19.6717 18.5965 18.1612 17.9308 17.7205 1.0752 0.4353
## 1324 BRIGHT 26.2387 26.0743 25.5574 24.8659 24.5833 24.4369 0.5169 0.6915
## 1325 FAINT 29.8426 28.1809 27.1558 26.6097 26.1928 26.1258 1.0251 0.5461
## 1326
       FAINT 26.2577 26.0787 26.0648 25.7281 25.8291 25.0802 0.0139 0.3367
## 1327
        FAINT 27.9506 27.5888 27.1433 26.5866 26.1490 25.7738
                                                              0.4455
## 1328 BRIGHT 25.0201 24.6022 23.6071 23.2513 23.0463 22.8016
                                                              0.9951
                                                                      0.3558
## 1329 FAINT 26.2307 26.0802 25.6803 25.1945 24.7592 24.1626 0.3999
                                                                      0.4858
        FAINT 27.4632 27.0450 26.4036 26.0520 25.6872 26.3819
                                                             0.6414 0.3516
        FAINT 29.7757 27.4123 26.5009 25.5366 24.8249 24.7488
## 1331
                                                             0.9114
## 1332
        FAINT 27.9463 27.5043 26.6890 26.1060 26.0506 27.5458 0.8153
                                                                      0.5830
## 1333 BRIGHT 25.9820 25.2551 24.3735 23.3372 22.9175 22.6636
                                                             0.8816
                                                                      1.0363
        FAINT 28.3546 27.6891 26.9022 26.2482 26.2663 25.5388
## 1334
                                                              0.7869
## 1335
        FAINT 27.7458 27.2848 26.4190 26.2969 25.9345 26.8834 0.8658
                                                                      0.1221
## 1336
        FAINT 26.1049 26.0908 25.6359 25.5868 25.5603 25.8853 0.4549 0.0491
        FAINT 29.6902 27.6839 26.8875 26.6530 26.0108 25.7822 0.7964 0.2345
## 1338 BRIGHT 24.6254 23.8782 23.2216 23.0968 22.9110 22.9465 0.6566 0.1248
## 1339 FAINT 26.8379 27.3606 27.2295 26.9333 28.8353 28.0190 0.1311 0.2962
## 1340
        FAINT 27.5435 28.7009 27.4052 26.8072 26.4263 26.2349
                                                              1.2957 0.5980
## 1341 BRIGHT 28.5554 27.4276 26.1357 24.2702 23.5582 22.6205
                                                              1.2919
## 1342 FAINT 26.8460 26.4510 26.1719 25.6392 25.4707 25.1218 0.2791
                                                                      0.5327
        FAINT 29.5065 27.9902 26.3751 25.0386 24.1295 23.2089
## 1343
                                                             1.6151
                                                                      1.3365
        FAINT 28.9484 28.1436 26.7641 25.9365 25.6515 25.1461 1.3795
## 1344
## 1345
       FAINT 30.2021 29.6047 27.8185 26.3200 26.4831 25.7431 1.7862 1.4985
## 1346 BRIGHT 24.9686 24.5464 23.9473 23.8654 23.5336 23.5468
                                                              0.5991
                                                                      0.0819
## 1347
        FAINT 27.8211 27.3895 26.8889 26.3449 25.5595 24.9243
                                                              0.5006
## 1348 BRIGHT 27.2767 26.2254 25.1649 24.8074 24.5240 24.3909
                                                              1.0605
                                                                      0.3575
## 1349 FAINT 28.1697 27.2012 26.8312 26.1355 25.7221 26.3107 0.3700
                                                                      0 6957
## 1350 BRIGHT 25.9291 25.4895 24.6507 23.8913 23.1488 22.7697 0.8388 0.7594
## 1351 FAINT 29.1936 27.4048 26.7910 26.6908 26.7010 25.9851 0.6138 0.1002
## 1352 FAINT 27.6787 27.5734 27.0360 26.1445 25.4411 24.7667 0.5374 0.8915
## 1353 BRIGHT 26.6517 25.1603 23.6142 23.0030 22.6708 22.4464 1.5461 0.6112
## 1354 FAINT 27.9900 27.3640 26.3897 25.5780 25.2714 24.8632 0.9743
## 1355 BRIGHT 28.5336 26.1989 24.6832 23.5380 23.1574 22.8101 1.5157
                                                                      1.1452
       FAINT 28.0766 26.7865 26.2404 25.8944 25.5397 25.5953 0.5461 0.3460
## 1356
        FAINT 27.2231 26.8767 26.2033 26.0960 25.7360 26.5133 0.6734 0.1073
## 1358
        FAINT 26.3494 26.2797 25.9963 25.3073 25.0646 25.2520 0.2834 0.6890
## 1359
        FAINT 29.5172 27.3193 26.2240 25.8782 25.6583 25.3706 1.0953
                                                                      0.3458
        FAINT 29.1338 28.4371 27.3016 26.7181 26.5719 26.1450
                                                              1.1355
## 1361 FAINT 27.2172 27.3326 26.5975 25.5918 25.8276 25.2999 0.7351
                                                                      1.0057
## 1362 BRIGHT 25.8198 25.1148 24.0614 23.7064 23.4745 23.3348 1.0534 0.3550
```

```
## 1363 FAINT 25.3692 25.3589 25.3187 25.1608 24.7269 24.5118 0.0402 0.1579
## 1364 BRIGHT 24.9982 24.9790 24.8466 24.6334 24.1554 23.9463 0.1324 0.2132
## 1365 BRIGHT 26.4484 25.5143 24.9182 24.6634 24.5402 24.8067 0.5961 0.2548
## 1366 BRIGHT 25.8338 24.0516 22.4493 21.3441 20.9441 20.5900
                                                              1.6023
                                                                      1.1052
        FAINT 27.9226 27.8306 27.5009 26.7190 25.9623 25.4898
                                                              0.3297
## 1368
        FAINT 26.7273 26.7209 26.0755 25.8893 25.8407 27.0557
                                                              0.6454
                                                                      0.1862
        FAINT 32.0916 28.0604 27.7225 26.8787 26.7048 26.8423
## 1369
                                                             0.3379
                                                                      0.8438
        FAINT 26.8761 25.8638 25.2766 25.1137 25.0169 25.3895
## 1371
        FAINT 27.8182 27.1645 26.8811 26.2950 26.3514 25.3846
                                                             0.2834
                                                                      0.5861
## 1372
        FAINT 27.1547 27.1037 26.1150 25.8620 25.8286 26.1497
                                                              0 9887
                                                                      0 2530
## 1373
        FAINT 27.1849 28.4974 28.0447 26.7596 26.5659 27.6137
                                                              0 4527
                                                                      1 2851
## 1374 BRIGHT 26.4072 25.3538 24.7961 24.5350 24.4549 24.6358
                                                              0.5577
                                                                      0.2611
## 1375 FAINT 29.0857 27.8034 26.8519 26.3687 26.4994 26.2063 0.9515 0.4832
## 1376
       FAINT 28.6764 27.6930 26.8921 25.9550 25.6846 25.4684 0.8009 0.9371
        FAINT 28.1270 26.7683 26.1894 25.5185 25.3347 25.0968 0.5789 0.6709
       FAINT 28.0249 27.6032 27.2513 26.8032 26.2069 28.0653 0.3519 0.4481
## 1378
        FAINT 27.2210 26.2076 25.4158 25.1364 24.8253 24.8001 0.7918
## 1379
                                                                      0.2794
## 1380
        FAINT 27.1062 26.7896 26.6193 26.4402 26.2082 25.2893
                                                              0.1703
## 1381 FAINT 27.5868 26.7573 26.1565 25.7633 25.2077 24.7754 0.6008
                                                                      0.3932
## 1382 BRIGHT 25.8685 25.4673 24.8295 24.4327 24.3871 24.0331 0.6378
                                                                      0.3968
       FAINT 26.5799 26.1684 25.7807 25.2051 24.7771 24.5056
                                                              0.3877
## 1384
       FAINT 28.0894 27.0736 26.8815 26.5261 26.5373 26.0624 0.1921 0.3554
## 1385 BRIGHT 25.7766 23.7050 22.0363 20.8411 20.3969 20.0179 1.6687
                                                                      1.1952
## 1386
        FAINT 28.9306 26.8308 26.7607 26.5094 26.4452 26.4627
                                                              0.0701
                                                                      0.2513
        FAINT 28.8981 28.8753 27.4350 26.8910 26.3755 25.5636
                                                              1.4403
## 1387
                                                                      0.5440
## 1388 BRIGHT 25.7977 24.1892 22.6312 21.7127 21.3339 21.0318 1.5580
                                                                      0.9185
## 1389 BRIGHT 25.7395 25.0095 24.1326 23.6123 23.4212 23.1918 0.8769 0.5203
       FAINT 29.0225 27.7582 26.8710 26.2727 25.8713 25.0979 0.8872 0.5983
## 1391 BRIGHT 27.0493 26.7075 25.5574 24.9405 24.6334 24.5683 1.1501 0.6169
## 1392 FAINT 28.4218 28.9422 27.7883 26.9995 27.3670 26.2861 1.1539 0.7888
## 1393
        FAINT 26.1438 25.9851 25.7413 25.4906 24.8308 24.5290
                                                              0.2438
## 1394 BRIGHT 25.1875 24.4213 23.3007 22.9558 22.7616 22.6026 1.1206
                                                                      0.3449
## 1395 BRIGHT 26.9336 25.5976 24.0499 22.9709 22.5310 22.1615
                                                             1.5477
                                                                      1.0790
       FAINT 27.5060 26.5129 25.8000 25.6325 25.5106 26.3266 0.7129
## 1397
       FAINT 29.0028 27.7463 27.6521 26.8066 26.6939 26.5679 0.0942
## 1398 BRIGHT 26.3590 25.8579 25.0933 24.6760 24.5639 24.3770 0.7646
                                                                      0.4173
## 1399
        FAINT 31.3467 27.9818 27.2715 26.9249 26.3532 26.1145
                                                              0.7103
                                                                      0.3466
        FAINT 26.5603 26.4484 26.3221 26.3081 25.8356 25.9265
                                                              0.1263
## 1400
## 1401
        FAINT 27.8896 27.9011 27.3903 26.5832 26.4451 26.0714 0.5108
                                                                      0.8071
## 1402 BRIGHT 26.3095 25.7499 24.9379 24.2150 23.6407 23.3710 0.8120 0.7229
## 1403 BRIGHT 27.5083 26.7008 25.4658 24.7605 24.4275 24.3778 1.2350 0.7053
## 1404 BRIGHT 27.2221 26.1061 25.5390 24.6934 23.9821 23.2407 0.5671 0.8456
## 1405 FAINT 27.1087 26.8218 26.2569 25.6237 25.3586 25.3820 0.5649 0.6332
## 1406 BRIGHT 26.1187 25.3620 24.3848 23.8571 23.6956 23.3291
                                                              0.9772
## 1407 BRIGHT 25.4223 25.4157 25.2368 24.8096 24.3244 23.8222
                                                              0.1789
                                                                      0.4272
                                                             1.5937
## 1408 BRIGHT 23.0755 21.2033 19.6096 19.0122 18.6850 18.4585
                                                                      0.5974
        FAINT 26.2368 26.3316 26.1667 25.7639 25.5811 24.7359
                                                              0.1649 0.4028
## 1410
        FAINT 28.9749 27.8668 27.1124 26.5418 26.6438 29.5056 0.7544 0.5706
## 1411 FAINT 28.2901 28.0286 27.3156 25.2917 23.9877 23.3264 0.7130 2.0239
## 1412
        FAINT 26,9622 26,5029 25,6557 25,0153 24,6758 24,2695
                                                              0.8472
                                                                      0.6404
        FAINT 28.5333 27.4747 27.3091 26.3662 25.7384 25.2620
## 1413
                                                              0.1656
## 1414 BRIGHT 33.0064 27.2749 25.8528 24.6955 24.2571 24.0110 1.4221
                                                                      1.1573
## 1415 FAINT 28.4506 28.7632 27.9373 26.3180 25.6576 24.7918 0.8259 1.6193
       FAINT 28.9260 27.8906 26.9790 26.8959 26.6023 26.8000 0.9116 0.0831
## 1417
        FAINT 29.6568 27.6823 27.0134 26.4695 25.8563 25.2952 0.6689 0.5439
## 1418
       FAINT 28.6555 29.6338 27.2112 26.5053 25.5960 25.4638 2.4226 0.7059
## 1419
        FAINT 27.9022 27.2075 26.3325 25.9105 25.6367 26.0163
                                                              0.8750 0.4220
## 1420
        FAINT 27.2926 27.6846 26.7422 26.2237 26.1061 26.2975
                                                              0.9424
                                                                      0.5185
## 1421
        FAINT 26.8046 26.6288 25.8058 25.2514 25.3733 25.1980
                                                             0.8230
                                                                      0.5544
       FAINT 31.5697 27.6830 27.2622 26.5940 26.1917 27.0444 0.4208 0.6682
## 1422
## 1423 BRIGHT 25.9772 25.5849 24.5945 23.6383 22.8893 22.0556 0.9904 0.9562
## 1424
       FAINT 25.8273 26.0160 26.0430 26.2028 25.9870 25.6795 -0.0270 -0.1598
        FAINT 27.3060 27.2673 26.7116 26.1523 25.6844 25.5168 0.5557 0.5593
## 1425
## 1426 BRIGHT 25.4063 25.0405 24.1427 23.9526 23.8484 23.7753
                                                              0.8978
## 1427 BRIGHT 27.9848 26.7762 25.7033 24.6150 23.9825 23.7220
                                                              1.0729
                                                                      1.0883
## 1428
       FAINT 26.7745 26.4917 25.9521 25.7245 25.8194 25.7631 0.5396 0.2276
        FAINT 26.2625 26.3947 26.2435 26.2996 25.9531 26.2083 0.1512 -0.0561
## 1430 BRIGHT 25.5193 25.0045 24.1574 23.4924 22.9571 22.7557 0.8471 0.6650
## 1431 BRIGHT 21.8636 21.2437 20.1866 19.8889 19.7033 19.5755 1.0571 0.2977
## 1432
        FAINT 28.8465 27.7978 26.7775 26.4749 26.1361 25.9538
                                                              1.0203 0.3026
        FAINT 27.2944 26.5131 25.9741 25.4961 24.7830 24.3699
                                                              0.5390 0.4780
## 1433
        FAINT 27.1681 27.0349 26.7409 26.2637 26.2351 25.7757
## 1434
                                                              0.2940 0.4772
        FAINT 28.1350 28.1047 26.7457 26.5030 26.3879 26.1360 1.3590 0.2427
## 1435
        FAINT 27.8182 27.5691 26.6766 26.0425 25.6718 24.7529 0.8925 0.6341
## 1437
        FAINT 27.4629 26.9755 26.3694 26.4462 25.9948 26.0125 0.6061 -0.0768
## 1438
        FAINT 27.4531 26.8934 26.1124 25.2662 24.7326 24.5316
                                                              0.7810 0.8462
        FAINT 26.5808 26.2645 25.9187 25.2465 24.8264 24.1552
                                                              0.3458
## 1440 BRIGHT 26.8463 26.0210 25.4863 24.7943 24.5989 24.4515
                                                              0.5347 0.6920
## 1441 BRIGHT 24.5038 23.9860 23.0910 22.2841 22.0126 21.7439 0.8950 0.8069
```

```
## 1442 FAINT 28.8748 27.5515 26.1371 25.4055 25.0566 24.7918 1.4144 0.7316
## 1443 BRIGHT 24.6503 24.3133 23.6933 23.1157 22.5535 22.3519 0.6200 0.5776
## 1444
        FAINT 28.1393 28.2271 27.7281 26.9500 27.4511 32.4268 0.4990 0.7781
        FAINT 28.0509 27.2104 26.3247 26.1373 26.3696 26.1230 0.8857
## 1445
         FAINT 28.2093 27.9545 26.7329 26.0409 26.1069 25.8433
## 1446
                                                               1.2216
## 1447
        FAINT 29.0908 27.7872 27.2938 26.8382 25.8131 25.4943
                                                              0.4934
                                                                      0.4556
## 1448
        FAINT 29.8205 26.7538 25.5862 25.2689 25.1877 24.4583 1.1676
        FAINT 28.4072 30.0350 27.9045 26.4550 25.6436 25.0973
                                                              2.1305
## 1450 BRIGHT 24.8662 24.5735 24.1261 23.6829 23.0827 22.5985
                                                              0.4474
                                                                      0.4432
## 1451 BRIGHT 24.7238 24.1956 23.3305 23.0300 22.9141 22.4809
                                                              0 8651
                                                                      0 3005
##
  1452 BRIGHT 26.6321 25.8924 25.0177 24.3889 24.2097 23.9181
                                                              0.8747
                                                                       0 6288
## 1453
       FAINT 26.1268 25.7365 25.2536 25.1798 25.0872 24.7282
                                                              0.4829
                                                                      0.0738
## 1454 BRIGHT 26.0521 25.7098 24.8244 23.9559 23.3985 23.1938 0.8854
                                                                      0.8685
       FAINT 29.3949 27.6971 26.6771 26.5781 26.7814 26.3032 1.0200 0.0990
        FAINT 27.1550 27.1319 26.4174 25.7875 25.0481 24.8029 0.7145 0.6299
## 1456
## 1457
        FAINT 28.3040 26.9455 26.4497 25.6963 24.8172 24.4763 0.4958 0.7534
        FAINT 27.8711 26.9001 26.3880 25.7361 25.3880 24.6434 0.5121 0.6519
## 1458
## 1459 BRIGHT 25.1894 24.4684 23.5785 22.6842 22.2478 22.0284
                                                              0.8899
## 1460
       FAINT 28.7318 27.3667 26.0082 25.1581 24.3833 23.8700 1.3585
                                                                      0.8501
## 1461
        FAINT 27.6659 27.4185 26.6193 26.1398 25.8558 25.2364 0.7992
                                                                      0.4795
        FAINT 28.4675 28.9044 27.1207 26.9452 27.1556 26.9270
                                                              1.7837
## 1463
        FAINT 28.9199 26.7605 26.1247 25.9257 25.9298 25.8342 0.6358 0.1990
## 1464
        FAINT 26.9863 27.5743 26.6107 26.0581 25.5570 25.5040
                                                              0.9636
                                                                      0.5526
## 1465 BRIGHT 22.8167 21.1833 19.7572 19.2783 18.9687 18.8080
                                                              1.4261
        FAINT 30.6785 28.1084 27.2943 26.5295 26.3225 26.2002
                                                              0.8141
## 1466
                                                                      0.7648
## 1467 BRIGHT 27.3834 27.2605 25.5889 24.4745 23.7739 23.5075 1.6716
                                                                      1.1144
       FAINT 26.9082 26.8392 26.1225 25.5651 24.8916 24.6662 0.7167 0.5574
        FAINT 27.7052 26.7805 26.0095 25.7495 25.7206 26.2290 0.7710 0.2600
## 1470 BRIGHT 27.2132 25.8914 25.1517 24.4786 24.2582 24.1707 0.7397 0.6731
## 1471 BRIGHT 26.2821 25.4397 24.9610 24.6825 24.5340 24.2765
                                                              0.4787
                                                                      0.2785
## 1472
       FAINT 28.0197 27.5954 26.8588 26.4368 25.7019 25.0833
                                                              0.7366
## 1473 BRIGHT 24.1165 23.4223 22.5778 21.8280 21.5955 21.3957
                                                              0.8445
                                                                      0.7498
## 1474 FAINT 27.6647 27.3746 26.4718 26.0495 25.2192 24.7848 0.9028 0.4223
       FAINT 26.1331 25.8334 25.3803 25.3018 25.2560 25.0499 0.4531 0.0785
## 1476
       FAINT 26.8313 27.1448 26.5832 26.1735 25.9239 26.8944 0.5616
## 1477 BRIGHT 28.8128 27.3006 25.9613 24.6811 23.8791 22.9618 1.3393
                                                                      1.2802
## 1478
        FAINT 29.3459 27.9833 26.7226 25.5870 25.2457 24.8849
                                                              1.2607
                                                                      1.1356
        FAINT 27.8673 28.1178 27.6963 26.8325 27.1821 26.1141
                                                              0.4215
## 1479
        FAINT 28.1009 27.7347 27.2412 26.4455 26.1845 25.7743 0.4935
## 1480
                                                                      0.7957
## 1481
       FAINT 28.8329 27.5643 26.9713 26.4389 25.9638 26.7700 0.5930 0.5324
## 1482 BRIGHT 25.8311 25.5954 24.8430 24.3167 24.1927 23.9854 0.7524 0.5263
## 1483
        FAINT 26.7983 26.9261 26.9069 26.8013 26.3210 25.6057 0.0192 0.1056
## 1484
        FAINT 28.8555 29.3919 27.8786 26.4742 25.5368 24.7718 1.5133 1.4044
##
  1485
        FAINT 30.6853 28.9611 28.2593 26.8634 27.0546 27.5582
                                                              0.7018
                                                                      1.3959
## 1486
        FAINT 26.6831 26.4187 26.1307 25.7070 25.0183 24.6468
                                                              0.2880
                                                                      0.4237
## 1487
        FAINT 28.4820 27.4011 26.6175 26.2641 26.8070 28.2494 0.7836
                                                                      0 3534
## 1488 BRIGHT 24.4120 24.2234 23.8778 23.3425 22.9905 22.8935
                                                              0.3456
## 1489
        FAINT 27.4841 28.3837 27.1189 26.3912 25.9451 25.6763 1.2648
## 1490 BRIGHT 25.8932 25.1322 24.1687 23.2760 22.3964 21.8752 0.9635
                                                                      0.8927
## 1491
       FAINT 27.8603 27.6000 26.8910 26.5458 25.7731 25.3716
                                                              0.7090
                                                                      0.3452
        FAINT 27.2110 27.7152 26.6859 26.3875 26.7814 26.1393
## 1492
                                                              1.0293
## 1493 BRIGHT 26.4101 26.1523 25.3518 24.9898 24.8963 24.4354
                                                              0.8005
                                                                      0.3620
## 1494
       FAINT 27.9200 28.6908 27.5661 26.8752 27.6295 26.6352 1.1247
                                                                      0.6909
        FAINT 27.9913 27.2870 26.9209 25.9513 25.9293 26.2185 0.3661 0.9696
## 1496
       FAINT 27.9587 26.9895 26.4265 25.9147 25.7537 26.5281 0.5630 0.5118
        FAINT 28.3890 28.4349 26.9409 26.5850 25.7435 26.5964 1.4940 0.3559
## 1497
## 1498 BRIGHT 25.5861 24.7234 23.4325 22.5185 22.2162 21.9003 1.2909
                                                                      0.9140
## 1499
       FAINT 27.0197 27.5594 27.1814 26.9427 26.5893 25.6889
                                                              0.3780
                                                                      0.2387
        FAINT 29.7735 28.0392 27.3714 26.9269 26.5608 25.9165 0.6678
## 1500
                                                                      0.4445
        FAINT 28.1582 27.1483 26.2981 25.6027 25.1604 24.7678 0.8502
## 1501
                                                                      0.6954
        FAINT 26.6120 25.9353 25.5902 25.3869 25.4267 25.0119
                                                              0.3451
## 1503 BRIGHT 25.2899 24.5310 23.5638 22.6065 22.2668 21.9359 0.9672 0.9573
## 1504 BRIGHT 27.2593 26.1122 24.9061 24.3935 24.1606 23.8601 1.2061
                                                                      0.5126
##
  1505 BRIGHT 24.7556 24.5491 24.3850 24.2160 24.3366 24.2512
                                                              0.1641
## 1506
       FAINT 27.1731 26.9024 26.6405 26.3946 27.2349 26.0855
                                                              0.2619
                                                                      0.2459
## 1507 BRIGHT 27.3979 27.1787 25.0988 23.9429 23.0590 22.7034 2.0799
                                                                      1 1559
       FAINT 27.8449 27.5617 26.8753 26.5257 26.2248 26.7126 0.6864 0.3496
## 1509 FAINT 31.1158 27.9612 25.7876 25.0961 24.8507 24.2002 2.1736 0.6915
## 1510 FAINT 26.9933 26.9841 26.8032 26.4272 26.0672 26.1580 0.1809 0.3760
##
  1511 BRIGHT 29.0990 27.6792 26.1444 24.9187 24.0368 23.5126
                                                              1.5348
                                                                      1.2257
## 1512 FAINT 26.8181 26.8308 26.3008 25.6440 25.1160 25.1077
                                                               0.5300
        FAINT 26.9091 26.1876 25.7808 25.1630 25.1078 25.1499
## 1513
                                                              0.4068
                                                                      0.6178
        FAINT 27.3304 27.5640 26.6673 25.9224 26.0288 25.5315 0.8967
## 1514
                                                                      0.7449
        FAINT 29.1833 27.4504 26.6791 26.2459 25.8768 25.9850 0.7713
## 1516
        FAINT 25.5024 25.8393 25.8683 25.8187 25.8033 26.2875 -0.0290
## 1517
        FAINT 27.0335 27.3052 27.5672 26.9782 26.5945 26.3923 -0.2620
                                                                      0.5890
  1518 BRIGHT 27.4656 26.4429 25.4164 24.9888 25.0396 24.9799
                                                              1.0265
       FAINT 27.2542 27.1023 26.7653 26.2548 25.5811 25.2250
                                                              0.3370
## 1519
                                                                      0.5105
## 1520 FAINT 28.5144 27.2009 26.3507 25.9436 25.7183 25.2918 0.8502 0.4071
```

```
## 1521 BRIGHT 19.5533 18.5084 18.0035 17.7448 17.5590 17.3428 0.5049 0.2587
## 1522 FAINT 28.6026 27.0457 26.7757 26.0887 25.8621 26.0106 0.2700 0.6870
## 1523 BRIGHT 26.4125 25.7442 24.8895 23.9139 23.3810 23.1038 0.8547 0.9756
## 1524 BRIGHT 25.8120 24.9950 24.0639 23.7579 23.6260 23.2206
                                                             0.9311 0.3060
## 1525 BRIGHT 27.1251 26.0827 25.1425 24.5033 24.3002 24.2024
                                                              0.9402
## 1526 BRIGHT 25.0762 25.0233 24.3708 24.1524 24.1753 23.7327
                                                              0.6525
                                                                      0.2184
       FAINT 28.8312 29.1887 28.8417 26.8592 26.5451 26.8941 0.3470
                                                                      1.9825
       FAINT 27.2113 27.1668 26.8779 26.6052 27.0319 29.3970
## 1529 BRIGHT 26.7468 25.9241 24.7790 24.3535 24.1524 23.7575
                                                             1.1451 0.4255
## 1530
       FAINT 27.2502 26.1206 25.2952 25.1947 25.0898 24.8835
                                                             0 8254
                                                                      0 1005
## 1531
        FAINT 26.5702 26.9761 26.9833 26.6813 27.4296 29.4382 -0.0072
                                                                      0 3020
## 1532 BRIGHT 25.6459 25.4409 24.7348 23.8592 23.5700 23.5179 0.7061
                                                                      0.8756
## 1533 BRIGHT 25.5926 25.3263 24.6969 24.5051 24.3372 24.4922 0.6294 0.1918
## 1534 FAINT 26.6737 26.9635 26.8373 26.8318 27.5179 26.0136 0.1262 0.0055
       FAINT 28.8817 28.0726 27.4274 26.9650 27.3042 27.2160 0.6452 0.4624
## 1536 FAINT 26.7559 26.3746 26.2959 25.7851 25.2317 24.7511 0.0787 0.5108
## 1537 BRIGHT 24.7953 24.5936 24.3436 23.9989 23.4422 23.1009 0.2500 0.3447
## 1538 BRIGHT 24.5300 23.7423 23.4213 23.2172 23.1339 23.0750
                                                              0.3210
## 1539 BRIGHT 23.5040 22.8216 22.4849 22.2612 22.2243 22.1747 0.3367
                                                                      0.2237
## 1540 BRIGHT 27.6894 27.1878 25.8466 24.8333 24.4806 24.3327 1.3412 1.0133
       FAINT 26.4304 26.8840 27.2667 26.8195 26.7560 26.1348 -0.3827
## 1542
       FAINT 27.4417 27.6605 26.6969 26.5276 26.1367 26.8109 0.9636 0.1693
## 1543 BRIGHT 26.7604 25.4408 23.9780 23.2712 22.9719 22.6293 1.4628
                                                                      0.7068
                                                                      0.9206
## 1544
        FAINT 28.3977 27.7674 27.4010 26.4804 26.3573 26.5522
                                                              0.3664
## 1545
        FAINT 27.6040 28.2020 27.5516 26.9175 27.1736 26.8334
                                                              0.6504
                                                                      0.6341
        FAINT 28.7190 27.6583 27.4558 26.1687 25.1881 24.6850 0.2025
## 1546
                                                                      1.2871
## 1547 BRIGHT 27.5847 26.4709 25.6861 24.9539 24.5869 23.6645 0.7848 0.7322
       FAINT 27.4639 27.3367 27.2795 26.8364 26.1075 25.8144 0.0572 0.4431
## 1549 BRIGHT 26.2706 25.8842 25.4399 24.7914 24.2523 23.4869 0.4443 0.6485
## 1550 FAINT 26.8186 26.0636 25.7887 25.5115 25.7696 26.9891 0.2749 0.2772
## 1551 BRIGHT 26.9754 25.6071 24.7244 23.3404 22.6282 21.6533
                                                              0.8827
                                                                      1.3840
## 1552 FAINT 31.1103 28.6090 26.6595 25.6695 24.8386 24.2028 1.9495 0.9900
## 1553 BRIGHT 25.6534 24.7916 23.7887 23.4981 23.3528 23.2567 1.0029 0.2906
## 1554 BRIGHT 26.8954 25.9788 24.9569 24.6444 24.3161 24.2301 1.0219 0.3125
## 1555
       FAINT 26.6448 26.5643 26.1540 25.6394 25.5097 25.0411 0.4103 0.5146
## 1556 BRIGHT 27.4782 26.8248 24.6781 23.5512 22.5426 21.9341 2.1467
                                                                      1.1269
## 1557 BRIGHT 24.4677 23.8363 23.3762 23.1875 23.1562 23.1107
                                                              0.4601 0.1887
       FAINT 28.0649 28.2403 28.0865 26.9439 26.3435 25.6813
                                                              0.1538
## 1558
        FAINT 28.2694 27.3279 26.7693 26.7741 27.4179 29.5511 0.5586 -0.0048
## 1559
## 1560 FAINT 27.6589 27.1289 26.7344 26.5980 25.7867 26.2260 0.3945 0.1364
## 1561 BRIGHT 26.1234 25.4088 24.5988 24.4020 24.2575 24.1353 0.8100 0.1968
## 1562 FAINT 27.4390 27.6907 27.3023 26.7646 26.8078 26.5744 0.3884 0.5377
## 1563 BRIGHT 25.2543 25.0504 24.2856 23.4068 22.9464 22.7714 0.7648 0.8788
##
  1564 FAINT 26.8655 26.9326 26.4684 25.8361 25.6817 24.8647
                                                              0.4642 0.6323
## 1565 BRIGHT 27.2650 25.1084 23.4900 22.2362 21.7566 21.4098
                                                              1.6184
                                                                      1.2538
## 1566 FAINT 27.1487 25.9799 25.4003 25.2438 25.1345 24.8715
                                                             0.5796 0.1565
## 1567 BRIGHT 22.4385 22.0458 21.1125 20.5893 20.2890 20.0917
                                                             0.9333 0.5232
## 1568
       FAINT 29.1812 28.0205 26.0115 25.0039 23.9879 23.4363 2.0090
## 1569
        FAINT 28.7512 28.8807 27.8067 26.9670 27.4358 27.9870 1.0740 0.8397
## 1570
        FAINT 26.1629 25.8366 25.6840 25.4972 24.9158 24.9863 0.1526
                                                                      0.1868
## 1571 BRIGHT 25.5856 25.5643 24.8988 24.7173 24.7878 24.4227
                                                              0.6655
## 1572
       FAINT 27.8834 27.0784 25.7639 25.2175 24.8224 24.2716 1.3145
                                                                      0.5464
## 1573
        FAINT 28.9777 26.5848 25.6412 25.0091 24.8724 24.7175 0.9436 0.6321
        FAINT 28.0234 27.4451 27.0241 26.8204 26.3316 25.8510 0.4210 0.2037
## 1575 BRIGHT 25.6236 24.9294 24.5416 24.2664 24.4202 24.4116 0.3878 0.2752
## 1576 FAINT 26.9572 26.8741 25.8472 25.3478 25.2868 24.7218 1.0269 0.4994
## 1577 BRIGHT 24.5934 22.9068 21.3701 20.7091 20.4037 20.1565
                                                             1.5367 0.6610
## 1578 BRIGHT 25.3958 25.2701 24.7985 24.0494 23.7509 23.6394
                                                              0.4716
                                                                     0.7491
## 1579 BRIGHT 24.8127 24.0556 23.7798 23.5636 23.5353 23.5657 0.2758
                                                                     0.2162
## 1580 FAINT 27.7764 27.0549 26.8474 26.3348 25.3467 24.6262 0.2075
                                                                     0.5126
        FAINT 28.5620 27.0695 26.2728 26.1031 26.2007 26.2992 0.7967
## 1581
## 1582
        FAINT 26.3943 26.4012 25.6539 25.2034 24.5637 24.2982 0.7473 0.4505
        FAINT 27.0797 27.0515 26.8997 26.3009 25.9627 25.9298
                                                              0.1518
## 1583
                                                                      0.5988
## 1584
        FAINT 28.2613 28.0587 27.1897 26.8973 27.3468 26.0596
                                                              0.8690
## 1585
        FAINT 28.2558 28.4561 27.3133 26.7514 26.9933 27.2853
                                                              1.1428
                                                                      0.5619
## 1586
        FAINT 28.6127 28.1689 26.9526 26.6032 26.2515 25.7399 1.2163 0.3494
        FAINT 28.0053 28.0264 27.2557 26.9511 26.8011 26.4520 0.7707 0.3046
## 1588
       FAINT 27.8147 26.7130 26.1542 25.6478 25.6065 25.1749 0.5588 0.5064
## 1589 FAINT 27.4240 27.2966 26.6670 26.0698 25.9013 25.6703 0.6296 0.5972
## 1590 BRIGHT 26.7132 25.9683 25.2886 24.1687 23.5141 22.6131 0.6797
                                                                      1.1199
## 1591 BRIGHT 25.6882 24.5432 24.0845 23.8168 23.7000 23.5846
                                                              0.4587
## 1592 BRIGHT 26.5479 25.9919 25.0585 24.5434 24.4893 24.1671 0.9334 0.5151
## 1593 FAINT 28.2307 28.6145 26.9561 25.1407 24.4369 23.3834 1.6584 1.8154
        FAINT 27.5854 27.0906 26.3858 25.5902 25.4607 25.2322 0.7048 0.7956
## 1595 BRIGHT 26.8347 25.1903 23.6188 22.4685 22.0677 21.7278 1.5715 1.1503
        FAINT 27.0871 27.0572 26.2036 25.4418 24.7834 23.9196 0.8536
## 1596
                                                                      0.7618
        FAINT 28.6775 28.4709 26.9981 25.9371 24.9085 24.4715
                                                              1.4728
                                                                      1.0610
       FAINT 30.5084 27.5597 27.1021 26.4094 26.6267 25.3854 0.4576
## 1598
                                                                     0.6927
## 1599 BRIGHT 23.2925 22.5732 22.0962 21.8428 21.8194 21.7429 0.4770 0.2534
```

```
## 1600 FAINT 30.1889 27.0859 26.5761 26.2839 26.1449 25.5702 0.5098 0.2922
## 1601 FAINT 26.6006 26.5783 26.3947 26.1141 25.8809 25.7604 0.1836 0.2806
## 1602 BRIGHT 27.0545 26.0971 24.6795 23.6891 23.3850 23.1187 1.4176 0.9904
## 1603 BRIGHT 23.6297 22.8719 22.4259 22.2086 22.2087 22.1550 0.4460 0.2173
        FAINT 28.9594 27.0649 26.5269 26.0843 25.9934 27.4078
                                                              0.5380
## 1605 BRIGHT 26.2237 25.5723 24.1644 22.9490 22.2965 21.9902
                                                              1.4079
                                                                      1.2154
       FAINT 27.0989 27.0566 26.5245 25.9999 25.4540 25.3271 0.5321 0.5246
        FAINT 26.9737 26.8020 26.2736 26.0772 25.7277 24.7951 0.5284 0.1964
## 1608 BRIGHT 25.7606 25.8133 25.1794 24.6269 23.9850 23.7305
                                                             0.6339 0.5525
## 1609
       FAINT 27.6833 27.0064 26.4621 26.3435 26.1232 26.8843
                                                             0 5443
                                                                      0 1186
## 1610
        FAINT 27.4034 26.7828 26.0252 25.2029 24.9487 24.9048
                                                              0 7576
                                                                      0 8223
## 1611 FAINT 27.5386 26.5034 25.8587 25.2535 24.5192 23.9586 0.6447
                                                                      0.6052
## 1612 BRIGHT 22.5803 22.0781 21.2259 20.7531 20.5822 20.3015 0.8522 0.4728
## 1613 BRIGHT 26.0707 25.5598 24.6779 24.2417 24.0915 23.9720 0.8819 0.4362
## 1614 FAINT 26.9862 27.3324 26.9252 26.4771 25.9931 26.0509 0.4072 0.4481
## 1615 FAINT 27.7459 27.9782 26.7151 26.1324 26.1160 25.4863 1.2631 0.5827
## 1616 BRIGHT 22.8318 21.3637 20.5607 20.0058 19.7940 19.5094 0.8030 0.5549
## 1617 BRIGHT 21.1363 20.4707 19.9883 19.7765 19.6777 19.6163
                                                              0.4824 0.2118
## 1618 BRIGHT 23.6404 23.2919 22.6028 22.3417 22.1708 22.0905
                                                             0.6891 0.2611
## 1619 FAINT 26.6502 26.0427 25.3706 25.1488 24.8730 24.4625 0.6721 0.2218
## 1620 BRIGHT 25.8589 25.2689 24.3913 23.6683 22.9798 22.6094
                                                             0.8776 0.7230
## 1621 FAINT 27.0936 26.6616 26.5719 26.0431 26.0308 25.8140 0.0897 0.5288
## 1622
        FAINT 28.3224 27.1952 27.0078 26.4829 26.3403 25.0405
                                                              0.1874 0.5249
## 1623
        FAINT 26.3847 26.2928 26.0215 25.9751 25.9078 25.0870
                                                              0.2713
                                                                      0.0464
## 1624
        FAINT 27.7444 28.3920 27.9766 26.9726 26.2543 26.3814
                                                              0.4154
        FAINT 28.4756 28.5484 27.3594 26.4624 25.9639 25.4747 1.1890 0.8970
## 1625
## 1626
        FAINT 30.0499 28.6162 27.5667 26.7488 26.1249 27.2433 1.0495 0.8179
        FAINT 26.4688 26.4729 26.1557 25.6984 25.5395 26.1141 0.3172 0.4573
## 1628
       FAINT 29.8768 28.1234 27.3120 26.2083 26.2559 25.4234 0.8114 1.1037
## 1629
        FAINT 27.4149 27.1453 26.6477 26.2558 25.7509 25.5154 0.4976 0.3919
## 1630
        FAINT 28.6847 27.9837 27.0638 26.4178 25.4503 25.2810
                                                              0.9199 0.6460
## 1631
        FAINT 26.2549 26.1157 25.6975 25.8738 25.4405 26.7159 0.4182 -0.1763
        FAINT 28.6849 28.8143 28.9069 26.7807 25.7296 25.4841 -0.0926 2.1262
## 1632
        FAINT 27.1656 27.2186 26.5935 26.5009 25.8507 26.1262 0.6251 0.0926
## 1634 FAINT 27.8789 27.7811 26.7732 26.5909 26.1299 28.8292 1.0079 0.1823
## 1635 BRIGHT 25.4886 25.1450 24.5726 24.0031 23.8250 23.6450 0.5724 0.5695
## 1636
        FAINT 30.9636 30.1373 28.2282 26.9811 26.3178 26.2027
                                                              1.9091
                                                                      1.2471
## 1637 BRIGHT 25.2228 25.0900 24.8270 24.4255 24.0786 23.6112
                                                              0.2630
## 1638
       FAINT 27.0538 26.3971 25.6498 25.4923 25.1206 25.3443 0.7473
        FAINT 26.1572 26.4707 25.7362 25.5876 25.1835 25.8635 0.7345 0.1486
## 1639
       FAINT 25.8419 25.8335 25.6522 25.2514 24.6829 24.2918 0.1813 0.4008
## 1641 BRIGHT 26.7604 25.6513 25.0731 24.8653 24.8517 24.5789 0.5782 0.2078
## 1642 FAINT 27.0611 26.9820 26.1400 25.6014 25.5554 25.2876 0.8420 0.5386
## 1643 BRIGHT 26.2723 25.7697 24.8899 23.9734 23.2990 22.9816
                                                              0.8798 0.9165
## 1644 FAINT 26.7576 26.7701 26.2211 25.8521 25.7580 25.0978
                                                              0.5490
                                                                      0.3690
## 1645 FAINT 25.8144 25.6390 25.5235 25.2250 25.0374 24.4871 0.1155
                                                                      0.2985
## 1646 BRIGHT 28.5352 27.4616 25.0887 23.9205 22.8718 22.1406 2.3729
## 1647 BRIGHT 30.4239 27.2844 25.6749 24.2168 23.4881 22.4588 1.6095
## 1648 BRIGHT 24.9041 23.4686 22.0408 21.4672 21.1153 20.8494 1.4278 0.5736
## 1649
       FAINT 29.5226 27.9192 27.1765 26.0826 25.3619 25.3862 0.7427
                                                                      1.0939
## 1650 BRIGHT 23.5353 22.5922 21.7809 21.5257 21.2847 21.2674
                                                              0.8113
## 1651 BRIGHT 25.9292 25.5818 24.8732 24.0348 23.8918 23.6240 0.7086
                                                                      0.8384
## 1652 BRIGHT 25.9123 25.1684 24.4218 23.8919 23.3380 22.9544 0.7466 0.5299
       FAINT 26.5405 26.2503 25.8099 25.3623 24.7586 24.5592 0.4404 0.4476
## 1654
       FAINT 27.4352 27.0799 27.2690 26.9793 27.1477 26.6312 -0.1891 0.2897
       FAINT 27.6187 27.0097 26.3808 25.9789 25.7320 26.3219 0.6289 0.4019
## 1655
## 1656 BRIGHT 26.1275 25.9901 25.0068 24.5648 24.3004 24.0816
                                                             0.9833 0.4420
       FAINT 27.6137 27.6931 26.7163 26.3236 25.8580 26.1522
                                                              0.9768
## 1657
                                                                      0.3927
## 1658 FAINT 27.3979 27.2299 26.7117 26.5892 25.8088 26.0058 0.5182
                                                                      0.1225
## 1659 BRIGHT 23.5885 22.8461 22.0503 21.8047 21.5384 21.4479 0.7958
                                                                      0.2456
## 1660 BRIGHT 26.5383 25.5022 24.7744 24.4456 24.2628 23.9761 0.7278
## 1661 FAINT 27.3051 26.6013 25.6115 25.2217 25.0600 25.2957 0.9898 0.3898
                                                             0.5221
## 1662
        FAINT 26.4046 26.1914 25.6693 25.1563 24.5546 24.4766
                                                                      0.5130
## 1663
        FAINT 30.0862 28.1270 26.9964 26.7974 26.6960 26.6259
                                                              1.1306
                                                                      0.1990
## 1664
        FAINT 27.5785 27.3786 26.3215 26.0339 25.9400 25.9495
                                                              1.0571
                                                                      0.2876
        FAINT 27.0597 26.6255 25.6865 25.0178 24.5171 24.3410 0.9390
## 1665
## 1666 BRIGHT 24.2936 23.7262 23.1882 22.9205 22.8188 22.7583 0.5380 0.2677
## 1667 BRIGHT 26.7673 26.1060 24.7839 24.2238 23.9822 23.7994 1.3221 0.5601
## 1668 FAINT 26.9916 26.5482 26.4303 25.6863 25.3957 25.0438 0.1179 0.7440
        FAINT 28.6507 27.9035 27.2270 26.8668 25.9675 25.5340
                                                              0.6765 0.3602
        FAINT 28.0004 26.8475 26.7702 26.4552 26.1919 25.3300
                                                              0.0773
## 1670
## 1671 BRIGHT 25.3137 25.4244 25.1061 24.6209 24.3242 23.9239 0.3183
                                                                     0.4852
## 1672 FAINT 29.2943 29.2599 27.9203 26.5547 26.1940 25.8377 1.3396 1.3656
## 1673 FAINT 26.5287 26.5161 25.8264 25.1910 24.7666 24.1692 0.6897 0.6354
## 1674 BRIGHT 25.8596 25.2704 24.5391 24.0975 24.0009 23.8922 0.7313 0.4416
## 1675
       FAINT 27.0786 26.5465 26.3371 26.1146 25.5487 25.0052 0.2094
                                                                      0.2225
  1676 BRIGHT 27.1307 25.7924 24.1524 22.9915 22.5762 22.2262 1.6400
## 1677 FAINT 28.2566 27.6029 27.7583 26.5684 26.0461 26.4079 -0.1554
## 1678 FAINT 27.4010 26.8619 26.0746 25.5900 24.9913 24.5563 0.7873 0.4846
```

```
## 1679 BRIGHT 27.1030 25.9004 24.9442 24.6717 24.4943 24.4964 0.9562 0.2725
## 1680 FAINT 27.8112 28.0929 26.9203 26.9316 26.3849 25.6430 1.1726 -0.0113
       FAINT 28.4900 29.5875 27.5539 26.4663 26.0937 26.8606 2.0336 1.0876
## 1681
        FAINT 27.7499 26.8243 26.7387 26.3786 25.5740 26.3572 0.0856 0.3601
## 1682
  1683 BRIGHT 27.1145 26.5000 25.6408 24.8737 24.6243 24.2129
                                                              0.8592
## 1684
       FAINT 27.0627 26.9064 26.9913 26.8171 26.5265 28.2726 -0.0849
                                                                      0.1742
        FAINT 28.3526 27.9045 27.2930 26.8733 26.4808 26.5835 0.6115 0.4197
## 1685
        FAINT 27.2626 27.1616 26.6254 26.4945 26.1787 25.3663 0.5362 0.1309
## 1687 BRIGHT 29.0110 26.1841 24.6919 24.0475 23.7223 23.4537 1.4922 0.6444
       FAINT 28.7109 27.8269 27.9648 26.8700 27.5431 26.7561 -0.1379 1.0948
## 1688
## 1689 BRIGHT 25.9031 25.3985 24.7431 24.6315 24.3534 24.5432
                                                             0.6554
                                                                      0.1116
## 1690
       FAINT 27.0515 26.5478 25.9050 25.6457 25.4389 25.2394 0.6428
                                                                      0.2593
## 1691 FAINT 28.7132 29.1046 27.5893 26.5130 26.6552 25.5467 1.5153 1.0763
## 1692 FAINT 29.9585 29.1956 27.6127 26.9440 26.7612 26.8393 1.5829 0.6687
        FAINT 29.7802 26.4064 25.8744 25.7653 25.6713 26.4551 0.5320 0.1091
## 1693
## 1694 FAINT 27.6534 26.8158 25.4790 25.0177 24.7684 24.6948 1.3368 0.4613
        FAINT 27.4765 26.6469 25.9238 25.6000 25.4447 25.2306 0.7231 0.3238
## 1695
## 1696 BRIGHT 23.7571 22.1921 20.6919 19.9896 19.6521 19.3608
                                                              1.5002
## 1697 FAINT 26.7688 26.7117 25.8724 25.4361 25.3896 25.2223 0.8393 0.4363
## 1698
       FAINT 27.7378 27.1338 27.1076 26.7100 27.2524 26.4026 0.0262 0.3976
       FAINT 27.5886 26.8929 25.7508 25.0629 24.9389 25.0489 1.1421 0.6879
## 1700 BRIGHT 22.6744 21.7534 20.7757 20.4754 20.2217 20.1440 0.9777 0.3003
## 1701 FAINT 26.7281 26.3448 25.7488 25.6698 25.5069 25.1204 0.5960
                                                                      0.0790
  1702 BRIGHT 27.1866 26.7169 25.7995 24.8364 24.6291 24.3451
                                                              0.9174
                                                                      0.9631
## 1703 BRIGHT 23.2302 22.1864 20.9768 20.5287 20.2629 20.1222 1.2096
## 1704
       FAINT 26.8633 26.7813 25.9474 25.2033 24.4923 23.9461 0.8339
                                                                     0.7441
## 1705
       FAINT 28.3584 28.0108 27.2999 26.5004 26.1439 25.5976 0.7109 0.7995
        FAINT 28.2257 28.5219 27.6888 25.6460 24.7784 23.9427 0.8331 2.0428
## 1707
        FAINT 27.2501 27.9725 27.0398 26.2067 25.7663 25.4676 0.9327 0.8331
## 1708
        FAINT 26.7008 27.6713 26.8757 26.8263 26.6481 26.2503 0.7956 0.0494
## 1709
        FAINT 28.3956 27.6111 26.6799 26.4113 26.7822 26.0636
                                                              0.9312
## 1710 FAINT 29.5911 28.2868 27.9716 26.7266 26.4559 26.7662 0.3152 1.2450
## 1711 BRIGHT 24.6993 23.9574 23.1218 22.4690 22.3309 22.2222 0.8356 0.6528
## 1712 FAINT 26.3675 26.1974 25.9663 25.7499 25.4209 24.9521 0.2311 0.2164
## 1713 BRIGHT 25.1256 24.6402 24.0862 23.9380 23.7893 23.7007 0.5540 0.1482
## 1714 FAINT 27.3421 27.4444 26.8413 26.2945 25.4335 25.6222 0.6031 0.5468
## 1715 BRIGHT 27.8422 27.6183 26.0821 24.9774 24.5181 24.0239
                                                              1.5362
                                                                      1.1047
## 1716 BRIGHT 24.0204 23.4581 22.2477 21.7218 21.4045 20.9874
                                                              1.2104
       FAINT 27.3487 26.9394 26.7606 26.6955 27.0283 26.2249 0.1788
## 1717
                                                                      0.0651
## 1718 FAINT 28.2531 28.4509 26.8716 25.8454 25.3076 24.8898 1.5793 1.0262
## 1719 BRIGHT 24.5668 23.7643 22.8899 22.2811 22.1428 21.9773 0.8744 0.6088
## 1720 FAINT 25.9605 25.9034 25.9139 25.8265 25.6177 25.1494 -0.0105 0.0874
## 1721 BRIGHT 22.9915 22.2584 21.9472 21.7004 21.7008 21.5818 0.3112 0.2468
## 1722 BRIGHT 23.5121 23.2676 22.5940 21.8031 21.0569 20.6409
                                                              0.6736 0.7909
## 1723 BRIGHT 24.8578 23.9164 22.9897 22.6958 22.4264 22.3532
                                                             0.9267
                                                                      0.2939
## 1724 BRIGHT 21.4265 20.7603 19.9376 19.7082 19.4221 19.3629 0.8227 0.2294
## 1725 BRIGHT 25.5277 24.4924 23.1701 22.6231 22.3117 22.1076 1.3223 0.5470
## 1726
       FAINT 27.8346 27.7681 27.6365 26.8914 26.9309 26.0012 0.1316 0.7451
## 1727
        FAINT 30.1856 27.1625 27.2861 26.6631 26.6766 27.0978 -0.1236 0.6230
## 1728
        FAINT 28.4511 28.2173 27.3744 26.2744 25.5012 25.1970 0.8429
                                                                      1.1000
## 1729 BRIGHT 26.1707 24.6701 23.1698 22.2116 21.9008 21.6454
                                                              1.5003
## 1730 BRIGHT 25.6734 25.5025 25.1555 24.6064 24.1236 23.9583 0.3470 0.5491
## 1731 BRIGHT 25.9325 25.1614 24.0662 23.0567 22.7032 22.3687 1.0952 1.0095
## 1732 FAINT 28.9047 27.9533 27.4846 26.9594 26.2553 26.0701 0.4687 0.5252
## 1733 FAINT 26.8288 26.3024 25.5715 25.4227 25.4114 25.2667 0.7309 0.1488
## 1734 BRIGHT 25.7777 25.4986 25.1797 24.7824 24.0372 23.7781 0.3189 0.3973
## 1735
       FAINT 27.9095 26.6925 26.2673 26.3658 25.7161 26.4637 0.4252 -0.0985
## 1736
        FAINT 26.4834 26.9347 26.5960 26.6684 26.8362 26.2417
                                                              0.3387 -0.0724
        FAINT 29.6938 29.0110 27.8627 26.5570 26.0383 26.1254 1.1483 1.3057
## 1737
       FAINT 28.3794 27.1559 26.3472 25.5001 24.9196 25.0420 0.8087 0.8471
## 1738
## 1739 BRIGHT 27.3627 25.9020 24.1341 22.9448 22.2176 21.9053 1.7679 1.1893
## 1740 FAINT 26.6318 26.5780 26.4940 26.1415 25.8265 25.6711 0.0840 0.3525
                                                              0.4633 0.3523
## 1741 BRIGHT 26.1857 25.1266 24.6633 24.3110 24.3051 24.2208
## 1742 BRIGHT 26.9697 26.7252 24.7234 23.6176 22.7566 22.4190
                                                              2.0018
## 1743 BRIGHT 25.1070 23.4987 22.2319 21.7440 21.4574 21.2583
                                                              1.2668
                                                                      0.4879
## 1744 FAINT 26.5871 26.7559 25.7326 25.0814 24.7863 24.3018 1.0233 0.6512
       FAINT 29.7822 27.8467 26.2461 25.2297 24.4071 23.5370 1.6006 1.0164
## 1746
       FAINT 25.7680 25.6664 25.4220 25.0547 24.7146 24.1856 0.2444 0.3673
## 1747 BRIGHT 25.1054 24.7451 24.0188 23.7231 23.5887 23.2900 0.7263 0.2957
## 1748 FAINT 25.3090 25.1777 25.0552 25.1456 24.9799 24.7136 0.1225 -0.0904
        FAINT 27.1848 27.3501 27.1958 26.6625 26.0748 26.1636
                                                              0.1543 0.5333
## 1749
## 1750 BRIGHT 22.9802 22.1605 21.5181 21.2481 21.1311 21.0603 0.6424 0.2700
## 1751 BRIGHT 29.5113 27.3391 25.5680 24.5183 23.4772 22.9119 1.7711 1.0497
## 1752 FAINT 32.2899 29.3867 27.8099 26.8592 26.0537 26.4163 1.5768 0.9507
## 1753 BRIGHT 24.7308 23.9022 22.6750 21.7356 21.3770 21.0575 1.2272 0.9394
## 1754 FAINT 26.2962 26.2395 25.6346 25.1549 25.0559 24.7381 0.6049
                                                                      0.4797
        FAINT 28.0399 27.5231 26.7835 26.4404 26.8793 26.2323
                                                              0.7396
                                                                     0.3431
## 1756 BRIGHT 25.5410 24.8252 23.8623 23.0715 22.8027 22.5758
                                                              0.9629
## 1757 FAINT 27.2710 26.8459 26.2057 25.4715 25.1839 24.8837 0.6402 0.7342
```

```
## 1758 FAINT 27.1771 27.2547 26.6997 26.0507 25.2654 24.5948 0.5550 0.6490
       FAINT 28.3254 27.1444 27.0039 26.4257 26.2104 25.5394 0.1405 0.5782
       FAINT 28.2305 27.5247 26.7877 26.1069 25.7708 27.4268 0.7370 0.6808
## 1760
        FAINT 26.8700 27.0206 25.9534 25.2055 24.6953 24.6417
## 1761
                                                              1.0672 0.7479
## 1762 BRIGHT 26.7488 26.6317 25.4326 24.4576 24.0634 23.8511
                                                              1.1991
## 1763
       FAINT 26.4223 26.1906 25.6510 25.1713 24.6679 23.8813
                                                              0.5396
                                                                      0.4797
        FAINT 29.2080 26.7630 26.2551 25.1545 24.5110 23.5015 0.5079
## 1764
                                                                      1.1006
        FAINT 28.2172 27.5354 26.6192 25.9120 25.6964 25.5029
## 1766
       FAINT 27.2014 26.9668 26.7481 26.3139 25.5640 25.9524 0.2187
                                                                      0.4342
## 1767 BRIGHT 27.3625 26.3757 24.7019 23.5274 22.9215 22.5713 1.6738
                                                                      1 1745
        FAINT 28.5938 28.4344 28.3280 26.9567 27.3414 26.1092
                                                              0 1064
                                                                      1 3713
## 1769
        FAINT 26.2480 26.0782 25.8624 25.8181 25.8316 25.3267
                                                              0.2158
                                                                      0.0443
## 1770 BRIGHT 26.3913 25.5543 24.1899 23.7259 23.3478 23.2675 1.3644
## 1771 FAINT 28.4200 29.7661 27.8352 26.8448 26.1442 25.7938 1.9309 0.9904
## 1772 BRIGHT 25.6348 25.5335 25.0433 24.6623 23.9808 23.6394 0.4902 0.3810
## 1773 FAINT 26.4166 26.5036 25.9401 25.4880 25.4173 25.4558 0.5635 0.4521
## 1774 FAINT 26.7232 26.8847 26.7293 26.0805 25.7725 25.0955
                                                             0.1554 0.6488
## 1775 BRIGHT 25.2793 25.0494 24.5602 24.3296 24.2552 24.1403
                                                              0.4892
## 1776 BRIGHT 27.3626 26.7908 25.1273 23.9694 23.0565 22.3283 1.6635
                                                                      1.1579
## 1777 BRIGHT 26.7068 26.2921 25.6334 24.9551 24.7638 24.5286 0.6587
                                                                      0.6783
       FAINT 28.1326 28.6743 27.4580 26.7962 26.2815 25.1183 1.2163
## 1779
       FAINT 26.5028 26.1994 25.3905 25.1497 25.0160 24.8775 0.8089
## 1780
       FAINT 27.7052 27.8089 27.2410 26.6636 25.7758 25.0152 0.5679
                                                                      0.5774
##
  1781 BRIGHT 26.4650 25.6821 25.0182 24.7543 24.6937 24.2685
                                                              0.6639
                                                                      0.2639
        FAINT 27.2944 26.9799 27.1373 26.5414 26.7417 26.2101 -0.1574
## 1782
                                                                      0.5959
        FAINT 26.9571 26.7063 25.8328 25.2666 25.1919 25.1529 0.8735 0.5662
## 1783
## 1784
        FAINT 28.1121 26.6219 26.0079 25.6091 25.5310 25.5674 0.6140 0.3988
        FAINT 25.3035 25.7176 25.7546 25.8383 25.9774 25.5483 -0.0370 -0.0837
## 1786
       FAINT 26.8674 26.4367 26.0663 25.9329 25.3935 25.3906 0.3704 0.1334
## 1787 BRIGHT 29.4327 24.8673 23.1172 21.7780 21.2398 20.8499 1.7501 1.3392
## 1788
       FAINT 28.5472 28.0343 27.1754 26.2569 25.3630 24.8072
                                                              0.8589 0.9185
## 1789
        FAINT 30.0277 27.4656 26.9520 26.7563 26.5984 27.8813 0.5136 0.1957
       FAINT 28.5808 27.7329 26.3579 25.9162 25.6279 25.6836 1.3750 0.4417
## 1790
## 1791
        FAINT 26.1568 26.3971 26.2479 26.1467 25.8839 25.5501 0.1492 0.1012
## 1792
        FAINT 27.7440 28.6449 28.0104 26.9558 26.6164 26.5568 0.6345
## 1793
        FAINT 26.2138 26.1397 25.9374 25.3903 25.2280 25.1529 0.2023
                                                                      0.5471
## 1794
        FAINT 28.3196 28.2546 27.1562 26.7813 26.3951 25.4245
                                                             1.0984
                                                                      0.3749
        FAINT 29.4215 26.7735 25.9080 25.4256 24.6872 24.3139
                                                              0.8655
## 1795
## 1796 BRIGHT 26.7299 26.2303 25.1933 24.1123 23.7109 23.6483 1.0370
                                                                      1.0810
## 1797 BRIGHT 26.0515 25.7862 25.2145 24.5587 24.0872 24.0108 0.5717 0.6558
       FAINT 27.6353 26.8292 26.0476 25.6470 25.0891 24.6549 0.7816 0.4006
## 1799
        FAINT 27.1514 27.5773 27.2712 26.8335 27.1827 25.5011 0.3061 0.4377
## 1800 BRIGHT 24.7328 24.0860 23.3669 23.2205 23.0639 23.0867 0.7191 0.1464
## 1801
       FAINT 26.1341 25.8511 25.9266 25.8695 26.4220 26.8375 -0.0755 0.0571
## 1802
        FAINT 28.4832 28.3897 26.1796 25.1198 24.3150 23.8491 2.2101
                                                                      1.0598
## 1803 BRIGHT 26.2890 25.7859 24.8093 24.2680 24.0471 23.9046 0.9766 0.5413
       FAINT 27.1421 26.7640 26.0313 25.8298 25.5292 25.6321 0.7327
                                                                     0.2015
## 1805
        FAINT 29.6223 27.0421 25.9009 25.2289 25.2921 24.7619 1.1412 0.6720
## 1806
       FAINT 27.5037 27.2274 26.8484 26.4068 26.2083 25.4951 0.3790 0.4416
## 1807 BRIGHT 26.3110 25.8251 25.0867 24.7817 24.5608 24.4421 0.7384
                                                                      0.3050
## 1808 BRIGHT 26.1374 25.8882 25.3560 24.6214 24.2408 24.1612
                                                              0.5322
## 1809 BRIGHT 23.5416 23.1693 22.4493 21.9201 21.8280 21.7160 0.7200 0.5292
## 1810 FAINT 26.8179 26.3165 26.2362 25.8332 25.2697 25.3175 0.0803 0.4030
## 1811 FAINT 27.2224 26.9642 26.5129 26.3380 26.6850 25.6202 0.4513 0.1749
## 1812 FAINT 29.3111 27.8003 27.2709 26.4618 25.7603 26.1058 0.5294 0.8091
## 1813 FAINT 27.7092 27.4213 26.8196 26.2550 26.2496 26.0100 0.6017 0.5646
## 1814 BRIGHT 26.0956 25.7273 24.9765 24.3443 24.2317 23.9291 0.7508 0.6322
## 1815 BRIGHT 23.9660 23.5923 22.9390 22.3384 22.1784 22.0076
                                                              0.6533
                                                                      0.6006
## 1816 FAINT 29.1696 28.4290 28.0389 26.7441 26.4809 26.4281 0.3901 1.2948
## 1817 BRIGHT 27.8697 26.8245 25.9504 24.9383 24.6726 24.4441 0.8741 1.0121
## 1818 BRIGHT 25.7282 25.1141 24.1389 23.5186 23.3438 23.1207 0.9752 0.6203
## 1819 FAINT 27.1928 26.5631 25.5649 25.2731 25.1494 24.9041 0.9982 0.2918
        FAINT 28.9796 27.1653 26.9017 26.9956 26.7499 25.8312 0.2636 -0.0939
## 1820
## 1821
        FAINT 27.4880 28.5305 27.0497 26.4199 26.4115 26.5689
                                                              1.4808 0.6298
## 1822 BRIGHT 27.6217 27.0065 25.4986 24.4071 23.9579 23.6351 1.5079
                                                                      1.0915
## 1823
       FAINT 29.1365 28.0217 27.1248 26.3523 26.2834 25.3915 0.8969 0.7725
        FAINT 27.3385 26.7924 26.1650 25.6649 25.4607 25.1161 0.6274 0.5001
## 1825 FAINT 27.7698 32.0061 27.8756 26.9417 26.9115 25.9964 4.1305 0.9339
## 1826 BRIGHT 26.1136 25.8107 25.2267 24.3869 23.7608 23.3849 0.5840 0.8398
## 1827 BRIGHT 25.0249 24.8752 24.3727 23.7446 23.4671 23.2855
                                                             0.5025 0.6281
## 1828 BRIGHT 24.4277 24.0711 23.2274 22.6386 22.4543 22.2921
                                                              0.8437
## 1829 BRIGHT 24.1374 22.1437 20.5673 19.9751 19.6583 19.4766 1.5764 0.5922
## 1830 FAINT 27.5657 27.2199 26.6998 26.0883 25.7923 25.7952 0.5201 0.6115
## 1831 FAINT 27.4719 27.1600 26.3151 26.2460 25.9342 26.0535 0.8449 0.0691
## 1832 BRIGHT 26.5067 25.9635 24.9517 24.2892 23.4733 23.0963 1.0118 0.6625
       FAINT 27.5951 26.4733 25.7698 25.3121 24.6554 24.0974 0.7035
## 1833
                                                                      0.4577
        FAINT 28.7955 27.8677 27.1599 26.7499 26.9575 26.4087
                                                              0.7078
## 1835 BRIGHT 25.5936 25.2504 24.3342 23.3444 22.8017 22.5201 0.9162
                                                                      0.9898
## 1836 FAINT 28.4414 26.8200 26.1112 25.2941 24.6515 24.8722 0.7088 0.8171
```

```
FAINT 28.8656 29.2612 27.8579 26.4999 25.5586 25.4304 1.4033 1.3580
        FAINT 29.8618 27.4440 26.6642 25.7736 25.4584 25.1025 0.7798 0.8906
        FAINT 27.1416 27.2484 26.8078 26.1611 25.8044 25.0454 0.4406 0.6467
## 1839
        FAINT 26.6245 26.4638 26.2275 25.9023 25.4926 25.2662 0.2363
## 1840
                                                                      0.3252
## 1841
        FAINT 27.3956 27.8387 26.7605 26.1849 26.6703 25.5685
                                                              1.0782
## 1842
        FAINT 28.9754 28.1504 26.4098 25.4379 24.4953 23.9023
                                                              1.7406
                                                                      0.9719
## 1843 BRIGHT 23.9095 23.0164 21.9142 21.0263 20.7622 20.5322 1.1022
## 1844 BRIGHT 23.6988 23.6742 23.6549 23.3779 23.1600 22.9516
## 1845
       FAINT 27.6950 27.9889 27.7901 26.9763 26.6869 26.5973 0.1988
## 1846 BRIGHT 26.8322 26.0367 25.2606 24.7893 24.6147 24.7201 0.7761
                                                                      0 4713
## 1847 BRIGHT 26.5083 26.5176 25.6136 24.7671 23.8888 23.2779
                                                              0.9040
## 1848
       FAINT 27.9486 26.8605 26.1318 25.9427 25.8825 25.0277
                                                              0.7287
                                                                      0.1891
## 1849 FAINT 27.8311 27.2473 26.3728 25.7019 24.8779 24.3652 0.8745 0.6709
## 1850 BRIGHT 23.8862 23.8703 23.7813 23.7384 23.5599 23.2423 0.0890 0.0429
## 1851 BRIGHT 25.8210 24.6989 23.1828 22.3001 21.9696 21.7059 1.5161 0.8827
       FAINT 28.6241 28.4547 27.5866 26.4978 26.4764 26.1993 0.8681 1.0888
## 1852
        FAINT 26.9564 25.9835 25.5325 25.4406 25.3660 25.2729 0.4510 0.0919
## 1853
## 1854
        FAINT 25.9443 25.8430 25.8402 25.6235 25.3291 25.1618
                                                              0.0028
## 1855
        FAINT 26.6432 26.5165 26.4466 26.4272 26.1284 25.9174 0.0699
                                                                      0.0194
## 1856
        FAINT 28.0359 27.6120 27.1034 26.4213 25.6692 25.4162 0.5086 0.6821
## 1857
        FAINT 26.7343 26.9644 26.7326 26.7461 26.9012 25.9679 0.2318 -0.0135
## 1858
        FAINT 27.4533 27.2072 26.0088 25.7062 25.7089 26.3157 1.1984 0.3026
## 1859
        FAINT 28.2837 28.2996 27.3166 26.1556 25.3297 24.6515
                                                              0.9830 1.1610
##
  1860 BRIGHT 33.5355 26.5303 24.9271 23.7639 23.1244 22.7792
                                                              1.6032
                                                                      1.1632
## 1861 FAINT 29.7215 28.7737 27.9055 26.7710 26.0397 25.5478
                                                              0.8682
## 1862 BRIGHT 25.1756 24.5291 24.0223 23.8661 23.6853 23.6123 0.5068 0.1562
## 1863
       FAINT 27.5335 26.4883 26.0558 25.7646 25.7342 25.6681 0.4325 0.2912
        FAINT 27.2448 26.8800 26.7012 26.5546 25.8819 25.6466 0.1788 0.1466
## 1865
       FAINT 30.1723 27.3522 26.9852 26.7483 26.1138 25.6189 0.3670 0.2369
## 1866
        FAINT 26.0937 26.4003 26.1994 26.6510 26.3206 25.8234 0.2009 -0.4516
## 1867
        FAINT 27.0139 26.8742 26.4731 26.0297 25.5729 25.9926
                                                              0.4011 0.4434
## 1868
        FAINT 27.7215 27.2296 26.9638 26.4902 26.1517 25.4481 0.2658 0.4736
## 1869
        FAINT 26.7360 27.9538 26.6539 26.3633 26.2053 25.9862 1.2999 0.2906
       FAINT 27.3204 26.9114 26.2724 25.8188 25.3826 24.8446
                                                             0.6390 0.4536
## 1871
       FAINT 28.0399 28.3954 27.4562 26.7425 26.3317 26.4587 0.9392 0.7137
## 1872
       FAINT 27.4101 26.5569 25.8002 25.1755 25.1042 24.7137
                                                              0.7567
                                                                      0.6247
## 1873 BRIGHT 22.0813 20.5969 19.8292 19.4560 19.2409 19.0742
                                                              0.7677
                                                                      0.3732
        FAINT 29.7853 27.6803 26.8662 26.2208 26.0497 25.2857
                                                              0.8141
## 1874
        FAINT 27.2464 26.7570 25.7093 25.4427 25.3285 24.9792 1.0477
## 1875
                                                                      0.2666
        FAINT 26.9412 26.4924 25.5884 25.3389 25.2477 24.9493 0.9040 0.2495
## 1876
        FAINT 27.6373 27.3801 26.2954 26.1564 25.7906 25.2799 1.0847 0.1390
## 1878
       FAINT 32.6125 28.2929 28.0277 26.8971 27.2986 27.3471 0.2652 1.1306
## 1879
        FAINT 26.0642 25.6569 25.2014 25.2020 24.9439 25.3162 0.4555 -0.0006
## 1880
        FAINT 28.6077 27.9750 27.0688 26.6315 26.3465 25.1599
                                                              0.9062 0.4373
## 1881
        FAINT 28.2618 27.8091 26.7194 26.4443 26.0354 25.6211
                                                              1.0897
                                                                      0.2751
## 1882 BRIGHT 26.2391 25.8386 25.2044 24.7944 24.7554 24.3937 0.6342 0.4100
       FAINT 27.0681 27.0130 26.6614 26.0777 25.5809 25.0847 0.3516 0.5837
## 1884
        FAINT 30.4210 27.5194 26.8222 26.5205 26.7355 26.2567 0.6972 0.3017
## 1885
       FAINT 28.7940 29.0596 27.6416 26.7417 25.9722 25.8253 1.4180 0.8999
## 1886 BRIGHT 26.2653 25.6947 25.0861 24.8784 24.7821 24.7413
                                                              0.6086
                                                                      0.2077
        FAINT 29.6927 28.1327 27.3691 25.8181 25.1275 24.2129
                                                              0.7636
## 1887
## 1888 BRIGHT 26.9488 26.2655 25.4054 24.7684 24.5316 24.4234 0.8601
                                                                      0.6370
       FAINT 26.4430 26.2017 25.8038 25.2321 24.8828 23.9907 0.3979 0.5717
## 1890 BRIGHT 24.9791 24.6936 24.1665 23.7730 23.2179 22.7933 0.5271 0.3935
## 1891 BRIGHT 23.8008 23.5060 23.4307 23.3306 23.5230 23.4409 0.0753 0.1001
## 1892 FAINT 27.5201 27.6095 27.1119 26.6427 26.2932 25.9954 0.4976 0.4692
## 1893 BRIGHT 25.7632 25.4931 24.9599 24.4139 23.7642 23.2333
                                                              0.5332 0.5460
## 1894 BRIGHT 25.6831 25.2543 24.2265 23.7263 23.5741 23.3221
                                                              1.0278
                                                                      0.5002
## 1895 BRIGHT 25.7425 25.5275 24.6942 24.4057 24.1204 24.0338 0.8333 0.2885
## 1896 FAINT 27.4857 26.9124 26.2340 25.9680 25.6207 25.3715 0.6784 0.2660
## 1897 BRIGHT 26.5942 26.1787 25.4826 24.6405 23.8949 23.5531 0.6961 0.8421
## 1898 BRIGHT 27.9774 27.0702 24.8706 23.7695 22.8641 22.3975 2.1996 1.1011
        FAINT 29.1551 28.0467 27.0104 26.8208 26.6171 28.2939
## 1899
                                                              1.0363
                                                                      0.1896
## 1900
        FAINT 31.1120 28.6822 26.9168 25.6932 24.8444 24.1680
                                                              1.7654
## 1901
        FAINT 27.5022 27.3056 26.5329 25.9313 25.5706 25.4253 0.7727
                                                                      0.6016
## 1902 BRIGHT 24.5100 23.9970 23.1650 22.4986 22.3288 22.1648 0.8320 0.6664
       FAINT 27.4099 26.8583 26.0924 25.6778 25.4983 25.4746 0.7659 0.4146
## 1904
       FAINT 26.5483 26.6043 26.6985 26.7126 27.3769 28.8090 -0.0942 -0.0141
## 1905 BRIGHT 25.0787 24.2433 23.6077 23.3157 23.2007 23.1312 0.6356 0.2920
## 1906
       FAINT 28.2219 27.7327 27.1351 26.9237 25.9489 25.7060
                                                              0.5976 0.2114
        FAINT 27.6995 27.7732 27.3600 26.7087 27.1425 28.0874
                                                              0.4132
## 1907
                                                                      0.6513
        FAINT 26.4550 26.5890 26.3994 26.0147 25.6546 25.6019 0.1896
## 1908
                                                                      0.3847
        FAINT 27.3812 28.1610 26.9746 26.6057 26.7058 25.6268 1.1864 0.3689
## 1909
        FAINT 27.2185 26.9778 26.0588 25.7173 25.3337 25.3825 0.9190 0.3415
## 1911
        FAINT 27.6100 27.4617 26.3814 26.0599 25.9649 25.5756 1.0803 0.3215
        FAINT 29.6028 30.3515 28.4442 26.4630 25.8874 25.1989
## 1912
                                                              1.9073
                                                                      1.9812
  1913 BRIGHT 24.2475 23.9739 23.4223 22.7733 21.9753 21.5728
                                                              0.5516
## 1914 FAINT 28.2274 28.2862 27.1872 26.4046 25.6060 25.0190
                                                              1.0990
                                                                      0.7826
## 1915 FAINT 27.7194 26.9919 26.0622 25.6296 24.7183 24.7680 0.9297 0.4326
```

```
## 1916 FAINT 28.0117 29.3536 27.4049 26.9485 25.5305 24.5022 1.9487 0.4564
        FAINT 26.8029 27.2933 26.7688 26.5372 26.5299 25.7533 0.5245 0.2316
## 1918
       FAINT 28.5676 27.9675 26.9081 26.3802 26.0538 25.2130 1.0594 0.5279
        FAINT 28.4035 27.6894 26.7587 25.9832 25.8643 25.4065
                                                             0.9307
## 1919
                                                                      0.7755
## 1920 BRIGHT 26.6791 26.4855 25.4054 24.9367 24.6853 24.3993
                                                              1.0801
## 1921 FAINT 27.7027 27.9111 27.0384 26.1716 25.4789 25.0994
                                                              0.8727
                                                                      0.8668
## 1922 BRIGHT 28.2777 26.4821 25.8355 24.9932 24.4285 24.1667 0.6466 0.8423
       FAINT 29.4357 28.2793 27.2525 26.7726 26.3112 26.1113 1.0268
## 1924
        FAINT 26.4675 26.0064 25.3502 25.1944 25.1126 25.1330 0.6562
                                                                      0.1558
## 1925
        FAINT 27.7107 28.0041 27.1102 26.5142 26.2907 26.1221 0.8939
                                                                      0 5960
## 1926
        FAINT 31.4949 26.6263 25.8970 25.3224 24.5041 23.9082
                                                              0 7293
## 1927 BRIGHT 25.5387 24.8655 23.9331 23.3798 23.1941 22.9785
                                                             0.9324
                                                                      0.5533
## 1928 BRIGHT 26.3885 25.2877 24.6964 24.3750 24.2989 24.0185 0.5913 0.3214
## 1929 FAINT 26.7261 26.3804 26.2678 26.0155 25.9657 25.4581 0.1126 0.2523
## 1930 FAINT 30.0354 27.8609 26.1996 25.3387 24.9724 24.5474 1.6613 0.8609
## 1931 BRIGHT 25.6997 25.3530 24.8285 24.1071 23.6776 23.5168 0.5245 0.7214
## 1932 BRIGHT 26.5880 26.1829 25.5480 24.9524 24.7912 24.6369 0.6349 0.5956
## 1933 BRIGHT 25.1965 24.4414 23.3650 23.0461 22.8449 22.6486
                                                              1.0764 0.3189
## 1934 BRIGHT 26.5176 26.4196 25.5305 24.7934 24.3653 24.0778 0.8891 0.7371
## 1935 BRIGHT 25.3129 24.5159 24.1418 23.9569 23.9166 23.8715 0.3741 0.1849
## 1936 BRIGHT 24.0458 23.1934 22.5787 22.2596 22.1674 22.0355
                                                             0.6147 0.3191
## 1937 BRIGHT 24.7579 24.3530 23.5858 23.3290 23.1926 23.0609 0.7672 0.2568
## 1938
       FAINT 25.9028 25.8449 25.5511 25.3132 24.9507 24.6878 0.2938
                                                                      0.2379
## 1939
        FAINT 27.4004 27.2141 26.9475 26.4244 26.1232 25.1356
                                                              0.2666
                                                                      0.5231
## 1940
        FAINT 28.2118 26.9665 26.5221 25.8718 25.4280 25.5353
                                                              0.4444
                                                                      0.6503
        FAINT 27.8184 27.9511 27.7369 26.7866 26.6321 26.5700 0.2142 0.9503
## 1941
## 1942
       FAINT 26.2877 26.0378 25.5919 25.0169 24.4566 24.1753 0.4459 0.5750
## 1943 BRIGHT 26.6137 26.1243 24.1583 23.0944 22.0968 21.4728 1.9660 1.0639
## 1944 BRIGHT 24.8956 23.9418 23.3676 23.1011 23.0376 22.9631 0.5742 0.2665
## 1945 BRIGHT 23.8595 23.9306 23.8091 23.8631 23.9455 24.0894 0.1215 -0.0540
## 1946
        FAINT 31.4074 27.5963 27.1300 26.9113 26.4323 26.1868
                                                             0.4663 0.2187
## 1947
        FAINT 27.0869 26.3846 25.8623 25.3673 25.2434 25.2695 0.5223 0.4950
        FAINT 29.2278 28.0288 26.8025 26.2477 25.3908 24.6295 1.2263 0.5548
## 1948
       FAINT 26.9511 27.2281 26.8953 26.5202 26.1076 25.7984 0.3328 0.3751
## 1950 BRIGHT 24.9472 24.1369 23.3450 23.1980 22.9139 22.9781 0.7919 0.1470
## 1951 FAINT 29.4569 28.0404 27.2333 26.6499 26.7185 26.2236 0.8071
                                                                      0.5834
## 1952
        FAINT 26.7779 26.4721 25.8274 25.0695 24.5970 24.2978 0.6447
                                                                      0.7579
## 1953 BRIGHT 25.0670 22.9449 21.3593 20.6874 20.3492 20.1506
                                                              1.5856
       FAINT 26.8303 27.0274 26.6709 26.2382 25.8021 25.4143 0.3565
## 1954
        FAINT 25.5430 25.2826 25.2450 25.0364 24.6978 24.4091 0.0376 0.2086
## 1955
        FAINT 26.8213 26.5017 25.9349 25.6312 24.8430 24.4621 0.5668 0.3037
## 1957 BRIGHT 26.7141 25.3256 23.5974 22.3678 21.7304 21.3945 1.7282 1.2296
## 1958 FAINT 31.3138 30.3469 28.0706 26.6927 25.9168 25.3806 2.2763 1.3779
## 1959 BRIGHT 23.0088 21.5140 20.6995 20.2463 19.9899 19.7834
                                                              0.8145 0.4532
## 1960 BRIGHT 22.7827 22.2198 21.6508 21.4222 21.2364 21.1502 0.5690
                                                                      0.2286
## 1961 BRIGHT 24.3287 24.0954 23.5379 23.1111 23.0597 22.9231 0.5575
                                                                      0.4268
## 1962 BRIGHT 27.6828 26.3168 25.0383 24.0246 23.6595 23.2898 1.2785 1.0137
       FAINT 27.3310 26.5610 25.5943 25.4010 25.2547 24.9507 0.9667
## 1964 BRIGHT 26.6348 26.2389 25.3209 24.6627 24.3602 24.1096 0.9180
                                                                      0.6582
## 1965 BRIGHT 25.5767 25.0043 23.9825 23.0422 22.4048 22.1297 1.0218
                                                                      0.9403
       FAINT 27.6189 27.3406 26.0145 25.4808 25.3716 25.1975
## 1966
                                                              1.3261
## 1967 BRIGHT 28.7271 26.3106 24.7137 23.7661 23.3934 23.1154 1.5969
## 1968 FAINT 28.1247 28.3339 27.8938 26.8937 26.9281 26.0301 0.4401 1.0001
## 1969 BRIGHT 28.4387 28.3237 25.9763 24.8167 23.7352 23.0606 2.3474 1.1596
## 1970 BRIGHT 24.1858 22.0232 20.3907 19.5766 19.1923 18.9443 1.6325 0.8141
## 1971 FAINT 28.8543 28.9588 27.7025 26.9773 26.0595 25.7339 1.2563 0.7252
## 1972
        FAINT 25.6333 25.7081 25.6192 25.8707 25.6908 27.6428 0.0889 -0.2515
## 1973
        FAINT 26.6147 26.6958 26.3932 26.6829 27.0849 27.3669
                                                              0.3026 -0.2897
        FAINT 29.4115 27.7852 27.6384 26.6674 27.0481 27.6760 0.1468 0.9710
## 1974
        FAINT 27.8050 26.7650 25.8506 25.6687 25.2718 25.3594 0.9144 0.1819
## 1975
        FAINT 27.4523 28.6046 27.3666 26.7234 26.5334 26.2606 1.2380 0.6432
## 1976
## 1977 BRIGHT 21.6796 20.8307 20.2080 19.8987 19.7643 19.6314 0.6227 0.3093
        FAINT 26.5746 26.1812 26.2591 26.1232 25.9533 26.8472 -0.0779
## 1978
                                                                      0.1359
## 1979
        FAINT 29.6568 27.2956 25.9207 25.0157 24.6130 24.3374
                                                             1.3749
## 1980
        FAINT 27.7046 27.5642 26.4346 25.6954 24.8766 24.4934 1.1296
                                                                      0.7392
## 1981
        FAINT 28.4254 27.0119 26.2921 26.2894 25.9254 25.7356 0.7198 0.0027
        FAINT 30.9680 27.8098 26.7977 26.2970 25.7899 25.7752 1.0121 0.5007
## 1983
        FAINT 27.1037 27.3418 26.9984 26.6974 26.5361 26.0185 0.3434 0.3010
## 1984
        FAINT 26.6525 26.5312 25.7481 25.6340 25.4360 25.6896 0.7831 0.1141
## 1985
        FAINT 26.0192 25.6551 25.3760 25.1228 24.7962 24.3470
                                                              0.2791 0.2532
        FAINT 26.6571 26.1086 25.3240 25.2471 25.0929 24.7865
                                                              0.7846
## 1986
        FAINT 27.8178 27.6494 27.2209 26.4184 26.7423 26.7506 0.4285
## 1987
                                                                      0.8025
## 1988 BRIGHT 24.8989 22.8297 21.2118 20.0455 19.6235 19.2732 1.6179
                                                                      1.1663
        FAINT 27.8553 28.3500 27.2915 26.4748 26.2583 25.8504 1.0585 0.8167
## 1990
        FAINT 28.2948 28.5584 27.2047 26.8102 26.2431 25.2914 1.3537 0.3945
## 1991
        FAINT 28.9863 27.9491 26.9446 26.1056 25.2160 24.9701 1.0045
                                                                      0.8390
  1992
        FAINT 26.5956 25.9371 25.5331 25.0073 24.2666 24.0887
                                                              0.4040
## 1993
        FAINT 27.6896 28.2510 27.1796 26.6206 26.0666 26.2727 1.0714 0.5590
## 1994
       FAINT 27.5890 27.0921 26.7132 26.3590 25.5463 25.2679 0.3789 0.3542
```

```
## 1995 FAINT 28.3901 27.1187 26.5746 26.1211 26.3464 25.7124 0.5441 0.4535
## 1996 BRIGHT 25.8965 25.2060 24.3091 24.0352 23.8228 23.7818 0.8969 0.2739
## 1997 BRIGHT 25.0197 23.8337 22.4778 21.9950 21.7057 21.5289 1.3559 0.4828
       FAINT 28.5276 26.9183 26.1444 25.6595 25.3761 25.8768 0.7739
                                                                      0.4849
  1999 BRIGHT 28.6034 27.1812 25.5969 24.8928 24.6709 24.3146
                                                              1.5843
## 2000
       FAINT 26.3254 26.5282 26.8873 26.6150 26.9815 26.8558 -0.3591
                                                                      0.2723
## 2001 FAINT 28.0060 26.7121 26.3327 26.1634 25.9429 26.2837 0.3794
## 2002 BRIGHT 26.6313 26.2566 25.7764 24.9895 24.7358 24.8206
## 2003 BRIGHT 25.9889 25.6873 24.8473 24.4229 24.3879 24.0360 0.8400 0.4244
## 2004
        FAINT 28.4593 27.4994 26.6390 26.6931 26.7657 28.8184 0.8604 -0.0541
## 2005
        FAINT 27.3065 28.1254 27.2074 26.3828 26.5158 25.9743
                                                              0.9180 0.8246
## 2006
        FAINT 27.8077 27.3887 27.0258 26.4977 26.7927 27.1265 0.3629
                                                                      0.5281
        FAINT 28.2904 27.5731 27.9098 26.6954 26.4938 26.2351 -0.3367 1.2144
## 2007
## 2008
       FAINT 29.0184 27.3718 26.8327 26.3428 26.6650 26.9871 0.5391 0.4899
        FAINT 27.6090 27.4854 26.6866 25.7084 24.9155 24.1637 0.7988 0.9782
## 2009
## 2010 FAINT 27.0877 26.9469 25.7857 25.6076 25.2811 25.4496 1.1612 0.1781
## 2011 BRIGHT 24.4314 24.0232 23.4488 23.3188 23.1493 23.1692 0.5744 0.1300
## 2012
        FAINT 27.8442 27.4036 26.6176 25.9328 25.5409 24.9552
                                                              0.7860 0.6848
## 2013 FAINT 26.9069 26.8451 26.2967 25.9452 25.1883 24.7135 0.5484 0.3515
## 2014 BRIGHT 25.2915 25.0742 24.5049 24.5101 24.2824 24.4924 0.5693 -0.0052
## 2015 BRIGHT 24.1135 23.4131 23.1462 22.9008 22.9788 22.8591 0.2669 0.2454
## 2016
       FAINT 27.4996 27.1481 26.5077 25.9053 25.2497 24.7184 0.6404 0.6024
## 2017
        FAINT 27.2384 27.1371 26.8269 26.3359 25.4657 24.8016
                                                             0.3102 0.4910
## 2018
        FAINT 28.4866 27.2449 26.4905 25.8753 25.5478 24.6608
                                                              0.7544
                                                                      0.6152
## 2019
        FAINT 25.4067 25.5442 25.3021 25.3146 25.1738 25.4853 0.2421 -0.0125
        FAINT 27.2555 27.0917 27.3027 26.4590 26.4065 25.4083 -0.2110 0.8437
## 2020
## 2021 BRIGHT 22.2450 21.0352 19.9916 19.4520 19.1910 18.9145 1.0436 0.5396
## 2022 BRIGHT 25.6108 24.8454 23.7530 23.3908 23.0964 22.8947 1.0924 0.3622
## 2023 BRIGHT 21.9752 20.8390 19.4930 18.9037 18.5818 18.3120 1.3460 0.5893
## 2024 FAINT 30.3265 27.2231 26.4899 26.0161 25.2991 25.3631 0.7332 0.4738
## 2025 BRIGHT 25.8069 25.2946 25.0384 24.9097 24.9408 24.7537
                                                              0.2562
## 2026 FAINT 27.4346 27.5494 26.1740 25.1262 24.5236 24.4984 1.3754
                                                                      1.0478
        FAINT 27.2730 27.4927 27.7088 26.4262 26.1767 25.6647 -0.2161 1.2826
## 2027
       FAINT 28.1315 28.1563 27.1999 26.9209 26.7806 27.8769 0.9564 0.2790
## 2029 BRIGHT 23.4098 22.8520 22.2066 22.0462 21.7934 21.7910
                                                             0.6454 0.1604
## 2030
       FAINT 28.3871 27.4646 26.6716 25.9152 25.2097 24.8440 0.7930
                                                                      0.7564
## 2031
        FAINT 27.3653 26.7172 25.7622 25.6218 25.5143 24.9552 0.9550
                                                                      0.1404
        FAINT 26.8999 26.7967 25.8983 25.6259 25.3531 26.0149
                                                              0.8984
## 2032
## 2033 BRIGHT 26.6663 25.8504 24.7810 24.3521 24.1850 23.9685 1.0694
## 2034 BRIGHT 26.4386 25.6129 24.7016 24.0400 23.9102 23.8545 0.9113 0.6616
       FAINT 27.6525 26.7129 26.0925 25.9814 25.6683 25.5088 0.6204 0.1111
## 2036
       FAINT 28.3181 29.3349 28.2268 26.8902 25.3482 24.9901 1.1081 1.3366
## 2037 BRIGHT 25.8417 25.1328 24.2248 23.2353 22.8820 22.6359 0.9080 0.9895
##
  2038 BRIGHT 26.7314 25.6175 24.1550 23.3911 23.1238 22.9036
                                                              1.4625
## 2039
       FAINT 29.3965 27.3595 26.4256 25.7754 25.8241 25.0933
                                                              0.9339
                                                                      0.6502
## 2040
       FAINT 26.7421 26.5482 26.1024 25.5282 25.1576 24.5430 0.4458
                                                                      0.5742
## 2041 FAINT 29.3491 28.0192 26.9877 26.4993 26.0814 25.3429
                                                              1.0315
## 2042 BRIGHT 27.5392 25.8665 24.4804 24.0324 23.6893 23.5853 1.3861 0.4480
## 2043
       FAINT 28.3120 27.9140 27.3011 26.7938 26.6897 27.8227 0.6129 0.5073
## 2044 BRIGHT 26.3854 25.8671 25.0617 24.8750 24.8071 24.7030
                                                              0.8054
                                                                      0.1867
       FAINT 26.7087 26.6945 26.4075 26.0087 25.5954 25.4920
## 2045
                                                              0.2870
## 2046 BRIGHT 23.9402 22.9502 21.8392 21.2969 21.0418 20.7517
                                                              1.1110
                                                                      0.5423
## 2047 FAINT 28.2098 29.0975 28.1341 26.9540 26.4327 25.9821 0.9634 1.1801
## 2048 BRIGHT 26.8832 26.2236 25.5178 24.9133 24.7844 24.9174 0.7058 0.6045
## 2049 FAINT 26.3156 27.0021 26.5530 26.4432 26.1780 26.3651 0.4491 0.1098
## 2050 BRIGHT 26.4531 26.0817 25.3105 24.7187 24.5335 24.6161 0.7712 0.5918
## 2051 FAINT 27.3423 27.4393 26.9208 26.7196 26.9923 28.5142 0.5185
                                                                      0.2012
## 2052 BRIGHT 25.2477 24.4148 23.3256 22.9615 22.7468 22.6034 1.0892
## 2053 FAINT 27.6107 27.1551 27.2166 26.5083 26.2821 25.7749 -0.0615
                                                                      0.7083
        FAINT 26.1522 26.0252 25.5727 25.0927 24.3560 24.1321 0.4525
## 2054
                                                                      0.4800
        FAINT 26.9154 26.7806 26.6026 26.4333 26.0641 26.8283
                                                              0.1780
## 2056 BRIGHT 27.7407 26.1811 24.8321 24.3737 24.0837 23.9600 1.3490
                                                                      0.4584
## 2057 BRIGHT 23.6126 22.7503 21.6636 21.3585 21.1988 21.0803 1.0867
                                                                      0.3051
##
        FAINT 27.4807 28.0546 27.0864 26.4063 26.2418 26.3013
                                                              0.9682
## 2059
        FAINT 28.0135 27.4884 26.4276 26.1513 25.7309 25.8595
                                                              1.0608
                                                                      0.2763
## 2060 BRIGHT 25.1902 24.7001 24.0375 23.2648 22.9739 22.9010 0.6626
       FAINT 27.4222 27.6224 26.8578 26.3406 26.2506 26.6594 0.7646 0.5172
## 2062 BRIGHT 25.1726 24.9330 24.7294 24.2210 23.8576 23.1650 0.2036 0.5084
## 2063
       FAINT 28.3383 27.6353 26.6958 26.4789 26.3977 26.0351 0.9395 0.2169
##
  2064
        FAINT 27.8166 26.7627 26.2507 25.8076 25.5762 25.1659
                                                              0.5120 0.4431
        FAINT 30.3198 28.0676 27.4267 26.1674 24.6095 23.9704
                                                              0.6409
## 2065
## 2066
        FAINT 28.5629 28.8684 27.9386 26.9270 27.0708 26.6349 0.9298
                                                                      1.0116
## 2067 BRIGHT 26.0329 23.5566 21.8799 21.1589 20.7944 20.5453 1.6767 0.7210
## 2068 BRIGHT 24.9994 24.5566 23.6818 22.7168 22.2794 22.1038 0.8748 0.9650
## 2069
       FAINT 28.3126 28.8779 26.4608 25.2790 24.3137 23.7768 2.4171 1.1818
##
        FAINT 28.6786 27.1870 26.1061 25.5051 25.2324 24.9596 1.0809
  2070
                                                                      0.6010
        FAINT 26.5055 26.3475 25.6017 25.3259 25.1390 25.9653
                                                              0.7458
## 2072 BRIGHT 28.7723 26.9990 25.9832 24.0660 23.3189 22.2816
                                                              1.0158
## 2073 FAINT 28.7740 27.2649 26.5981 26.0040 25.3516 24.5478 0.6668 0.5941
```

```
FAINT 28.4255 28.3023 26.9126 26.2236 25.6180 25.5966 1.3897 0.6890
        FAINT 28.6556 26.7253 25.8955 25.3833 25.2721 24.8191 0.8298 0.5122
        FAINT 27.5347 27.0459 26.7447 26.7542 25.9233 26.0441 0.3012 -0.0095
## 2076
        FAINT 27.4863 27.4123 27.0121 26.4074 25.8371 25.7813 0.4002 0.6047
## 2077
##
         FAINT 28.5916 28.1311 26.1176 25.4513 24.9203 25.0060
                                                              2.0135
## 2079
        FAINT 29.1868 29.7352 27.2242 26.3338 26.1113 25.8384
                                                              2.5110
                                                                      0.8904
## 2080
        FAINT 31.1508 27.7810 27.1593 26.5144 26.0776 26.0403 0.6217
                                                                      0.6449
        FAINT 27.8805 27.7746 27.2995 26.5021 26.1508 25.5395
## 2082
        FAINT 27.8922 27.3625 26.2880 25.9893 25.9958 26.2162 1.0745 0.2987
## 2083 BRIGHT 29.8613 28.0292 25.4751 24.3507 23.3618 22.8793 2.5541
                                                                      1 1244
## 2084
        FAINT 26.7046 27.1005 27.0189 26.6485 27.3166 26.1531
                                                              0.0816
## 2085 BRIGHT 23.8262 22.9428 21.7150 21.1301 20.8280 20.5358
                                                              1.2278
                                                                      0.5849
       FAINT 28.2985 26.9357 26.4935 25.7641 25.3140 25.4528 0.4422
## 2086
## 2087
       FAINT 27.4420 26.8968 26.6599 25.9261 25.6756 25.3378 0.2369 0.7338
## 2088 BRIGHT 27.8629 27.4141 26.1961 24.9959 24.4752 24.3692 1.2180 1.2002
## 2089 BRIGHT 23.1179 21.6014 20.0234 19.3862 19.0049 18.7145 1.5780 0.6372
       FAINT 28.7616 27.2205 27.3531 26.9552 27.2608 27.2914 -0.1326 0.3979
## 2090
## 2091
        FAINT 28.6215 28.0116 27.0899 26.4211 26.5960 25.6691 0.9217
## 2092
        FAINT 27.7415 27.6970 26.5451 25.5378 25.0418 24.6574 1.1519
                                                                      1.0073
## 2093
       FAINT 26.5717 26.6563 26.7655 26.5067 26.7723 26.1259 -0.1092
                                                                      0.2588
## 2094 BRIGHT 25.5812 24.9831 24.0070 23.3430 23.0944 22.9169 0.9761 0.6640
## 2095
       FAINT 28.5896 28.3507 27.2997 26.5521 26.2351 26.1714 1.0510 0.7476
## 2096 BRIGHT 26.2715 24.2134 22.5137 21.2709 20.8046 20.4146 1.6997
                                                                      1.2428
## 2097
        FAINT 28.8761 27.1613 26.3792 26.0027 25.2698 25.0903
                                                              0.7821
                                                                      0.3765
## 2098 BRIGHT 25.7216 23.8955 22.3061 21.6689 21.3417 21.1263
                                                              1.5894
       FAINT 29.3546 27.9818 27.2845 26.4371 26.1421 25.9993 0.6973
## 2099
                                                                      0.8474
## 2100 FAINT 26.3115 26.5820 26.2841 25.6750 25.1021 24.8982 0.2979 0.6091
       FAINT 27.3917 27.1955 26.7478 26.7435 26.5446 26.1013 0.4477 0.0043
## 2102 BRIGHT 25.9913 25.4867 24.7893 24.2189 23.5964 23.0326 0.6974 0.5704
## 2103 BRIGHT 26.0417 25.8111 25.2394 24.7594 24.6067 24.4571 0.5717
                                                                      0.4800
## 2104 BRIGHT 26.8239 26.1511 24.8086 24.5368 24.4111 24.2238
                                                              1.3425
## 2105 FAINT 27.9529 28.2264 27.0515 26.9920 26.4364 26.2268 1.1749
                                                                      0.0595
## 2106 BRIGHT 25.6445 24.7189 23.7051 23.3411 23.1277 23.0718 1.0138
                                                                      0.3640
## 2107 FAINT 26.9994 27.1179 26.9409 26.5018 26.1322 26.2821 0.1770
## 2108 BRIGHT 24.3066 23.6490 22.8860 22.6490 22.4234 22.3946 0.7630
## 2109 BRIGHT 24.4535 23.6787 22.8872 22.5826 22.3941 22.2737
                                                              0.7915
                                                                      0.3046
## 2110
       FAINT 26.5582 26.4950 25.5682 25.4022 25.2415 24.6390
                                                              0.9268
                                                                      0.1660
        FAINT 29.1451 27.2876 26.6096 25.8635 25.8097 25.9118
                                                              0.6780
## 2111
        FAINT 32.5762 27.7413 27.1763 26.5127 26.2341 26.5156 0.5650
## 2112
                                                                      0.6636
## 2113 BRIGHT 28.9332 27.4826 26.4076 24.5129 23.4205 22.8478 1.0750
       FAINT 32.1741 28.9744 28.2679 26.9407 26.3649 25.3374 0.7065 1.3272
## 2115 FAINT 26.7399 26.7917 26.5757 26.1587 25.6938 25.8704 0.2160 0.4170
## 2116 BRIGHT 26.9886 25.5134 24.7604 24.3687 24.2139 24.3859 0.7530 0.3917
## 2117 BRIGHT 27.4938 26.8350 25.4004 24.7312 24.4477 24.4717
                                                              1.4346
                                                                      0.6692
## 2118 FAINT 28.0145 28.0001 26.8085 26.3420 26.3873 25.5646
                                                              1.1916
                                                                      0.4665
## 2119 FAINT 27.2582 28.0596 26.7883 26.8548 25.8228 25.6150 1.2713 -0.0665
## 2120 BRIGHT 22.0549 21.2082 20.9044 20.6982 20.6376 20.5591 0.3038 0.2062
       FAINT 27.3625 27.2009 27.5269 26.8401 27.1784 26.2999 -0.3260
## 2122
        FAINT 27.7556 28.1907 26.3250 25.2475 24.4748 24.1974 1.8657
                                                                      1.0775
## 2123 BRIGHT 24.8217 24.3483 23.7589 23.5626 23.4088 23.4082 0.5894
                                                                      0.1963
## 2124
        FAINT 29.3343 28.4641 27.4408 26.8653 27.1104 26.9050
                                                              1.0233
## 2125
        FAINT 26.3412 26.2018 25.4248 25.3634 24.9966 25.3332 0.7770
                                                                      0.0614
## 2126 BRIGHT 25.3831 24.4842 23.4526 22.5381 22.2268 21.9677 1.0316 0.9145
        FAINT 26.9825 26.4671 26.2457 26.2026 25.8663 25.9322 0.2214 0.0431
## 2128 FAINT 27.6903 27.3948 26.8355 26.5278 26.2741 26.9470 0.5593 0.3077
## 2129 BRIGHT 27.1557 26.2321 24.3524 23.0486 22.2105 21.3225 1.8797 1.3038
## 2130 FAINT 27.0104 26.8436 26.4407 25.7211 25.1158 24.3260 0.4029 0.7196
## 2131 BRIGHT 26.4366 26.1328 25.2561 24.3572 24.0726 23.6777
                                                              0.8767
                                                                      0.8989
## 2132 FAINT 26.6920 26.8318 26.5654 26.6540 26.4524 28.5652 0.2664 -0.0886
## 2133 BRIGHT 25.9221 23.4093 21.7617 20.9156 20.5204 20.2502 1.6476 0.8461
       FAINT 29.4868 27.6903 27.0940 26.3123 25.5192 25.6468
                                                             0.5963 0.7817
## 2135 BRIGHT 26.3083 25.8741 25.1986 24.4286 23.9496 23.7306 0.6755 0.7700
## 2136 BRIGHT 26.7308 26.1266 25.5082 24.7175 24.2784 23.5363 0.6184
                                                                      0.7907
## 2137
        FAINT 26.5549 27.0703 27.4634 26.5608 26.2767 27.0018 -0.3931
## 2138 BRIGHT 25.3596 23.5948 22.0321 21.3901 21.0455 20.8349 1.5627
                                                                      0.6420
## 2139 BRIGHT 28.6965 27.1308 25.2495 24.0140 23.0853 22.3456 1.8813 1.2355
       FAINT 27.5320 27.1991 26.7854 26.1755 26.0640 26.4568 0.4137 0.6099
## 2141 FAINT 26.6333 26.6831 25.8040 25.4209 25.3608 25.1872 0.8791 0.3831
## 2142 BRIGHT 27.4985 27.1688 25.0844 23.4462 22.7348 21.7426 2.0844 1.6382
## 2143 FAINT 29.0709 28.0172 27.0856 26.3366 25.8842 25.8151 0.9316 0.7490
## 2144 BRIGHT 24.0083 23.4478 22.5494 21.6351 21.3390 21.1345
                                                              0.8984
                                                                      0.9143
## 2145 BRIGHT 26.7484 26.0837 25.2326 24.3020 23.9472 23.7112 0.8511 0.9306
       FAINT 28.1382 27.2995 26.4999 26.1946 26.2373 25.7816 0.7996 0.3053
        FAINT 31.0761 27.7472 27.5220 26.8381 26.1738 26.7204 0.2252 0.6839
## 2148 BRIGHT 23.9627 23.7079 22.9980 22.3404 22.1679 21.9459 0.7099
## 2149 BRIGHT 27.2275 25.6061 24.6082 23.0130 22.3099 21.3394 0.9979
                                                                      1.5952
       FAINT 26.5685 27.4019 26.7013 26.4000 25.7354 24.7640
                                                              0.7006
## 2151 BRIGHT 27.0015 26.0478 24.4909 23.5201 23.1872 22.9362 1.5569 0.9708
## 2152 FAINT 26.4190 27.4300 26.8621 26.9124 27.5291 26.2253 0.5679 -0.0503
```

```
FAINT 28.2836 27.3740 26.6927 25.7980 25.5253 25.3596 0.6813 0.8947
        FAINT 29.6883 28.8865 26.9441 25.9310 25.6553 25.6352 1.9424 1.0131
## 2155
        FAINT 29.5855 26.8715 26.2959 25.8838 25.5512 25.4345 0.5756 0.4121
        FAINT 28.1580 27.4448 26.7889 26.5204 26.6491 26.1039 0.6559 0.2685
## 2156
         FAINT 26.4472 26.4738 26.6032 26.7384 27.1661 28.3327 -0.1294 -0.1352
## 2157
## 2158
        FAINT 27.2566 26.9470 25.8797 25.6043 25.4255 25.0676 1.0673 0.2754
## 2159
        FAINT 27.0447 27.2689 26.4200 25.5820 25.3593 25.0365
                                                              0.8489 0.8380
## 2160 BRIGHT 27.0321 25.5420 24.0643 23.4248 23.1160 22.9068
                                                              1.4777
## 2161
       FAINT 28.2003 27.6831 26.8940 26.4885 25.6715 25.8975
                                                             0.7891
                                                                      0.4055
## 2162
        FAINT 26.8785 26.0947 25.9474 25.4772 25.1990 24.8268
                                                              0 1473
                                                                      0 4702
## 2163
        FAINT 29.1981 29.6575 27.8954 26.6444 26.2414 25.4322
                                                              1.7621
## 2164
        FAINT 27.5392 27.1389 26.8252 26.0918 25.8322 25.0091 0.3137
                                                                      0.7334
## 2165 BRIGHT 26.0708 25.4797 24.9937 24.5326 24.0755 23.5484 0.4860
                                                                      0.4611
## 2166 FAINT 32.3005 29.7224 27.6943 26.2988 26.0669 25.4487 2.0281 1.3955
## 2167 BRIGHT 28.3309 28.2904 25.8818 24.7352 23.7223 23.2059 2.4086 1.1466
## 2168 BRIGHT 24.0066 23.0048 22.1800 21.9003 21.6678 21.5811 0.8248 0.2797
## 2169 FAINT 26.6170 26.4503 25.9248 25.7824 25.5264 25.5897
                                                              0.5255
                                                                      0.1424
## 2170
        FAINT 28.0629 26.6186 25.3914 25.0616 24.6807 24.5298
                                                              1.2272
## 2171 BRIGHT 24.7670 24.3971 23.8832 23.2192 23.0899 22.9292 0.5139
                                                                      0.6640
## 2172 FAINT 28.6966 27.6040 26.8326 26.3341 26.0947 25.5291 0.7714
                                                                      0.4985
        FAINT 26.6399 26.5058 25.8812 25.4724 24.8749 24.2764
                                                             0.6246
                                                                      0.4213
## 2174 FAINT 29.3674 28.3509 27.3341 26.9128 26.3416 25.6612 1.0168
## 2175 BRIGHT 26.8129 25.8126 24.9674 24.3239 23.6938 23.4738 0.8452
                                                                      0.6435
## 2176
        FAINT 27.2830 26.9588 27.0343 26.8092 25.9352 26.1106 -0.0755
                                                                      0.2251
        FAINT 26.6081 26.3625 25.5649 25.3907 25.6058 25.0257
                                                             0.7976
## 2177
                                                                      0.1742
## 2178 BRIGHT 26.3169 26.1027 25.2995 24.7875 24.7329 24.4483 0.8032
                                                                      0.5120
## 2179
       FAINT 27.0572 27.5533 27.1229 26.6530 26.9371 27.0617
                                                             0.4304 0.4699
       FAINT 28.4555 27.9070 26.8585 26.0012 25.2769 24.8340 1.0485 0.8573
## 2181 FAINT 31.9343 27.4268 26.7882 25.8711 25.4695 25.2894 0.6386 0.9171
## 2182 BRIGHT 25.7559 24.9945 24.6341 23.9500 23.5453 22.7408 0.3604 0.6841
## 2183
        FAINT 28.6423 28.1926 27.3277 26.7645 26.0062 25.8202
                                                              0.8649 0.5632
## 2184
        FAINT 30.3062 27.2937 26.3900 25.7544 25.6031 25.3304 0.9037
                                                                      0.6356
        FAINT 27.2240 27.7659 27.4377 26.9925 26.4968 27.3351 0.3282 0.4452
## 2185
        FAINT 26.6271 25.9814 25.7930 25.7158 25.6269 25.5000 0.1884 0.0772
## 2187
        FAINT 27.5892 27.2196 26.9999 25.9888 25.9856 25.1924 0.2197
## 2188 BRIGHT 25.7749 25.1916 24.3843 24.1259 23.8934 23.7518 0.8073
                                                                      0.2584
## 2189
        FAINT 26.7877 26.7290 26.1725 25.5341 25.2504 25.2898
                                                              0.5565
                                                                      0.6384
        FAINT 28.9504 27.5236 26.6440 26.2123 25.6901 24.9326
                                                              0.8796
## 2190
## 2191
        FAINT 28.7294 27.3920 26.1908 25.0806 24.3339 24.0052 1.2012
                                                                      1.1102
## 2192
        FAINT 27.0313 27.2127 26.5093 25.8567 25.2626 24.9548 0.7034 0.6526
        FAINT 29.3182 28.4752 27.6840 26.2391 25.6352 24.6095 0.7912 1.4449
## 2194
        FAINT 28.9841 27.6863 27.0789 26.9958 26.5345 25.8610 0.6074 0.0831
## 2195 BRIGHT 25.6701 25.1059 24.4231 24.2274 24.0575 24.0822 0.6828 0.1957
## 2196
       FAINT 26.9199 26.1684 25.8243 25.2931 24.7565 24.4516
                                                              0.3441
                                                                      0.5312
## 2197 BRIGHT 24.8235 24.0224 23.4559 23.1717 23.0825 22.9380
                                                              0.5665
                                                                      0.2842
## 2198 FAINT 27.7909 26.9180 26.2811 25.5876 25.0928 24.3907 0.6369
                                                                      0.6935
## 2199 BRIGHT 24.7381 23.6793 22.4494 21.3592 20.9497 20.6242 1.2299
                                                                      1.0902
## 2200
       FAINT 29.1759 28.5075 27.4201 26.8820 26.4089 26.5556
                                                             1.0874 0.5381
## 2201 FAINT 28.4999 27.9795 26.9352 26.9925 26.3052 25.8473 1.0443 -0.0573
## 2202 BRIGHT 24.9090 24.3741 23.5959 23.3596 23.0827 23.0392
                                                              0.7782 0.2363
## 2203
        FAINT 27.1762 26.6408 26.1638 25.8618 26.5148 25.7025
                                                              0.4770
## 2204
        FAINT 26.8176 25.7324 25.3000 25.1056 25.0609 24.9287
                                                              0.4324 0.1944
## 2205 BRIGHT 25.9203 25.4723 24.6873 24.4187 24.2759 24.0805 0.7850 0.2686
        FAINT 28.4143 26.8106 26.0155 25.5204 25.4007 25.3717 0.7951 0.4951
## 2207
        FAINT 27.8799 27.7442 26.2668 25.1007 25.0271 24.5842 1.4774 1.1661
## 2208 BRIGHT 31.0857 26.5761 25.3195 24.4080 24.0336 23.7738 1.2566 0.9115
## 2209 FAINT 27.7298 27.8865 28.1578 26.7519 26.8526 26.5296 -0.2713
                                                                      1.4059
## 2210 BRIGHT 25.9040 25.6552 24.8535 24.7238 24.4867 24.6819 0.8017
                                                                      0.1297
## 2211 BRIGHT 25.4678 24.9658 24.0676 23.5271 23.3912 23.1689
                                                             0.8982 0.5405
## 2212 FAINT 28.4301 27.3886 26.7126 26.0916 25.3343 24.7813 0.6760
                                                                      0.6210
## 2213 BRIGHT 24.4539 23.3005 22.6027 22.2596 22.0870 21.9471 0.6978
## 2214 FAINT 27.2277 26.6868 26.3124 25.6688 25.4611 25.1676 0.3744 0.6436
        FAINT 28.6483 28.7726 27.6049 26.8430 26.6625 26.8404
## 2215
                                                              1.1677
                                                                      0.7619
## 2216
        FAINT 28.7760 27.4965 27.0272 26.5200 26.2920 28.4512
                                                              0.4693
## 2217
        FAINT 30.2333 29.7528 28.6344 26.8092 27.4585 27.9276
                                                              1.1184
                                                                      1.8252
## 2218 BRIGHT 24.6545 24.5499 24.5597 24.4586 24.1283 23.8552 -0.0098
                                                                      0.1011
       FAINT 26.4591 27.2216 26.9467 26.6142 26.6677 25.9108 0.2749 0.3325
## 2220 FAINT 28.6848 27.4684 26.6370 26.0856 26.1007 24.6513 0.8314 0.5514
## 2221 FAINT 27.9188 28.0827 27.5153 26.9250 27.3265 26.4847 0.5674 0.5903
## 2222
        FAINT 27.9363 27.2699 26.6603 26.1369 25.8660 25.3535
                                                              0.6096 0.5234
## 2223 BRIGHT 26.9287 26.4410 25.6271 24.8124 24.1136 23.3014
                                                              0.8139
                                                                      0.8147
## 2224
       FAINT 28.7570 27.2238 26.7108 25.6188 25.2509 24.2080 0.5130 1.0920
## 2225
        FAINT 27.6573 26.7548 25.9945 25.1833 24.9965 24.7153 0.7603 0.8112
## 2226
        FAINT 27.2236 27.7595 27.3525 26.7715 26.3765 26.0052 0.4070 0.5810
## 2227
        FAINT 27.9733 28.8195 27.4850 26.2203 25.6656 25.0340 1.3345 1.2647
        FAINT 28.8324 27.9443 27.2386 26.8948 27.0284 25.9306
## 2228
                                                              0.7057
                                                                      0.3438
        FAINT 31.5441 29.3395 27.6887 26.8164 26.2447 26.2792
                                                              1.6508
## 2230 BRIGHT 26.4862 25.9665 25.1461 24.8695 24.7030 24.7689
                                                              0.8204
                                                                      0.2766
## 2231 FAINT 27.5787 27.3292 26.8957 26.8935 26.5552 26.2954 0.4335 0.0022
```

```
## 2232 BRIGHT 26.6186 26.0387 25.1902 24.3482 24.0379 23.7511 0.8485 0.8420
## 2233 BRIGHT 24.4843 23.8182 22.8884 22.5472 22.2521 22.1140 0.9298 0.3412
## 2234
       FAINT 27.6153 28.0391 27.7910 26.7425 26.9596 26.0259 0.2481 1.0485
        FAINT 27.5305 28.2200 27.0818 26.4824 25.4110 25.1632
## 2235
                                                              1.1382
                                                                      0.5994
        FAINT 27.7382 28.0124 27.5925 26.5536 26.7209 26.2676
## 2236
                                                               0.4199
## 2237
        FAINT 26.4892 26.3792 25.7432 25.0676 24.7667 24.6051
                                                              0.6360
                                                                      0.6756
## 2238 BRIGHT 24.3121 23.5182 22.7727 22.4788 22.2306 22.1554 0.7455
                                                                      0.2939
        FAINT 29.6876 28.8507 26.9643 26.0071 24.9520 24.1168 1.8864
## 2240
        FAINT 28.4859 27.8959 27.3261 26.2830 25.8443 25.5131 0.5698
                                                                      1.0431
## 2241
        FAINT 29.3291 27.1470 26.5728 26.0250 25.8431 25.2416 0.5742
                                                                      0 5478
## 2242
        FAINT 28.4408 27.3938 27.4254 26.6436 26.4957 25.9076 -0.0316
## 2243 BRIGHT 28.4275 26.4247 24.7416 23.6207 23.2279 22.9144 1.6831
                                                                      1.1209
## 2244 FAINT 28.0139 27.2557 26.6792 26.1656 26.1316 25.8168 0.5765 0.5136
## 2245
       FAINT 26.2977 27.0254 26.7703 26.9451 27.2926 26.9691 0.2551 -0.1748
## 2246
        FAINT 27.3936 27.0717 26.3327 25.7835 25.1782 24.7084 0.7390 0.5492
## 2247
        FAINT 27.7357 27.6357 26.9991 26.5939 26.5767 25.3589 0.6366 0.4052
## 2248
        FAINT 29.0741 28.6997 27.1495 25.5339 24.8221 23.8576 1.5502
                                                                      1.6156
## 2249 BRIGHT 26.2035 25.2592 24.0414 23.5894 23.3890 23.0119
                                                              1.2178
## 2250 BRIGHT 25.4468 25.4486 25.0354 24.7268 24.8259 24.3219
                                                              0.4132
                                                                      0.3086
## 2251 FAINT 29.4744 28.0139 27.6831 26.3830 25.9204 25.3068 0.3308
                                                                      1.3001
## 2252 BRIGHT 24.6372 24.7080 24.3795 23.9339 23.7274 23.3444
                                                              0.3285
## 2253
       FAINT 27.3041 26.4872 25.9375 25.2215 24.7127 24.4199
                                                              0.5497
                                                                      0.7160
## 2254
        FAINT 27.9983 28.4754 27.0096 25.3269 24.6385 23.6477
                                                              1.4658
                                                                      1.6827
## 2255
        FAINT 28.1809 27.0739 26.5810 25.8519 25.5712 26.0778
                                                              0.4929
                                                                      0.7291
## 2256
        FAINT 26.4824 26.7507 26.9696 26.7195 26.8803 26.5213 -0.2189
                                                                      0.2501
## 2257 BRIGHT 27.4300 25.8905 24.3334 23.4622 23.1008 22.7800 1.5571
                                                                      0.8712
## 2258
       FAINT 28.2605 27.6195 26.5579 26.3350 26.0523 25.7959 1.0616 0.2229
       FAINT 27.7464 27.8830 27.0174 26.2694 26.1840 25.3855 0.8656 0.7480
## 2259
## 2260
       FAINT 27.4815 27.5822 26.9255 26.4497 25.7177 24.9853 0.6567 0.4758
## 2261 BRIGHT 26.5287 25.5726 24.7001 24.4629 24.2737 24.2855 0.8725 0.2372
## 2262
       FAINT 27.7913 29.8700 27.4089 26.8066 26.1780 25.3367
                                                              2.4611 0.6023
## 2263 BRIGHT 24.8608 24.0100 23.3968 22.7637 22.4230 21.6892 0.6132
                                                                      0.6331
## 2264 FAINT 27.5929 27.1349 26.7502 25.7052 25.3589 25.4642 0.3847
                                                                      1.0450
## 2265 BRIGHT 27.1591 24.8559 23.3236 22.2255 21.8301 21.5192 1.5323 1.0981
## 2266
        FAINT 27.2252 27.9517 27.1473 26.6138 26.5299 29.7156
                                                              0.8044
## 2267
        FAINT 27.4806 26.6533 26.0929 25.1416 24.3021 23.6210 0.5604
                                                                      0.9513
## 2268
        FAINT 29.3650 27.2468 27.1836 25.5153 24.8568 23.6921 0.0632
                                                                      1.6683
        FAINT 27.4894 27.3550 26.7587 26.5880 26.9672 26.8990
                                                              0.5963
## 2269
## 2270
        FAINT 27.3421 27.3854 26.7259 26.4462 26.4677 25.6881 0.6595
                                                                      0.2797
## 2271 BRIGHT 25.3954 25.0681 24.4584 23.9668 23.8388 23.7130 0.6097 0.4916
## 2272 BRIGHT 25.7841 25.1428 24.4545 23.6318 23.3815 23.2653 0.6883 0.8227
## 2273 BRIGHT 24.8155 24.7864 24.7911 24.7277 24.5719 24.1671 -0.0047 0.0634
## 2274 FAINT 27.7660 26.7982 25.9952 25.5969 25.5624 25.2581 0.8030 0.3983
## 2275 BRIGHT 26.5767 25.9816 25.4631 24.7249 24.5269 24.5559
                                                              0.5185 0.7382
## 2276 BRIGHT 26.1171 25.4366 24.8477 24.5976 24.4018 24.2392
                                                              0.5889
                                                                      0.2501
## 2277 FAINT 28.0311 26.9402 25.9586 25.0817 25.0788 24.5579
                                                              0.9816 0.8769
## 2278 BRIGHT 26.6036 25.8164 24.6560 24.2778 24.0776 23.9822 1.1604
                                                                      0.3782
        FAINT 28.9290 27.8546 27.7591 26.8747 25.5608 25.8712
                                                              0.0955
## 228A
        FAINT 25.5136 25.2843 25.1283 25.3942 25.0964 25.3774 0.1560 -0.2659
## 2281 BRIGHT 25.0512 24.0604 22.9402 22.0682 21.7855 21.5155
                                                              1.1202 0.8720
## 2282 BRIGHT 26.3103 25.8660 25.4784 24.9877 24.2158 24.2068
                                                              0.3876
## 2283 FAINT 30.8009 28.0539 26.6665 25.8074 25.4552 25.1458 1.3874
                                                                      0.8591
## 2284 FAINT 28.6294 27.8846 27.1245 26.8327 27.1714 27.1857 0.7601 0.2918
## 2285 BRIGHT 26.5788 25.9715 24.9617 24.6593 24.5505 24.6237 1.0098 0.3024
## 2286
       FAINT 26.8555 27.2313 26.6324 26.1490 25.6367 25.1127 0.5989 0.4834
## 2287 BRIGHT 27.1339 26.4542 23.9106 22.8262 21.7869 21.1430 2.5436 1.0844
## 2288
       FAINT 27.1088 26.7036 26.7402 25.8457 25.7763 26.0624 -0.0366
                                                                      0.8945
## 2289 BRIGHT 26.8524 26.8207 25.5779 24.3999 23.8824 23.6177 1.2428
                                                                      1.1780
## 2290 FAINT 29.3888 27.0707 26.3933 26.3631 26.1324 27.5483 0.6774
                                                                      0.0302
        FAINT 28.0922 27.1189 26.0392 26.0028 25.8430 25.6232 1.0797
## 2291
                                                                      0.0364
        FAINT 28.0009 28.7748 27.1465 26.9435 26.2521 26.6413
## 2292
## 2293
        FAINT 27.1431 28.1352 27.4900 26.7164 26.6212 26.8200 0.6452 0.7736
## 2294 BRIGHT 26.6182 25.2786 23.5760 22.3007 21.8102 21.4330
                                                              1.7026
                                                                      1.2753
## 2295
        FAINT 26.7426 26.5540 25.7213 25.4044 25.3006 25.0836
                                                               0.8327
## 2296
        FAINT 27.0462 26.8035 26.3040 25.5612 24.7729 24.3130
                                                              0.4995
                                                                      0.7428
## 2297 BRIGHT 24.4824 23.3283 22.5621 22.1990 22.0992 21.9384 0.7662
                                                                      0.3631
       FAINT 26.1559 26.5080 26.0952 25.6570 25.2215 24.9257 0.4128 0.4382
## 2299 FAINT 26.6977 26.4739 26.1964 25.8791 25.2419 25.1298 0.2775 0.3173
## 2300 BRIGHT 27.1417 27.3748 25.8219 24.7691 24.2844 23.9933 1.5529 1.0528
## 2301 BRIGHT 28.9961 27.0878 25.2270 24.1469 23.2312 22.7824
                                                              1.8608
                                                                      1.0801
        FAINT 27.9802 26.5602 26.1522 25.7255 25.1291 24.8159
                                                              0.4080
## 2302
                                                                       0.4267
## 2303
        FAINT 30.4847 27.5788 27.2981 26.5815 26.0841 25.6424 0.2807
                                                                      0.7166
        FAINT 26.9536 26.8590 26.1516 25.7471 25.6715 26.8584 0.7074 0.4045
## 2305 BRIGHT 26.4301 25.9047 25.4804 24.7614 24.2251 23.6143 0.4243 0.7190
## 2306 BRIGHT 24.2470 23.9608 23.2351 22.3855 22.0385 21.8394 0.7257
                                                                      0.8496
## 2307
        FAINT 27.4319 27.5911 26.9317 26.3259 25.8876 26.6671 0.6594
                                                                      0.6058
        FAINT 26.7870 26.7949 26.5762 26.1406 26.4447 26.0478
                                                              0.2187
## 2309 BRIGHT 26.2864 25.8081 24.9360 24.7754 24.7248 24.9134
                                                              0.8721 0.1606
## 2310 FAINT 28.9589 27.4770 26.9899 26.7259 26.4819 25.7068 0.4871 0.2640
```

```
## 2311 FAINT 26.2400 26.3630 26.2972 26.0491 25.2509 25.2364 0.0658 0.2481
## 2312 BRIGHT 26.8045 24.7480 23.1645 22.1421 21.7279 21.4546 1.5835 1.0224
## 2313 BRIGHT 29.2068 27.9096 26.3573 24.5053 23.8511 22.8111 1.5523 1.8520
## 2314 FAINT 28.2191 27.6945 27.0577 26.4344 25.3191 25.1665 0.6368 0.6233
## 2315 BRIGHT 26.7503 26.1559 25.1643 24.3927 23.5996 23.1114
                                                              0.9916
## 2316
       FAINT 28.1078 28.4389 27.7648 25.8124 25.2474 24.4452
                                                              0.6741
                                                                      1.9524
## 2317
        FAINT 27.3274 26.2053 25.9436 25.5073 24.6938 24.4045 0.2617
                                                                      0.4363
        FAINT 28.7466 27.7504 26.9585 26.7524 26.6626 26.5634 0.7919 0.2061
## 2319
        FAINT 28.1367 28.1893 27.3779 26.7739 26.9221 27.3607 0.8114 0.6040
## 2320
        FAINT 26.8288 26.4815 26.1923 25.7525 25.4858 24.5197
                                                              0 2892
                                                                      0 4398
## 2321 BRIGHT 27.0501 26.3095 25.3334 24.9407 24.6562 24.3937
                                                              0.9761
## 2322
       FAINT 29.2864 27.2182 26.2187 26.0296 26.3036 25.4152
                                                              0.9995
                                                                      0.1891
## 2323 FAINT 26.9543 26.3693 25.5540 25.0869 24.9043 24.6363 0.8153
## 2324 BRIGHT 29.3394 27.0155 25.6622 24.8749 24.5765 24.4827 1.3533 0.7873
## 2325 BRIGHT 26.8252 27.0549 25.8462 24.9273 24.3772 24.0937 1.2087 0.9189
## 2326 FAINT 27.9793 28.0222 26.8217 26.2205 25.3940 25.4226 1.2005 0.6012
## 2327 BRIGHT 25.5190 25.3501 24.8943 24.1549 23.6005 23.2783
                                                             0.4558
                                                                      0.7394
## 2328
       FAINT 28.1024 27.6048 27.4690 26.9910 26.4728 27.6162
                                                              0.1358
## 2329
        FAINT 27.7627 27.1011 26.8716 26.4513 25.9217 25.5026
                                                              0.2295
                                                                      0.4203
## 2330
        FAINT 30.1447 28.4851 27.3789 26.5820 26.3083 25.5249 1.1062
                                                                      0.7969
       FAINT 37.3523 30.2244 27.9326 26.8567 25.4259 24.7498 2.2918
## 2332 BRIGHT 25.4026 25.0709 24.6811 24.2841 23.5723 23.3255 0.3898 0.3970
## 2333 BRIGHT 25.8673 25.8718 25.3987 24.9068 24.4340 23.6443
                                                              0.4731
                                                                      0.4919
## 2334
        FAINT 28.7289 28.6310 27.0117 26.6394 27.4890 25.3672
                                                              1.6193
                                                                      0.3723
## 2335
         FAINT 26.1313 26.0909 25.3013 25.0658 24.8134 24.8388
                                                              0.7896
                                                                      0.2355
        FAINT 26.5621 26.1919 25.3378 25.1861 24.8832 24.5415 0.8541 0.1517
## 2336
## 2337 BRIGHT 25.3770 25.2209 25.0206 24.7098 24.4235 24.4649 0.2003 0.3108
        FAINT 25.7680 25.6786 25.4267 25.2127 25.2211 25.1698 0.2519 0.2140
## 2338
## 2339
        FAINT 27.1132 26.7950 26.0873 25.5763 25.4441 25.8431 0.7077 0.5110
## 2340
        FAINT 28.0271 27.0698 26.2858 25.5758 24.8689 25.0703 0.7840 0.7100
## 2341
         FAINT 27.0914 26.6535 26.6668 26.7128 26.4784 25.6205 -0.0133 -0.0460
## 2342
        FAINT 28.1352 28.2889 27.6396 26.9639 27.1558 26.1225 0.6493 0.6757
## 2343
        FAINT 27.6880 27.7070 26.6894 26.2148 25.2357 24.9182 1.0176 0.4746
        FAINT 29.9949 28.0535 27.3328 25.6392 24.7086 24.1307 0.7207 1.6936
## 2345
        FAINT 31.2558 28.8736 28.1510 26.6499 27.2861 25.8528 0.7226 1.5011
## 2346
        FAINT 27.0959 27.3316 26.8752 26.4014 25.8829 25.5687
                                                              0.4564 0.4738
## 2347
         FAINT 28.4284 27.9798 27.8877 26.9697 26.7197 26.3326
                                                              0.0921
                                                                      0.9180
         FAINT 28.4594 27.4768 26.7456 26.2665 26.0627 25.6276
                                                              0.7312
## 2348
        FAINT 28.6333 28.0737 27.7006 26.9768 26.7901 25.7900 0.3731
## 2349
                                                                      0.7238
## 2350 BRIGHT 22.0496 21.0405 20.0960 19.6694 19.4205 19.2174 0.9445 0.4266
        FAINT 27.7368 27.6936 26.9881 26.5129 26.0856 27.8059 0.7055 0.4752
## 2352
        FAINT 27.0430 26.9026 26.3810 25.7022 25.1795 24.8439 0.5216 0.6788
## 2353
        FAINT 28.4737 27.8878 27.0304 26.8057 26.2924 25.8221 0.8574 0.2247
## 2354 BRIGHT 25.8216 25.4307 25.1194 24.8138 24.2250 23.9769
                                                              0.3113 0.3056
## 2355 BRIGHT 25.8478 25.8150 25.2968 24.5557 24.2327 24.4555
                                                              0.5182 0.7411
## 2356
       FAINT 27.5247 27.8758 26.7509 26.7831 26.4486 27.3348 1.1249 -0.0322
         FAINT 27.5356 27.4280 26.6695 26.5961 26.1182 25.8214 0.7585 0.0734
## 2358
        FAINT 26.7835 26.7543 26.4506 25.8734 25.3851 24.7722 0.3037 0.5772
## 2359
        FAINT 27.4765 27.1234 26.4665 25.5707 25.0689 24.8398 0.6569 0.8958
## 2360 BRIGHT 27.8707 26.2913 25.5312 24.8683 24.5884 24.6456
                                                              0.7601 0.6629
        FAINT 28.2896 27.9576 26.8534 26.2846 26.1331 25.5874
                                                              1.1042
## 2361
        FAINT 27.6826 27.5150 26.8464 26.2468 25.5447 25.2647 0.6686 0.5996
## 2362
        FAINT 26.2197 26.2686 26.2601 25.8722 25.4120 25.2269 0.0085 0.3879
## 2363
        FAINT 27.5591 27.2734 26.7563 26.3762 26.1458 25.3453 0.5171 0.3801
## 2365
       FAINT 28.4735 29.0627 27.0170 25.7691 25.1002 24.5355 2.0457 1.2479
## 2366
       FAINT 27.8438 27.3298 27.0278 26.6797 26.9914 27.4938 0.3020 0.3481
## 2367
        FAINT 26.9859 26.5931 26.0758 25.9296 25.5409 26.2962 0.5173 0.1462
## 2368 BRIGHT 26.6291 26.1745 25.1970 24.1832 23.6805 23.6838
                                                              0.9775
                                                                      1.0138
## 2369 BRIGHT 26.7136 25.4365 24.5321 23.8198 23.6284 23.4112 0.9044
                                                                      0.7123
## 2370 FAINT 27.6115 26.5853 26.2075 26.1530 26.0424 25.4682 0.3778 0.0545
## 2371 BRIGHT 25.6995 25.5117 25.1530 24.7437 24.5664 24.4051 0.3587
## 2372 FAINT 28.5926 28.3029 27.1668 26.9034 27.2738 27.1591 1.1361 0.2634
        FAINT 27.4804 26.8697 25.8548 25.2312 24.9682 25.3726
## 2373
                                                             1.0149
                                                                      0.6236
## 2374 BRIGHT 26.9664 26.4556 25.7107 24.7191 24.2834 24.0634
                                                              0.7449
## 2375
        FAINT 28.5367 27.9270 27.5828 26.4378 26.6002 26.2875
                                                              0.3442
                                                                      1.1450
## 2376
        FAINT 28.9755 27.7547 27.4664 26.5439 26.2456 25.4562 0.2883 0.9225
         FAINT 33.2375 28.0584 28.0839 26.2541 25.6753 24.7193 -0.0255 1.8298
## 2378 BRIGHT 27.7905 27.7216 26.0975 24.9659 24.3393 24.1263 1.6241 1.1316
## 2379 BRIGHT 26.1668 25.7998 25.3056 24.5215 24.1641 24.1893 0.4942 0.7841
## 2380
       FAINT 26.8225 27.0283 27.1950 26.7887 26.4908 27.7607 -0.1667
                                                                      0.4063
         FAINT 30.0471 27.6264 27.0515 26.9631 26.6208 25.7785 0.5749
## 2381
                                                                      0.0884
        FAINT 29.2544 27.2436 26.4861 25.9356 25.8509 25.6814 0.7575 0.5505
## 2382
## 2383 BRIGHT 24.7219 24.5230 24.0525 23.5178 23.3272 23.2274 0.4705 0.5347
        FAINT 27.3496 27.5189 27.1076 26.8743 25.9624 26.0592 0.4113 0.2333
## 2385
         FAINT 27.9299 27.6639 26.6814 26.5254 26.0600 26.8605 0.9825 0.1560
        FAINT 26.6315 26.6435 26.3756 26.1292 25.7945 24.8668 0.2679
## 2386
                                                                      0.2464
## 2387 BRIGHT 25.5660 25.2771 24.6943 23.9601 23.5866 23.5128
                                                              0.5828
                                                                      0.7342
## 2388 FAINT 27.2322 26.5737 26.2628 26.0893 25.7102 25.4686
                                                              0.3109
                                                                      0.1735
## 2389 BRIGHT 26.4465 25.8787 24.7049 23.5938 22.9959 22.7113 1.1738 1.1111
```

```
FAINT 26.5136 26.2314 25.7541 25.5293 25.3710 25.3168 0.4773 0.2248
        FAINT 30.5546 27.9200 26.9186 26.3075 26.9864 26.7426 1.0014 0.6111
        FAINT 26.9798 26.6111 25.9263 25.4345 25.4967 25.3000 0.6848 0.4918
## 2392
        FAINT 26.6437 26.5016 25.9752 25.1788 24.6120 24.2331 0.5264
## 2393
                                                                      0.7964
        FAINT 27.0078 27.4892 27.6125 26.9273 27.1467 25.7500 -0.1233
##
## 2395 BRIGHT 25.5340 25.0773 24.7575 24.5587 24.5845 24.3195 0.3198
                                                                      0.1988
## 2396 BRIGHT 25.2729 24.5857 24.0938 23.8669 23.7819 23.6254 0.4919
                                                                      0.2269
        FAINT 28.0325 27.2108 26.1270 25.8363 25.6019 25.0442
                                                              1.0838
## 2398 BRIGHT 24.1473 23.7167 23.2256 23.0787 22.9438 22.8608 0.4911
        FAINT 31.1244 27.6779 26.5350 26.3109 26.0407 25.7579 1.1429
## 2399
                                                                      0 2241
## 2400
        FAINT 28.2278 27.5391 26.7813 26.6696 26.0944 25.9995
                                                              0 7578
                                                                       0 1117
## 2401 BRIGHT 24.8574 24.6110 24.1715 23.4813 23.2872 23.1787
                                                              0.4395
                                                                      0.6902
## 2402 FAINT 27.2906 28.1002 26.9311 26.7768 26.5668 27.2515 1.1691
                                                                      0.1543
## 2403 BRIGHT 25.3235 24.9097 24.2801 24.1937 23.9476 23.9151 0.6296 0.0864
## 2404 FAINT 27.3661 27.4858 26.3760 25.4229 24.8045 24.3301 1.1098 0.9531
## 2405 BRIGHT 21.6340 20.7315 20.0716 19.7413 19.6321 19.5083 0.6599 0.3303
## 2406 BRIGHT 26.3403 25.4556 24.2503 23.4333 23.1247 22.8454 1.2053
                                                                      0.8170
## 2407 BRIGHT 26.3808 25.8381 25.0326 24.6939 24.6507 24.6120
                                                              0.8055
## 2408 FAINT 29.0151 27.5110 26.7860 26.3906 26.2394 28.5587
                                                              0.7250
                                                                      0.3954
## 2409
        FAINT 28.5123 30.5773 26.7113 25.6036 24.8203 24.4324 3.8660
                                                                      1.1077
        FAINT 28.3712 26.7130 25.7826 25.1364 24.9500 24.9186
                                                              0.9304
## 2411 FAINT 26.8017 27.1353 26.5084 26.1221 25.6841 24.9353 0.6269 0.3863
## 2412 BRIGHT 28.3710 26.3434 25.2503 24.8955 24.6305 24.2980 1.0931
                                                                      0.3548
## 2413
        FAINT 27.6392 27.3782 27.3906 26.5286 25.9689 25.2766 -0.0124
## 2414 BRIGHT 28.2576 25.8554 24.8809 24.3012 24.0782 23.7472 0.9745
                                                                      0.5797
## 2415 FAINT 26.4023 26.1770 25.6079 25.0971 24.4773 23.9674 0.5691
                                                                      0.5108
## 2416 BRIGHT 26.8966 26.2974 25.7921 24.8410 24.1795 23.2936 0.5053 0.9511
       FAINT 27.5296 28.5737 27.7049 26.9689 26.8795 27.1172 0.8688 0.7360
## 2418 FAINT 26.6741 26.5389 26.1827 25.7879 25.3844 25.2667 0.3562 0.3948
## 2419
        FAINT 28.5339 27.7229 27.8193 26.9177 27.2597 27.0646 -0.0964 0.9016
## 2420 BRIGHT 26.4426 25.6151 25.1576 24.8959 24.9102 24.5599 0.4575
## 2421 BRIGHT 24.8530 23.0320 21.4612 20.8224 20.5098 20.3001 1.5708
                                                                      0.6388
## 2422 FAINT 27.0825 27.6871 25.9578 25.0634 24.8191 24.6230 1.7293
                                                                      0.8944
## 2423 BRIGHT 25.8572 25.3023 24.4967 24.2421 24.1367 23.8768 0.8056
## 2424
       FAINT 29.0954 28.2590 27.0573 26.4470 26.4085 25.7538 1.2017
## 2425
        FAINT 28.8176 28.7739 27.1064 26.1332 25.2753 25.6782 1.6675
                                                                      0.9732
## 2426
        FAINT 27.8945 27.6825 27.1101 26.6159 26.0969 25.7612 0.5724
                                                                      0.4942
         FAINT 26.5540 26.3239 25.8111 25.2198 24.9734 24.6294
                                                              0.5128
## 2427
## 2428
        FAINT 29.1745 27.6493 27.1145 26.5347 25.9885 25.3853 0.5348
                                                                      0.5798
## 2429
        FAINT 27.3568 27.2676 26.6335 26.3513 26.2002 26.0366 0.6341 0.2822
        FAINT 26.6160 26.6080 26.6545 26.5346 26.7159 26.4838 -0.0465 0.1199
## 2431
       FAINT 27.4199 26.2021 25.4661 25.0328 24.8685 24.7821 0.7360 0.4333
## 2432
        FAINT 26.8963 27.0367 27.3288 26.7120 26.7555 26.7294 -0.2921 0.6168
## 2433 BRIGHT 27.1369 26.6314 25.2743 24.7357 24.4274 24.1282 1.3571
## 2434
       FAINT 28.6905 28.5691 28.0783 26.9608 26.7496 25.9980
                                                              0.4908
                                                                      1.1175
## 2435
       FAINT 26.2813 27.0070 26.5208 26.1125 25.7168 24.9548 0.4862
                                                                      0 4083
## 2436 BRIGHT 26.0956 25.6398 24.9080 24.2024 23.5718 23.2210 0.7318
                                                                      0 7056
        FAINT 26.7690 26.9010 26.7335 26.7245 26.2366 25.6711 0.1675
## 2437
## 2438
        FAINT 28.3427 27.6791 26.2772 26.0256 25.5696 25.5578 1.4019
                                                                      0.2516
## 2439 BRIGHT 26.6526 25.8081 25.3438 24.4704 23.9195 23.0398 0.4643
                                                                      0.8734
## 2440
        FAINT 29.6601 28.7306 28.3335 26.9248 26.8249 26.1683
                                                              0.3971
        FAINT 26.7753 26.7810 26.5363 26.5331 26.4541 26.4267
## 2441
                                                              0.2447
                                                                      0.0032
## 2442
        FAINT 28.7440 27.1022 27.0285 26.7374 25.8307 25.3403 0.0737 0.2911
        FAINT 26.6377 26.1988 25.4746 25.2514 24.9378 25.0417 0.7242 0.2232
## 2444
       FAINT 28.7457 27.4769 26.4634 25.6152 25.4952 25.2894 1.0135 0.8482
       FAINT 28.0824 27.3092 26.6939 26.3900 26.4307 26.2740 0.6153 0.3039
## 2445
## 2446
        FAINT 27.4709 27.5784 27.4649 26.7782 26.4108 25.5724
                                                              0.1135 0.6867
## 2447 BRIGHT 23.6945 23.2070 22.3313 22.0447 21.8830 21.7543
                                                              0.8757
                                                                      0.2866
## 2448 BRIGHT 25.5603 25.4000 25.1550 24.6727 24.3726 24.4390 0.2450
                                                                      0.4823
        FAINT 27.7117 27.7223 26.9211 25.9923 25.5800 24.6561 0.8012
## 2449
                                                                      0.9288
        FAINT 27.3777 26.3432 25.9402 25.5326 24.8258 24.5353
## 2450
                                                              0.4030
## 2451
       FAINT 27.3869 27.0900 26.1059 25.2847 24.5052 24.1019
                                                              0.9841 0.8212
## 2452 BRIGHT 25.1298 24.5648 23.7137 23.1727 23.0269 22.8310
                                                              0.8511
                                                                      0.5410
## 2453
        FAINT 26.0385 25.9857 25.8742 25.8150 25.9827 25.9878
                                                              0.1115
## 2454
        FAINT 27.0413 27.3379 27.1158 26.5611 25.9530 26.8729
                                                              0.2221
                                                                      0.5547
## 2455
        FAINT 27.7445 27.1429 26.6679 26.2915 26.1410 27.0540
                                                              0 4750
                                                                      0 3764
        FAINT 28.4491 27.3230 27.2043 26.3203 25.8791 27.1968 0.1187 0.8840
## 2457 BRIGHT 24.1810 23.4818 22.1260 20.9381 20.4009 20.0812 1.3558 1.1879
## 2458
       FAINT 28.5337 27.1526 26.4054 25.8465 25.8524 25.4443 0.7472 0.5589
## 2459
        FAINT 29.2684 28.7468 27.9298 26.6505 26.0348 25.1913
                                                              0.8170 1.2793
        FAINT 27.2045 26.9842 26.4101 26.6437 26.1292 26.2526
                                                              0.5741 -0.2336
## 2460
        FAINT 27.3337 27.2932 26.8480 26.5377 26.2136 26.3846 0.4452 0.3103
## 2461
        FAINT 29.3578 27.9978 27.7979 26.9438 26.3270 26.3831 0.1999 0.8541
## 2462
## 2463 BRIGHT 26.3706 26.0837 25.4322 24.7174 24.2569 23.5309 0.6515 0.7148
## 2464
       FAINT 28.3932 27.3478 26.5655 26.2711 25.8894 27.5348 0.7823 0.2944
## 2465
        FAINT 28.0313 28.9826 27.2294 26.2069 25.7677 24.9368 1.7532 1.0225
  2466 BRIGHT 25.2208 23.6384 22.1152 21.3367 20.9585 20.7168
                                                              1.5232
                                                                      0.7785
## 2467 BRIGHT 26.0105 25.0084 23.6765 22.9109 22.5688 22.2958
                                                              1.3319
## 2468 FAINT 29.2434 28.1093 26.8215 25.6948 24.6056 24.0047 1.2878 1.1267
```

```
## 2469 FAINT 28.4261 27.4100 26.1794 25.6880 25.7596 25.2005 1.2306 0.4914
## 2470 BRIGHT 25.3926 24.2295 22.8430 22.2983 21.9736 21.8105 1.3865 0.5447
## 2471 BRIGHT 22.9123 22.1191 21.7022 21.4471 21.5038 21.4628 0.4169 0.2551
## 2472 BRIGHT 24.3347 23.7707 23.7054 23.4954 23.6570 23.7113 0.0653 0.2100
  2473 BRIGHT 26.3734 25.4035 24.4219 23.8358 23.7150 23.6365
                                                               0.9816
## 2474
       FAINT 27.2378 26.6655 26.0330 25.1236 24.8965 24.9761
                                                              0.6325
                                                                       0.9094
## 2475
        FAINT 27.0819 26.7704 25.6221 25.2833 25.3461 24.8931 1.1483 0.3388
        FAINT 26.0137 26.1112 25.8771 25.6400 25.5572 25.1009 0.2341 0.2371
## 2477
        FAINT 26.7798 26.7041 26.3764 26.6247 26.2643 26.3649 0.3277 -0.2483
## 2478
        FAINT 27.3181 28.5098 27.0661 26.4477 26.1184 25.7432 1.4437 0.6184
## 2479
        FAINT 27.4545 28.0346 26.9348 26.2164 25.5570 25.3777
                                                              1.0998
                                                                       0 7184
## 2480
        FAINT 27.3448 26.7486 26.1307 26.0001 25.8099 25.5834 0.6179
                                                                      0.1306
## 2481 BRIGHT 25.8173 25.2040 24.5104 23.6588 23.3864 23.2561 0.6936
                                                                      0.8516
## 2482 FAINT 26.9630 27.4407 26.4021 25.3497 25.1562 25.0762 1.0386 1.0524
## 2483 BRIGHT 25.6670 25.4944 25.0667 24.5829 23.9568 23.4487 0.4277 0.4838
## 2484 BRIGHT 26.7373 25.7111 24.6854 24.1891 24.1322 23.9057 1.0257 0.4963
## 2485 BRIGHT 25.8499 25.3929 24.9441 24.4497 23.8786 23.7821 0.4488
                                                                      0.4944
## 2486 BRIGHT 29.1281 27.4711 25.2595 23.8464 23.0491 22.0944
                                                               2.2116
## 2487
        FAINT 28.2240 27.0053 26.7353 26.4855 26.4233 26.2004
                                                              0.2700
                                                                       0.2498
## 2488
        FAINT 28.0412 27.1132 26.3035 25.9934 26.0521 27.0567
                                                              0.8097
                                                                       0.3101
        FAINT 28.2476 28.6741 26.5296 25.3598 24.5978 24.2830
                                                              2.1445
                                                                      0.4252
## 2490
       FAINT 27.6780 26.9694 25.9121 25.4869 25.1191 25.2159
                                                              1.0573
## 2491 BRIGHT 24.5936 23.9733 23.0554 22.5834 22.3961 22.1630
                                                              0.9179
                                                                       0.4720
                                                                       0.0516
## 2492
        FAINT 28.2734 27.5389 26.7993 26.7477 26.6543 26.5607
                                                              0.7396
        FAINT 26.1770 25.8976 25.4676 25.0735 25.2007 25.3421
                                                              0.4300
## 2493
        FAINT 30.8403 27.4302 26.9904 26.6127 26.5466 27.2489 0.4398
## 2494
                                                                      0.3777
## 2495 BRIGHT 26.3382 26.0154 25.1068 24.2725 23.6793 23.4221 0.9086 0.8343
        FAINT 30.0469 28.8267 27.8434 26.8755 26.9275 26.6392 0.9833 0.9679
## 2496
## 2497
        FAINT 26.3580 26.8554 26.4660 26.2252 25.9553 25.4441 0.3894 0.2408
## 2498
        FAINT 28.9058 27.5345 26.5256 25.7102 25.2308 24.8725 1.0089 0.8154
## 2499
        FAINT 27.0248 26.8102 26.5451 25.5592 25.0510 24.3344
                                                              0.2651
## 2500
        FAINT 30.8193 26.8385 26.0577 25.3280 24.6541 24.7903 0.7808 0.7297
## 2501
        FAINT 25.8527 25.9034 25.8444 25.2826 25.1655 24.9687 0.0590 0.5618
        FAINT 28.8111 27.7293 26.4302 25.9152 25.6732 25.4310 1.2991 0.5150
## 2503
        FAINT 26.9340 26.5557 25.7624 25.0394 24.5060 24.2205
                                                              0.7933
## 2504
        FAINT 27.0345 27.9915 26.9135 26.2451 26.3371 26.0258 1.0780
                                                                      0.6684
## 2505
        FAINT 27.3400 27.5280 26.2913 25.6386 24.7874 24.7595
                                                              1.2367
                                                                      0.6527
        FAINT 28.5460 28.2688 27.8133 26.9011 26.1056 24.9574
                                                              0.4555
## 2506
## 2507 BRIGHT 26.4271 26.4778 25.7321 24.9156 24.4554 24.0681 0.7457
                                                                       0.8165
## 2508
       FAINT 28.1600 27.3327 26.7044 26.0176 25.6507 25.4104 0.6283 0.6868
## 2509 BRIGHT 24.5235 24.1238 23.6183 23.5060 23.3027 23.4430 0.5055 0.1123
## 2510
       FAINT 26.6913 26.7175 26.2816 25.9738 26.0375 25.5492 0.4359 0.3078
## 2511
        FAINT 28.2913 27.2302 27.2555 26.6976 26.7285 26.0252 -0.0253 0.5579
## 2512
        FAINT 29.2727 29.2291 28.0122 26.5212 26.0272 26.2406
                                                              1.2169
                                                                      1.4910
## 2513
        FAINT 27.7275 27.7785 26.9625 26.8070 26.0243 26.4940
                                                              0.8160
                                                                      0.1555
## 2514 BRIGHT 27.5110 26.4903 25.3773 24.9599 24.7062 24.4957 1.1130 0.4174
## 2515
        FAINT 25.9382 25.9502 25.6888 25.7205 25.5884 25.0716 0.2614 -0.0317
## 2516
        FAINT 27.7940 26.9072 26.0459 25.1941 24.4064 24.0981 0.8613 0.8518
## 2517
        FAINT 27.7259 27.6848 27.0886 26.2113 26.2624 25.9165 0.5962 0.8773
## 2518
        FAINT 28.8688 27.6697 27.3426 26.6067 26.1469 27.0429
                                                              0.3271
                                                                      0.7359
## 2519
        FAINT 27.2000 27.0230 26.5341 25.7236 25.5479 25.5081
                                                              0.4889
       FAINT 26.4295 26.3723 26.1231 25.5401 25.1373 24.9573 0.2492
## 2520
                                                                      0.5830
## 2521 BRIGHT 24.2858 24.2752 23.8468 23.0371 22.5457 22.2351 0.4284 0.8097
       FAINT 26.9401 26.9915 26.4237 26.1272 25.9921 25.6164 0.5678 0.2965
## 2523 BRIGHT 26.9284 25.5824 23.4815 22.3417 21.4477 21.0577 2.1009 1.1398
## 2524 FAINT 27.4053 27.1085 26.7916 26.3146 25.6321 26.1148 0.3169 0.4770
## 2525
        FAINT 27.8885 26.9374 26.4275 26.4215 26.1415 25.4690
                                                              0.5099 0.0060
## 2526 BRIGHT 22.6383 21.6301 20.7251 20.4110 20.1517 20.0852
                                                              0.9050
                                                                      0.3141
## 2527 FAINT 27.9783 26.9952 26.3521 26.1827 26.2634 26.5884 0.6431
                                                                      0.1694
## 2528 BRIGHT 25.3318 24.6057 23.7240 23.5435 23.3854 23.2864
                                                              0.8817
                                                                      0.1805
       FAINT 28.8553 27.4625 27.2259 26.8246 26.3973 25.9301 0.2366
## 2530 BRIGHT 24.5287 24.2494 23.5799 22.9727 22.8241 22.7273 0.6695 0.6072
                                                              0.7087
## 2531 FAINT 29.6284 27.3169 26.6082 26.0395 25.5989 25.6506
                                                                       0.5687
## 2532 BRIGHT 26.3373 25.4702 24.4941 23.8954 23.6516 23.3406
                                                              0.9761
## 2533 BRIGHT 26.9401 25.6940 23.9785 22.7080 22.0832 21.7457
                                                              1.7155
                                                                       1.2705
## 2534 FAINT 30.9733 28.5131 27.1684 26.8335 26.4289 25.8633
                                                              1.3447
                                                                      0.3349
## 2535 BRIGHT 26.2745 25.8163 24.8592 24.7240 24.5980 24.4599 0.9571 0.1352
## 2536 BRIGHT 25.8413 24.0595 22.5249 21.6558 21.3050 21.0012 1.5346 0.8691
## 2537 BRIGHT 26.3971 25.5481 24.6481 24.3931 24.2742 24.0482 0.9000 0.2550
## 2538 BRIGHT 26.0813 25.4318 24.5182 23.7649 23.5455 23.4434
                                                              0.9136
                                                                      0.7533
## 2539 BRIGHT 26.9008 26.2665 25.6783 24.6482 24.1323 23.1694
                                                              0.5882
## 2540 BRIGHT 25.8543 25.7028 25.0910 24.4068 23.6127 23.2077
                                                              0.6118
                                                                       0.6842
## 2541 FAINT 26.9936 26.6904 25.7308 25.1351 24.8091 24.6239 0.9596
       FAINT 28.2496 27.1122 26.6912 25.9192 25.7036 25.7389
                                                              0.4210
## 2543 BRIGHT 26.2280 25.7330 25.0361 24.8401 24.7104 24.5759
                                                              0.6969
                                                                      0.1960
## 2544 BRIGHT 27.1210 26.1228 25.5529 24.8684 24.6900 24.5173
                                                              0.5699
                                                                      0.6845
        FAINT 26.5875 26.0303 25.7599 25.4463 24.8869 24.5903
                                                              0.2704
## 2546
        FAINT 29.5038 27.7660 26.6357 26.1209 26.0880 26.4806
                                                              1.1303
## 2547 FAINT 28.6305 28.3177 26.3049 25.2550 24.3798 23.8321 2.0128 1.0499
```

```
FAINT 26.7224 26.5433 26.1147 25.8727 25.4085 25.5061 0.4286 0.2420
        FAINT 27.2091 26.8687 26.6822 26.4226 26.1586 25.5901 0.1865 0.2596
       FAINT 27.5271 27.1540 27.1038 26.6377 27.3711 27.0109 0.0502 0.4661
## 2550
        FAINT 28.6141 27.2001 26.5903 25.9721 25.9954 25.6876 0.6098 0.6182
## 2551
##
  2552 BRIGHT 25.8093 25.4597 24.8668 24.1531 23.9489 23.6465
                                                              0.5929
## 2553 BRIGHT 27.5041 25.8515 24.7243 24.3157 24.0696 23.9408
                                                              1.1272
                                                                      0.4086
## 2554 BRIGHT 26.8179 25.2491 23.8260 23.2139 22.8815 22.6381 1.4231 0.6121
        FAINT 28.5965 27.7139 27.2392 25.6079 24.6646 23.9857
## 2556
        FAINT 27.0681 27.3251 26.0285 25.7976 25.7141 25.7139 1.2966 0.2309
## 2557
        FAINT 29.1923 27.8775 27.4595 26.8471 26.6466 29.1076
                                                             0 4180 0 6124
## 2558
        FAINT 27.0678 26.5203 25.6569 25.1081 24.9770 24.7353
                                                              0.8634
## 2559 BRIGHT 25.1232 24.2440 23.1479 22.8140 22.5733 22.5184 1.0961
                                                                      0.3339
## 2560 FAINT 29.3655 29.5848 28.5484 26.9066 26.5129 25.9745 1.0364 1.6418
## 2561 FAINT 27.4149 27.0332 26.4220 25.9865 24.9179 24.7519 0.6112 0.4355
        FAINT 28.3224 27.0199 26.3202 25.7794 24.9083 24.0703 0.6997 0.5408
## 2562
## 2563 BRIGHT 25.3434 25.0465 24.2115 23.2856 22.7712 22.5205 0.8350 0.9259
       FAINT 28.8291 27.8121 26.7559 26.0592 25.7715 25.4670 1.0562 0.6967
## 2564
## 2565
        FAINT 26.4958 26.6262 26.0950 25.5548 25.1762 24.8293
                                                              0.5312
## 2566
        FAINT 27.3709 28.6264 27.4703 26.6349 25.7138 26.1481 1.1561 0.8354
## 2567 BRIGHT 25.9767 24.1001 22.4936 21.5730 21.1856 20.8890 1.6065 0.9206
## 2568 BRIGHT 26.7501 25.5367 24.5531 24.1775 24.0251 23.7762 0.9836 0.3756
## 2569
       FAINT 30.5744 27.8415 26.8546 26.2045 25.8475 24.8153 0.9869 0.6501
## 2570
        FAINT 27.9301 26.7622 25.9035 25.3786 25.0537 25.1092 0.8587
                                                                      0.5249
## 2571 BRIGHT 26.4313 24.5734 22.8414 21.5222 20.9922 20.6053
                                                              1.7320
       FAINT 28.6738 27.5278 27.3705 26.9925 27.1776 25.9315
                                                              0.1573
## 2572
## 2573 BRIGHT 27.6187 26.7819 25.2622 24.3503 24.0395 23.7432 1.5197
                                                                      0.9119
## 2574 BRIGHT 26.6019 25.3041 24.1947 23.7668 23.4745 23.3969 1.1094 0.4279
       FAINT 27.9402 28.3982 27.0286 26.1673 25.6365 25.7170 1.3696 0.8613
## 2576
       FAINT 27.2161 26.8488 26.2436 26.0756 25.9766 25.7350 0.6052 0.1680
## 2577
        FAINT 27.7578 27.4712 27.1965 26.6950 26.9989 28.5273 0.2747 0.5015
## 2578
        FAINT 28.2227 27.9260 26.8281 26.3839 25.7269 25.7092
                                                              1.0979
## 2579
        FAINT 29.9214 28.9540 27.3519 26.2574 25.8675 25.2696 1.6021 1.0945
## 2580 FAINT 26.7485 26.5449 26.4394 26.2456 25.8153 25.3638 0.1055 0.1938
## 2581 BRIGHT 23.7561 23.2461 22.2602 21.3599 21.0157 20.7555
                                                             0.9859 0.9003
## 2582 BRIGHT 25.9340 25.7874 25.3612 24.7525 24.0809 23.7923
                                                             0.4262 0.6087
       FAINT 29.9426 26.9332 26.5166 25.9871 25.2503 25.2496 0.4166
## 2583
                                                                      0.5295
## 2584 BRIGHT 26.0835 25.3520 24.8982 24.6817 24.5286 24.6010 0.4538
                                                                      0.2165
        FAINT 27.5655 26.7433 25.6859 25.2449 25.4091 24.9554
                                                              1.0574
## 2585
        FAINT 26.5725 26.3441 26.1133 25.8137 25.3412 25.0250 0.2308
## 2586
## 2587 BRIGHT 26.8255 26.3534 25.5749 24.9473 24.2765 24.0757 0.7785 0.6276
## 2588 BRIGHT 26.2482 25.6406 24.8980 24.4943 24.3492 24.2545 0.7426 0.4037
## 2589
       FAINT 27.2458 27.1497 26.9854 26.8347 26.9882 25.9625 0.1643 0.1507
## 2590 FAINT 27.4807 26.8321 26.0271 25.6763 25.5605 25.4674 0.8050 0.3508
  2591 BRIGHT 25.5887 25.4606 25.3565 24.9772 24.5594 24.6085
                                                              0.1041 0.3793
## 2592 BRIGHT 26.0138 25.5274 24.5810 24.1676 24.0051 23.7597
                                                              0.9464
                                                                      0.4134
## 2593 BRIGHT 22.9068 21.8863 21.3587 21.0712 20.9777 20.8521 0.5276 0.2875
## 2594 BRIGHT 25.4830 25.4737 24.8788 24.2502 24.1224 23.9497 0.5949
                                                                      0.6286
## 2595 BRIGHT 25.7112 24.7553 24.3095 24.0578 24.0776 24.0341 0.4458
## 2596
       FAINT 27.2016 26.7692 26.3255 25.9737 25.5121 25.3008 0.4437
                                                                      0.3518
## 2597
        FAINT 29.0107 26.9130 26.0774 25.5893 25.3425 24.9886
                                                             0.8356
                                                                      0.4881
## 2598 BRIGHT 25.7411 25.1482 24.7152 24.1282 23.8578 23.1917
                                                              0.4330
## 2599 BRIGHT 26.5446 25.9894 25.0190 24.4331 24.3425 24.1034 0.9704
## 2600 FAINT 28.4545 28.0742 27.2757 26.4879 26.7428 26.2447 0.7985 0.7878
## 2601 BRIGHT 24.4232 24.4087 24.3475 24.2735 24.3651 24.4664 0.0612 0.0740
## 2602 BRIGHT 26.4016 25.7771 24.7103 24.2438 24.1061 23.6797 1.0668 0.4665
## 2603 BRIGHT 23.6075 21.9797 20.6378 20.1172 19.8162 19.5855 1.3419 0.5206
## 2604 BRIGHT 30.0311 26.5943 25.2514 24.5673 24.2860 23.8988 1.3429
                                                                      0.6841
## 2605 BRIGHT 27.3031 26.4045 24.9543 23.9313 23.6031 23.2640
                                                             1.4502
## 2606 FAINT 26.7072 26.2958 25.7946 25.3345 25.0661 25.1566 0.5012
                                                                      0.4601
## 2607 BRIGHT 25.2611 24.9050 24.4261 24.0210 23.3983 22.9513 0.4789
## 2608 BRIGHT 26.1053 24.7844 23.6252 23.1947 22.9331 22.7924 1.1592 0.4305
## 2609 FAINT 26.8805 26.9992 26.2980 26.3233 25.8842 26.1446 0.7012 -0.0253
## 2610 BRIGHT 24.9856 24.5135 24.0616 23.6956 23.2394 22.7956
                                                             0.4519 0.3660
## 2611 BRIGHT 28.5181 27.2611 26.1048 24.9312 24.5075 24.2734
                                                              1.1563
                                                                      1.1736
## 2612 BRIGHT 26.4201 25.4467 24.8484 24.6086 24.4215 24.1837
                                                              0.5983
                                                                      0.2398
## 2613 BRIGHT 25.1373 24.7538 24.1656 23.3932 23.0207 22.8004 0.5882
## 2614 FAINT 26.7590 27.2001 26.7009 25.5460 25.2371 25.1981 0.4992 1.1549
## 2615 BRIGHT 27.8320 26.6835 25.3281 24.2725 23.9430 23.7181 1.3554 1.0556
## 2616 BRIGHT 25.8776 24.8353 23.6838 23.3031 22.9731 22.8884 1.1515 0.3807
       FAINT 26.6441 26.2576 25.4746 25.4473 25.2045 24.8785
                                                              0.7830 0.0273
        FAINT 27.1343 26.9085 26.4847 26.1360 26.0414 26.3165
                                                              0.4238
## 2618
## 2619 FAINT 28.4471 28.3846 27.7743 26.7356 25.9858 25.7702 0.6103
                                                                      1.0387
## 2620 BRIGHT 23.3443 22.7197 22.0544 21.8280 21.5611 21.5228 0.6653 0.2264
## 2621 FAINT 28.8535 27.0097 26.5889 26.2301 26.3905 25.6392 0.4208 0.3588
## 2622 BRIGHT 24.3310 22.6822 21.1193 20.4872 20.1102 19.8635 1.5629 0.6321
## 2623 BRIGHT 25.1562 24.8443 24.3593 23.6937 23.2345 23.0769
                                                              0.4850
                                                                     0.6656
  2624 BRIGHT 27.3201 25.7391 24.0836 22.9228 22.5156 22.1842
                                                              1.6555
                                                                      1.1608
## 2625 FAINT 29.5981 27.9844 27.5932 26.8688 26.7161 27.5366
                                                              0.3912
                                                                      0.7244
## 2626 FAINT 28.3517 28.0828 27.1866 26.3693 26.5322 25.7952 0.8962 0.8173
```

```
## 2627 FAINT 29.6185 28.6273 27.7011 26.7756 25.8635 26.2782 0.9262 0.9255
## 2628 BRIGHT 27.3486 27.4759 26.2634 24.2814 23.5656 22.6040 1.2125 1.9820
## 2629 BRIGHT 24.1838 23.4901 22.5357 22.2127 22.0388 21.8185 0.9544 0.3230
## 2630 FAINT 28.5567 27.6392 26.6850 26.3526 26.3753 25.4632 0.9542 0.3324
  2631 BRIGHT 25.4737 25.1850 24.7204 24.3567 23.7897 23.5061
##
                                                              0.4646
## 2632
       FAINT 28.1541 26.9694 26.1272 25.6860 25.7722 25.8922
                                                              0.8422
                                                                      0.4412
       FAINT 27.6422 27.4797 26.7657 26.3906 26.0295 25.6298 0.7140
## 2633
        FAINT 26.9047 26.7914 26.3351 25.7633 24.8931 24.4806
## 2635 BRIGHT 26.1902 25.3502 24.5723 23.6783 23.2911 23.0705 0.7779 0.8940
## 2636 BRIGHT 25.2748 24.7471 23.6374 22.7823 21.8984 21.3165 1.1097
                                                                      0 8551
## 2637
        FAINT 26.8942 27.7831 26.7095 26.3654 26.2678 26.4069
                                                              1.0736
                                                                      0 3441
## 2638 BRIGHT 26.6624 25.8491 25.1588 24.2484 24.0206 23.8362 0.6903
                                                                      0.9104
## 2639 BRIGHT 29.8820 27.6694 25.5454 24.4557 23.4254 22.7222 2.1240 1.0897
## 2640 FAINT 27.6947 28.2342 27.9343 26.9887 27.1249 26.7426 0.2999 0.9456
## 2641 FAINT 26.3702 26.5219 26.7615 26.9189 27.2066 26.3657 -0.2396 -0.1574
## 2642 BRIGHT 25.5752 25.0546 24.3713 23.7787 23.1279 22.8715 0.6833 0.5926
## 2643 BRIGHT 27.0302 25.8543 25.0712 24.7504 24.5146 24.3510 0.7831 0.3208
## 2644
        FAINT 27.0146 26.2938 25.5979 25.2896 25.0447 24.6792
                                                              0.6959
## 2645
        FAINT 27.5024 27.8324 27.3930 26.3336 26.0847 26.3928 0.4394
                                                                      1.0594
## 2646
        FAINT 25.6948 25.8730 25.4882 25.0361 24.4348 24.4815 0.3848 0.4521
        FAINT 29.5732 26.7805 25.8056 25.4012 25.4560 25.4460 0.9749 0.4044
## 2648 BRIGHT 28.2598 28.0679 26.1285 24.9298 24.1980 23.5931 1.9394 1.1987
## 2649 BRIGHT 27.0931 26.4860 24.9767 23.8762 23.5117 23.2535
                                                             1.5093 1.1005
## 2650
        FAINT 27.3247 27.2510 26.0383 25.1271 24.5332 24.5105
                                                              1.2127
                                                                      0.9112
        FAINT 26.7248 27.0579 26.7865 26.3544 25.8729 25.8319
                                                              0.2714 0.4321
## 2651
        FAINT 26.8210 27.7486 27.0887 26.8677 26.7185 26.1565 0.6599 0.2210
## 2652
## 2653
        FAINT 25.7679 25.8860 26.0374 26.1183 26.1383 25.3891 -0.1514 -0.0809
        FAINT 27.1599 27.3279 26.6598 26.3843 26.1825 26.0429 0.6681 0.2755
## 2655 BRIGHT 25.7711 24.9253 23.6591 22.6510 22.3145 22.0284 1.2662 1.0081
## 2656 BRIGHT 27.1163 25.7027 24.0799 22.8161 21.9870 21.1404 1.6228 1.2638
## 2657
        FAINT 28.8456 27.3320 26.3607 25.9447 25.9524 26.0665
                                                              0.9713 0.4160
## 2658
        FAINT 27.6459 27.1604 26.3087 25.9331 25.3696 26.7387
                                                             0.8517 0.3756
## 2659
       FAINT 26.7707 26.5494 26.3998 26.1246 26.0204 25.9501 0.1496 0.2752
## 2660 BRIGHT 24.5255 22.3971 20.7686 20.1264 19.7970 19.5910 1.6285 0.6422
## 2661
       FAINT 27.6945 27.0744 26.3104 25.8614 25.9494 25.3340 0.7640 0.4490
        FAINT 29.2586 27.8118 27.2497 26.2166 25.6514 25.7070 0.5621
## 2662
                                                                      1.0331
## 2663
        FAINT 26.7550 26.1872 25.9713 25.6816 25.3511 24.7548 0.2159
                                                                      0.2897
        FAINT 26.0518 26.1766 26.0220 25.7755 25.1390 24.8161 0.1546
## 2664
## 2665 BRIGHT 26.6776 25.3270 23.8120 22.6179 22.0760 21.7529 1.5150
## 2666 BRIGHT 25.6625 25.0502 24.7073 24.5063 24.5722 25.0222 0.3429 0.2010
## 2667 BRIGHT 25.6074 25.0335 24.1003 23.5095 23.3447 23.2270 0.9332 0.5908
## 2668 BRIGHT 25.0790 23.5368 22.3642 21.9062 21.5847 21.4018 1.1726 0.4580
## 2669 FAINT 27.9710 27.7962 26.9366 26.1747 25.9812 25.4027 0.8596 0.7619
## 2670
        FAINT 28.2939 27.7591 27.0083 26.3131 25.3545 25.0169
                                                              0.7508
                                                                      0.6952
## 2671
        FAINT 27.1383 27.2994 26.9534 26.4424 26.4772 25.9095
                                                              0.3460
                                                                      0.5110
## 2672 FAINT 28.0983 27.5748 26.7663 26.0263 25.5173 25.2129 0.8085
                                                                      0.7400
## 2673 BRIGHT 27.0630 25.9083 24.9684 23.9867 23.6745 23.4712 0.9399
## 2674 BRIGHT 23.3219 22.8444 22.6161 22.4179 22.4044 22.3589 0.2283 0.1982
## 2675 FAINT 26.9531 27.0124 26.8654 26.5588 26.3039 25.2871 0.1470 0.3066
## 2676
        FAINT 28.3567 26.5640 26.2856 25.5154 25.3389 26.1772 0.2784
                                                                      0.7702
## 2677 BRIGHT 27.1785 26.3667 25.1876 24.6177 24.4430 24.0723
                                                              1.1791
## 2678 BRIGHT 27.4714 26.1949 25.0037 24.3989 24.1350 23.8644 1.1912 0.6048
## 2679 FAINT 27.6084 27.3367 26.3429 26.1092 25.7116 26.1237 0.9938 0.2337
## 2680 BRIGHT 28.4639 26.7139 24.9286 23.7942 22.9156 22.5458 1.7853 1.1344
## 2681 FAINT 28.9358 27.7202 27.4876 26.7235 26.2994 25.2467 0.2326 0.7641
## 2682 BRIGHT 25.2927 25.3163 24.8855 24.2546 23.9838 23.8678 0.4308 0.6309
       FAINT 28.8688 27.9284 27.2120 26.2966 25.8346 25.9270
                                                              0.7164 0.9154
## 2684 BRIGHT 25.2271 25.0384 24.6006 24.5467 24.1619 24.3923
                                                              0.4378
                                                                      0.0539
       FAINT 29.8083 28.3627 27.4060 26.8897 27.1307 26.3460
## 2685
                                                             0.9567
                                                                      0.5163
        FAINT 26.8629 26.8491 25.9521 25.6053 25.6907 24.8139
                                                             0.8970 0.3468
## 2687 BRIGHT 25.6187 24.4588 23.2553 22.7633 22.5255 22.3229 1.2035 0.4920
## 2688
       FAINT 27.8929 26.7891 26.7761 26.1438 26.2376 25.4744 0.0130 0.6323
        FAINT 28.2672 27.2774 26.5292 25.8749 25.3452 25.0909 0.7482
## 2689
                                                                      0.6543
##
  2690 BRIGHT 22.7180 22.1753 21.4165 20.8406 20.6980 20.5270
                                                              0.7588
## 2691 BRIGHT 25.0182 24.4823 23.6962 23.2748 23.1265 22.8546
                                                             0.7861 0.4214
## 2692 FAINT 28.0282 27.7629 26.9346 25.9513 24.6336 23.9970 0.8283 0.9833
        FAINT 25.8868 25.9971 25.9160 25.8960 26.3449 25.8322 0.0811 0.0200
## 2694 BRIGHT 26.8225 26.2167 25.4705 24.7273 24.5024 23.6838 0.7462 0.7432
## 2695 FAINT 25.8922 26.2564 26.0926 26.2512 26.2177 27.7038 0.1638 -0.1586
## 2696 BRIGHT 25.4423 25.4130 25.2860 24.9985 24.6726 24.0298 0.1270 0.2875
## 2697 BRIGHT 26.4157 25.5739 24.7948 24.6063 24.3876 24.3578
                                                              0.7791 0.1885
## 2698 BRIGHT 25.8742 25.5318 24.7009 24.4138 24.2375 24.1942 0.8309 0.2871
## 2699 BRIGHT 26.5586 25.6171 24.1588 23.1839 22.3573 21.9314 1.4583 0.9749
## 2700 FAINT 27.7669 28.2729 26.5305 25.3646 24.3582 24.1458 1.7424 1.1659
## 2701 BRIGHT 26.8110 26.1837 25.5521 24.9380 24.6545 24.0387 0.6316 0.6141
## 2702 BRIGHT 25.6929 25.2849 24.4321 23.7386 23.5000 23.2205
                                                             0.8528
                                                                      0.6935
       FAINT 27.3116 28.6633 27.4334 26.5129 26.1044 26.2048
                                                              1.2299
                                                                      0.9205
## 2704 BRIGHT 24.3787 24.3488 24.1002 23.6531 23.3160 23.1148 0.2486
                                                                     0.4471
## 2705 BRIGHT 25.7865 25.5270 25.2915 24.8941 24.6927 24.0887 0.2355 0.3974
```

```
## 2706 FAINT 27.2151 26.4468 25.8039 25.0872 24.8118 24.7971 0.6429 0.7167
## 2707 BRIGHT 25.7333 25.0914 24.1530 23.3894 22.5394 21.9426 0.9384 0.7636
## 2708 FAINT 27.2509 27.9067 27.6172 26.5270 26.6672 26.4769 0.2895 1.0902
        FAINT 27.6286 27.0732 26.3009 25.8975 25.9683 25.7625
                                                              0.7723 0.4034
## 2709
        FAINT 27.8364 28.5186 27.5302 26.7685 26.6323 31.0026
##
                                                              0.9884
## 2711
        FAINT 29.4664 28.1444 27.1825 26.2744 25.7499 26.1400
                                                              0.9619
                                                                      0.9081
## 2712 BRIGHT 22.9026 22.2518 21.3477 21.0691 20.8315 20.7656 0.9041 0.2786
## 2713 BRIGHT 27.6914 27.3541 24.9590 23.8231 22.8336 22.0835
                                                             2.3951 1.1359
## 2714 BRIGHT 25.7791 24.7962 23.8582 23.6409 23.3492 23.5349 0.9380 0.2173
## 2715
       FAINT 27.3247 26.4432 25.8457 25.2382 24.5484 24.0682 0.5975 0.6075
## 2716 BRIGHT 23.3677 22.6456 21.7005 21.3942 21.2306 20.9864
                                                              0.9451
                                                                      0 3063
## 2717 BRIGHT 22.0564 21.6172 21.5166 21.3534 21.3730 21.2774 0.1006
                                                                      0.1632
## 2718 FAINT 27.7176 28.5005 27.4733 26.8830 26.9678 27.3034 1.0272 0.5903
       FAINT 25.8970 26.2936 26.2161 26.4454 25.9339 25.9612 0.0775 -0.2293
## 2720 FAINT 27.5186 26.5669 26.0433 25.6077 25.4184 25.1826 0.5236 0.4356
## 2721 FAINT 28.1616 27.7708 26.6740 25.8514 25.7186 25.9464 1.0968 0.8226
## 2722
        FAINT 27.6919 26.6195 25.9667 25.3673 25.1939 24.8768 0.6528 0.5994
## 2723 BRIGHT 24.4236 22.5979 21.0056 19.8446 19.4433 19.0918
                                                              1.5923 1.1610
## 2724 FAINT 25.9304 26.0315 25.9398 25.9738 25.8515 26.3725 0.0917 -0.0340
## 2725
        FAINT 29.8517 26.7365 25.9350 25.3882 25.3158 25.0324 0.8015 0.5468
        FAINT 31.4966 27.5325 27.1445 26.3533 25.9673 24.8244 0.3880 0.7912
## 2727 BRIGHT 26.1695 25.6061 24.9105 24.7420 24.6654 24.6026 0.6956 0.1685
## 2728
       FAINT 27.6933 27.9927 27.6417 26.7484 26.3785 26.0694 0.3510
                                                                      0.8933
## 2729
        FAINT 27.0374 26.5715 25.8449 25.6501 25.3214 25.0921
                                                              0.7266
                                                                      0.1948
        FAINT 27.5533 27.7184 27.1669 26.4977 26.1538 25.6919
                                                              0.5515
## 2730
## 2731 BRIGHT 25.0434 24.4189 23.5740 23.1724 22.9422 22.7283 0.8449 0.4016
## 2732
       FAINT 26.8574 27.3938 27.0301 26.2640 26.1139 25.0615 0.3637 0.7661
        FAINT 26.8442 27.0530 26.9902 26.7066 26.7381 26.4992 0.0628 0.2836
## 2733
## 2734
       FAINT 26.1506 26.0196 25.7866 25.9956 25.3826 25.7940 0.2330 -0.2090
## 2735
        FAINT 26.5943 26.1052 25.8227 25.4484 25.2140 24.6220 0.2825 0.3743
## 2736
        FAINT 27.0907 26.5501 25.9065 25.9799 25.6487 25.6795
                                                              0.6436 -0.0734
## 2737
        FAINT 28.6793 30.0671 28.5549 26.8768 26.3616 27.9765 1.5122 1.6781
## 2738
        FAINT 27.2177 26.6274 26.1585 25.5951 25.1486 24.1423 0.4689 0.5634
        FAINT 28.9842 27.4364 26.6949 25.9514 25.1236 24.7266 0.7415 0.7435
## 2740
        FAINT 28.5385 27.7514 26.8745 25.2094 24.5042 23.3903 0.8769 1.6651
       FAINT 30.1515 27.7284 26.9349 26.3228 26.0923 25.8018 0.7935 0.6121
## 2741
## 2742 BRIGHT 28.1094 27.5220 26.0709 24.3182 23.5710 22.5530 1.4511
                                                                      1.7527
        FAINT 28.5170 27.8625 27.1048 26.4259 25.9618 25.2372
                                                              0.7577
## 2743
        FAINT 26.8135 26.3616 25.6110 25.3076 25.1825 25.2128 0.7506
## 2744
                                                                      0.3034
## 2745
        FAINT 27.8929 26.9017 25.9903 25.9148 25.5682 25.1563 0.9114 0.0755
        FAINT 30.4568 30.6126 27.3280 26.4621 25.7577 25.2848 3.2846 0.8659
## 2747
        FAINT 28.9397 27.1869 25.8866 25.1901 24.9657 24.6439 1.3003 0.6965
## 2748
        FAINT 25.7104 25.7257 25.6035 25.6984 25.5106 26.9372 0.1222 -0.0949
## 2749
        FAINT 27.5982 27.1688 26.3529 25.5473 25.2656 25.1835
                                                              0.8159 0.8056
## 2750
        FAINT 27.6652 27.3290 27.1158 26.6066 26.2553 26.1799
                                                              0.2132 0.5092
## 2751 BRIGHT 26.7677 25.4742 25.0102 24.7191 24.6251 24.5688 0.4640 0.2911
## 2752 FAINT 26.6238 26.9297 26.0453 25.8928 25.9573 25.4105 0.8844 0.1525
## 2753 BRIGHT 27.6870 25.1814 23.6406 22.7534 22.4284 22.1057 1.5408 0.8872
## 2754 BRIGHT 25.6626 24.6866 24.0951 23.8312 23.7239 23.6033 0.5915
                                                                      0.2639
## 2755 BRIGHT 26.0529 25.4413 24.3971 24.0177 23.8530 23.3097
                                                              1.0442
                                                                      0.3794
## 2756
        FAINT 27.5936 27.1224 26.5534 26.0033 25.3548 25.2707
                                                              0.5690
## 2757
        FAINT 27.7625 27.4958 27.1713 26.8030 27.2489 26.0134 0.3245 0.3683
## 2758 BRIGHT 30.1221 27.7176 25.9345 24.7586 23.8278 23.1638 1.7831 1.1759
## 2759 BRIGHT 25.4667 24.9026 24.2473 24.0138 23.8724 23.7976 0.6553 0.2335
## 2760 BRIGHT 25.6208 24.8446 23.9800 23.7847 23.6555 23.5292 0.8646 0.1953
## 2761 FAINT 29.4248 27.8407 26.9502 25.8988 24.5396 23.6482 0.8905 1.0514
## 2762
        FAINT 26.5543 27.1260 26.5341 26.1662 25.9515 26.2225
                                                              0.5919 0.3679
## 2763 BRIGHT 25.5542 25.3303 24.6548 24.4679 24.2837 24.1920
                                                              0.6755
                                                                      0.1869
## 2764 FAINT 29.3977 27.9508 27.7410 26.4943 26.8220 25.6417 0.2098
                                                                      1.2467
## 2765 BRIGHT 26.0209 25.6280 25.1180 24.5327 24.0195 23.7718 0.5100
                                                                      0.5853
        FAINT 28.5676 28.5353 27.2774 26.5596 26.7416 27.6603 1.2579
## 2767
        FAINT 28.3924 27.9862 26.8774 26.6352 27.0221 26.6009 1.1088
                                                                      0.2422
        FAINT 26.9500 27.0917 26.7935 26.1749 26.0774 25.5980
## 2768
                                                              0.2982
                                                                      0.6186
## 2769 BRIGHT 24.7377 24.1411 23.1971 22.2569 21.7984 21.5730
                                                              0.9440
## 2770
        FAINT 27.2819 27.0912 26.5699 26.1212 26.1063 25.8915
                                                              0.5213 0.4487
## 2771
        FAINT 27.5373 26.9637 26.1148 25.6282 25.3327 25.5419 0.8489 0.4866
        FAINT 29.0475 27.6996 27.3659 26.4411 25.8790 25.6166 0.3337 0.9248
## 2773 BRIGHT 27.0152 25.0642 23.4761 22.3006 21.8502 21.4874 1.5881 1.1755
## 2774 FAINT 29.2080 28.6406 27.5633 26.8570 27.7316 28.2005 1.0773 0.7063
## 2775
        FAINT 27.2130 26.5810 25.5170 25.0352 25.0469 25.1079 1.0640 0.4818
        FAINT 26.5984 26.3674 26.4831 26.4334 26.1784 26.6031 -0.1157
## 2776
## 2777 BRIGHT 23.8633 22.6070 21.2599 20.7113 20.3700 20.1566 1.3471 0.5486
## 2778 FAINT 27.8586 27.2582 26.6487 26.2548 25.2990 24.6508 0.6095 0.3939
## 2779 BRIGHT 25.1116 23.8343 22.3946 21.7649 21.3674 21.1145 1.4397
## 2780
       FAINT 27.6198 26.5219 25.7697 25.3646 25.2930 25.0933 0.7522 0.4051
## 2781
        FAINT 27.3487 26.9581 26.1302 25.7208 25.3866 24.7641 0.8279
                                                                      0.4094
        FAINT 28.6844 27.3896 26.9449 26.4504 26.3203 29.4901
                                                              0.4447
        FAINT 28.2066 29.2523 27.5890 26.6533 26.2721 25.9282
                                                              1.6633 0.9357
## 2783
## 2784 BRIGHT 25.5439 24.8946 24.0550 23.2956 22.8384 22.6810 0.8396 0.7594
```

```
## 2785 BRIGHT 25.1386 24.3959 23.3167 22.9977 22.7898 22.6771 1.0792 0.3190
       FAINT 27.4256 26.1692 25.5880 25.2945 25.3783 25.5422 0.5812 0.2935
        FAINT 31.7410 27.9307 26.7703 26.6318 25.9478 25.5113 1.1604 0.1385
## 2787
        FAINT 27.0258 26.6539 26.1741 26.0960 26.0078 25.4295
                                                              0.4798
## 2788
                                                                      0.0781
         FAINT 33.0696 28.2002 26.9653 26.5429 26.2456 26.1575
##
                                                               1.2349
## 2790
        FAINT 28.9263 31.4260 27.8375 26.6154 25.6877 24.9323
                                                              3.5885
                                                                      1.2221
## 2791 BRIGHT 25.8254 25.5347 24.7890 23.8595 23.3237 23.0865
                                                              0.7457
        FAINT 27.7034 27.3274 26.4654 25.6728 25.4924 25.2565
## 2793
        FAINT 28.1657 27.0644 27.1190 26.4490 26.2124 25.6283 -0.0546 0.6700
## 2794 BRIGHT 26.5204 25.3628 23.8384 22.5953 22.0249 21.6781 1.5244 1.2431
## 2795
        FAINT 26.2865 26.3814 26.0006 26.0170 25.7156 25.6491
                                                              0 3808 -0 0164
## 2796 BRIGHT 26.9101 25.6370 24.9180 24.5639 24.3139 24.1364 0.7190
                                                                      0.3541
## 2797 BRIGHT 25.8603 25.6407 24.7465 23.8478 23.5176 23.3479 0.8942 0.8987
       FAINT 27.7387 27.8971 27.6012 26.5664 26.7569 26.0451 0.2959 1.0348
## 2799 FAINT 27.4930 27.3175 26.4965 26.2101 26.3953 25.5797 0.8210 0.2864
## 2800 FAINT 27.9099 26.7962 25.8338 25.6193 25.5912 25.3349 0.9624 0.2145
## 2801 BRIGHT 24.5382 23.4305 22.6088 22.2011 22.0247 21.8232 0.8217 0.4077
## 2802 BRIGHT 26.4626 25.8906 25.2634 24.6038 24.4305 24.3961
                                                              0.6272
## 2803 BRIGHT 24.9268 24.6779 23.8815 23.1385 22.9514 22.7761 0.7964 0.7430
## 2804 BRIGHT 24.2448 24.0798 23.2827 22.7616 22.6615 22.5018 0.7971 0.5211
       FAINT 27.7970 26.9641 26.2990 25.7489 25.0301 24.6685
                                                              0.6651 0.5501
## 2806 BRIGHT 26.4041 25.5203 24.5182 24.2249 24.1484 23.7858
                                                              1.0021 0.2933
## 2807
        FAINT 27.9778 26.3994 25.6324 25.0663 24.6911 24.0143
                                                              0.7670
                                                                      0.5661
##
  2808
        FAINT 26.5091 27.2923 26.7946 26.6750 26.5397 25.4571
                                                              0.4977
                                                                      0.1196
        FAINT 28.0027 26.8550 26.4632 26.2366 26.0215 25.0562
                                                              0.3918
## 2809
                                                                      0.2266
        FAINT 28.1443 27.4376 26.5273 26.0885 26.1113 26.0526 0.9103
## 2810
                                                                      0.4388
## 2811
        FAINT 25.8238 25.9446 25.8567 25.7827 26.1420 25.6948 0.0879 0.0740
        FAINT 29.7466 28.9969 27.5611 26.6481 26.1949 26.2789 1.4358 0.9130
## 2813 BRIGHT 22.3873 21.6409 20.7143 20.3373 20.0264 19.8509 0.9266 0.3770
## 2814 BRIGHT 28.0143 27.2022 25.2579 24.1244 23.1665 22.4830 1.9443
                                                                      1.1335
## 2815
        FAINT 26.9699 27.3588 27.0430 26.6038 26.5010 26.4087
                                                              0.3158
## 2816
        FAINT 28.3542 27.8423 26.2927 25.1767 24.2014 23.7199 1.5496
                                                                      1.1160
## 2817 FAINT 28.4660 27.1877 27.1590 26.1867 25.7749 25.4274 0.0287
                                                                      0.9723
## 2818 BRIGHT 25.9688 25.7967 25.2565 24.4882 24.2734 24.2170 0.5402 0.7683
## 2819 BRIGHT 25.0430 24.5845 24.4476 24.2460 24.5303 24.2646 0.1369
## 2820
       FAINT 26.8260 26.6417 26.2908 25.7738 25.4058 25.0654 0.3509
                                                                      0.5170
## 2821
        FAINT 26.3638 26.6109 25.9707 25.1436 24.8359 24.8525
                                                              0.6402
                                                                      0.8271
## 2822 BRIGHT 26.2512 25.8952 25.1398 24.3898 23.7782 23.7325
                                                              0.7554
## 2823 BRIGHT 27.1910 25.5276 24.5140 24.1160 23.9928 23.7304 1.0136
                                                                      0.3980
## 2824 FAINT 27.1797 26.4934 26.1750 25.9216 25.3035 24.9089 0.3184 0.2534
        FAINT 27.5617 28.3731 27.3733 26.9846 26.5102 26.4651 0.9998 0.3887
## 2826 BRIGHT 26.3134 25.7422 24.7059 24.4585 24.1211 24.1752 1.0363 0.2474
## 2827 BRIGHT 26.7156 25.5458 23.9398 22.6496 22.1208 21.7709 1.6060 1.2902
## 2828
       FAINT 27.8683 27.0833 26.3570 25.7378 25.1036 24.4416
                                                              0.7263 0.6192
## 2829
        FAINT 28.7804 29.4964 27.4380 26.1218 25.6780 24.8478
                                                              2.0584
        FAINT 27.5470 27.1093 27.3747 26.8712 26.3327 25.9487 -0.2654
## 2830
                                                                      0 5035
## 2831 FAINT 27.4079 27.9617 26.7392 25.7823 25.1884 24.7827 1.2225
## 2832 BRIGHT 24.0022 22.8807 21.6269 21.2280 20.9303 20.8139
## 2833 BRIGHT 26.6605 26.1094 25.6559 24.9790 24.8741 24.8092
                                                              0.4535
                                                                      0.6769
## 2834
       FAINT 27.8311 27.8652 27.3864 26.6275 25.9755 25.5378 0.4788
                                                                      0.7589
## 2835 BRIGHT 26.4162 26.0433 25.0200 24.4122 24.3047 24.0518
                                                              1.0233
## 2836
        FAINT 29.7462 27.3766 27.3762 26.9591 26.4075 26.2400
                                                              0.0004
                                                                      0.4171
## 2837
        FAINT 26.7545 27.0123 26.2546 25.5022 25.4019 25.0829 0.7577
## 2838 BRIGHT 24.6979 24.4434 23.4661 22.6515 22.3316 21.9968 0.9773 0.8146
## 2839
       FAINT 27.3043 27.1899 26.8185 26.6607 26.4377 25.7528 0.3714 0.1578
## 2840
        FAINT 28.4950 27.1986 26.7600 25.9924 25.5522 25.1783 0.4386 0.7676
## 2841
        FAINT 27.3699 27.3807 26.5260 25.8739 25.6550 25.1654
                                                              0.8547
                                                                      0.6521
## 2842
        FAINT 28.9480 28.9041 27.7956 26.7306 25.5872 25.4390
                                                              1.1085
        FAINT 27.5901 27.1211 26.9638 26.5729 26.4553 25.6854 0.1573
## 2843
                                                                      0.3909
        FAINT 27.0883 27.0945 26.5017 25.9776 25.2349 24.8393
## 2844
                                                              0.5928
                                                                      0.5241
## 2845 BRIGHT 24.5627 24.3980 24.2731 24.0062 23.5930 23.0931 0.1249
## 2846
       FAINT 27.1498 27.1493 26.3283 25.6435 25.0396 24.4140
                                                              0.8210
                                                                      0.6848
## 2847
        FAINT 29.1223 27.9805 27.0530 26.4387 25.7056 24.6197 0.9275
                                                                      0.6143
## 2848
        FAINT 29.1004 27.7395 28.1858 26.4805 25.7718 25.3847 -0.4463
## 2849
        FAINT 27.8268 28.1694 27.3603 26.9390 26.1512 25.7750 0.8091
                                                                      0.4213
## 2850
        FAINT 28.2284 28.3831 27.3003 26.7926 27.0394 28.0324 1.0828
        FAINT 28.0978 27.0196 26.2619 25.3366 25.2067 24.7113 0.7577 0.9253
## 2852
       FAINT 26.1898 25.9903 25.4964 25.4949 25.3658 25.2801 0.4939 0.0015
## 2853
       FAINT 28.0199 27.0567 26.6547 26.3128 26.0268 26.2180 0.4020 0.3419
##
  2854 BRIGHT 25.9291 24.6175 22.8433 21.5619 20.9501 20.5725
                                                              1.7742
                                                                      1.2814
        FAINT 30.3300 27.7518 27.0487 26.9248 26.7905 26.1533
                                                              0.7031
## 2855
## 2856 BRIGHT 26.0717 25.3004 24.4026 23.6306 22.9870 22.7453
                                                              0.8978
                                                                      0.7720
        FAINT 26.1460 26.0106 25.4165 25.2982 25.1575 24.7919
## 2857
                                                              0.5941
                                                                      0.1183
        FAINT 27.8609 27.8103 27.0185 26.6025 26.1281 26.4665
## 2859 BRIGHT 26.6686 26.0290 25.0596 24.8367 24.5377 25.1062 0.9694 0.2229
  2860 BRIGHT 24.6999 24.3828 23.8755 23.2334 22.8399 22.7467
##
                                                              0.5073 0.6421
##
        FAINT 28.9016 29.8130 27.5012 25.5458 24.3702 23.6794
                                                              2.3118
        FAINT 30.3273 26.7933 26.7493 26.0140 25.5864 24.8869
                                                              0.0440 0.7353
## 2862
## 2863 FAINT 27.9092 26.9564 26.7731 26.1323 25.6498 25.1178 0.1833 0.6408
```

```
## 2864 BRIGHT 25.3647 25.3174 24.8833 24.3292 24.1084 24.0194 0.4341 0.5541
## 2865 BRIGHT 25.8321 24.9695 24.6159 24.3870 24.3311 24.3172 0.3536 0.2289
       FAINT 26.8378 26.7312 26.0782 25.9468 25.7107 25.8507 0.6530 0.1314
## 2866
  2867 BRIGHT 25.8331 25.3875 24.5735 24.2093 24.0701 23.7269
                                                              0.8140 0.3642
##
        FAINT 27.4361 26.7025 26.0114 25.4496 24.6231 24.3998
##
                                                              0.6911
## 2869
        FAINT 29.3296 28.0618 27.0074 26.3350 25.8566 25.8298
                                                              1.0544
                                                                      0.6724
       FAINT 27.2449 26.3719 25.6424 25.5379 25.2003 26.3250 0.7295 0.1045
## 2870
## 2871 BRIGHT 24.8330 24.4656 23.7323 23.0057 22.7642 22.5431 0.7333 0.7266
## 2872
       FAINT 27.7447 28.1267 27.9425 26.8130 26.3089 27.5890 0.1842
                                                                     1.1295
## 2873 BRIGHT 24.9851 24.1677 23.1192 22.2111 21.8799 21.5906 1.0485
                                                                      0 9081
## 2874
        FAINT 26.6578 26.4260 25.9390 25.4548 25.4503 26.4161
                                                              0 4870
                                                                      0 4842
## 2875
        FAINT 28.5921 26.7512 25.9671 25.5231 25.2496 25.2116
                                                              0.7841
                                                                      0.4440
        FAINT 27.1014 27.4957 26.7573 26.7022 26.5990 25.9558 0.7384 0.0551
## 2876
## 2877
        FAINT 26.9913 27.2617 26.3894 26.3176 25.9268 26.0917 0.8723 0.0718
        FAINT 26.6307 26.6728 26.2662 25.7787 24.9782 24.9383 0.4066 0.4875
## 2878
       FAINT 28.6517 29.0687 26.8806 25.9366 24.8710 24.5920 2.1881 0.9440
## 2879
        FAINT 28.0135 26.6950 25.7577 25.2835 25.0859 24.7217
                                                              0.9373 0.4742
## 2880
## 2881
        FAINT 26.7984 26.8242 26.5014 26.3092 26.2626 26.7274
                                                              0.3228
## 2882 BRIGHT 26.5721 26.0552 25.0712 24.2532 23.9719 23.7256 0.9840
                                                                      0.8180
## 2883 BRIGHT 26.7182 25.8755 24.7773 24.4059 24.1938 24.1190 1.0982 0.3714
## 2884 BRIGHT 25.5580 25.0193 24.1474 23.3481 22.7225 22.4426
                                                              0.8719 0.7993
## 2885
       FAINT 25.5373 25.6529 25.5418 25.5719 25.9126 25.6019
                                                             0.1111 -0.0301
## 2886
        FAINT 27.0592 26.8942 26.7953 26.7844 27.2049 27.2470
                                                              0.0989 0.0109
## 2887
        FAINT 27.4666 27.2403 26.3668 25.8454 25.4973 25.2260
                                                              0.8735
                                                                      0.5214
        FAINT 28.5134 27.6828 26.8683 26.0707 25.0041 24.3453
                                                              0.8145
## 2888
## 2889 BRIGHT 28.0631 26.9929 25.7874 24.8917 24.6597 24.3239 1.2055
       FAINT 27.3859 26.8305 25.7274 25.4306 25.3637 24.9892 1.1031 0.2968
        FAINT 28.5714 27.8581 27.3169 26.5909 26.9005 26.8589 0.5412 0.7260
## 2892 BRIGHT 26.2107 25.4247 24.0222 23.2537 23.0663 22.8345 1.4025 0.7685
## 2893 FAINT 28.2948 27.9427 28.1569 26.6204 26.4045 25.7647 -0.2142
                                                                      1.5365
## 2894 BRIGHT 24.6931 24.2846 23.6960 22.9827 22.7494 22.5763 0.5886
## 2895 FAINT 26.8831 26.8198 26.0952 25.3988 25.1466 25.3228
                                                              0.7246
                                                                      0.6964
## 2896 BRIGHT 27.4106 26.1597 24.8312 24.4125 24.1661 24.0753 1.3285
                                                                      0.4187
## 2897 FAINT 27.2860 26.5678 25.6594 25.3985 25.5468 24.8676
                                                             0.9084
## 2898 BRIGHT 25.2152 24.9540 24.4936 24.2049 24.2324 24.1306 0.4604 0.2887
## 2899 BRIGHT 27.0706 26.6061 25.6218 24.6209 24.2802 24.1940 0.9843
                                                                      1.0009
## 2900 BRIGHT 26.6239 25.5140 24.1649 23.2125 22.9397 22.6881 1.3491
                                                                      0.9524
        FAINT 27.9175 27.6482 26.6205 26.1602 25.4521 25.5942
## 2901
                                                              1.0277
        FAINT 27.7954 28.7783 27.6151 26.9837 26.9647 27.1056 1.1632
## 2902
                                                                      0.6314
## 2903
        FAINT 27.0674 26.2259 25.4320 25.2813 25.0658 24.9792 0.7939 0.1507
        FAINT 27.5664 27.2638 26.8347 26.0253 25.5688 26.0347 0.4291 0.8094
## 2905
        FAINT 26.3771 26.9241 26.4463 26.2840 26.3835 26.2366 0.4778 0.1623
        FAINT 26.7166 26.5667 25.9993 25.8639 25.5747 26.2386 0.5674 0.1354
## 2906
##
  2907
        FAINT 25.5439 25.3275 25.2335 25.0258 24.8420 24.1304
                                                              0.0940 0.2077
## 2908
        FAINT 28.0653 27.4959 27.0773 26.6194 26.2587 26.1671
                                                              0.4186
                                                                      0.4579
## 2909 BRIGHT 25.4885 25.0470 24.0216 23.1033 22.4830 22.2906 1.0254
                                                                      0.9183
## 2910 FAINT 29.8062 27.3050 26.6725 26.3628 26.2496 26.2297
                                                              0.6325 0.3097
## 2911 FAINT 27.3008 27.4275 27.0166 26.8373 26.3166 26.0248 0.4109
## 2912 BRIGHT 23.6617 21.9761 20.5460 19.9459 19.5544 19.2385 1.4301 0.6001
## 2913 BRIGHT 25.3458 24.3837 23.1362 22.6046 22.2977 22.0734 1.2475 0.5316
## 2914 BRIGHT 26.8427 25.6178 23.9877 22.7887 22.3239 21.9783
                                                              1.6301
## 2915 FAINT 27.9134 27.1626 26.8908 26.9003 26.7971 25.6205 0.2718 -0.0095
       FAINT 28.4880 28.4481 27.6033 26.3976 25.9219 26.2564 0.8448 1.2057
        FAINT 29.3109 29.6550 27.4574 26.4861 25.9668 26.6473 2.1976 0.9713
## 2918 BRIGHT 23.8815 23.5389 22.8161 22.4476 22.2370 22.0885 0.7228 0.3685
## 2919 FAINT 28.6155 28.0383 27.0938 26.6550 26.0374 26.6211 0.9445 0.4388
## 2920
        FAINT 26.7309 27.0830 26.1150 25.9105 26.1130 26.3818
                                                              0.9680
                                                                      0.2045
## 2921 BRIGHT 24.5938 23.5660 22.7766 22.4932 22.2082 22.2056
                                                              0.7894
                                                                      0.2834
## 2922 FAINT 26.9839 26.5955 25.7861 25.0190 24.4962 24.4135
                                                             0.8094
                                                                      0.7671
       FAINT 26.1475 26.1187 25.5682 25.1572 24.4140 24.2783
                                                             0.5505
                                                                      0.4110
## 2924 BRIGHT 27.0814 25.9668 24.9229 24.1161 23.7623 23.5669
                                                              1.0439
## 2925 BRIGHT 26.0048 23.8766 22.2674 21.4863 21.1248 20.9003 1.6092
                                                                      0.7811
## 2926 BRIGHT 24.3846 23.5908 23.0967 22.8132 22.8096 22.7190
                                                              0.4941
                                                                      0.2835
## 2927
        FAINT 28.4991 28.0571 27.9323 26.8036 25.8053 25.1833
                                                              0.1248
                                                                      1.1287
## 2928
       FAINT 26.2105 25.8090 25.3056 25.1081 24.9578 24.8777
                                                              0.5034
                                                                      0.1975
## 2929 BRIGHT 24.3049 23.9243 23.1918 22.7060 22.5442 22.3647 0.7325 0.4858
## 2930 FAINT 29.6269 28.1368 28.1133 26.7662 27.0660 25.8154 0.0235 1.3471
## 2931 FAINT 28.1327 27.3230 26.6044 25.9022 25.7975 26.6018 0.7186 0.7022
## 2932 BRIGHT 24.5488 23.8599 23.0141 22.5460 22.3796 22.2641 0.8458 0.4681
## 2933 BRIGHT 25.3941 23.2033 21.5361 20.3103 19.8447 19.4776
                                                              1.6672
## 2934 FAINT 27.2584 27.0767 26.9237 26.4100 26.8140 26.5610
                                                              0.1530
## 2935 BRIGHT 26.3682 25.2028 24.3649 24.0352 23.7551 23.7943 0.8379
                                                                      0.3297
## 2936 BRIGHT 23.0623 22.9613 22.7760 22.4567 22.0997 21.9353 0.1853 0.3193
       FAINT 27.5298 27.5730 27.7121 26.6920 26.9036 28.0316 -0.1391 1.0201
## 2938 BRIGHT 25.6278 25.3029 24.6843 24.6140 24.3535 24.5751 0.6186 0.0703
##
  2939 BRIGHT 25.0992 24.6568 23.8087 23.2605 23.1330 22.9514 0.8481 0.5482
       FAINT 28.1156 27.2857 26.4861 26.0997 26.1622 26.0078
                                                              0.7996
                                                                      0.3864
## 2941 FAINT 29.1288 27.3324 26.5214 26.0380 25.9361 25.6364
                                                              0.8110
                                                                      0.4834
## 2942 BRIGHT 26.5391 25.9172 25.1102 24.4907 23.7871 23.1567 0.8070 0.6195
```

```
## 2943 BRIGHT 25.6181 24.9257 23.7244 23.2389 22.9863 22.6815 1.2013 0.4855
## 2944 FAINT 27.1407 26.5420 26.1690 25.9838 25.2950 25.4751 0.3730 0.1852
## 2945 BRIGHT 26.2328 25.4522 24.7122 24.5102 24.3188 24.2633 0.7400 0.2020
        FAINT 30.9673 27.8114 27.8767 26.8643 26.4542 25.0858 -0.0653
## 2946
                                                                      1.0124
## 2947
         FAINT 27.8235 26.9885 25.8282 25.5672 25.2127 25.3637
                                                              1.1603
## 2948
        FAINT 29.3979 27.1426 26.6127 25.8425 25.8802 26.6620
                                                              0.5299
                                                                      0.7702
## 2949 BRIGHT 25.4585 24.7845 23.7674 23.0396 22.3579 22.0367
                                                              1.0171
       FAINT 27.8189 27.6093 27.0513 25.8726 25.1908 24.9482
## 2951
        FAINT 27.0509 26.6748 26.4974 26.1629 25.9341 26.1007 0.1774
## 2952
        FAINT 27.2530 28.7512 27.1662 26.5652 26.2653 25.6626 1.5850
                                                                      0 6010
## 2953 BRIGHT 26.9690 26.2538 25.5720 24.9647 24.3297 23.7641
                                                              0 6818
                                                                       0 6073
## 2954
       FAINT 27.4289 26.3899 26.7004 26.5916 26.2890 26.4280 -0.3105
                                                                      0.1088
## 2955 FAINT 28.0736 27.9658 28.0356 26.7614 26.2814 25.3694 -0.0698
## 2956 BRIGHT 23.7008 23.6887 23.4065 22.7699 22.5281 22.4671 0.2822 0.6366
## 2957
        FAINT 28.0374 27.1101 27.1119 26.5516 26.2838 28.2608 -0.0018 0.5603
       FAINT 28.5660 28.4255 27.2485 26.5904 26.5152 26.5157 1.1770 0.6581
## 2958
## 2959
        FAINT 26.9811 27.0417 26.8964 26.1364 25.7702 25.0075
                                                              0.1453 0.7600
## 2960
        FAINT 26.3257 26.6521 26.5249 26.2657 25.3833 25.2899
                                                              0.1272
## 2961 BRIGHT 24.3911 22.7170 21.2758 20.7507 20.4476 20.2774 1.4412
                                                                      0.5251
## 2962 BRIGHT 25.9065 23.8038 22.1832 21.1457 20.7312 20.4234 1.6206
                                                                      1.0375
       FAINT 27.1571 26.4274 25.9511 25.3625 24.7871 24.0830
## 2964 BRIGHT 19.8458 18.7869 18.2210 17.8609 17.6711 17.4633 0.5659
## 2965 BRIGHT 26.3670 23.9112 22.3122 21.2873 20.8894 20.6027 1.5990
                                                                      1.0249
##
        FAINT 27.2138 26.3846 26.0220 25.5838 25.6123 24.7601
                                                              0.3626
                                                                       0.4382
        FAINT 28.1143 27.5143 26.7841 26.1483 25.4326 24.7349
                                                              0.7302
## 2967
                                                                      0.6358
        FAINT 28.6219 28.9534 28.0604 26.6184 26.8399 25.9533 0.8930
## 2968
## 2969
       FAINT 28.1017 28.1097 27.2546 26.5438 26.1530 27.5110 0.8551 0.7108
## 2970 BRIGHT 25.6159 25.6488 25.2357 24.7254 24.2145 24.0570 0.4131 0.5103
## 2971 FAINT 28.7134 28.0120 27.5423 26.5782 26.8562 26.8608 0.4697 0.9641
## 2972 BRIGHT 25.7392 24.9936 24.4347 24.1679 24.0891 23.9074 0.5589 0.2668
## 2973 BRIGHT 24.2316 23.8189 22.9850 22.0053 21.5819 21.3206
                                                              0.8339
## 2974 FAINT 29.7762 28.6863 27.3069 26.4022 25.9023 25.5473
                                                              1.3794
                                                                      0.9047
## 2975
       FAINT 28.5151 27.6470 27.1571 25.3705 24.6967 23.5925 0.4899
                                                                      1.7866
## 2976 BRIGHT 26.2114 26.0790 25.4060 24.8151 24.5984 24.4704 0.6730
## 2977
        FAINT 28.6184 27.1985 26.0254 25.5829 25.2622 25.0003 1.1731
                                                                      0.4425
## 2978
        FAINT 29.2662 28.3182 27.0554 26.5822 26.3895 25.3206 1.2628
                                                                      0.4732
## 2979
        FAINT 26.5600 26.7561 26.9684 26.7757 26.4050 25.9210 -0.2123
                                                                      0.1927
        FAINT 27.6510 27.7845 26.3513 26.2095 25.8869 25.8811 1.4332
## 2980
## 2981
        FAINT 27.1647 27.0653 26.6382 25.9568 25.9094 24.9779
                                                              0.4271
                                                                      0.6814
## 2982
        FAINT 29.1052 28.1835 27.1281 26.6736 26.5491 29.1957 1.0554 0.4545
        FAINT 28.0386 27.6868 27.0882 26.5509 26.2871 27.2212 0.5986 0.5373
## 2984 BRIGHT 24.6180 22.8542 21.2828 20.3443 19.9662 19.6341 1.5714 0.9385
## 2985 BRIGHT 29.4811 28.2158 26.7076 24.5433 23.7002 22.7491 1.5082 2.1643
##
  2986
        FAINT 26.7806 26.7835 26.3981 26.3248 26.2179 26.3471
                                                              0.3854 0.0733
## 2987
        FAINT 26.4131 26.7827 26.5871 26.5974 27.0644 26.2996
                                                              0.1956 -0.0103
## 2988
        FAINT 28.5672 27.5510 26.4304 25.6801 24.6820 24.1934 1.1206 0.7503
       FAINT 26.8535 27.6353 26.6911 26.6704 26.0990 26.6299 0.9442 0.0207
## 2990 BRIGHT 26.7620 26.0622 24.5644 23.5108 22.6200 21.9410 1.4978 1.0536
## 2991 BRIGHT 23.6843 23.0573 22.2558 22.1209 21.8599 21.9625
                                                              0.8015
                                                                      0.1349
## 2992 BRIGHT 27.2907 26.5675 25.5295 24.9079 24.7908 24.4449
                                                              1.0380
                                                                      0.6216
## 2993 BRIGHT 26.1994 24.8521 23.1845 21.9690 21.5047 21.1555
                                                              1.6676
## 2994 FAINT 26.7186 26.8438 26.6212 26.1369 26.0054 25.5657
                                                              0.2226
## 2995 BRIGHT 27.1834 26.6964 25.8127 24.9191 24.3388 24.2269 0.8837 0.8936
       FAINT 27.9972 27.7245 26.8295 26.1747 25.6618 25.5148 0.8950 0.6548
## 2997
        FAINT 27.6025 26.6882 25.8155 25.4993 25.4308 25.1754 0.8727 0.3162
## 2998 FAINT 27.0707 26.3269 25.6373 25.4521 25.3741 25.7623 0.6896 0.1852
## 2999 BRIGHT 25.4006 24.8206 23.8971 23.5381 23.3307 23.1373 0.9235 0.3590
## 3000 FAINT 29.4503 26.7704 25.8985 25.7404 25.6257 26.4624 0.8719
                                                                      0.1581
## 3001 FAINT 25.8173 26.0102 26.0302 26.1394 26.2382 27.0720 -0.0200 -0.1092
## 3002 BRIGHT 26.0706 25.8254 25.4551 24.8715 24.5510 23.6750 0.3703 0.5836
## 3003 BRIGHT 23.7971 22.7224 21.5643 21.0468 20.7202 20.4708 1.1581 0.5175
## 3004
       FAINT 26.4809 26.5026 26.0911 25.7623 25.7590 25.2320 0.4115 0.3288
        FAINT 27.0656 27.1748 26.8059 26.4021 26.5427 26.8845
## 3005
                                                              0.3689
                                                                      0.4038
##
  3006 BRIGHT 24.9287 24.6638 23.9785 23.1932 22.9529 22.6978
                                                              0.6853
                                                                      0.2208
## 3007 BRIGHT 26.2886 25.4552 24.5221 24.3013 24.1083 24.3666
                                                              0.9331
## 3008 FAINT 28.6066 27.8051 27.1741 26.7275 27.0566 26.6810 0.6310
## 3009 BRIGHT 25.7709 24.9919 24.0822 23.8200 23.6528 23.4759 0.9097 0.2622
## 3010 FAINT 30.6041 30.1339 27.8161 26.8596 27.6003 25.8834 2.3178 0.9565
## 3011 FAINT 28.5577 28.8819 27.8295 26.9787 26.2380 25.6266 1.0524 0.8508
  3012 BRIGHT 26.2018 25.9137 25.3318 24.5921 24.0036 23.6889
                                                              0.5819 0.7397
  3013 BRIGHT 25.9458 24.9563 24.5492 24.3400 24.3192 24.2006
                                                              0.4071
##
## 3014 BRIGHT 24.4039 23.1949 22.2035 21.9961 21.6706 21.7262
                                                              0.9914 0.2074
## 3015 FAINT 30.9512 28.9014 27.1697 25.9535 25.2746 25.3937
                                                              1.7317
                                                                      1.2162
## 3016 BRIGHT 25.8318 25.1024 24.1159 23.1459 22.7701 22.5834 0.9865 0.9700
## 3017 BRIGHT 26.1282 25.7626 25.4680 24.9477 24.4738 23.9149 0.2946 0.5203
       FAINT 28.4534 27.3894 26.6441 25.9517 25.3987 25.2054
##
                                                              0.7453
                                                                      0.6924
  3019 BRIGHT 25.9871 25.3939 24.5104 24.2040 24.0227 23.8170
                                                              0.8835
## 3020 FAINT 26.9693 26.3294 25.8448 25.8054 25.5919 25.6610
                                                              0.4846
                                                                      0.0394
## 3021 FAINT 27.5225 26.9084 26.0743 25.3480 24.7796 24.6168 0.8341 0.7263
```

```
## 3022 FAINT 29.0541 27.6092 26.8997 26.2972 26.4186 26.9778 0.7095 0.6025
## 3023 FAINT 29.1734 27.7388 26.9146 26.1323 25.7351 27.2522 0.8242 0.7823
## 3024 BRIGHT 25.6171 25.3251 24.8519 24.1799 23.8308 23.7327 0.4732 0.6720
       FAINT 26.3706 26.7039 26.4969 26.1027 26.2587 25.6953
                                                              0.2070 0.3942
## 3025
        FAINT 28.6765 27.2436 26.4247 25.6349 24.8628 24.1116
##
                                                              0.8189
## 3027 BRIGHT 25.5798 24.8289 24.1866 23.9776 23.8069 23.7617
                                                              0.6423 0.2090
## 3028 FAINT 25.6005 25.5100 25.0080 25.0539 24.8719 24.7546 0.5020 -0.0459
## 3029 BRIGHT 25.1965 24.4608 23.8894 23.6752 23.5867 23.4367 0.5714 0.2142
## 3030 BRIGHT 28.2095 25.9090 24.6114 24.1611 23.8406 23.7339 1.2976 0.4503
## 3031
       FAINT 26.5936 26.9320 26.7007 26.6243 26.3530 26.2728 0.2313
                                                                      0 0764
##
  3032
        FAINT 28.1551 30.9339 28.5643 26.9692 26.1116 27.8750
                                                              2 3696
                                                                      1 5951
## 3033
        FAINT 28.3681 26.9745 26.4189 26.1700 25.8138 26.3612 0.5556
                                                                      0.2489
        FAINT 27.3183 27.1104 26.6980 26.4714 25.8858 25.7344 0.4124 0.2266
## 3034
## 3035
       FAINT 30.2478 27.3762 26.8080 25.9506 25.9828 25.4558 0.5682 0.8574
## 3036
       FAINT 25.9798 25.5270 25.2223 25.0753 25.0057 25.3964 0.3047 0.1470
        FAINT 28.0985 28.7776 27.9446 26.4923 25.6996 25.0133 0.8330 1.4523
## 3037
## 3038
        FAINT 28.6619 28.4525 26.6520 25.5218 24.6727 23.9029 1.8005
                                                                      1.1302
## 3039 BRIGHT 25.5548 24.8639 23.8300 23.2599 23.0921 22.9141
                                                              1.0339
## 3040
       FAINT 27.3227 26.7298 25.9756 25.4119 24.6000 24.2371 0.7542
                                                                      0.5637
## 3041
        FAINT 27.9412 28.3202 27.5744 26.6879 27.0395 26.6539 0.7458
                                                                      0.8865
        FAINT 28.3021 30.7862 27.6374 26.7959 26.7531 27.7082 3.1488
## 3043
        FAINT 26.8722 26.6085 26.3235 26.0180 25.2934 25.6734 0.2850
                                                                      0.3055
        FAINT 26.6962 26.5262 25.8694 25.7347 25.7367 25.5612 0.6568
## 3044
                                                                      0.1347
## 3045
        FAINT 28.3060 28.4359 27.4487 26.8480 27.0535 26.7782
                                                              0.9872
## 3046
        FAINT 28.4955 27.8548 27.1732 26.8723 26.9344 26.6228
                                                              0.6816
                                                                      0.3009
        FAINT 28.3587 28.6892 26.9442 26.7144 26.6545 26.4765 1.7450
## 3047
                                                                      0.2298
## 3048 BRIGHT 24.5774 24.1318 23.0751 22.0938 21.4074 21.1148 1.0567 0.9813
## 3049 BRIGHT 26.7300 26.4276 25.5846 24.8132 24.6015 24.6563 0.8430 0.7714
## 3050 BRIGHT 26.3512 26.0789 25.3494 24.5563 24.1204 23.9557 0.7295 0.7931
## 3051 BRIGHT 25.8442 25.4038 24.9101 24.4245 23.7418 23.3630 0.4937
                                                                      0.4856
## 3052 FAINT 27.2473 28.2751 27.3051 26.4056 25.9152 26.2695
                                                              0.9700
## 3053 BRIGHT 24.0716 23.3339 23.0068 22.8424 22.8188 22.8080
                                                              0.3271 0.1644
## 3054 BRIGHT 25.8967 25.5780 24.9715 24.7922 24.5615 24.8062 0.6065 0.1793
## 3055 BRIGHT 23.9256 23.3830 23.1709 22.8639 22.8450 22.6654 0.2121 0.3070
## 3056
       FAINT 29.2748 27.7870 27.3058 26.4680 26.0942 25.7623 0.4812 0.8378
## 3057 BRIGHT 27.5438 26.0697 24.8575 24.1037 23.9540 23.7594 1.2122
                                                                      0.7538
## 3058 BRIGHT 26.4114 25.5404 24.5966 23.8462 23.1849 22.9128 0.9438
                                                                      0.7504
## 3059 BRIGHT 28.3055 28.4737 25.8661 24.3231 23.5432 22.6092
                                                              2.6076
## 3060 FAINT 26.4389 25.9686 25.7476 25.3459 25.0189 24.3387
                                                              0.2210
                                                                      0.4017
## 3061 FAINT 28.9433 27.0660 26.5752 26.3598 26.2998 25.5348 0.4908 0.2154
## 3062 BRIGHT 24.7436 24.4179 23.6366 22.9506 22.1960 21.7895 0.7813 0.6860
## 3063
       FAINT 26.4113 26.3661 25.8416 25.7541 25.5747 26.2142 0.5245 0.0875
## 3064
       FAINT 28.7293 27.6017 26.7520 26.4669 26.3756 26.4750 0.8497 0.2851
##
  3065
        FAINT 28.5450 27.9655 26.8244 25.6483 25.1538 24.7382
                                                              1.1411
                                                                      1.1761
## 3066 BRIGHT 24.9420 24.9580 24.5381 23.8805 23.6297 23.6051 0.4199
                                                                      0.6576
## 3067
       FAINT 30.2705 28.5146 27.6209 26.8228 26.6135 26.5670 0.8937 0.7981
        FAINT 26.6723 26.3557 26.1529 25.8643 25.5494 24.9973 0.2028 0.2886
## 3069
       FAINT 26.0911 26.2467 26.0663 26.2734 26.0815 25.7761 0.1804 -0.2071
## 3070 FAINT 29.4943 27.0599 26.0891 25.9621 25.9075 26.0332 0.9708 0.1270
## 3071 BRIGHT 29.1540 26.6499 25.3318 24.9177 24.4293 24.5628 1.3181
                                                                      0.4141
       FAINT 27.0650 27.6606 26.7862 26.5361 26.3808 25.7032
                                                              0.8744
## 3072
## 3073 BRIGHT 25.4349 24.6455 24.3247 24.0915 24.0585 23.9465 0.3208 0.2332
## 3074 FAINT 28.0904 27.9112 27.5693 26.7928 26.9448 25.4769 0.3419 0.7765
## 3075 BRIGHT 25.6684 25.2383 25.1027 24.8831 24.7981 24.2196 0.1356 0.2196
## 3076 BRIGHT 23.8450 22.9522 21.8759 21.4170 21.2164 20.8960 1.0763 0.4589
## 3077 BRIGHT 25.7488 25.6063 25.4118 24.9344 24.6394 23.8704 0.1945 0.4774
## 3078 BRIGHT 24.0466 23.5915 22.7899 21.9738 21.6947 21.4691 0.8016 0.8161
## 3079 BRIGHT 25.9781 25.1104 24.3961 24.1330 23.9611 23.8210
                                                              0.7143
                                                                      0.2631
## 3080 FAINT 27.9905 27.8259 26.9376 26.6044 25.7818 25.2701 0.8883
                                                                      0.3332
        FAINT 27.0624 26.7280 25.9169 25.3520 25.0627 25.2505 0.8111
## 3081
                                                                      0.5649
        FAINT 29.5987 27.9555 27.1107 26.8392 26.4097 25.7265
## 3082
                                                             0.8448
## 3083
        FAINT 27.7569 27.3178 27.0231 26.3968 25.6793 24.7741 0.2947
                                                                      0.6263
        FAINT 28.5203 27.6498 26.7839 26.4986 26.5289 25.8652 0.8659
## 3084
                                                                      0.2853
##
        FAINT 28.0594 27.9012 27.4977 26.8085 27.1320 25.5914
                                                              0.4035
## 3086 BRIGHT 24.9853 25.1070 24.8125 24.3714 23.9326 23.3401 0.2945
                                                                      0.4411
       FAINT 25.3117 25.2698 25.3035 25.2887 25.5489 25.7188 -0.0337
## 3087
       FAINT 27.5223 27.3682 26.3657 25.1188 24.6256 24.2407 1.0025 1.2469
## 3089
       FAINT 29.1082 29.5354 27.2108 26.4139 26.5321 25.7385 2.3246 0.7969
## 3090 BRIGHT 22.9496 22.9327 22.8308 22.4143 22.2219 22.1889 0.1019 0.4165
##
  3091
       FAINT 26.9262 26.8696 26.3133 25.5596 25.6730 25.6368
                                                              0.5563 0.7537
        FAINT 27.0550 26.3771 26.3124 26.2428 26.0865 25.2552
                                                              0.0647
## 3092
        FAINT 28.0550 28.5737 27.2921 26.0129 25.2338 24.4376 1.2816
## 3093
                                                                      1.2792
## 3094 BRIGHT 23.3540 21.6666 20.2938 19.7555 19.4453 19.1956
                                                             1.3728
        FAINT 27.1575 26.7713 26.0289 26.0087 25.6189 25.9202 0.7424
## 3096
        FAINT 26.0964 26.1120 25.5720 25.3352 25.2018 25.2351 0.5400
                                                                      0.2368
  3097 BRIGHT 27.2453 26.3089 25.4804 24.8910 24.7229 24.5677 0.8285
##
                                                                      0.5894
        FAINT 26.2633 26.1111 26.1292 25.9113 25.5216 25.0372 -0.0181
       FAINT 27.8428 26.7729 26.1230 25.6315 25.5822 25.6814 0.6499
## 3099
                                                                      0.4915
## 3100 BRIGHT 28.9490 27.2039 24.7694 23.7041 22.7441 22.3013 2.4345 1.0653
```

```
## 3101 BRIGHT 27.6738 27.3972 25.1020 24.0811 23.0948 22.5319 2.2952 1.0209
## 3102 FAINT 26.3676 26.3031 26.2095 26.1635 26.2261 25.5491 0.0936 0.0460
## 3103 BRIGHT 27.0047 26.2214 25.4496 24.6344 24.3220 24.0880 0.7718 0.8152
       FAINT 27.3082 26.5446 25.4651 25.0385 24.8340 25.1218 1.0795 0.4266
## 3104
        FAINT 29.3168 28.7489 27.6939 26.9302 26.9561 26.6349
##
                                                              1.0550
## 3106
        FAINT 26.9606 26.8174 26.2017 25.5397 24.7277 24.2890 0.6157
                                                                      0.6620
## 3107
        FAINT 27.2363 27.1599 27.3232 26.7700 27.2016 27.3942 -0.1633 0.5532
        FAINT 28.8503 29.2930 27.6009 26.7440 27.3965 26.1585 1.6921 0.8569
## 3109
       FAINT 27.0334 26.3247 26.0445 25.3259 24.9877 24.9143 0.2802 0.7186
## 3110 BRIGHT 29.2890 29.2789 26.3887 24.9543 24.1644 23.2370 2.8902
                                                                      1 4344
## 3111
        FAINT 29.5505 27.2303 26.3040 25.5992 25.0339 24.9797
                                                              0 9263
                                                                      0 7048
## 3112
        FAINT 34.3795 27.5954 26.8254 26.2120 26.4935 25.3748 0.7700
                                                                      0.6134
## 3113 FAINT 27.0180 26.5971 25.8938 25.4720 25.2244 25.4250 0.7033 0.4218
## 3114 FAINT 27.6459 27.6380 27.3148 26.7843 26.3688 26.2820 0.3232 0.5305
## 3115 BRIGHT 22.5514 20.7385 19.2514 18.6536 18.3421 18.0486 1.4871 0.5978
## 3116 FAINT 26.8718 26.6547 26.0535 25.4247 24.7753 24.1572 0.6012 0.6288
## 3117
        FAINT 26.4753 26.0029 25.6787 25.0053 24.3934 24.6605 0.3242 0.6734
## 3118 BRIGHT 25.3281 24.3883 23.6251 23.3522 23.0264 22.9753
                                                              0.7632
## 3119 FAINT 28.9500 27.2079 26.3241 25.7537 25.2988 25.2307 0.8838 0.5704
## 3120 BRIGHT 24.4567 24.2549 24.2332 24.1611 24.2799 24.3604 0.0217 0.0721
## 3121 FAINT 28.0809 27.6356 26.9184 25.8138 25.4963 25.2225 0.7172 1.1046
## 3122
       FAINT 27.9613 28.6965 26.8206 25.7429 24.6860 24.2962 1.8759 1.0777
## 3123
        FAINT 28.1305 28.2089 26.2359 25.9011 25.6119 25.3619 1.9730
                                                                      0.3348
## 3124
        FAINT 30.4128 27.6712 26.9095 26.4807 25.7510 25.1526
                                                              0.7617
                                                                      0.4288
## 3125
        FAINT 28.3386 27.5479 26.8435 26.5384 26.3751 26.6540 0.7044
                                                                      0.3051
        FAINT 27.6427 26.8955 26.1721 25.3874 25.0119 24.6313 0.7234
## 3126
## 3127
        FAINT 27.8480 28.2467 27.3907 26.6321 26.2097 25.4944 0.8560 0.7586
       FAINT 27.9162 27.3051 27.4593 26.5354 26.7988 25.8161 -0.1542 0.9239
## 3128
## 3129 FAINT 25.9450 26.2183 26.2129 26.0554 26.6586 26.6111 0.0054 0.1575
## 3130
        FAINT 26.6946 26.5964 26.3221 25.8571 25.8691 25.7926 0.2743 0.4650
## 3131
        FAINT 28.1629 27.9479 27.6941 26.5949 27.0132 26.5807
                                                              0.2538
## 3132
        FAINT 28.1775 28.2756 27.4363 26.5435 25.8600 25.1094 0.8393 0.8928
## 3133 FAINT 27.3508 26.6804 26.1549 25.3595 24.9671 24.2442 0.5255 0.7954
## 3134
        FAINT 29.9566 28.0834 26.8143 26.1652 25.8822 25.8172 1.2691 0.6491
## 3135
        FAINT 27.3600 27.3987 27.4878 26.9179 26.2434 26.6828 -0.0891 0.5699
        FAINT 25.6074 25.6375 25.6488 25.5435 25.5014 25.5016 -0.0113 0.1053
## 3136
## 3137
        FAINT 27.3773 27.4127 26.9473 26.3952 25.6489 25.2084 0.4654
                                                                      0.5521
## 3138 BRIGHT 25.7380 25.0720 24.2371 23.3489 22.7636 22.5223 0.8349
## 3139 FAINT 28.5239 28.2291 26.5781 25.9639 25.2048 24.6772 1.6510
## 3140 BRIGHT 23.5284 22.6124 21.7641 21.5069 21.2117 21.1723 0.8483 0.2572
       FAINT 26.4429 26.6821 26.2697 25.5772 25.2110 25.0157 0.4124 0.6925
## 3142 BRIGHT 26.7169 25.3254 24.4014 24.0251 23.7870 23.5733 0.9240 0.3763
## 3143 FAINT 29.2634 28.2446 27.2371 25.8692 25.3365 24.4001 1.0075 1.3679
## 3144
        FAINT 28.8412 28.2765 27.6501 26.9005 26.8678 26.3205
                                                              0.6264 0.7496
## 3145 BRIGHT 23.6656 21.6951 20.0808 19.4560 19.1093 18.8847
                                                              1.6143 0.6248
## 3146 FAINT 27.8287 29.7786 28.0863 26.8620 26.7022 27.0884 1.6923 1.2243
        FAINT 28.1513 28.1033 27.2404 26.3985 26.1376 26.0302 0.8629 0.8419
## 3148
        FAINT 26.6643 26.8070 26.6198 26.3774 26.0013 27.5994 0.1872 0.2424
## 3149 FAINT 29.3649 27.9924 27.1550 26.5393 25.6885 25.3519 0.8374 0.6157
## 3150
        FAINT 27.0136 26.8962 26.9213 26.2897 25.6316 25.7670 -0.0251 0.6316
## 3151 BRIGHT 24.3154 23.6244 22.9298 22.7337 22.5191 22.4710 0.6946
## 3152 BRIGHT 26.4371 25.7323 25.2543 24.9284 24.5804 24.2853 0.4780
                                                                     0.3259
## 3153 FAINT 27.8238 27.2523 26.7473 26.5255 26.2564 26.4980 0.5050 0.2218
## 3154 BRIGHT 23.9657 23.4160 22.4730 21.9450 21.7108 21.4156 0.9430 0.5280
## 3155 BRIGHT 22.4552 21.9362 21.1547 20.9966 20.8080 20.8222 0.7815 0.1581
## 3156 FAINT 27.1225 26.2074 25.4771 25.1987 25.1740 25.2336 0.7303 0.2784
## 3157
        FAINT 26.8833 27.5671 27.0015 26.5851 26.2341 26.5479 0.5656 0.4164
## 3158 BRIGHT 22.0415 21.3248 20.8417 20.5813 20.4310 20.3325
                                                              0.4831
                                                                      0.2604
## 3159 BRIGHT 26.8743 25.3178 23.2953 22.0300 21.2551 20.8645 2.0225 1.2653
## 3160 BRIGHT 26.8229 26.5136 25.6709 24.7226 24.4346 24.2523 0.8427 0.9483
       FAINT 30.1125 27.7766 27.2575 26.5886 26.1435 26.1919 0.5191 0.6689
## 3162
       FAINT 27.2445 27.4762 26.9499 26.8478 27.3107 26.3974 0.5263 0.1021
        FAINT 27.2592 27.2852 26.6564 26.3452 25.9330 26.5133 0.6288 0.3112
## 3163
## 3164 BRIGHT 26.1940 25.6423 24.9776 24.7904 24.5831 24.3338
                                                              0.6647 0.1872
## 3165
       FAINT 28.6544 27.4344 26.4709 26.5483 26.1205 26.4467
                                                              0.9635 -0.0774
## 3166
       FAINT 28.3381 27.0929 26.9247 26.6828 26.5092 26.9017 0.1682 0.2419
## 3167 BRIGHT 31.9366 26.4426 24.4482 23.2865 22.4584 22.1004 1.9944 1.1617
## 3168 FAINT 26.8389 26.8418 26.7143 26.1007 25.7017 24.9652 0.1275 0.6136
## 3169 FAINT 27.9921 27.6310 26.7184 26.1449 25.8312 25.8843 0.9126 0.5735
## 3170 BRIGHT 25.4207 25.5434 25.2384 24.8437 24.8507 24.6410 0.3050 0.3947
## 3171 FAINT 30.5501 28.3075 27.6480 26.8709 26.9535 26.2147
                                                             0.6595
        FAINT 29.2238 28.9814 27.7398 26.7232 26.6809 25.7001 1.2416 1.0166
## 3172
## 3173 FAINT 29.0616 27.7515 26.8089 26.6770 26.6665 26.0159 0.9426 0.1319
## 3174 BRIGHT 25.6686 25.5701 25.1581 24.4554 24.1346 24.2044 0.4120 0.7027
## 3175 FAINT 27.0142 27.2612 26.2245 25.9505 26.1608 25.4503 1.0367 0.2740
## 3176 BRIGHT 26.4044 25.3658 23.3676 22.1867 21.4090 21.0816 1.9982 1.1809
  3177 BRIGHT 26.1490 25.0347 23.5186 22.4864 22.1334 21.8034 1.5161
## 3178 BRIGHT 24.7741 24.7992 24.9364 24.9169 25.0216 25.1960 -0.1372 0.0195
## 3179 FAINT 29.8728 28.2667 26.3691 25.3449 25.0615 24.5913 1.8976 1.0242
```

```
## 3180 BRIGHT 25.2907 24.7461 24.0134 23.1150 22.8457 22.6261 0.7327 0.8984
## 3181 FAINT 28.8521 27.4686 27.0343 26.8575 25.8877 25.5852 0.4343 0.1768
        FAINT 27.7291 27.1690 26.5096 25.7602 25.4875 25.0939 0.6594 0.7494
## 3182
        FAINT 30.5178 28.4865 29.0100 26.9413 25.9665 25.2219 -0.5235
## 3183
                                                                      2.0687
         FAINT 30.1068 27.9629 27.4637 26.5388 26.3098 26.3412
##
                                                              0.4992
## 3185
        FAINT 28.0418 27.7469 27.0670 26.3257 25.4639 24.8979
                                                              0.6799
                                                                      0.7413
## 3186
        FAINT 27.8895 27.2412 26.0668 25.7274 25.6455 25.2305
                                                             1.1744
                                                                      0.3394
        FAINT 31.1093 28.2358 27.6948 26.5442 25.4909 25.1409
## 3188
        FAINT 27.3194 27.1907 26.3999 25.6337 25.2355 25.1459 0.7908
## 3189
        FAINT 29.8189 27.7097 26.5140 26.5073 26.1425 25.8562 1.1957
                                                                      0 0067
## 3190
        FAINT 26.5811 26.8447 26.8157 26.8085 26.5003 27.1601
                                                              0.0290
## 3191
        FAINT 28.4564 27.5425 27.2579 26.5249 26.0584 26.5088 0.2846
                                                                      0.7330
## 3192 FAINT 29.1763 28.0089 27.1553 26.3260 26.4038 26.2591 0.8536
## 3193 BRIGHT 26.1086 25.4938 24.8228 24.3873 24.2503 24.0862 0.6710 0.4355
## 3194 FAINT 29.4745 28.0216 26.5400 25.8155 25.3378 24.9208 1.4816 0.7245
## 3195 FAINT 27.6528 26.7916 26.7250 26.7101 25.8776 25.5289 0.0666 0.0149
## 3196 BRIGHT 26.6874 26.1407 25.5313 24.9356 24.2645 24.0658 0.6094 0.5957
## 3197 BRIGHT 24.5233 23.9827 22.8877 22.0868 21.7666 21.4778
                                                              1.0950
## 3198 FAINT 29.5668 28.0474 27.2295 26.8480 25.8451 25.2915 0.8179 0.3815
## 3199 BRIGHT 26.1233 24.9629 24.0279 23.6794 23.3698 23.2420 0.9350 0.3485
## 3200 BRIGHT 25.0650 24.9246 24.6619 24.2754 23.5855 23.2237 0.2627
## 3201 FAINT 27.6034 27.7611 27.5648 26.8773 26.8629 26.4088 0.1963 0.6875
## 3202
        FAINT 26.9899 27.3478 26.6107 26.3974 25.9251 26.0754 0.7371
                                                                      0.2133
## 3203
        FAINT 26.2388 25.7747 25.5348 25.0470 24.6495 23.9153
                                                              0.2399
        FAINT 28.2580 27.2119 26.9675 26.9018 26.4248 25.7902
                                                              0.2444
## 3204
## 3205 BRIGHT 25.7343 24.9128 24.4461 24.2606 24.1583 24.0237 0.4667
                                                                      0.1855
## 3206 BRIGHT 26.3864 25.7944 24.8777 23.9839 23.3572 23.1574 0.9167 0.8938
       FAINT 28.1566 27.8974 26.8312 25.0601 24.2265 23.2547 1.0662 1.7711
## 3208 FAINT 27.9277 27.7728 26.9368 26.5467 25.6696 25.0205 0.8360 0.3901
## 3209 FAINT 28.6640 28.3720 27.2084 25.7678 25.1698 24.9750 1.1636 1.4406
## 3210 BRIGHT 26.5624 26.0425 25.2351 24.4197 24.1479 23.9746
                                                              0.8074 0.8154
## 3211 FAINT 27.1965 27.0851 27.0219 26.4294 26.3375 26.7941 0.0632 0.5925
## 3212 FAINT 27.3377 27.5065 27.2175 26.7601 26.6165 27.6725 0.2890 0.4574
## 3213 BRIGHT 26.1128 25.1975 23.6161 22.9080 22.5889 22.3011 1.5814 0.7081
## 3214 FAINT 26.7932 26.3270 25.7662 25.3176 24.4392 24.3985 0.5608 0.4486
## 3215
       FAINT 27.7317 27.9504 26.6778 26.0885 25.9115 25.4688 1.2726
                                                                      0.5893
## 3216 BRIGHT 25.3142 25.2545 24.7732 24.3341 23.7497 23.2289
                                                              0.4813
                                                                      0.4391
## 3217 FAINT 25.7723 25.5942 25.0904 25.0416 24.8527 25.0656
                                                              0.5038
## 3218 BRIGHT 26.6135 25.7185 24.8833 24.6137 24.4576 24.5575 0.8352
## 3219 FAINT 30.6687 28.6494 27.2975 26.7962 26.4940 26.2513 1.3519 0.5013
## 3220 BRIGHT 25.7700 25.1239 24.1757 23.5212 23.3463 23.2128 0.9482 0.6545
## 3221 BRIGHT 26.4968 25.5092 24.4386 24.1815 23.8963 23.9383 1.0706 0.2571
## 3222 FAINT 28.3699 28.1950 27.0283 26.4952 26.5678 25.9102 1.1667 0.5331
## 3223 BRIGHT 31.2507 26.7027 24.9926 23.8722 22.9506 22.5094
                                                              1.7101
                                                                      1.1204
## 3224 FAINT 27.7323 28.1053 27.2516 26.4515 25.6132 26.1035 0.8537
                                                                      0.8001
       FAINT 29.1737 27.5400 26.6833 26.2611 25.3031 25.0754 0.8567 0.4222
## 3225
       FAINT 27.5071 27.1876 26.8152 26.4335 26.7247 25.9199 0.3724 0.3817
## 3227 FAINT 28.7562 27.2305 27.5649 26.5286 26.5029 25.0289 -0.3344 1.0363
## 3228 BRIGHT 26.1127 25.5514 24.6825 23.9049 23.2778 22.9684 0.8689 0.7776
## 3229
       FAINT 26.4165 26.7203 26.5591 26.4181 26.6069 26.8605
                                                             0.1612
                                                                      0.1410
## 3230
        FAINT 26.9792 26.6979 26.8375 26.5201 26.3936 27.3400 -0.1396
## 3231 BRIGHT 25.2398 24.7535 23.8423 23.4772 23.3511 22.9431 0.9112
                                                                      0.3651
## 3232 BRIGHT 22.6141 22.0768 21.0430 20.4007 20.1794 19.9375 1.0338 0.6423
## 3233 FAINT 26.2637 26.3556 25.8413 25.2952 24.9047 24.5584 0.5143 0.5461
## 3234 BRIGHT 26.3880 25.9196 24.9223 24.7843 24.4500 24.3391 0.9973 0.1380
## 3235 BRIGHT 25.2233 25.0625 24.7092 24.2895 23.7508 23.5211 0.3533 0.4197
## 3236 FAINT 28.1228 27.2740 26.2755 25.9916 25.6824 25.7216 0.9985 0.2839
## 3237 BRIGHT 25.6745 25.2565 24.4799 24.1648 23.9714 23.9408
                                                              0.7766
                                                                      0.3151
## 3238 FAINT 30.8954 28.1941 27.5281 26.8004 26.4432 25.3739 0.6660
                                                                     0.7277
## 3239 BRIGHT 27.6265 26.8409 25.6046 24.5872 24.3121 23.9349 1.2363 1.0174
## 3240 BRIGHT 22.3148 21.5717 20.7955 20.5677 20.3569 20.3101 0.7762 0.2278
## 3241 BRIGHT 26.1129 25.1225 24.1104 23.8328 23.6540 23.5538 1.0121 0.2776
       FAINT 26.7917 26.9317 26.3829 26.1090 26.0509 25.8617
## 3242
                                                              0.5488
                                                                      0.2739
## 3243
        FAINT 31.8681 27.9412 27.2751 26.5847 26.3219 26.6098
                                                              0.6661
## 3244 BRIGHT 27.4989 25.8706 25.2724 24.5409 24.2279 23.8924 0.5982
                                                                      0.7315
## 3245 BRIGHT 23.9712 23.3396 23.0004 22.7735 22.7038 22.6189 0.3392
       FAINT 28.8065 28.5290 27.5285 26.8217 26.4706 26.0788 1.0005 0.7068
## 3247
        FAINT 26.6601 26.7476 26.8488 26.5086 27.0387 27.2855 -0.1012 0.3402
## 3248
       FAINT 26.5941 26.6162 26.2830 26.1327 26.7210 26.8546 0.3332 0.1503
## 3249
        FAINT 26.7586 26.9981 26.2967 25.7226 25.3883 25.1319 0.7014 0.5741
        FAINT 27.6924 26.9932 26.3832 25.8759 25.0459 24.6158 0.6100 0.5073
## 3250
        FAINT 26.5601 26.1696 26.3226 26.1314 26.3185 25.5142 -0.1530 0.1912
## 3251
        FAINT 28.0060 26.9994 26.7307 26.1485 25.9043 25.1943 0.2687 0.5822
## 3252
        FAINT 26.5065 26.5000 25.6018 25.0215 24.8621 24.8495 0.8982 0.5803
## 3254
        FAINT 29.1397 27.4893 26.9442 26.6246 27.1027 25.9958 0.5451 0.3196
## 3255
        FAINT 28.2393 28.2869 27.9284 26.6025 27.0570 26.0989
                                                             0.3585 1.3259
  3256 BRIGHT 25.0572 24.3708 23.3945 22.6019 22.3108 22.0182
                                                              0.9763
                                                                      0.7926
## 3257 FAINT 30.6715 28.1565 28.0977 26.6733 26.7243 27.0565
                                                              0.0588 1.4244
## 3258 BRIGHT 25.1652 24.3134 23.3599 23.0814 22.7881 22.7303 0.9535 0.2785
```

```
FAINT 28.1480 27.9060 27.2558 26.5136 25.7519 24.9546 0.6502 0.7422
       FAINT 27.5603 27.0611 26.5828 26.0316 25.4354 25.3688 0.4783 0.5512
       FAINT 28.4816 27.1070 26.5506 26.5371 25.9412 25.1725 0.5564 0.0135
## 3261
        FAINT 26.8052 27.2699 27.2142 26.8832 26.3270 26.8998 0.0557
## 3262
                                                                      0.3310
##
  3263 BRIGHT 24.9408 24.8678 24.9355 24.9047 24.7175 24.6523 -0.0677
## 3264
       FAINT 27.0248 26.8200 27.1370 26.7989 26.5122 26.3711 -0.3170
                                                                      0.3381
## 3265
        FAINT 28.0100 27.9503 26.9700 26.2788 26.0314 25.4687 0.9803
                                                                      0.6912
        FAINT 28.6602 28.4314 27.7222 26.9992 27.0576 26.6868 0.7092
## 3267
        FAINT 28.8016 28.4095 26.6835 26.1293 26.1578 26.3601 1.7260
                                                                      0.5542
## 3268 BRIGHT 23.1297 22.6634 21.6671 21.1757 20.8752 20.6975
                                                              0 9963
                                                                      0 4914
  3269 BRIGHT 24.2768 22.9593 22.0498 21.6607 21.4886 21.2958
                                                              0.9095
## 3270
       FAINT 27.0764 26.6138 26.1987 25.6114 25.0947 24.3565
                                                              0.4151
                                                                      0.5873
## 3271 BRIGHT 26.0689 25.9061 25.1279 24.5690 24.4399 24.0153 0.7782 0.5589
## 3272 BRIGHT 21.7997 21.0218 20.0561 19.7740 19.5271 19.4588 0.9657 0.2821
## 3273 FAINT 26.3438 26.2484 25.4748 25.3471 25.2494 25.1146 0.7736 0.1277
## 3274 BRIGHT 28.7546 26.7245 24.9151 23.6948 22.9394 22.5689 1.8094 1.2203
## 3275 BRIGHT 24.9647 24.9989 24.6267 24.1025 23.4192 22.8207 0.3722 0.5242
## 3276
        FAINT 26.5233 26.5214 25.3780 25.2178 24.8503 25.0358
                                                              1.1434
## 3277
        FAINT 28.2893 26.4386 25.9345 25.1937 24.8085 24.7173 0.5041 0.7408
## 3278 BRIGHT 26.2782 26.1584 25.6804 24.8760 24.4957 24.2177 0.4780 0.8044
       FAINT 26.9963 27.2337 26.6924 26.6246 26.2858 25.8751 0.5413 0.0678
## 3280 BRIGHT 27.7583 27.3160 25.1549 23.6368 22.8703 21.9014 2.1611 1.5181
## 3281
       FAINT 27.5158 27.3815 27.2044 26.9465 26.1187 26.1908 0.1771
                                                                      0.2579
## 3282
        FAINT 26.1757 25.5984 25.4636 25.1976 24.9342 24.1533
                                                              0.1348
                                                                      0.2660
## 3283
        FAINT 27.6725 27.5360 26.8122 25.6725 25.0948 24.1972
                                                              0.7238
## 3284 BRIGHT 23.4479 21.4655 19.8386 19.2377 18.9110 18.7106 1.6269
                                                                      0.6009
## 3285 BRIGHT 26.4705 25.6496 25.0520 24.6977 24.7717 24.6362 0.5976 0.3543
       FAINT 27.1383 27.9658 27.1482 26.6060 25.9135 26.3634 0.8176 0.5422
## 3287 BRIGHT 27.1938 25.8594 23.9360 22.8131 22.0056 21.6460 1.9234 1.1229
## 3288 BRIGHT 26.2856 25.6180 24.4626 23.8166 23.5906 23.2952 1.1554 0.6460
## 3289 BRIGHT 27.2999 26.0979 24.4851 23.1994 22.6696 22.3124
                                                              1.6128
## 3290 FAINT 28.8725 29.5030 27.3550 26.6150 26.2670 25.5889
                                                              2.1480
                                                                      0.7400
## 3291 BRIGHT 26.0012 25.5175 24.7223 24.5525 24.3334 24.6604 0.7952
                                                                      0.1698
## 3292 BRIGHT 25.1490 24.6565 23.7965 23.5907 23.4123 23.4193
                                                             0.8600
## 3293 BRIGHT 27.6787 26.3055 25.4155 24.5337 24.3928 24.4397
                                                              0.8900
## 3294 BRIGHT 25.9333 25.0668 24.1829 23.8798 23.7183 23.6019 0.8839
                                                                      0.3031
## 3295
       FAINT 26.6519 26.4747 25.8264 25.7986 25.6811 25.7199
                                                              0.6483
                                                                      0.0278
## 3296 BRIGHT 26.9154 27.0077 24.7309 23.3345 22.4907 21.5537
                                                              2.2768
       FAINT 30.0203 28.8152 27.7368 26.9625 26.3471 25.9176 1.0784
## 3297
                                                                      0.7743
## 3298 FAINT 31.1241 30.4364 27.6747 26.6880 28.2224 26.0296 2.7617
## 3299 BRIGHT 24.9266 23.4089 22.4509 22.0299 21.8169 21.6533 0.9580 0.4210
## 3300 BRIGHT 26.1806 25.8407 25.1798 24.6660 24.5352 24.4280 0.6609 0.5138
## 3301 BRIGHT 24.3510 22.1041 20.4449 19.6847 19.2919 19.0380 1.6592 0.7602
  3302 BRIGHT 27.3670 25.4071 23.8163 22.6296 22.2053 21.8241
                                                              1.5908
                                                                      1.1867
## 3303 BRIGHT 27.4065 26.5462 25.7117 24.9170 24.0442 23.5565
                                                              0.8345
                                                                      0.7947
## 3304 FAINT 28.1020 27.9104 27.3651 26.4049 26.0765 25.8095 0.5453 0.9602
        FAINT 26.3615 25.8670 25.2036 25.0988 25.0516 25.1004 0.6634
                                                                      0.1048
## 3306
        FAINT 26.4084 25.6416 25.2629 25.0274 25.0692 24.8895 0.3787
## 3307
        FAINT 26.9317 26.8144 26.1398 26.0129 26.0606 25.4426 0.6746
                                                                      0.1269
## 3308 BRIGHT 25.3269 24.0098 22.4613 21.3148 20.8907 20.5369
                                                              1.5485
                                                                      1.1465
## 3309
       FAINT 27.6402 28.5928 27.0290 26.5718 25.9722 25.4602
                                                              1.5638
## 3310 BRIGHT 27.2388 26.0059 25.0000 24.5661 24.4857 24.2336 1.0059
                                                                      0.4339
## 3311 FAINT 28.0313 26.6500 25.9941 25.3273 25.1620 25.0772 0.6559
       FAINT 27.3947 26.5832 25.9087 25.6728 24.9904 24.5953 0.6745 0.2359
## 3313 FAINT 26.9653 27.0149 27.0757 26.8656 26.5823 25.7588 -0.0608 0.2101
## 3314 BRIGHT 24.7751 23.6315 22.4677 21.6643 21.3776 21.1202 1.1638 0.8034
## 3315
       FAINT 27.9288 27.4186 26.5488 25.4142 24.6353 23.8218 0.8698
                                                                      1.1346
## 3316
        FAINT 31.8319 28.1787 26.8400 26.1068 26.0636 25.5980
                                                              1.3387
                                                                      0.7332
        FAINT 26.8927 26.6947 26.0642 25.5894 25.1594 25.1316 0.6305
## 3317
                                                                      0.4748
## 3318 FAINT 26.9807 26.1994 25.6629 25.3264 25.3967 25.4567 0.5365
                                                                      0.3365
## 3319 BRIGHT 25.2311 24.4853 23.5299 23.2358 23.0611 22.9075 0.9554
## 3320 BRIGHT 27.0332 26.3702 25.5088 24.8013 24.2051 23.4673 0.8614 0.7075
       FAINT 28.2557 28.8273 27.2098 26.7519 26.5787 26.1477
## 3321
                                                              1.6175
                                                                      0.4579
## 3322
        FAINT 27.2516 27.3922 26.8652 26.3584 25.8473 25.5992
                                                              0.5270
## 3323 BRIGHT 25.9888 25.5934 24.8752 24.6592 24.5227 24.2764 0.7182
                                                                      0.2160
## 3324
       FAINT 27.4235 27.1243 26.8351 26.2406 26.2168 26.9630 0.2892
        FAINT 29.2380 28.2093 27.4276 26.7998 26.3574 26.7354 0.7817 0.6278
## 3326 BRIGHT 26.9437 26.8475 25.7972 24.9561 24.4936 24.2252 1.0503 0.8411
## 3327 BRIGHT 23.6019 22.4272 22.0019 21.7368 21.7211 21.6450 0.4253 0.2651
## 3328 BRIGHT 24.8412 24.3935 23.7132 23.5815 23.3932 23.3183
                                                              0.6803 0.1317
       FAINT 27.8901 27.4051 26.8355 26.5613 26.0567 26.7930
                                                              0.5696
## 3329
        FAINT 26.8993 26.0454 25.4653 25.1757 25.0635 25.0698 0.5801 0.2896
## 3330
        FAINT 28.3027 27.8042 26.5498 25.7904 25.6202 25.2071 1.2544 0.7594
       FAINT 26.6453 26.8585 25.9547 25.2505 25.2263 25.0680 0.9038 0.7042
## 3333 BRIGHT 23.3684 22.8134 22.6760 22.5266 22.5769 22.5126 0.1374 0.1494
## 3334 BRIGHT 25.2933 25.2385 25.0622 24.7284 24.4669 24.0557
                                                              0.1763
                                                                      0.3338
  3335 BRIGHT 26.6654 26.5057 25.3503 24.3083 23.9598 23.7595
                                                              1.1554
## 3336 BRIGHT 25.7199 25.4972 24.7340 23.7280 23.3149 23.2093
                                                              0.7632
## 3337 FAINT 27.2615 28.1048 27.4631 26.7537 26.5624 26.4075 0.6417 0.7094
```

```
## 3338 FAINT 28.8812 27.6034 27.0350 26.5672 26.2489 25.6216 0.5684 0.4678
## 3339 BRIGHT 25.4309 25.1464 24.8551 24.5377 24.2387 23.9845 0.2913 0.3174
## 3340
       FAINT 26.8804 26.8530 25.9987 25.6561 25.6950 25.6228 0.8543 0.3426
        FAINT 28.0704 27.1480 26.3630 25.8699 25.5772 25.4510 0.7850 0.4931
## 3341
  3342 BRIGHT 26.1006 25.7279 25.0143 24.1071 23.4672 22.6797
##
                                                              0.7136
## 3343
       FAINT 26.8703 26.4267 25.8772 25.6300 25.6122 25.5666
                                                              0.5495
                                                                      0.2472
## 3344
        FAINT 29.5214 28.0183 27.3425 26.2102 25.8892 25.1623 0.6758
                                                                      1.1323
## 3345 BRIGHT 23.5560 23.3273 22.9143 22.4044 21.8455 21.6209
## 3346
       FAINT 27.3814 27.7799 26.6502 25.7448 24.9176 24.3992 1.1297
                                                                      0.9054
## 3347
        FAINT 29.4775 27.5594 26.4641 25.3592 25.0560 24.7892 1.0953
                                                                      1 1049
## 3348
        FAINT 28.0717 27.1239 26.7923 26.7373 25.8925 25.6378
                                                              0 3316
                                                                      0.0550
## 3349 BRIGHT 25.9148 25.3469 24.5450 24.3358 24.2386 24.1265
                                                              0.8019
                                                                      0.2092
## 3350 BRIGHT 27.5279 24.8916 23.2228 22.0494 21.6124 21.2559 1.6688
                                                                     1.1734
## 3351 FAINT 26.5014 26.4731 25.9683 25.4782 25.1476 25.2435 0.5048 0.4901
## 3352 FAINT 27.8559 27.3923 27.1341 26.6734 28.7581 26.2674 0.2582 0.4607
## 3353 FAINT 27.5151 26.9781 26.6153 26.0786 25.8384 25.0776 0.3628 0.5367
## 3354 BRIGHT 23.5552 21.2583 19.5962 18.8655 18.4836 18.2522 1.6621 0.7307
## 3355
       FAINT 27.3291 27.1951 26.6765 26.7676 27.0624 25.7121
                                                              0.5186 -0.0911
## 3356 BRIGHT 25.3157 25.1951 25.0223 24.9532 24.6591 25.1771 0.1728 0.0691
## 3357 BRIGHT 20.7499 19.3800 18.5199 18.1246 17.9349 17.7596 0.8601 0.3953
       FAINT 27.4587 27.4962 27.0519 26.6110 25.9009 25.0151 0.4443 0.4409
## 3359
       FAINT 26.1683 26.1098 25.6113 25.0127 24.9300 24.5618 0.4985 0.5986
## 3360
        FAINT 28.3936 27.3492 26.5037 26.1008 25.7566 26.0965 0.8455
                                                                      0 4029
## 3361
        FAINT 28.4744 28.0799 27.0556 26.2799 26.5441 26.7033
                                                              1.0243
                                                                      0.7757
## 3362
        FAINT 26.7375 25.8434 25.2478 25.0688 24.9843 24.9015
                                                              0.5956
                                                                      0.1790
        FAINT 26.4526 26.0524 25.3458 25.1759 24.9301 25.0400 0.7066
## 3363
                                                                      0.1699
## 3364 BRIGHT 26.3308 25.6949 24.9229 24.3764 23.7424 23.2453 0.7720 0.5465
## 3365 BRIGHT 26.0790 25.8449 25.2754 24.6857 24.5067 24.5794 0.5695 0.5897
## 3366 BRIGHT 26.4484 25.4075 24.6232 24.4922 24.3900 24.3213 0.7843 0.1310
## 3367 BRIGHT 25.9219 25.1376 24.2411 23.4180 23.1952 23.0225 0.8965 0.8231
## 3368 FAINT 29.3446 29.7278 27.2749 26.4707 26.0894 26.7135
                                                              2.4529 0.8042
## 3369 BRIGHT 26.2990 25.8928 25.0747 24.9703 24.7813 25.2901 0.8181 0.1044
## 3370 BRIGHT 22.2635 20.7194 19.5862 19.1066 18.8514 18.6231 1.1332 0.4796
## 3371 FAINT 32.7222 26.6987 26.2735 25.2143 25.0143 24.7399 0.4252 1.0592
## 3372
       FAINT 25.5913 25.7229 25.5689 25.2445 25.0915 24.6845 0.1540
                                                                     0.3244
## 3373
        FAINT 27.4954 26.9082 26.4390 26.0616 25.2944 25.0276 0.4692 0.3774
## 3374
        FAINT 27.5103 26.9591 26.3075 25.8735 25.2129 25.0013 0.6516
                                                                      0.4340
## 3375 BRIGHT 26.4013 25.8540 25.1457 24.9764 24.8031 24.7566
                                                              0.7083
## 3376 BRIGHT 25.4672 24.5726 23.6441 23.2728 23.0733 22.7840 0.9285
                                                                      0.3713
       FAINT 26.8420 27.0316 26.2743 25.6002 24.8004 24.5616 0.7573 0.6741
        FAINT 28.6667 27.7408 27.5852 26.8109 26.4828 26.9925 0.1556 0.7743
## 3379
       FAINT 28.3609 27.1649 26.5780 25.8464 25.4733 24.7794 0.5869 0.7316
## 3380 FAINT 28.4497 26.4728 25.8805 25.3638 25.0715 24.3147 0.5923 0.5167
## 3381 BRIGHT 23.6131 23.1679 22.4683 21.6259 21.2968 21.1242
                                                              0.6996 0.8424
## 3382 FAINT 27.3521 27.6446 26.8559 26.8127 26.9049 26.8936
                                                              0.7887
                                                                      0.0432
## 3383 BRIGHT 26.0230 25.0966 24.2592 23.9380 23.7233 23.7043 0.8374 0.3212
## 3384 BRIGHT 24.6310 24.4606 23.8621 23.0670 22.6618 22.4451 0.5985 0.7951
## 3385
       FAINT 28.9387 27.2911 26.2598 26.0060 25.6800 26.3150 1.0313 0.2538
## 3386 BRIGHT 25.0939 24.7779 24.1045 23.5031 23.3104 23.0510 0.6734 0.6014
## 3387
        FAINT 27.0523 26.5713 26.1388 25.7610 25.2017 24.9636 0.4325 0.3778
## 3388
        FAINT 26.9188 26.8576 26.7024 26.7242 26.7962 26.1640
                                                              0.1552 -0.0218
## 3389
        FAINT 26.9081 26.4743 25.7926 25.2949 24.6087 24.5040 0.6817 0.4977
       FAINT 28.0602 28.1983 27.2828 26.7245 25.8476 25.2412 0.9155 0.5583
## 3390
       FAINT 26.0057 25.9309 25.7183 25.5529 25.2528 24.9309 0.2126 0.1654
## 3392 FAINT 26.2966 25.8999 25.6298 25.4555 25.1526 24.9799 0.2701 0.1743
## 3393 FAINT 28.3214 26.6946 26.2105 25.9313 25.9510 25.5176 0.4841 0.2792
## 3394 BRIGHT 27.3183 26.8603 24.4440 23.2150 22.2128 21.4456
                                                              2.4163 1.2290
## 3395
       FAINT 27.6810 27.6873 26.0132 25.2686 25.4129 24.8783
                                                              1.6741
                                                                      0.7446
        FAINT 27.2197 26.6788 25.8658 25.8172 25.5216 25.0272 0.8130 0.0486
## 3396
## 3397 FAINT 27.0502 26.4579 25.6462 25.0542 24.8830 24.5061 0.8117 0.5920
## 3398 BRIGHT 24.5338 23.8642 22.9004 22.5757 22.4373 22.1079 0.9638 0.3247
## 3399
       FAINT 27.5711 27.0458 26.4729 25.9472 25.3581 25.7716 0.5729 0.5257
        FAINT 26.9709 26.2626 25.4054 25.2256 25.0368 25.0261 0.8572 0.1798
## 3400
## 3401
        FAINT 26.6296 26.5988 26.6390 26.8077 27.0021 26.5314 -0.0402 -0.1687
## 3402
        FAINT 27.6158 27.1373 26.9951 26.3151 26.0069 24.9539 0.1422 0.6800
## 3403
        FAINT 27.9938 27.5691 26.9371 26.9400 27.5271 26.5587 0.6320 -0.0029
        FAINT 30.2235 27.6056 26.4145 25.5474 25.7137 24.9377 1.1911 0.8671
## 3405 BRIGHT 25.8487 25.3963 25.0301 24.9731 24.6985 24.8853 0.3662 0.0570
## 3406
       FAINT 26.7252 26.2781 25.7418 25.6797 25.3571 25.1929 0.5363 0.0621
## 3407
        FAINT 27.8694 27.6479 26.4616 25.6885 25.1876 24.9547
                                                              1.1863 0.7731
## 3408
        FAINT 28.1952 27.6840 26.6648 26.2631 26.1383 26.4258 1.0192 0.4017
        FAINT 27.9945 27.0879 27.2539 26.9407 26.1255 26.2824 -0.1660 0.3132
## 3409
        FAINT 26.0234 26.2097 26.3943 26.4570 26.3863 26.9922 -0.1846 -0.0627
## 3410
        FAINT 29.4968 26.9206 26.6501 26.7634 26.1897 27.3180 0.2705 -0.1133
## 3412
        FAINT 29.3090 27.7598 27.1567 26.5229 27.2217 27.7226 0.6031 0.6338
        FAINT 27.5901 26.7990 26.8432 26.2884 26.2984 25.5757 -0.0442 0.5548
## 3413
  3414 BRIGHT 24.4649 23.8462 22.9079 22.0808 21.4687 21.2411 0.9383 0.8271
## 3415 BRIGHT 26.7311 25.8874 24.6673 23.6188 23.0265 22.7591 1.2201 1.0485
## 3416 BRIGHT 25.6495 24.7769 23.7556 23.4525 23.2544 23.1734 1.0213 0.3031
```

```
FAINT 28.8355 27.2612 26.7578 25.8516 25.7118 25.6631 0.5034 0.9062
## 3418 FAINT 28.4391 26.7365 25.5648 25.0004 24.8488 24.8343 1.1717 0.5644
## 3419 FAINT 30.4701 29.3076 28.2815 26.7723 25.9651 24.9762 1.0261 1.5092
## 3420 BRIGHT 26.7451 25.4450 23.5064 22.4053 21.5443 21.1757
                                                              1.9386
                                                                      1.1011
  3421 BRIGHT 26.0451 25.4771 25.1362 24.9731 25.0228 24.8715
##
                                                              0.3409
## 3422 BRIGHT 26.6979 25.8401 23.7356 22.5595 21.7336 21.3670
                                                              2.1045
                                                                      1.1761
## 3423 FAINT 28.2367 27.1898 26.8807 26.3246 25.6003 24.8978 0.3091 0.5561
        FAINT 29.9530 27.9246 26.9368 26.4787 25.5820 25.1473 0.9878 0.4581
## 3425 BRIGHT 25.9451 25.5211 25.1654 24.6807 24.4172 23.9178 0.3557 0.4847
## 3426
       FAINT 28.5692 30.1071 28.2274 26.6586 25.1932 24.0710 1.8797
                                                                      1 5688
## 3427 BRIGHT 23.9685 23.8182 23.1964 22.3172 21.9638 21.7964
                                                              0.6218
## 3428 BRIGHT 23.8939 23.3908 22.3722 21.3792 21.0167 20.7387
                                                              1.0186
                                                                      0.9930
## 3429 BRIGHT 24.4619 24.2929 23.8247 23.1359 22.9007 22.8285 0.4682 0.6888
## 3430 FAINT 27.2696 27.4612 26.5614 26.7037 26.8309 27.4474 0.8998 -0.1423
## 3431
       FAINT 25.4585 25.4860 25.2524 25.4071 25.1393 25.4944 0.2336 -0.1547
## 3432
       FAINT 28.3434 27.3036 26.3088 26.2048 25.8117 26.3353 0.9948 0.1040
## 3433
         FAINT 29.2535 28.5433 28.1739 26.8277 26.8746 26.4392 0.3694 1.3462
## 3434
         FAINT 27.5520 27.4932 26.9695 26.7406 26.5047 25.9766
                                                              0.5237
## 3435
        FAINT 27.2539 28.7187 27.4122 26.5009 25.6246 25.9756 1.3065 0.9113
## 3436 BRIGHT 24.5769 23.9096 22.8725 22.5844 22.4076 22.3199 1.0371 0.2881
## 3437 BRIGHT 27.2566 24.7846 23.1074 21.9038 21.4260 21.0404 1.6772 1.2036
## 3438
        FAINT 28.1741 28.0031 26.5850 25.4728 24.6937 24.5172 1.4181 1.1122
## 3439
        FAINT 28.0373 28.3383 27.5007 26.6188 26.1162 28.5196
                                                              0.8376 0.8819
## 3440 BRIGHT 26.4228 25.5415 24.5905 24.0792 23.9197 23.6292
                                                              0.9510
                                                                      0.5113
## 3441 BRIGHT 23.0758 21.8429 20.3939 19.7903 19.4449 19.2345
                                                              1.4490
                                                                      0.6036
## 3442 FAINT 26.7539 26.9710 26.7462 26.5373 26.1096 25.5709 0.2248
                                                                      0.2089
## 3443
       FAINT 27.7390 27.7774 26.9243 26.2689 25.4937 24.8522 0.8531 0.6554
        FAINT 27.9557 27.0067 26.9931 26.8123 26.7773 25.4885 0.0136 0.1808
## 3444
## 3445 BRIGHT 22.1405 20.8786 19.9561 19.5388 19.2933 19.0915 0.9225 0.4173
## 3446
        FAINT 27.8437 28.2007 27.1039 26.2746 25.9695 25.8907 1.0968 0.8293
## 3447
         FAINT 28.4585 26.8598 25.3955 25.0326 24.8495 24.5122
                                                              1.4643 0.3629
## 3448
        FAINT 26.1657 26.1148 25.8742 25.7693 25.6612 25.4315 0.2406 0.1049
## 3449
        FAINT 32.8733 27.1957 26.4886 25.7506 25.0420 24.9200 0.7071 0.7380
       FAINT 28.1407 28.5003 27.0558 25.7679 25.0107 24.5070 1.4445 1.2879
## 3451 FAINT 25.9418 26.3083 26.4550 26.2733 25.9523 26.2162 -0.1467
## 3452 BRIGHT 24.0605 23.9069 23.4597 22.6996 21.9994 21.2656 0.4472
                                                                      0.7601
## 3453 BRIGHT 29.4142 27.3581 25.9853 24.8833 24.5063 24.5231 1.3728
                                                                      1.1020
## 3454 BRIGHT 27.3978 27.2569 25.6834 24.5862 23.5766 22.9329
                                                              1.5735
       FAINT 27.5417 26.6766 25.7492 25.3741 25.1650 25.1818 0.9274
## 3455
                                                                      0.3751
## 3456
        FAINT 28.5578 27.3631 27.1598 26.3887 26.1719 25.7326 0.2033 0.7711
         FAINT 26.2086 25.6911 25.4827 25.3048 25.1703 25.4866 0.2084 0.1779
## 3458 BRIGHT 28.2100 27.2852 25.6063 24.4372 23.4937 22.7881 1.6789 1.1691
## 3459 FAINT 28.7023 28.0132 27.3442 26.7167 26.6934 27.1193 0.6690 0.6275
## 3460 BRIGHT 26.7057 25.7948 25.2268 24.9414 24.7724 24.6685
                                                              0.5680 0.2854
## 3461 FAINT 28.7883 28.1488 27.6144 26.9541 26.1473 25.5206
                                                              0.5344
                                                                      0.6603
       FAINT 28.5846 28.6074 26.8316 26.0826 25.4059 24.9915 1.7758 0.7490
## 3462
## 3463 BRIGHT 26.3957 24.0005 22.3754 21.4294 21.0386 20.7453 1.6251 0.9460
## 3464
        FAINT 28.6511 28.7796 28.0029 26.7803 26.5849 26.1380 0.7767
                                                                     1.2226
## 3465
        FAINT 28.3272 28.1147 26.8820 26.6100 26.5016 26.8327 1.2327
                                                                      0.2720
## 3466
        FAINT 28.6743 28.7650 27.2815 26.6081 26.3807 25.4561 1.4835
                                                                      0.6734
## 3467
         FAINT 28.3102 28.3407 27.5721 26.8973 25.8327 26.3791
                                                              0.7686
## 3468 BRIGHT 25.2475 25.1516 24.6696 24.5490 24.5789 24.6334 0.4820
                                                                      0.1206
## 3469 BRIGHT 28.0869 26.2573 24.9787 23.8176 23.1182 22.8246 1.2786 1.1611
       FAINT 27.0987 26.4524 25.9952 25.8344 24.9279 24.7705 0.4572 0.1608
## 3471 FAINT 28.9165 28.0527 27.3343 26.6249 26.8998 26.0418 0.7184 0.7094
## 3472 FAINT 28.2527 27.4029 26.7865 26.5007 26.4747 25.6505 0.6164 0.2858
## 3473 BRIGHT 25.4288 24.6632 23.7429 23.4774 23.2525 23.2632
                                                              0.9203 0.2655
## 3474 BRIGHT 24.4280 24.0985 23.5866 23.5521 23.3003 23.5109
                                                              0.5119
                                                                      0.0345
## 3475 BRIGHT 28.1992 27.8629 25.8650 24.8553 24.6440 24.4472 1.9979
                                                                      1.0097
       FAINT 28.9503 27.4953 26.9887 26.5538 26.2901 26.2199 0.5066 0.4349
## 3476
         FAINT 28.6770 26.9174 26.4501 25.9492 25.9709 25.5171 0.4673 0.5009
## 3477
## 3478
       FAINT 28.5354 27.8331 26.9640 26.0525 26.1538 26.7956 0.8691 0.9115
                                                              0.6789
## 3479
        FAINT 29.2741 26.9544 26.2755 25.8750 25.8871 27.1499
                                                                      0.4005
##
  3480 BRIGHT 26.6595 26.0131 25.4111 24.8668 24.1802 23.8314
                                                              0.6020
## 3481 BRIGHT 26.4612 26.1642 24.3699 23.2674 22.4275 22.0499
                                                              1.7943
                                                                      1.1025
## 3482
       FAINT 28.0189 27.7142 27.0228 26.6239 26.8513 26.5793 0.6914 0.3989
        FAINT 26.9597 26.8018 26.3570 26.5249 25.6472 25.8767 0.4448 -0.1679
## 3484
       FAINT 28.4143 28.2468 26.7333 25.4087 24.8284 23.7213 1.5135 1.3246
## 3485
        FAINT 27.8102 27.1288 27.2839 26.1966 26.3445 25.5863 -0.1551 1.0873
## 3486
        FAINT 27.1896 26.4980 25.9506 25.1652 24.5640 23.8411 0.5474 0.7854
         FAINT 28.7429 27.1800 26.5819 26.0828 25.3846 25.1406
                                                              0.5981
## 3487
## 3488 BRIGHT 28.3983 26.8836 25.5553 24.6981 24.3258 23.8618 1.3283 0.8572
## 3489 FAINT 27.2152 26.8479 26.1818 25.4933 25.0390 24.7260 0.6661 0.6885
## 3490 BRIGHT 25.1157 25.0980 24.9838 24.9676 24.9131 24.5991 0.1142 0.0162
## 3491 FAINT 28.6073 28.1488 26.7722 26.4014 26.0363 25.4709 1.3766 0.3708
## 3492 BRIGHT 24.3082 23.5716 23.2689 23.0731 23.0519 23.0912 0.3027 0.1958
        FAINT 26.4129 26.5122 26.5426 26.3643 26.6343 26.5352 -0.0304
## 3494 BRIGHT 24.7177 22.7008 21.1027 20.3841 20.0139 19.7699 1.5981 0.7186
## 3495 FAINT 28.3380 27.2833 26.5031 25.9241 25.2793 24.9859 0.7802 0.5790
```

```
## 3496 FAINT 28.6328 27.8294 26.9644 26.9746 25.8517 26.3403 0.8650 -0.0102
## 3497 BRIGHT 23.2103 22.5863 21.6252 21.3328 21.1405 21.0400 0.9611 0.2924
## 3498 FAINT 27.7849 26.7088 26.0039 25.8414 25.5438 25.4163 0.7049 0.1625
## 3499 BRIGHT 26.6321 26.5022 25.2462 24.1822 23.4592 23.1721 1.2560
                                                                      1.0640
        FAINT 27.8111 27.9092 27.0813 26.9609 26.4509 26.5239
                                                              0.8279
                                                                       0.1204
## 3501 BRIGHT 24.8680 24.1031 23.0763 22.5610 22.3425 22.0911 1.0268
                                                                      0.5153
## 3502 FAINT 26.8041 26.4434 25.3274 25.1170 24.8600 24.7372 1.1160
                                                                      0.2104
        FAINT 27.3589 26.7338 25.9514 25.3926 25.2466 24.9813 0.7824 0.5588
## 3504 BRIGHT 27.3649 26.5800 25.5192 24.6043 24.3063 24.0231 1.0608 0.9149
## 3505 BRIGHT 26.7650 25.7809 24.7910 24.3929 24.1201 23.9638 0.9899 0.3981
##
  3506
        FAINT 27.1349 26.4607 26.3295 26.0330 26.1376 25.3430
                                                              0.1312
## 3507
        FAINT 29.3190 28.4615 28.3575 26.8019 25.6226 25.0000
                                                              0.1040
                                                                      1.5556
       FAINT 28.9656 28.6225 27.4799 26.5727 26.6325 25.7361 1.1426 0.9072
## 3508
## 3509 BRIGHT 24.9580 24.6719 23.9373 23.1840 22.3453 21.8219 0.7346 0.7533
## 3510 BRIGHT 24.7548 24.0676 23.1212 22.8911 22.6777 22.6971 0.9464 0.2301
## 3511 FAINT 27.0666 27.1976 26.2797 26.2275 26.0868 25.4988 0.9179 0.0522
        FAINT 30.6996 27.5105 26.5150 26.5458 26.5021 27.0664 0.9955 -0.0308
## 3512
## 3513
        FAINT 27.4201 27.2319 26.3851 26.0895 25.8682 26.0465
                                                              0.8468 0.2956
## 3514
        FAINT 28.7446 27.0046 26.6581 26.3828 25.6044 25.3227 0.3465 0.2753
## 3515
        FAINT 26.7120 26.6828 25.8870 25.2113 25.1010 24.8978 0.7958 0.6757
        FAINT 27.3207 27.9823 27.1897 26.6668 26.0850 25.4921 0.7926 0.5229
## 3517
       FAINT 26.1572 26.5947 26.2886 26.0780 26.0493 27.0361 0.3061 0.2106
## 3518 BRIGHT 24.2228 23.2320 22.3860 21.9853 21.7895 21.5813 0.8460
                                                                      0 4007
## 3519
        FAINT 27.2729 27.3957 27.6748 26.5834 25.9380 25.5890 -0.2791
                                                                      1.0914
## 3520
        FAINT 30.1026 27.4216 26.4850 25.8818 25.7528 25.2339 0.9366
## 3521 FAINT 29.7818 30.6990 27.1527 26.9105 26.6201 25.4191 3.5463
                                                                      0.2422
## 3522 BRIGHT 22.4462 20.8510 19.5821 19.0945 18.8532 18.6102 1.2689 0.4876
       FAINT 29.7278 28.4284 27.1575 25.9030 25.5190 24.9419 1.2709 1.2545
## 3524 BRIGHT 24.9108 24.7949 24.2054 23.5931 23.3958 23.1607 0.5895 0.6123
## 3525 BRIGHT 26.0076 25.4935 24.6958 24.5327 24.3792 24.3518 0.7977
                                                                      0.1631
## 3526
       FAINT 26.8620 26.1535 25.8767 25.3419 25.1431 24.2588
                                                              0.2768 0.5348
## 3527
        FAINT 29.2859 27.7908 27.0909 26.3838 25.8557 25.1490 0.6999
                                                                      0.7071
## 3528 BRIGHT 26.4463 25.9135 24.8469 23.8693 23.4502 23.1607 1.0666
                                                                      0.9776
## 3529 BRIGHT 25.0753 24.9200 24.5270 23.8561 23.5028 23.4269 0.3930
## 3530 BRIGHT 24.4450 22.9722 22.1932 21.8131 21.6048 21.4515 0.7790
## 3531 FAINT 27.5029 27.5186 26.3684 25.7143 25.4754 25.7028 1.1502
                                                                      0.6541
## 3532
        FAINT 25.8638 25.6346 25.4127 25.0351 24.4925 24.5185
                                                              0.2219
                                                                      0.3776
## 3533 BRIGHT 24.9383 24.0647 22.9611 22.4081 22.1796 21.9048
                                                              1.1036
## 3534 FAINT 26.9585 26.6550 26.2921 25.9111 25.2577 24.9168 0.3629
## 3535 BRIGHT 28.2816 25.7989 25.0521 24.7382 24.6192 24.4874 0.7468
        FAINT 28.4280 27.8148 27.3134 26.6286 25.8251 25.1246 0.5014 0.6848
## 3537
        FAINT 27.9274 27.5948 27.9349 26.4891 26.5802 26.5416 -0.3401 1.4458
## 3538
       FAINT 27.3381 26.7202 26.7404 26.4573 27.0364 26.5957 -0.0202 0.2831
##
  3539 BRIGHT 26.9724 26.1248 24.7426 23.5221 22.7190 21.8760 1.3822
                                                                      1.2205
## 3540 FAINT 29.0611 27.4345 26.6587 26.3678 26.6053 26.0544 0.7758
                                                                      0.2909
## 3541 BRIGHT 26.8637 25.5963 23.8267 22.5798 21.9687 21.6262 1.7696
                                                                      1.2469
## 3542 FAINT 26.2975 25.8559 25.5963 25.1183 24.8288 24.1145 0.2596
## 3543 BRIGHT 30.5255 27.8444 26.4501 24.8355 24.0865 23.1019 1.3943
## 3544 FAINT 28.3532 27.8254 27.2574 26.6837 26.1782 26.4999 0.5680
                                                                      0.5737
## 3545 BRIGHT 23.8877 23.9185 23.7776 23.4272 23.0178 22.7373 0.1409
                                                                      0.3504
## 3546
        FAINT 28.0721 28.2129 26.9438 25.9855 25.7150 25.7664
                                                              1.2691
## 3547
        FAINT 27.2414 26.8505 26.3472 25.8355 25.4060 25.0679 0.5033 0.5117
## 3548 FAINT 27.4652 26.3181 25.8188 25.2957 24.8661 24.6823 0.4993 0.5231
## 3549 BRIGHT 24.5716 23.6925 22.6793 22.0607 21.8279 21.6052 1.0132 0.6186
## 3550 FAINT 27.0235 27.0392 26.9183 26.2423 26.3496 25.8464 0.1209 0.6760
## 3551 FAINT 28.8235 29.0933 28.1775 26.8693 27.9252 27.3368 0.9158 1.3082
## 3552
        FAINT 25.5064 25.8497 25.8281 25.5404 25.5730 25.9316
                                                              0.0216 0.2877
## 3553
        FAINT 26.7572 26.9306 26.7122 26.4128 26.3670 26.0348
                                                              0.2184
                                                                      0.2994
## 3554 BRIGHT 25.4544 24.6879 23.5735 23.0990 22.8870 22.4919 1.1144
                                                                      0.4745
       FAINT 26.4708 26.2826 25.3846 25.2118 25.1341 24.8741 0.8980
## 3555
                                                                      0.1728
        FAINT 26.7902 26.8888 26.5739 26.3044 26.1583 25.8055
## 3556
                                                             0.3149
## 3557
        FAINT 27.4826 27.5120 26.9083 26.2053 25.5203 25.1218 0.6037 0.7030
        FAINT 28.0102 27.4836 26.0120 25.1604 24.7977 24.6422 1.4716
## 3558
                                                                      0.8516
##
        FAINT 28.5198 29.1291 27.3843 26.5979 25.8457 25.3519
                                                              1.7448
## 3560 BRIGHT 26.5574 25.9939 25.1036 24.8603 24.6582 24.7485
                                                              0.8903
                                                                      0.2433
## 3561 BRIGHT 28.1576 26.1464 25.1807 24.5038 24.4112 24.2292 0.9657
       FAINT 27.4451 26.9548 26.3113 26.2885 25.9208 25.7841 0.6435 0.0228
## 3563 BRIGHT 25.8469 25.8530 25.4020 24.8850 24.8032 24.6805 0.4510 0.5170
## 3564 BRIGHT 25.9243 24.8972 23.8234 22.7742 22.3768 22.0707 1.0738 1.0492
##
  3565
        FAINT 27.3157 26.7890 26.0436 25.8159 25.6436 25.0680
                                                              0.7454 0.2277
        FAINT 27.5396 27.6917 27.1981 26.6823 25.9408 25.3183
                                                              0.4936
## 3566
                                                                      0.5158
        FAINT 26.4279 26.0577 25.6240 25.4364 25.5347 25.3751 0.4337
## 3567
                                                                      0.1876
       FAINT 26.7548 26.7082 26.8070 26.7056 26.8689 27.0449 -0.0988 0.1014
## 3568
## 3569 BRIGHT 24.1775 23.5246 22.5809 21.6534 21.1959 20.9520 0.9437 0.9275
## 3570 BRIGHT 24.0787 23.0983 22.6345 22.3714 22.3525 22.2775 0.4638 0.2631
##
  3571
       FAINT 27.3188 27.1874 26.2736 25.6061 25.6004 25.3874
                                                              0.9138 0.6675
        FAINT 29.0372 27.6440 27.6004 26.9915 26.3193 25.6999
                                                              0.0436
        FAINT 26.3731 26.2490 25.9173 25.4412 25.1415 24.6389
                                                              0.3317 0.4761
## 3573
## 3574 FAINT 27.5040 27.4615 26.8494 26.3682 25.9400 25.3719 0.6121 0.4812
```

```
FAINT 28.4916 29.0827 28.0194 26.5202 26.3679 26.0443
         FAINT 27.0921 26.6557 25.7026 25.4729 25.3285 24.8701 0.9531
## 3577 BRIGHT 27.7821 26.9981 25.0026 23.5516 22.6836 21.7591 1.9955
##
  3578
        FAINT 27.7506 27.1027 27.2144 26.4521 26.2550 25.4985 -0.1117
                                                                        0.7623
##
   3579
        BRIGHT 26.8560 27.0203 25.7138 24.9001 24.6893 24.2431
                                                                1.3065
##
  3580
        FAINT 26.6911 26.5504 26.0778 25.4922 25.0740 24.9647
                                                                0.4726
                                                                        0.5856
         FAINT 26.1724 26.4099 26.0629 25.7309 25.0886 24.7747
## 3581
                                                                0.3470
                                                                        0.3320
##
  3582
         FAINT 26.5900 26.5599 25.9413 25.2050 24.4019 23.9020
## 3583
        FAINT 29.4897 27.8897 27.2914 26.8476 26.2367 26.3903
                                                                0.5983
                                                                        0.4438
##
  3584 BRIGHT 26.4557 25.5707 24.1338 22.9815 22.5412 22.1772
                                                                1 4369
                                                                        1 1523
##
  3585 BRIGHT 26.0889 25.5461 24.7770 24.4013 24.3288 24.2735
                                                                0 7691
                                                                        0 3757
                                                                0.5104
        FAINT 26.8666 26.3224 25.8120 25.6327 25.6940 25.2583
##
  3586
                                                                        0.1793
        FAINT 27.7438 27.5144 26.7137 26.4555 25.7544 25.5534
## 3587
                                                                0.8007
                                                                        0.2582
## 3588
       FAINT 27.9665 29.7567 27.2036 26.4134 25.6107 24.6657 2.5531
## 3589
         FAINT 29.0396 28.2416 28.5384 26.7823 26.4985 28.8714 -0.2968
## 3590
       FAINT 28.6863 28.0837 27.0897 26.4992 26.0114 27.4231 0.9940 0.5905
  3591 BRIGHT 25.7559 25.2424 24.5728 24.1179 23.5108 23.3672
                                                                0.6696
##
                                                                        0.4549
##
  3592 BRIGHT 25.5724 24.1528 22.5512 21.5021 21.0707 20.6867
## 3593
        FAINT 27.9624 27.7839 26.1836 25.0362 24.1396 23.7304
                                                                1.6003
                                                                        1.1474
         FAINT 27.9214 28.2500 26.9939 26.4325 26.3366 25.7321
## 3594
                                                                1.2561
                                                                        0.5614
  3595 BRIGHT 26.0516 24.6182 22.6922 21.5433 20.7340 20.3968
        FAINT 27.0316 26.5737 26.4332 26.1746 25.6920 25.0306
## 3596
                                                                0.1405
                                                                        0.2586
##
  3597 BRIGHT 24.0584 23.2268 21.9198 20.8655 20.4683 20.1457
                                                                1 3070
                                                                        1.0543
##
  3598
        FAINT 27.4760 27.1404 26.9071 26.2811 26.2774 26.0811
                                                                0.2333
                                                                        0.6260
##
  3599
         FAINT 26.7650 26.4906 26.3550 26.2922 26.6070 26.1454
                                                                0.1356
## 3600
        FAINT 31.6246 28.5951 27.7437 25.8916 25.2175 24.3237
                                                                0.8514
                                                                        1.8521
##
  3601
        FAINT 28.3762 27.9908 26.4772 25.3714 24.3933 23.9108 1.5136
                                                                        1.1058
  3602 BRIGHT 26.8804 26.1671 25.2557 24.5725 23.9136 23.6754
## 3603
       FAINT 30.3357 28.8568 26.8357 25.8092 24.8037 24.0664
                                                                2.0211 1.0265
##
         FATNT 28.5287 28.2745 27.6059 26.4168 26.3203 24.8008
                                                                0.6686
  3604
                                                                        1.1891
  3605
         FAINT 27.4794 27.5342 26.6819 26.3471 26.0126 26.7735
                                                                0.8523
## 3606
        FAINT 33.2755 27.5150 26.7404 25.9139 25.2774 24.8151
                                                                0.7746
                                                                        0.8265
## 3607 BRIGHT 27.0444 26.3310 25.0928 24.6821 24.3717 24.1772 1.2382
```

Question 12

Are the mean and median values of g-r and r-i roughly the same for BRIGHT galaxies versus FAINT ones? Heck if I know. Use dplyr functions to attempt to answer this question.

```
pred.new.column %>% group by(.,type) %>% summarize(.,Median=median(gr), Mean=mean(gr))
## # A tibble: 2 × 3
##
     type
            Median Mean
##
     <fct>
             <dbl> <dbl>
  1 BRIGHT
             0.872 0.942
  2 FAINT
             0.645 0.694
pred.new.column %>% group by(.,type) %>% summarize(.,Median=median(ri), Mean=mean(ri))
  # A tibble: 2 × 3
##
     type
            Median Mean
##
     <fct>
             <dbl> <dbl>
## 1 BRIGHT 0.581 0.620
```

Question 13

0.523 0.558

2 FAINT

Actually, we cannot really answer the question posed in Q12 without some notion of uncertainty. So here, repeat Q12, but instead of displaying the mean and median for each group, display the standard error of the mean: the sample standard deviation divided by the square root of the number of values.

```
stderror <- function(x) sd(x)/sqrt(length(x))
pred.new.column %>% group_by(.,type) %>% summarize(.,Standard_error=stderror(gr) )
```

pred.new.column %>% group_by(.,type) %>% summarize(.,Standard_error=stderror(ri))

The standard errors you observe should be \$\$0.01. While we won't run, e.g., a two-sample t-test here, it is pretty clear that the means of the colors are significantly different between groups.

Next time: visualization with ggplot!