Data Science II Midterm Project Analysis

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Contents

```
library(tidymodels)
library(splines)
library(caret)
library(table1)
library(kableExtra)
```

Partition the dataset into two parts: training data (80%) and test data (20%) with `tidymodels`.

```
load("data/recovery.RData")

dat |>
  drop_na()
```

```
##        id age gender race smoking height weight  bmi hypertension diabetes SBP
## 1       1  56      0    1       2  170.2   78.7 27.2            0        0 120
## 2       2  70      1    1       1  169.6   73.1 25.4            1        0 134
## 3       3  57      1    1       0  168.4   77.4 27.3            1        0 131
## 4       4  53      0    1       0  166.7   76.1 27.4            0        0 115
## 5       5  59      1    1       2  173.6   70.2 23.3            0        0 127
## 6       6  60      1    3       1  162.8   75.1 28.4            0        0 129
## 7       7  56      0    1       0  169.6   79.1 27.5            0        1 122
## 8       8  58      1    1       0  152.8   62.6 26.8            1        0 134
## 9       9  60      0    1       1  168.5   81.8 28.8            1        0 136
## 10     10  60      1    1       0  166.6   75.7 27.3            0        0 127
## 11     11  53      1    1       0  171.0   75.0 25.7            0        1 117
## 12     12  66      0    1       2  184.9   68.5 20.0            1        0 135
## 13     13  59      1    1       0  180.3   75.2 23.1            1        0 133
## 14     14  61      0    1       0  173.5   87.7 29.1            0        0 127
## 15     15  67      0    3       0  172.7   72.5 24.3            1        0 138
## 16     16  61      1    1       0  165.4   78.7 28.8            0        0 127
## 17     17  63      1    2       1  165.6  100.0 36.4            1        0 140
## 18     18  61      0    1       0  170.7   87.1 29.9            1        0 136
## 19     19  59      0    1       0  175.8   84.7 27.4            0        1 125
## 20     20  61      0    1       0  166.4   80.1 28.9            1        0 135
## 21     21  55      1    1       2  166.7   80.4 28.9            1        0 132
## 22     22  66      0    1       1  165.4   70.2 25.7            1        0 131
## 23     23  62      1    1       0  176.6   80.5 25.8            0        0 128
## 24     24  62      0    2       1  164.1   78.5 29.2            0        0 128
## 25     25  62      0    2       1  169.7   72.9 25.3            0        0 123
## 26     26  59      0    3       2  158.2   74.6 29.8            0        0 128
## 27     27  66      0    3       0  172.0   80.4 27.2            1        1 145
## 28     28  60      0    1       0  174.8   89.2 29.2            0        0 127
## 29     29  55      1    1       0  168.9   77.9 27.3            1        0 133
## 30     30  57      0    1       0  180.1   87.7 27.0            1        1 131
## 31     31  67      0    3       1  169.4   80.7 28.1            1        0 141
## 32     32  59      0    1       0  171.4   77.5 26.4            1        0 133
## 33     33  65      1    1       1  172.6   84.8 28.5            0        0 126
## 34     34  53      1    1       1  173.2   79.2 26.4            0        0 129
## 35     35  63      0    1       0  176.7   93.4 29.9            1        1 135
## 36     36  62      1    1       0  165.1   79.8 29.3            0        0 124
## 37     37  60      1    1       1  169.3   92.4 32.2            1        0 135
## 38     38  55      0    1       0  178.5   83.4 26.2            0        1 129
## 39     39  61      1    1       0  175.5   82.9 26.9            1        1 131
## 40     40  61      0    1       1  161.0   66.5 25.7            1        0 138
```

```
## 41     41  56      1     1       0  162.4   85.2 32.3           1        0 134
## 42     42  60      0     1       0  164.0   70.1 26.1           1        0 131
## 43     43  61      0     3       0  164.3   74.4 27.5           0        0 129
## 44     44  58      0     1       0  170.0   83.9 29.0           1        0 141
## 45     45  57      1     1       2  171.9   81.7 27.6           0        0 125
## 46     46  60      1     4       0  168.5   75.0 26.4           0        0 129
## 47     47  69      1     1       0  161.0   71.2 27.4           1        0 145
## 48     48  64      0     1       1  176.0   88.4 28.6           1        0 133
## 49     49  58      0     1       0  167.5   68.6 24.4           0        0 125
## 50     50  57      1     1       1  170.9   72.6 24.9           0        0 117
## 51     51  65      0     1       0  168.2   77.6 27.4           1        0 133
## 52     52  57      0     1       0  164.4   70.8 26.2           1        0 132
## 53     53  62      1     4       1  173.8   84.0 27.8           1        0 134
## 54     54  64      1     4       0  158.9   70.3 27.8           1        1 135
## 55     55  59      0     3       0  174.5   85.8 28.2           1        0 138
## 56     56  70      1     4       2  162.4   80.9 30.7           1        0 133
## 57     57  60      1     3       0  171.6   77.9 26.5           0        0 125
## 58     58  62      1     1       1  166.6   79.3 28.5           0        0 127
## 59     59  54      1     3       0  171.4   92.6 31.5           0        0 122
## 60     60  57      1     1       0  169.4   75.5 26.3           0        0 125
## 61     61  68      1     4       0  178.5   90.9 28.5           1        0 134
## 62     62  53      1     1       1  165.6   87.6 32.0           0        0 124
## 63     63  56      1     1       0  159.3   73.6 29.0           0        0 125
## 64     64  52      0     3       0  167.3   71.7 25.6           0        0 130
## 65     65  54      1     1       0  174.3   69.4 22.8           1        1 134
## 66     66  63      0     1       1  173.7   65.9 21.8           1        0 133
## 67     67  52      0     4       0  169.2   80.8 28.2           0        1 120
## 68     68  57      0     2       0  168.2   83.3 29.4           0        0 122
## 69     69  59      0     1       0  170.4   83.2 28.7           0        0 130
## 70     70  65      0     2       1  167.6   82.1 29.2           0        0 125
## 71     71  58      0     1       1  173.5   76.3 25.3           1        0 136
## 72     72  59      0     1       0  169.8   85.6 29.7           0        0 121
## 73     73  63      0     1       0  172.4   68.7 23.1           0        0 125
## 74     74  70      0     4       2  172.2   83.5 28.2           0        0 129
## 75     75  69      0     1       0  170.3   92.0 31.7           0        0 128
## 76     76  58      1     4       0  175.3   79.7 25.9           1        0 134
## 77     77  53      0     3       1  168.9   83.3 29.2           0        1 124
## 78     78  58      1     1       1  166.3   86.6 31.3           0        0 127
## 79     79  66      0     3       0  179.4   83.4 25.9           1        0 137
## 80     80  57      1     3       0  174.9   78.5 25.7           0        1 117
## 81     81  60      0     1       0  167.4   75.1 26.8           1        0 140
## 82     82  69      1     1       0  177.3   74.2 23.6           0        1 125
## 83     83  65      0     1       0  181.4   75.0 22.8           1        1 131
## 84     84  62      0     3       0  166.8   81.1 29.1           1        0 148
## 85     85  52      0     3       2  172.2   81.6 27.5           1        0 133
## 86     86  60      1     3       1  177.5   81.9 26.0           1        0 136
## 87     87  60      1     1       0  168.1   79.0 27.9           0        0 125
## 88     88  65      0     4       1  170.9   75.7 25.9           0        0 128
## 89     89  61      1     3       2  170.5   66.1 22.7           0        0 127
## 90     90  59      0     1       0  167.4   88.2 31.5           0        0 126
## 91     91  55      1     1       0  175.3   82.0 26.7           0        0 118
## 92     92  60      0     1       0  163.0   72.6 27.3           1        0 140
## 93     93  61      0     1       0  169.3   76.4 26.7           1        0 135
## 94     94  63      1     3       0  163.3   76.3 28.6           1        0 147
```

```
## 95     95  58      0     3       2  166.3   87.4 31.6            0         1 123
## 96     96  62      0     1       0  160.2   80.0 31.2            1         0 144
## 97     97  56      0     4       0  165.1   82.7 30.3            0         0 128
## 98     98  62      0     1       1  171.9   82.7 28.0            1         0 134
## 99     99  62      0     4       0  186.2   81.5 23.5            1         0 146
## 100   100  67      0     2       0  166.7   77.5 27.9            1         0 139
## 101   101  67      0     3       0  175.8   94.3 30.5            1         0 133
## 102   102  60      0     1       1  165.6   83.6 30.5            1         0 143
## 103   103  54      1     1       1  162.8   72.1 27.2            0         0 124
## 104   104  58      1     1       1  162.8   75.6 28.5            1         0 139
## 105   105  56      0     4       2  175.1   90.5 29.5            0         0 110
## 106   106  61      1     3       2  169.8   81.3 28.2            0         0 125
## 107   107  63      1     4       0  174.2   84.5 27.8            1         1 131
## 108   108  59      0     1       0  172.5   72.5 24.4            0         0 114
## 109   109  60      0     1       2  161.9   81.8 31.2            0         0 124
## 110   110  56      0     3       1  165.4   81.9 29.9            0         0 122
## 111   111  63      0     3       0  162.4   64.9 24.6            1         1 138
## 112   112  59      1     1       0  165.3   75.6 27.7            1         0 139
## 113   113  72      0     1       1  163.4   72.4 27.1            1         0 147
## 114   114  61      1     1       1  162.2   88.2 33.5            1         1 131
## 115   115  58      1     3       0  172.0   75.5 25.5            0         1 127
## 116   116  58      1     3       0  162.5   81.4 30.8            1         0 132
## 117   117  52      1     1       0  164.5   85.7 31.7            0         0 127
## 118   118  53      0     4       1  163.3   83.7 31.4            0         0 123
## 119   119  59      1     1       0  180.5   90.8 27.9            0         0 118
## 120   120  65      1     1       1  169.7   90.5 31.4            1         0 148
## 121   121  64      0     1       0  174.0   87.1 28.8            1         0 136
## 122   122  56      0     1       1  175.0   77.5 25.3            0         0 124
## 123   123  61      1     1       0  173.0   72.2 24.1            0         0 128
## 124   124  56      1     1       0  162.7   66.3 25.0            1         0 133
## 125   125  66      0     1       1  168.1   89.1 31.5            1         0 136
## 126   126  54      1     1       0  165.0   73.8 27.1            0         0 112
## 127   127  59      1     1       0  170.7   69.7 23.9            1         0 138
## 128   128  58      0     2       0  162.9   78.4 29.5            0         0 115
## 129   129  61      1     1       0  164.8   80.6 29.7            1         0 135
## 130   130  60      0     1       0  176.8   89.1 28.5            1         0 137
## 131   131  62      0     1       0  159.2   77.5 30.6            1         1 138
## 132   132  42      1     1       1  178.8   89.7 28.1            0         0 112
## 133   133  55      0     4       0  169.4   72.7 25.3            0         0 128
## 134   134  66      1     1       1  167.0   91.0 32.6            0         0 121
## 135   135  57      0     3       0  173.6   87.0 28.9            0         1 126
## 136   136  62      1     1       0  172.1   80.5 27.2            1         0 133
## 137   137  69      1     3       1  156.1   76.9 31.6            0         0 127
## 138   138  53      1     1       1  172.8   82.7 27.7            0         0 116
## 139   139  70      0     1       1  175.9   85.4 27.6            1         0 143
## 140   140  60      0     3       0  179.7   82.8 25.6            0         0 130
## 141   141  67      0     3       2  174.3   84.2 27.7            0         0 129
## 142   142  58      0     1       0  173.4   76.6 25.5            0         1 121
## 143   143  57      1     1       1  175.0   84.1 27.5            1         1 139
## 144   144  57      0     3       1  171.3   93.1 31.7            0         0 120
## 145   145  58      0     1       0  171.2   72.5 24.7            1         0 134
## 146   146  63      1     4       1  176.2   74.7 24.1            0         0 129
## 147   147  63      1     1       2  166.9   71.0 25.5            1         1 132
## 148   148  61      0     3       2  171.0   77.8 26.6            1         0 141
```

```
## 149   149  58      0     1       1  169.7   71.6 24.8           0        0 127
## 150   150  52      0     1       0  164.3   93.5 34.6           0        0 116
## 151   151  61      0     4       1  175.3   87.3 28.4           0        0 115
## 152   152  58      0     1       0  172.8   83.1 27.8           0        0 122
## 153   153  58      1     1       0  175.7   90.2 29.2           0        0 117
## 154   154  56      0     1       0  164.5   86.4 31.9           0        0 130
## 155   155  55      1     1       1  168.5   77.9 27.4           0        0 130
## 156   156  66      0     1       1  154.0   70.2 29.6           1        0 140
## 157   157  60      1     1       0  174.0   78.9 26.1           1        0 133
## 158   158  61      0     3       1  165.5   78.1 28.5           0        0 129
## 159   159  61      0     3       0  164.6   82.1 30.3           1        0 131
## 160   160  54      0     1       0  172.4   72.0 24.2           0        0 120
## 161   161  61      1     3       1  166.4   81.1 29.3           0        0 128
## 162   162  58      1     1       1  167.6   98.7 35.1           1        0 138
## 163   163  63      0     1       2  166.6   93.7 33.7           1        0 143
## 164   164  59      1     1       0  172.0   86.4 29.2           0        0 122
## 165   165  63      0     1       1  166.2   86.6 31.3           1        0 136
## 166   166  71      1     3       0  167.0   71.9 25.8           0        0 128
## 167   167  54      0     4       0  171.3   95.2 32.4           0        0 114
## 168   168  60      1     3       1  161.4   73.0 28.0           1        0 134
## 169   169  57      0     1       0  176.0   89.7 28.9           1        0 137
## 170   170  54      1     1       1  176.9   80.5 25.7           1        0 136
## 171   171  59      1     1       0  177.5   81.3 25.8           1        0 132
## 172   172  61      0     3       1  171.1   65.5 22.4           1        0 131
## 173   173  64      0     4       2  174.1   60.2 19.9           1        0 132
## 174   174  61      1     3       0  164.4   76.4 28.3           0        1 128
## 175   175  56      0     3       2  167.0   80.9 29.0           1        0 134
## 176   176  51      1     1       1  165.0   74.0 27.1           0        0 128
## 177   177  65      0     1       0  183.6   76.8 22.8           1        0 132
## 178   178  61      0     1       0  180.6   92.0 28.2           0        1 121
## 179   179  54      1     1       1  169.5   75.7 26.3           0        0 128
## 180   180  60      1     2       2  160.5   71.1 27.6           1        0 149
## 181   181  57      1     2       1  162.6   85.9 32.5           0        0 130
## 182   182  56      1     1       0  165.8   79.6 28.9           0        0 129
## 183   183  65      1     1       0  168.5   75.0 26.4           0        0 124
## 184   184  60      1     1       0  166.5   82.9 29.9           0        0 128
## 185   185  64      0     1       1  169.2   78.3 27.4           1        0 133
## 186   186  57      1     1       1  171.9   89.8 30.4           0        1 126
## 187   187  67      0     3       1  170.6   79.0 27.1           1        0 133
## 188   188  66      1     1       0  164.3   76.5 28.3           1        0 136
## 189   189  69      0     1       2  172.6   85.4 28.7           1        0 141
## 190   190  57      0     1       1  172.4   80.8 27.2           0        1 127
## 191   191  62      0     4       1  166.7   82.6 29.7           1        0 134
## 192   192  61      0     2       0  179.1   83.2 25.9           1        0 134
## 193   193  59      1     1       0  172.1   83.6 28.2           1        0 143
## 194   194  63      0     3       0  163.7   72.5 27.1           1        0 137
## 195   195  61      0     1       0  172.5   80.4 27.0           1        0 132
## 196   196  63      0     1       0  163.0   72.1 27.1           1        0 135
## 197   197  69      0     1       1  169.7   77.5 26.9           1        0 143
## 198   198  57      0     1       1  161.9   78.9 30.1           0        0 117
## 199   199  54      0     3       0  157.3   81.0 32.8           1        0 134
## 200   200  62      0     3       0  162.8   86.7 32.7           0        0 120
## 201   201  60      1     3       1  170.0   83.8 29.0           0        0 116
## 202   202  65      1     1       0  162.1   73.6 28.0           1        0 135
```

```
## 203   203  56      1     1       1  170.5   82.8 28.5           0        1 120
## 204   204  60      1     1       0  164.2   76.6 28.4           1        0 148
## 205   205  66      0     1       0  170.4   91.8 31.6           1        0 139
## 206   206  50      1     3       0  176.8   91.0 29.1           0        0 107
## 207   207  56      0     1       0  175.1   77.8 25.4           0        0 123
## 208   208  67      0     3       0  179.1   79.3 24.7           1        0 137
## 209   209  62      0     3       0  165.5   85.1 31.0           1        0 149
## 210   210  53      0     3       0  174.7   85.1 27.9           0        1 119
## 211   211  67      1     1       1  166.3   76.4 27.6           1        0 139
## 212   212  60      1     1       0  161.9   85.6 32.7           0        0 128
## 213   213  57      1     1       2  161.9   73.5 28.0           1        1 131
## 214   214  67      1     1       0  169.1   78.8 27.6           0        0 125
## 215   215  65      1     3       2  173.6   92.9 30.8           0        0 127
## 216   216  66      0     1       0  166.1   83.2 30.1           0        1 128
## 217   217  67      0     1       0  168.8   87.4 30.7           0        0 129
## 218   218  56      0     2       0  168.7   67.1 23.6           1        0 132
## 219   219  66      0     1       1  182.0   75.2 22.7           1        0 145
## 220   220  59      0     2       0  170.0   73.1 25.3           1        0 132
## 221   221  66      0     3       1  175.8   75.6 24.5           0        0 130
## 222   222  65      1     4       0  170.5   94.9 32.6           1        0 132
## 223   223  61      0     3       2  170.4   76.9 26.5           1        0 142
## 224   224  58      0     1       1  179.3   81.0 25.2           1        0 135
## 225   225  63      1     3       1  172.6   80.8 27.1           1        0 134
## 226   226  60      1     1       1  172.8   79.2 26.5           0        0 127
## 227   227  64      1     1       1  163.4   68.4 25.6           1        0 135
## 228   228  61      0     1       0  180.5   88.3 27.1           0        1 113
## 229   229  60      1     1       0  175.9   89.2 28.8           1        0 131
## 230   230  65      1     1       0  160.9   80.9 31.2           1        0 139
## 231   231  52      1     1       0  178.8   78.6 24.6           0        0 121
## 232   232  68      0     1       0  165.5   78.1 28.5           1        1 135
## 233   233  58      1     1       2  166.6   84.4 30.4           1        0 135
## 234   234  68      1     2       0  175.6   91.7 29.7           1        0 140
## 235   235  54      1     1       0  166.3   72.7 26.3           1        0 140
## 236   236  53      0     1       1  171.5   84.9 28.9           0        0 116
## 237   237  64      1     3       1  166.6   66.2 23.8           0        0 127
## 238   238  62      0     1       1  179.2   89.4 27.8           0        0 130
## 239   239  57      0     3       1  172.3   76.3 25.7           1        0 134
## 240   240  60      0     1       0  167.3   94.4 33.7           1        1 133
## 241   241  64      1     1       0  161.6   62.7 24.0           0        0 120
## 242   242  61      0     2       0  169.8   88.3 30.6           1        0 133
## 243   243  54      1     1       0  169.6   84.5 29.4           0        1 109
## 244   244  57      1     1       2  171.6   85.9 29.2           0        0 130
## 245   245  56      1     3       1  171.1   80.3 27.4           1        0 132
## 246   246  62      1     4       1  178.9   83.5 26.1           1        1 143
## 247   247  55      0     3       0  166.8   77.8 28.0           0        0 123
## 248   248  62      0     1       1  164.6   66.7 24.6           0        1 129
## 249   249  58      0     1       1  168.6   79.2 27.9           1        0 136
## 250   250  60      0     1       0  168.2   81.7 28.9           0        0 123
## 251   251  59      1     1       2  156.3   85.9 35.2           1        0 137
## 252   252  63      0     1       1  170.8   87.3 29.9           1        0 138
## 253   253  55      0     4       0  171.8   73.5 24.9           0        0 128
## 254   254  60      0     1       0  181.0   75.6 23.1           1        0 132
## 255   255  62      1     1       2  165.3   76.5 28.0           0        0 125
## 256   256  66      0     3       1  178.4   77.6 24.4           0        0 130
```

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## 257   257  63      0     3       1  175.3   75.0 24.4           1        1 143
## 258   258  60      0     3       0  156.7   81.4 33.1           1        0 134
## 259   259  66      0     1       0  176.7   89.5 28.7           0        0 126
## 260   260  62      1     2       0  168.7   61.2 21.5           0        0 121
## 261   261  70      1     3       1  154.4   71.9 30.2           1        0 135
## 262   262  63      0     3       2  164.8   78.9 29.0           1        0 138
## 263   263  57      1     1       1  172.1   85.7 28.9           0        0 127
## 264   264  57      0     3       1  179.7   84.2 26.1           0        0 119
## 265   265  63      1     1       0  171.4   73.4 25.0           1        0 148
## 266   266  59      1     4       1  163.0   75.2 28.3           1        1 132
## 267   267  62      0     1       0  167.7   82.3 29.3           1        0 138
## 268   268  63      1     1       0  173.7   96.7 32.1           1        1 133
## 269   269  55      1     1       0  173.4   73.3 24.4           0        0 124
## 270   270  58      1     1       0  176.7   83.9 26.9           0        0 123
## 271   271  57      1     4       1  162.6   72.9 27.5           0        0 120
## 272   272  66      1     1       0  177.3   80.9 25.7           1        1 132
## 273   273  63      1     1       2  170.8   87.2 29.9           0        0 128
## 274   274  56      0     4       2  162.4   81.6 30.9           0        0 114
## 275   275  58      1     3       1  169.0   91.9 32.2           0        0 127
## 276   276  57      0     1       2  166.1   87.0 31.5           0        0 128
## 277   277  59      1     1       1  166.6   83.3 30.0           0        0 128
## 278   278  54      0     4       0  175.1   88.1 28.7           0        0 117
## 279   279  58      0     1       1  168.9   76.7 26.9           0        1 129
## 280   280  65      0     4       0  169.7   77.6 26.9           0        0 126
## 281   281  67      0     4       0  165.2   82.1 30.1           1        0 144
## 282   282  64      1     1       0  161.6   84.1 32.2           0        0 130
## 283   283  66      1     3       1  164.8   94.6 34.9           1        0 131
## 284   284  57      1     1       1  165.8   84.8 30.8           1        0 131
## 285   285  65      0     3       0  172.1   65.7 22.2           1        0 138
## 286   286  54      1     4       0  171.5   87.3 29.7           1        0 139
## 287   287  60      1     1       0  162.3   85.4 32.4           1        0 131
## 288   288  61      1     2       2  163.5   94.9 35.5           0        0 119
## 289   289  56      1     1       0  165.4   76.8 28.1           0        0 119
## 290   290  60      0     4       1  168.5   70.3 24.8           1        0 143
## 291   291  64      0     1       0  175.0   71.6 23.4           0        0 125
## 292   292  60      0     1       1  167.8   87.6 31.1           1        0 131
## 293   293  63      1     1       0  173.7   84.6 28.0           0        0 129
## 294   294  57      0     1       0  174.4   78.9 25.9           0        0 130
## 295   295  62      1     1       0  170.7   72.9 25.0           0        0 121
## 296   296  62      0     3       0  167.4   76.0 27.1           1        0 135
## 297   297  65      0     1       2  164.2   75.9 28.2           1        0 133
## 298   298  65      0     4       1  169.5   81.1 28.2           1        0 136
## 299   299  60      0     3       0  169.0   85.5 29.9           0        0 130
## 300   300  60      0     1       2  171.4   85.8 29.2           1        0 143
## 301   301  61      1     3       2  177.1   73.9 23.6           0        0 125
## 302   302  60      0     1       0  174.7   77.8 25.5           0        0 130
## 303   303  59      0     1       0  176.4   80.4 25.9           1        1 135
## 304   304  60      1     1       0  170.2   75.7 26.1           1        0 139
## 305   305  64      1     3       1  159.9   80.2 31.4           0        0 126
## 306   306  58      0     1       0  166.7   81.8 29.5           0        0 121
## 307   307  63      0     1       0  180.0   82.8 25.6           1        0 139
## 308   308  60      1     1       1  162.0   76.2 29.1           1        0 140
## 309   309  66      1     1       0  161.7   80.2 30.7           0        0 123
## 310   310  60      0     3       1  175.7   97.3 31.5           0        0 118
```

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## 311   311  63      0     1       1  163.8   77.8 29.0           1        0 131
## 312   312  61      0     4       2  170.1   84.7 29.3           0        0 126
## 313   313  53      1     1       0  171.8   89.3 30.3           0        0 118
## 314   314  69      0     1       0  172.4   75.3 25.4           1        0 137
## 315   315  67      1     3       1  166.0   75.8 27.5           1        0 132
## 316   316  61      0     3       0  169.3   73.8 25.8           0        0 120
## 317   317  62      1     3       1  164.6   77.2 28.5           1        0 138
## 318   318  59      0     3       0  160.7   80.8 31.3           1        1 137
## 319   319  52      1     1       0  181.7   94.0 28.5           0        0 120
## 320   320  56      0     1       0  156.8   77.7 31.6           1        1 134
## 321   321  55      1     3       0  155.6   78.1 32.2           1        0 143
## 322   322  59      0     1       1  174.6   80.9 26.5           0        0 110
## 323   323  62      0     1       0  166.2   80.8 29.3           1        1 137
## 324   324  64      0     1       0  161.0   73.5 28.4           0        0 126
## 325   325  62      0     1       0  177.9   85.7 27.1           1        0 143
## 326   326  57      0     1       2  174.4   79.9 26.3           0        0 122
## 327   327  58      1     1       0  157.3   74.8 30.2           0        0 123
## 328   328  61      0     1       0  161.7   72.7 27.8           0        0 130
## 329   329  67      0     1       1  170.8   85.3 29.2           1        0 134
## 330   330  58      0     2       0  169.9   71.1 24.6           0        0 113
## 331   331  74      0     1       0  171.9   72.8 24.6           1        0 135
## 332   332  54      1     3       0  183.6   77.0 22.8           0        0 122
## 333   333  54      1     4       0  167.7   75.3 26.8           0        0 121
## 334   334  62      0     1       0  178.3   67.5 21.2           0        0 117
## 335   335  61      0     3       0  171.5   71.8 24.4           0        0 125
## 336   336  64      0     1       2  179.0   88.7 27.7           1        0 141
## 337   337  61      0     3       0  167.5   72.7 25.9           1        0 149
## 338   338  59      1     1       1  173.3   85.5 28.5           1        0 131
## 339   339  57      1     1       1  164.7   86.3 31.8           1        0 134
## 340   340  60      1     1       0  160.7   88.9 34.4           0        0 124
## 341   341  70      1     3       2  173.1   89.9 30.0           1        1 142
## 342   342  60      1     4       0  161.0   82.0 31.6           1        1 133
## 343   343  68      1     1       1  167.2   87.2 31.2           1        0 144
## 344   344  54      0     1       1  165.3   76.5 28.0           1        1 137
## 345   345  56      1     1       1  173.9   70.2 23.2           1        0 148
## 346   346  57      0     1       1  182.5   85.5 25.7           1        1 136
## 347   347  66      1     1       0  172.1   74.7 25.2           1        0 137
## 348   348  60      1     1       1  173.7   69.9 23.2           0        0 121
## 349   349  61      0     1       2  162.8   77.0 29.1           0        0 126
## 350   350  58      0     1       1  171.3   75.4 25.7           1        0 145
## 351   351  57      0     3       1  167.0   87.7 31.4           1        0 132
## 352   352  60      1     1       2  168.8   79.2 27.8           0        0 128
## 353   353  53      0     1       0  173.5   74.6 24.8           0        0 128
## 354   354  61      1     1       0  165.8   70.9 25.8           0        0 109
## 355   355  67      0     4       2  167.9   77.7 27.5           1        1 144
## 356   356  53      1     1       0  174.2   76.4 25.2           0        0 124
## 357   357  71      1     3       0  176.6   74.6 23.9           0        0 130
## 358   358  65      1     1       0  161.8   93.6 35.7           1        0 149
## 359   359  62      0     3       0  163.7   67.2 25.1           1        0 135
## 360   360  65      1     3       1  176.8   88.0 28.2           1        0 151
## 361   361  61      0     2       0  177.2   79.6 25.4           1        0 138
## 362   362  62      0     1       1  155.5   88.7 36.7           1        0 136
## 363   363  58      0     1       0  172.1   72.9 24.6           1        0 139
## 364   364  61      0     3       1  161.9   84.5 32.2           1        1 140
```

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## 365   365  65      1     3       0  172.1   87.1 29.4           1        0 137
## 366   366  56      0     2       0  172.1   70.2 23.7           1        0 133
## 367   367  51      0     1       2  181.4   81.2 24.7           0        1 115
## 368   368  56      0     1       1  170.7   84.9 29.1           0        0 122
## 369   369  53      1     1       1  163.9   73.2 27.3           0        0 126
## 370   370  67      0     2       0  170.6   70.2 24.1           1        0 146
## 371   371  61      1     4       0  171.6   79.0 26.8           1        0 139
## 372   372  51      0     1       0  168.3   86.9 30.7           0        0 121
## 373   373  61      0     1       0  173.9   92.2 30.5           0        0 119
## 374   374  56      1     1       0  165.8   80.7 29.4           0        0 126
## 375   375  66      1     1       0  167.1   69.5 24.9           1        0 133
## 376   376  62      1     1       1  169.7   82.9 28.8           1        0 132
## 377   377  59      0     1       0  162.4   65.7 24.9           1        0 138
## 378   378  58      1     3       0  159.4   80.5 31.7           0        1 129
## 379   379  60      1     1       0  175.1   78.4 25.6           0        0 118
## 380   380  57      0     1       0  180.0   87.8 27.1           0        0 123
## 381   381  61      0     1       0  181.1   72.6 22.1           1        1 137
## 382   382  56      0     2       1  162.7   76.5 28.9           1        0 153
## 383   383  59      0     1       0  175.7   81.0 26.2           0        0 121
## 384   384  62      0     1       0  173.8   89.2 29.5           0        0 128
## 385   385  54      0     1       1  173.5   76.7 25.5           0        0 116
## 386   386  61      1     1       1  173.0   82.7 27.6           1        0 138
## 387   387  64      0     1       1  170.2   72.4 25.0           1        0 136
## 388   388  58      1     1       0  176.7   84.8 27.2           0        0 117
## 389   389  61      1     3       0  173.7   86.0 28.5           1        1 145
## 390   390  66      1     1       0  170.6   84.6 29.1           0        1 128
## 391   391  61      1     1       0  163.8   83.4 31.1           1        0 142
## 392   392  65      1     1       0  169.0   85.9 30.1           1        0 131
## 393   393  60      0     1       0  174.3   86.1 28.3           1        0 131
## 394   394  56      0     1       1  177.9   85.0 26.9           1        0 131
## 395   395  70      0     3       1  168.3   77.7 27.4           1        0 135
## 396   396  56      0     1       0  158.5   88.9 35.4           1        0 132
## 397   397  59      0     1       0  168.3   79.5 28.1           1        0 140
## 398   398  57      1     3       0  169.1   71.7 25.1           0        0 127
## 399   399  57      0     1       0  170.0   85.6 29.6           1        0 133
## 400   400  59      1     1       0  165.0   67.5 24.8           0        0 129
## 401   401  60      1     1       1  173.9   75.1 24.8           0        0 129
## 402   402  68      1     1       1  168.5   82.5 29.1           1        0 134
## 403   403  58      0     1       1  178.5   86.3 27.1           0        1 128
## 404   404  58      0     1       1  159.9   68.6 26.8           0        0 128
## 405   405  57      1     1       0  177.3   84.4 26.8           1        0 138
## 406   406  59      1     4       0  169.7   77.9 27.0           0        0 129
## 407   407  56      1     4       2  173.4   84.7 28.2           0        0 125
## 408   408  59      0     1       0  167.1   79.4 28.5           0        0 125
## 409   409  59      0     1       1  174.8   83.6 27.4           0        0 125
## 410   410  53      1     2       0  164.5   89.1 32.9           1        0 136
## 411   411  58      1     1       0  171.1   73.3 25.1           0        0 127
## 412   412  62      1     1       0  161.6   79.0 30.3           0        0 125
## 413   413  65      0     1       0  177.0   72.0 23.0           1        0 141
## 414   414  62      0     1       1  168.4   73.4 25.9           1        0 142
## 415   415  61      0     3       1  172.7   76.8 25.7           1        0 135
## 416   416  67      1     3       2  173.5   79.3 26.3           1        0 136
## 417   417  61      1     1       0  169.8   79.8 27.7           1        0 141
## 418   418  58      0     1       0  172.6   96.2 32.3           0        0 123
```

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## 419   419  71      1     1       0  175.6   77.1 25.0          1        0 136
## 420   420  59      1     1       1  163.7   71.4 26.6          1        0 138
## 421   421  66      1     1       0  167.8   75.1 26.7          1        0 142
## 422   422  59      0     3       0  154.2   67.0 28.2          0        1 127
## 423   423  56      0     1       0  175.0   89.0 29.0          0        0 127
## 424   424  53      1     1       0  169.5   68.9 24.0          0        0 120
## 425   425  54      1     1       0  169.6   74.8 26.0          0        0 121
## 426   426  64      0     1       2  168.0   68.5 24.3          0        0 129
## 427   427  65      0     1       0  173.4   79.8 26.5          0        0 130
## 428   428  65      1     3       1  168.0   69.0 24.4          1        1 141
## 429   429  57      1     3       0  166.2   78.7 28.5          0        1 125
## 430   430  70      0     1       0  170.4   89.9 31.0          0        0 128
## 431   431  57      1     1       1  161.5   77.3 29.6          1        0 132
## 432   432  61      1     4       0  168.8   75.8 26.6          0        0 127
## 433   433  62      1     4       0  167.6   66.4 23.6          0        0 127
## 434   434  53      0     4       0  167.3   70.4 25.2          0        0 119
## 435   435  67      0     1       0  165.5   89.8 32.8          1        0 148
## 436   436  62      1     1       0  179.5   80.6 25.0          0        0 126
## 437   437  56      0     1       1  173.8   77.9 25.8          0        0 127
## 438   438  77      1     1       2  168.0   86.3 30.6          1        0 153
## 439   439  63      1     1       0  164.6   81.8 30.2          1        0 132
## 440   440  65      0     1       0  159.6   82.8 32.5          1        0 134
## 441   441  64      1     1       0  165.6   73.4 26.8          1        0 137
## 442   442  60      0     3       0  165.6   78.0 28.4          1        0 133
## 443   443  60      1     1       0  170.0   87.5 30.3          0        1 129
## 444   444  62      1     1       1  167.3   71.5 25.5          1        0 132
## 445   445  61      0     1       1  169.0   82.4 28.8          1        0 132
## 446   446  59      1     1       2  167.4   81.4 29.0          0        0 119
## 447   447  64      1     1       0  156.0   83.8 34.5          0        0 126
## 448   448  58      1     4       1  175.7   77.0 25.0          0        0 121
## 449   449  66      1     3       1  158.5   90.3 35.9          1        0 137
## 450   450  59      0     1       0  166.4   72.1 26.0          0        1 129
## 451   451  61      1     4       0  168.1   75.1 26.5          0        0 130
## 452   452  60      1     1       2  178.2   74.9 23.6          0        0 126
## 453   453  62      0     1       0  172.8   75.0 25.1          0        0 130
## 454   454  63      0     1       2  171.0   81.0 27.7          1        0 144
## 455   455  62      1     3       0  168.9   70.8 24.8          1        1 141
## 456   456  59      1     1       0  175.2   76.0 24.8          0        0 122
## 457   457  62      0     1       2  179.2   78.5 24.5          0        0 130
## 458   458  68      1     1       0  161.4   80.5 30.9          1        0 144
## 459   459  64      1     4       0  180.1   81.3 25.1          1        1 145
## 460   460  60      1     1       0  184.0   78.6 23.2          1        0 137
## 461   461  60      1     1       0  172.9   72.4 24.2          1        0 132
## 462   462  64      0     3       0  176.7   85.0 27.2          1        0 132
## 463   463  60      0     1       1  168.2   82.0 29.0          0        0 128
## 464   464  63      0     2       0  176.8   86.6 27.7          1        0 139
## 465   465  64      0     2       0  161.7   80.2 30.7          1        0 141
## 466   466  56      1     3       2  174.9   70.1 22.9          1        1 138
## 467   467  58      0     1       1  179.1   87.7 27.3          0        0 118
## 468   468  67      1     1       2  179.8   79.2 24.5          1        1 140
## 469   469  54      0     3       2  173.4   73.0 24.3          0        1 121
## 470   470  72      0     3       0  172.5   77.1 25.9          1        0 132
## 471   471  64      0     1       1  164.2   71.4 26.5          1        0 136
## 472   472  59      0     3       0  159.5   74.2 29.1          0        0 129
```

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## 473   473  57      0     4       0  182.7   81.7 24.5           0        0 129
## 474   474  65      0     3       0  166.6   75.9 27.4           1        0 136
## 475   475  61      1     1       1  172.8   82.7 27.7           1        0 131
## 476   476  60      1     1       0  166.0   79.1 28.7           0        0 125
## 477   477  53      1     4       0  166.5   81.7 29.5           0        1 121
## 478   478  72      0     4       1  179.5   94.0 29.2           1        0 133
## 479   479  62      0     1       0  170.5   85.6 29.5           1        0 137
## 480   480  60      1     1       0  175.6   80.0 26.0           0        0 130
## 481   481  55      0     1       1  163.5   86.0 32.2           0        0 117
## 482   482  68      1     1       2  167.0   62.3 22.3           1        0 133
## 483   483  60      1     1       1  171.2   88.0 30.0           1        0 132
## 484   484  59      1     1       0  173.0   78.1 26.1           0        0 121
## 485   485  64      1     3       2  178.2   75.5 23.8           1        0 134
## 486   486  58      0     1       0  166.8   80.0 28.8           1        0 131
## 487   487  61      1     3       1  168.1   95.0 33.6           0        0 128
## 488   488  56      0     1       0  166.7   72.1 26.0           0        0 130
## 489   489  54      1     3       1  167.0   79.1 28.4           0        0 127
## 490   490  50      1     1       1  171.2   91.9 31.4           0        0 106
## 491   491  70      0     3       0  156.7   83.3 33.9           1        1 144
## 492   492  58      1     1       1  172.4   79.7 26.8           0        0 127
## 493   493  59      1     1       1  172.0   79.7 27.0           1        0 146
## 494   494  53      1     3       0  175.1   85.9 28.0           0        1 107
## 495   495  56      1     1       0  161.4   76.2 29.3           1        0 138
## 496   496  62      0     1       0  165.0   75.5 27.7           0        0 126
## 497   497  63      0     1       1  158.9   88.1 34.9           1        0 137
## 498   498  61      1     1       1  182.2   91.9 27.7           1        0 134
## 499   499  62      0     4       0  173.4   87.1 29.0           1        0 136
## 500   500  63      1     3       0  159.6   77.7 30.5           1        0 138
## 501   501  67      1     1       1  168.1   64.7 22.9           1        0 139
## 502   502  67      1     1       0  174.3   73.5 24.2           1        1 136
## 503   503  57      0     1       1  166.1   74.6 27.0           1        0 131
## 504   504  75      0     1       1  178.6   75.9 23.8           1        0 146
## 505   505  52      0     1       2  172.7   82.4 27.6           0        0 121
## 506   506  58      1     3       0  180.2   83.1 25.6           1        1 134
## 507   507  67      0     1       1  171.5   68.1 23.2           1        0 131
## 508   508  66      0     1       0  171.8   87.4 29.6           1        0 131
## 509   509  46      1     3       0  178.1   73.8 23.3           0        0 110
## 510   510  61      1     4       0  166.9   73.5 26.4           0        1 128
## 511   511  54      1     1       0  154.9   66.2 27.6           0        0 126
## 512   512  63      0     1       0  162.4   84.6 32.1           0        1 127
## 513   513  52      0     3       0  163.5   90.4 33.8           0        0 129
## 514   514  63      0     2       2  174.1   78.4 25.9           1        0 145
## 515   515  65      0     3       0  164.0   69.8 25.9           0        0 130
## 516   516  61      1     1       2  166.2   75.4 27.3           0        1 114
## 517   517  62      1     1       0  164.2   85.0 31.5           1        0 136
## 518   518  60      1     2       1  173.5   78.4 26.1           0        1 123
## 519   519  69      0     4       0  169.1   80.2 28.1           1        1 149
## 520   520  60      1     4       0  168.9   83.3 29.2           0        0 128
## 521   521  57      1     1       0  171.0   85.5 29.2           0        0 124
## 522   522  56      0     1       1  170.0   84.0 29.1           0        0 125
## 523   523  53      0     1       0  171.0   78.1 26.7           0        0 115
## 524   524  58      1     1       0  159.5   71.6 28.2           1        1 134
## 525   525  62      0     1       0  168.8   76.5 26.9           1        1 134
## 526   526  67      0     2       0  169.8   89.8 31.2           1        1 144
```

```
## 527   527  55      0     4       0  170.8   78.3 26.8           0        0 130
## 528   528  57      1     3       0  162.8   80.1 30.2           0        0 124
## 529   529  57      0     1       1  161.9   84.7 32.3           1        0 145
## 530   530  62      1     1       2  176.2   82.7 26.6           1        0 131
## 531   531  65      0     1       0  160.4   74.4 28.9           1        0 137
## 532   532  54      1     3       0  169.7   84.3 29.3           0        0 123
## 533   533  61      1     1       0  168.5   80.4 28.3           1        0 136
## 534   534  60      0     1       0  171.4   72.7 24.8           1        0 137
## 535   535  63      1     2       1  180.7   85.9 26.3           1        0 131
## 536   536  57      1     2       0  162.8   82.6 31.2           0        0 128
## 537   537  60      1     1       0  169.2   89.9 31.4           1        0 134
## 538   538  65      0     3       0  174.5   75.4 24.8           1        0 137
## 539   539  60      0     2       0  170.0   72.8 25.2           0        0 124
## 540   540  56      1     3       1  174.0   75.8 25.0           1        0 132
## 541   541  65      0     1       2  172.3   70.2 23.6           1        0 143
## 542   542  55      1     3       0  174.1   86.1 28.4           0        0 108
## 543   543  58      0     3       1  168.6   79.2 27.9           0        0 115
## 544   544  61      1     1       0  154.2   73.4 30.8           1        0 142
## 545   545  65      0     1       1  160.3   75.0 29.2           1        0 139
## 546   546  63      0     1       0  176.5   84.2 27.0           0        0 121
## 547   547  55      0     1       0  168.4   82.5 29.1           1        0 139
## 548   548  60      1     2       0  166.1   69.4 25.2           0        0 130
## 549   549  63      1     1       0  175.5   74.5 24.2           1        0 140
## 550   550  64      1     1       1  167.5   72.7 25.9           0        0 130
## 551   551  61      1     1       0  171.9   87.4 29.6           1        0 139
## 552   552  51      0     3       1  162.8   75.6 28.5           1        1 132
## 553   553  62      0     3       1  169.2   90.8 31.7           0        0 121
## 554   554  64      1     1       0  159.3   71.2 28.1           1        0 141
## 555   555  61      1     1       1  160.6   81.8 31.7           1        1 135
## 556   556  63      0     3       1  168.5   80.1 28.2           1        1 135
## 557   557  59      0     1       0  171.0   79.9 27.3           0        0 125
## 558   558  55      1     1       0  170.0   74.0 25.6           0        0 120
## 559   559  63      1     1       0  165.9   64.9 23.6           1        0 136
## 560   560  61      1     1       0  179.0   75.7 23.6           1        0 143
## 561   561  62      1     1       2  158.6   76.3 30.3           0        0 128
## 562   562  71      0     1       1  173.2   86.9 29.0           1        0 134
## 563   563  63      1     1       1  165.3   72.6 26.6           1        1 140
## 564   564  58      0     1       0  170.5   71.8 24.7           0        0 123
## 565   565  59      1     3       0  166.3   76.5 27.7           0        0 125
## 566   566  60      0     3       0  167.0   83.1 29.8           0        0 126
## 567   567  49      0     1       1  171.1   71.6 24.5           0        1 118
## 568   568  53      1     1       0  174.2   72.3 23.8           0        0 114
## 569   569  68      1     1       0  177.8   85.7 27.1           1        0 142
## 570   570  55      0     1       1  174.0   85.2 28.2           0        0 124
## 571   571  64      1     4       0  168.5   90.7 31.9           1        1 136
## 572   572  61      1     1       0  177.1   80.8 25.7           1        0 137
## 573   573  59      1     1       0  169.4   77.4 27.0           1        0 140
## 574   574  62      1     1       2  174.3   93.6 30.8           1        1 133
## 575   575  66      0     1       0  167.2   79.3 28.4           0        0 130
## 576   576  62      1     1       0  170.5   81.1 27.9           1        1 131
## 577   577  61      1     1       0  163.4   83.4 31.2           0        1 130
## 578   578  62      0     2       0  166.8   85.1 30.6           0        1 130
## 579   579  59      0     3       0  171.6   86.9 29.5           1        0 136
## 580   580  60      0     3       0  163.9   93.1 34.6           1        0 141
```

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## 581   581  65      0     1       2  164.8   70.9 26.1            1        0 140
## 582   582  53      0     1       1  166.6   76.8 27.7            0        0 127
## 583   583  52      1     3       0  174.7   88.2 28.9            0        0 126
## 584   584  54      1     1       0  170.1   75.1 26.0            1        0 133
## 585   585  61      1     1       0  170.3   76.8 26.5            1        0 138
## 586   586  63      1     3       1  179.1   93.5 29.2            1        0 149
## 587   587  58      0     1       0  168.4   74.1 26.1            1        0 134
## 588   588  63      0     3       0  169.2   69.3 24.2            1        0 140
## 589   589  60      1     3       2  176.1   75.9 24.5            1        0 140
## 590   590  60      1     1       0  177.6   85.8 27.2            1        0 134
## 591   591  61      0     3       0  160.0   78.2 30.5            0        0 124
## 592   592  67      0     1       1  165.6   78.2 28.5            1        0 139
## 593   593  61      1     1       0  182.0   71.6 21.6            0        0 124
## 594   594  54      0     4       0  177.5   74.4 23.6            0        0 129
## 595   595  64      0     1       0  169.5   82.9 28.8            0        0 124
## 596   596  62      1     3       0  163.3   76.6 28.7            0        0 125
## 597   597  57      0     1       0  161.1   84.2 32.4            0        0 124
## 598   598  63      0     3       1  162.6   78.9 29.9            0        0 124
## 599   599  61      0     3       0  166.2   66.3 24.0            0        0 119
## 600   600  53      0     1       0  165.8   82.2 29.9            0        0 119
## 601   601  57      0     1       1  167.6   82.6 29.4            1        0 145
## 602   602  62      0     3       0  166.0   76.3 27.7            0        0 127
## 603   603  64      0     1       1  179.3   86.1 26.8            0        0 121
## 604   604  74      0     4       0  161.9   90.3 34.5            0        0 128
## 605   605  56      1     1       0  177.4   86.1 27.4            0        0 124
## 606   606  65      0     3       1  167.4   84.3 30.1            0        0 127
## 607   607  64      0     4       0  159.9   70.7 27.6            0        0 126
## 608   608  60      0     1       0  178.9   78.9 24.7            1        0 135
## 609   609  63      1     3       0  183.8   83.2 24.6            0        0 129
## 610   610  59      1     4       0  160.0   79.3 31.0            1        0 133
## 611   611  49      1     1       2  166.3   77.5 28.0            0        0 124
## 612   612  66      0     1       0  173.6   86.6 28.7            1        0 147
## 613   613  65      1     4       0  177.3   93.2 29.7            1        0 147
## 614   614  68      0     3       0  173.1   85.8 28.7            1        1 131
## 615   615  63      1     4       0  173.0   68.3 22.8            1        0 141
## 616   616  56      0     1       0  174.1   87.1 28.7            0        0 126
## 617   617  60      1     1       0  170.9   78.2 26.8            1        0 133
## 618   618  50      1     3       0  167.6   77.1 27.4            0        0 130
## 619   619  58      0     1       2  174.5   71.2 23.4            1        1 136
## 620   620  60      1     1       0  170.0   80.7 27.9            0        0 128
## 621   621  61      1     1       2  175.2   74.6 24.3            1        0 135
## 622   622  53      1     4       0  160.8   73.3 28.3            0        0 121
## 623   623  68      0     1       0  175.1   80.9 26.4            1        0 141
## 624   624  63      0     1       0  166.7   76.9 27.7            1        0 138
## 625   625  64      0     1       0  170.4   70.1 24.2            0        0 130
## 626   626  57      0     1       0  163.2   95.2 35.7            0        0 129
## 627   627  66      0     1       0  170.9   78.5 26.9            1        0 141
## 628   628  64      1     1       0  176.5   70.0 22.5            1        0 135
## 629   629  57      0     3       0  165.6   85.1 31.0            0        0 124
## 630   630  56      0     1       0  169.6   67.1 23.3            0        0 127
## 631   631  61      1     1       0  172.7   76.1 25.5            0        0 124
## 632   632  62      0     1       1  161.8   71.6 27.3            1        0 135
## 633   633  59      1     1       1  168.9   80.8 28.3            1        0 141
## 634   634  60      1     1       0  171.8   87.3 29.6            1        0 133
```

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## 635   635  56      1     4       0  169.0   77.2 27.0           0        0 124
## 636   636  60      1     1       0  177.0   74.4 23.8           1        0 137
## 637   637  64      1     1       0  167.0   72.7 26.1           1        0 134
## 638   638  62      0     1       0  162.3   81.5 30.9           0        0 127
## 639   639  62      0     4       1  170.2   86.7 29.9           1        0 136
## 640   640  57      0     3       1  168.0   79.8 28.3           0        0 124
## 641   641  60      0     1       0  168.1   85.3 30.2           0        1 124
## 642   642  57      1     1       0  170.8   86.1 29.5           0        0 125
## 643   643  55      1     1       0  170.1   76.4 26.4           0        0 117
## 644   644  59      0     2       2  172.9   82.8 27.7           0        0 129
## 645   645  56      1     1       0  175.0   74.3 24.3           1        0 137
## 646   646  56      1     1       0  171.3  100.2 34.1           1        0 131
## 647   647  57      1     1       1  178.3   77.8 24.5           1        0 143
## 648   648  57      1     3       2  172.0   82.2 27.8           0        0 129
## 649   649  65      1     1       1  174.2   79.6 26.2           1        0 138
## 650   650  55      0     1       0  167.6   75.3 26.8           0        0 128
## 651   651  57      1     3       0  165.8   75.0 27.3           0        0 129
## 652   652  65      0     1       0  162.4   86.4 32.8           0        0 130
## 653   653  60      1     1       1  166.1   86.7 31.4           1        0 133
## 654   654  63      0     3       0  173.5   74.7 24.8           0        0 129
## 655   655  61      1     1       0  163.7   79.6 29.7           0        1 126
## 656   656  64      0     4       1  170.7   71.1 24.4           0        1 115
## 657   657  59      1     2       0  166.6   67.8 24.4           0        0 125
## 658   658  52      1     1       1  161.3   72.1 27.7           0        0 123
## 659   659  54      0     1       0  172.9   71.6 24.0           0        0 130
## 660   660  57      0     1       0  172.6   79.0 26.5           0        1 129
## 661   661  59      1     1       0  176.2   81.6 26.3           0        0 128
## 662   662  60      0     1       1  173.1   90.4 30.2           0        0 129
## 663   663  63      0     2       2  183.2   81.4 24.3           1        0 132
## 664   664  56      1     1       2  175.3   73.8 24.0           0        0 117
## 665   665  59      0     3       0  172.6   84.8 28.5           0        0 116
## 666   666  61      0     1       1  170.3   73.4 25.3           0        1 128
## 667   667  67      1     1       0  169.2   81.9 28.6           0        0 129
## 668   668  51      0     2       0  168.6   77.1 27.1           0        0 119
## 669   669  56      1     3       1  164.0   78.6 29.3           0        0 125
## 670   670  59      0     1       0  166.3   81.2 29.4           1        0 135
## 671   671  61      0     2       0  161.8   82.9 31.6           0        0 127
## 672   672  57      0     1       0  167.2   77.7 27.8           0        0 115
## 673   673  61      1     1       0  176.7   79.7 25.5           0        0 128
## 674   674  64      0     3       0  168.5   69.6 24.5           1        0 140
## 675   675  60      0     1       0  163.3   87.8 32.9           0        1 130
## 676   676  71      1     1       0  165.5   73.4 26.8           1        0 135
## 677   677  65      1     1       0  166.7   90.5 32.6           1        1 135
## 678   678  67      1     3       1  171.2   86.0 29.3           0        0 130
## 679   679  61      1     4       2  174.1   85.7 28.3           0        0 130
## 680   680  55      0     1       1  170.4   87.8 30.2           0        0 130
## 681   681  61      1     4       0  171.7   93.7 31.8           0        0 124
## 682   682  52      0     1       1  160.9   74.7 28.9           0        0 128
## 683   683  61      1     3       1  164.0   67.4 25.1           1        0 131
## 684   684  62      0     4       0  173.0   76.4 25.5           0        0 117
## 685   685  56      0     3       1  171.8   86.8 29.4           0        0 123
## 686   686  59      0     1       0  174.0   90.0 29.7           0        0 130
## 687   687  65      1     3       2  175.4   75.1 24.4           0        0 126
## 688   688  64      0     1       2  156.7   84.0 34.2           1        0 135
```

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## 689   689  57      1     1       1  176.0   81.9 26.4           1        0 133
## 690   690  57      1     1       0  175.1   91.2 29.7           1        1 131
## 691   691  59      0     1       0  163.1   67.2 25.3           0        0 126
## 692   692  66      0     1       1  172.8   77.8 26.1           0        0 128
## 693   693  66      0     3       1  173.6   81.4 27.0           1        0 135
## 694   694  66      0     3       0  169.4   89.1 31.0           1        0 138
## 695   695  71      1     1       0  160.0   91.9 35.9           1        0 135
## 696   696  56      0     1       0  167.1   79.4 28.4           0        0 116
## 697   697  63      1     3       2  167.0   81.8 29.3           1        0 137
## 698   698  59      1     1       1  156.9   69.5 28.2           1        0 135
## 699   699  56      1     1       0  175.1   74.6 24.3           0        0 120
## 700   700  64      1     4       0  163.6   81.4 30.4           1        1 136
## 701   701  65      1     1       0  171.7   85.0 28.8           1        0 132
## 702   702  56      1     1       0  175.2   74.3 24.2           0        0 123
## 703   703  60      1     1       0  170.2   73.4 25.4           0        0 130
## 704   704  54      1     4       0  171.1   73.5 25.1           1        1 133
## 705   705  61      0     1       1  168.3   81.2 28.7           0        0 129
## 706   706  63      0     1       1  176.8   82.5 26.4           1        0 131
## 707   707  63      1     1       1  165.6   76.6 27.9           1        0 138
## 708   708  66      0     3       0  162.6   83.8 31.7           1        0 131
## 709   709  56      1     1       1  177.5   78.4 24.9           1        0 132
## 710   710  61      0     1       0  183.2   90.5 27.0           0        0 130
## 711   711  61      1     1       0  187.5   86.7 24.7           0        0 130
## 712   712  67      0     3       0  164.8   73.5 27.1           1        0 133
## 713   713  58      0     1       0  161.9   80.0 30.6           0        0 130
## 714   714  58      0     1       1  166.7   76.5 27.5           0        0 125
## 715   715  52      1     1       1  176.0   76.0 24.5           0        0 115
## 716   716  66      0     1       0  159.3   70.7 27.9           1        0 145
## 717   717  56      1     4       0  169.4   74.7 26.0           0        0 124
## 718   718  61      1     1       2  166.9   78.3 28.1           1        0 131
## 719   719  65      1     3       2  166.1   81.9 29.7           1        0 131
## 720   720  63      0     1       1  184.2   93.4 27.5           1        0 136
## 721   721  65      1     1       0  178.4   80.7 25.4           1        0 147
## 722   722  53      1     2       0  166.4   76.3 27.5           0        0 126
## 723   723  63      1     1       0  167.7   74.4 26.4           1        0 135
## 724   724  62      0     1       0  174.1   74.9 24.7           0        0 125
## 725   725  53      0     4       0  163.2   77.0 28.9           0        0 123
## 726   726  62      1     1       0  174.5   90.6 29.7           0        0 129
## 727   727  62      0     1       0  163.1   70.2 26.4           0        0 130
## 728   728  60      1     1       0  161.9   73.1 27.9           0        0 126
## 729   729  63      0     1       0  163.7   75.4 28.1           1        0 142
## 730   730  51      0     3       0  162.0   67.6 25.7           0        0 130
## 731   731  53      0     1       0  161.4   70.1 26.9           0        0 122
## 732   732  62      1     1       1  172.8   79.6 26.6           0        1 130
## 733   733  59      0     1       0  166.6   75.5 27.2           0        0 128
## 734   734  61      1     1       0  169.3   79.7 27.8           1        1 140
## 735   735  57      1     3       0  173.8   75.2 24.9           0        0 129
## 736   736  57      0     1       1  168.7   98.9 34.8           0        0 118
## 737   737  68      0     1       0  168.2   82.7 29.2           1        0 132
## 738   738  65      0     3       0  178.2   89.6 28.2           0        0 128
## 739   739  66      0     3       1  179.3   75.0 23.3           1        0 140
## 740   740  58      0     1       0  178.0   78.3 24.7           0        0 126
## 741   741  60      0     4       0  161.8   82.0 31.3           1        0 133
## 742   742  64      0     1       0  173.5   70.4 23.4           1        1 148
```

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## 743   743  64      1     3       0  171.5   75.7 25.7            0         0 130
## 744   744  59      1     1       1  172.9   82.9 27.7            0         0 129
## 745   745  70      0     1       0  155.7   84.3 34.8            0         0 130
## 746   746  59      0     1       2  176.6   96.4 30.9            0         1 117
## 747   747  64      1     3       2  187.4   87.0 24.8            1         1 137
## 748   748  57      1     1       1  172.8   75.2 25.2            0         0 111
## 749   749  61      0     3       2  168.0   87.2 30.9            0         0 120
## 750   750  52      0     1       0  169.0   80.9 28.3            0         0 127
## 751   751  61      0     1       0  172.6   85.6 28.8            0         1 127
## 752   752  61      0     2       1  173.5   89.5 29.7            0         0 125
## 753   753  57      0     1       1  166.5   87.8 31.7            0         0 125
## 754   754  64      1     4       1  170.7   79.9 27.4            1         0 133
## 755   755  60      1     1       0  164.8   75.4 27.8            1         0 139
## 756   756  50      0     1       0  169.6   80.8 28.1            0         0 120
## 757   757  64      1     3       1  165.9   78.3 28.5            1         0 132
## 758   758  66      0     3       0  164.6   80.3 29.6            1         0 140
## 759   759  60      1     3       0  169.7   76.1 26.4            1         1 135
## 760   760  58      1     1       0  183.2   76.6 22.8            0         0 125
## 761   761  57      0     1       1  169.5   76.1 26.5            0         0 124
## 762   762  55      0     3       0  176.7   93.5 29.9            1         0 133
## 763   763  56      0     1       2  167.0   80.4 28.9            1         0 134
## 764   764  62      1     3       0  172.2   81.5 27.5            0         0 130
## 765   765  73      1     2       0  175.5   80.2 26.0            1         1 140
## 766   766  66      1     1       0  173.9   70.4 23.3            0         0 130
## 767   767  57      0     3       0  164.3   73.7 27.3            0         0 121
## 768   768  64      0     1       0  172.5   80.6 27.1            1         1 134
## 769   769  58      1     3       0  180.9  100.6 30.7            0         0 129
## 770   770  61      1     1       0  176.9   85.5 27.3            1         0 139
## 771   771  60      0     3       0  174.8   77.1 25.2            1         0 142
## 772   772  63      0     1       0  166.4   89.3 32.3            1         0 139
## 773   773  64      0     1       0  162.4   81.5 30.9            0         0 125
## 774   774  59      0     1       0  171.1   77.4 26.4            0         0 127
## 775   775  64      0     1       0  167.0   62.4 22.4            1         1 138
## 776   776  64      0     4       0  171.2   83.1 28.4            0         0 122
## 777   777  62      1     3       0  180.7   80.8 24.7            1         0 144
## 778   778  65      1     1       0  179.8   93.6 29.0            1         1 141
## 779   779  64      1     1       1  165.0   80.9 29.7            1         0 137
## 780   780  60      0     1       0  175.1   68.5 22.3            1         0 140
## 781   781  67      1     3       1  184.7   82.5 24.2            1         0 141
## 782   782  58      0     3       1  171.8   87.2 29.6            1         0 133
## 783   783  66      1     2       1  167.7   79.3 28.2            1         0 139
## 784   784  55      1     1       1  169.0   79.3 27.8            0         1 126
## 785   785  55      1     1       0  176.1   66.3 21.4            1         0 138
## 786   786  60      0     3       0  170.8   71.6 24.5            0         0 129
## 787   787  62      1     1       0  182.0   91.0 27.5            0         0 127
## 788   788  58      0     1       0  171.5   79.9 27.2            1         0 135
## 789   789  67      0     1       2  166.8   87.2 31.4            1         0 137
## 790   790  63      0     1       1  174.8   88.1 28.8            1         0 138
## 791   791  54      1     1       0  173.2   65.9 22.0            0         0 111
## 792   792  62      1     3       0  169.7   57.8 20.1            1         0 132
## 793   793  58      0     1       1  165.7   79.2 28.9            0         0 118
## 794   794  65      0     1       0  161.8   90.6 34.6            1         0 135
## 795   795  63      1     3       0  178.3   80.7 25.4            0         0 129
## 796   796  55      0     1       1  166.2   72.9 26.4            0         0 121
```

```
## 797   797  62      1     1        0  164.5   90.8 33.6            1         0 137
## 798   798  62      1     1        1  174.0   92.2 30.5            0         0 126
## 799   799  66      1     1        0  167.8   79.3 28.2            1         0 142
## 800   800  61      1     1        0  163.7   64.7 24.2            1         1 135
## 801   801  61      0     1        0  170.6   87.1 29.9            1         0 138
## 802   802  62      1     1        0  167.4   80.6 28.8            1         0 136
## 803   803  59      0     1        0  174.1   76.5 25.2            0         0 123
## 804   804  57      0     4        2  168.1   73.5 26.0            0         0 122
## 805   805  69      0     1        0  162.6   92.8 35.1            0         0 130
## 806   806  64      1     1        2  169.7   90.0 31.2            0         0 128
## 807   807  65      0     1        0  178.1   78.2 24.6            1         0 138
## 808   808  62      1     1        0  166.7   85.3 30.7            1         0 135
## 809   809  67      1     1        1  166.9   87.9 31.6            1         0 144
## 810   810  65      0     3        1  165.4   82.4 30.1            1         0 138
## 811   811  51      0     1        0  170.5   89.0 30.6            0         1 108
## 812   812  48      0     4        0  167.3   70.8 25.3            0         1 123
## 813   813  57      0     4        0  181.1   84.7 25.8            1         0 139
## 814   814  60      1     1        1  170.6   79.0 27.2            1         0 138
## 815   815  56      0     1        1  170.4   82.3 28.4            0         0 120
## 816   816  60      0     1        0  171.4   81.7 27.8            1         0 141
## 817   817  67      1     1        1  172.4   78.6 26.5            0         0 125
## 818   818  47      1     1        0  167.7   73.1 26.0            0         1 130
## 819   819  59      0     2        0  175.5   94.5 30.7            1         0 139
## 820   820  57      1     1        2  158.7   78.6 31.2            0         0 123
## 821   821  56      1     1        0  173.3   77.4 25.8            1         1 134
## 822   822  55      0     3        0  171.0   82.4 28.2            0         0 126
## 823   823  67      0     1        1  175.4   85.3 27.7            0         0 121
## 824   824  59      0     1        0  163.7   75.2 28.0            0         0 124
## 825   825  58      1     2        0  162.0   76.0 28.9            0         0 128
## 826   826  54      0     1        2  167.6   72.5 25.8            0         0 125
## 827   827  64      0     1        2  177.1   86.2 27.5            1         0 131
## 828   828  56      0     1        0  166.0   70.2 25.5            0         0 129
## 829   829  55      0     1        0  168.6   74.6 26.3            0         0 130
## 830   830  58      1     1        0  167.2   74.2 26.5            0         1 127
## 831   831  54      0     1        0  168.1   66.1 23.4            0         0 129
## 832   832  60      0     1        0  173.0   75.8 25.3            1         1 134
## 833   833  65      1     1        0  181.5   88.1 26.7            1         0 137
## 834   834  66      1     1        0  172.4   76.9 25.9            1         0 139
## 835   835  64      0     1        0  167.8   67.6 24.0            0         0 124
## 836   836  55      0     1        0  169.3   69.3 24.2            1         0 139
## 837   837  59      1     1        0  166.7   77.4 27.9            0         0 125
## 838   838  60      1     1        0  166.9   77.8 27.9            0         1 128
## 839   839  58      1     1        1  177.6   87.0 27.6            0         0 124
## 840   840  56      1     1        0  172.7   84.1 28.2            0         0 126
## 841   841  67      1     3        0  170.2   72.4 25.0            1         0 132
## 842   842  61      1     1        1  165.6   77.0 28.1            0         0 123
## 843   843  64      0     1        0  167.0   71.1 25.5            0         0 124
## 844   844  61      0     1        1  162.5   73.3 27.8            1         0 131
## 845   845  53      1     1        2  173.0   79.4 26.5            0         0 130
## 846   846  54      1     1        0  175.2   83.7 27.3            0         0 125
## 847   847  61      1     2        0  172.1   76.3 25.8            1         0 132
## 848   848  60      0     3        0  177.7   89.4 28.3            1         1 139
## 849   849  54      1     4        1  169.2   79.2 27.6            1         1 137
## 850   850  58      0     1        0  171.5   88.2 30.0            0         0 124
```

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## 851   851  62      1     1        0  176.6   83.4 26.7            0         0 128
## 852   852  58      0     3        0  181.8   86.2 26.1            1         0 135
## 853   853  69      1     1        1  172.9   76.3 25.5            1         0 134
## 854   854  61      0     1        0  170.2   85.7 29.6            0         0 128
## 855   855  61      1     1        1  163.2   63.6 23.9            0         0 117
## 856   856  61      0     3        1  166.1   71.6 26.0            1         0 131
## 857   857  53      0     1        0  161.6   78.4 30.0            0         1 114
## 858   858  59      1     1        0  175.2   80.1 26.1            0         0 128
## 859   859  67      1     1        1  172.3   95.8 32.3            0         0 128
## 860   860  51      0     1        0  179.3   82.3 25.6            0         0 125
## 861   861  59      0     2        0  167.6   65.9 23.5            0         0 128
## 862   862  58      0     1        1  167.3   88.4 31.6            0         1 115
## 863   863  52      0     3        0  171.4   86.1 29.3            0         0 127
## 864   864  60      1     3        0  169.1   79.3 27.7            0         1 127
## 865   865  65      0     1        1  162.0   94.9 36.2            1         0 132
## 866   866  60      1     1        0  177.3   91.3 29.0            0         0 127
## 867   867  56      1     1        2  170.6   77.4 26.6            1         0 132
## 868   868  64      1     1        1  170.0   88.2 30.5            1         0 144
## 869   869  54      0     1        0  164.3   82.2 30.5            0         0 129
## 870   870  64      0     3        1  178.7   79.2 24.8            1         0 137
## 871   871  62      0     2        2  171.9   81.6 27.6            0         0 130
## 872   872  66      0     3        1  164.1   63.3 23.5            1         0 132
## 873   873  64      0     1        2  170.3   77.5 26.7            0         0 130
## 874   874  58      1     3        0  170.4   78.4 27.0            0         0 123
## 875   875  66      1     1        0  161.2   64.1 24.7            1         0 142
## 876   876  56      1     4        0  174.7   69.2 22.7            0         0 128
## 877   877  59      0     1        0  160.2   68.7 26.8            0         0 114
## 878   878  60      0     4        1  171.6   75.2 25.5            0         0 127
## 879   879  56      0     1        1  158.7   82.5 32.8            0         1 128
## 880   880  60      1     1        2  173.2   80.7 26.9            1         0 140
## 881   881  58      0     1        0  166.5   76.8 27.7            1         0 137
## 882   882  60      0     1        1  175.2   64.4 21.0            1         0 138
## 883   883  57      0     1        0  162.1   82.5 31.4            0         0 118
## 884   884  59      0     4        0  163.0   64.8 24.4            0         0 120
## 885   885  61      0     1        0  171.9   82.6 28.0            1         0 134
## 886   886  68      0     1        1  172.6   82.9 27.8            1         0 141
## 887   887  54      1     1        0  166.9   80.0 28.7            0         1 121
## 888   888  52      1     3        0  172.4   74.0 24.9            0         1 125
## 889   889  53      1     1        2  163.6   75.4 28.2            0         0 118
## 890   890  60      1     1        0  170.7   91.6 31.4            0         0 129
## 891   891  57      0     3        0  174.8   85.7 28.0            1         0 133
## 892   892  53      1     1        0  176.8   78.3 25.1            1         0 132
## 893   893  54      0     1        0  163.3   78.2 29.3            1         1 132
## 894   894  54      0     3        0  158.0   78.6 31.5            0         1 130
## 895   895  52      1     2        0  173.1   82.7 27.6            0         0 113
## 896   896  55      0     1        0  173.0   78.5 26.2            1         0 131
## 897   897  58      0     1        0  163.6   66.4 24.8            1         0 137
## 898   898  62      0     1        2  178.6   80.9 25.4            1         0 131
## 899   899  64      1     4        1  168.9   89.0 31.2            1         0 151
## 900   900  58      0     1        0  169.2   85.1 29.7            0         0 113
## 901   901  64      0     2        1  163.2   74.3 27.9            1         0 138
## 902   902  58      0     1        0  168.1   74.2 26.3            1         0 145
## 903   903  54      0     1        1  175.2   82.1 26.8            1         0 131
## 904   904  56      0     4        1  179.1   78.9 24.6            1         1 135
```

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## 905   905  56      0     1       2  162.2   74.5 28.3           1        0 137
## 906   906  57      1     1       0  168.7   64.5 22.6           1        0 141
## 907   907  65      0     1       0  174.4   87.4 28.8           0        0 122
## 908   908  64      1     3       1  164.1   79.1 29.4           1        0 138
## 909   909  63      1     1       2  167.0   84.3 30.2           1        0 136
## 910   910  59      0     3       0  168.6   75.3 26.5           0        0 129
## 911   911  63      0     3       1  171.6   85.3 29.0           1        0 133
## 912   912  67      0     1       0  169.4   78.6 27.4           0        0 128
## 913   913  61      0     1       0  159.6   86.6 34.0           1        0 132
## 914   914  66      0     3       2  171.4   88.8 30.2           0        0 119
## 915   915  56      1     1       0  168.7   84.8 29.8           0        0 119
## 916   916  65      1     1       0  169.3   77.8 27.1           0        0 129
## 917   917  63      1     1       1  171.0   87.2 29.8           1        0 141
## 918   918  55      0     1       0  170.7   78.3 26.9           0        1 115
## 919   919  59      1     1       0  185.8   87.3 25.3           0        1 128
## 920   920  68      1     3       0  164.0   79.0 29.3           1        0 137
## 921   921  62      0     1       0  172.6   84.7 28.5           1        0 137
## 922   922  58      1     1       0  167.6   76.3 27.2           0        0 129
## 923   923  58      1     1       0  168.0   86.9 30.8           0        0 127
## 924   924  59      1     4       0  178.2   90.3 28.4           1        0 133
## 925   925  66      0     3       0  167.7   72.3 25.7           1        0 135
## 926   926  62      0     1       0  177.4   81.3 25.8           0        1 130
## 927   927  60      0     1       0  166.4   61.6 22.3           1        0 132
## 928   928  62      0     1       1  160.4   78.7 30.6           0        0 120
## 929   929  61      1     1       1  165.8   88.3 32.1           1        0 140
## 930   930  56      1     1       0  170.8   71.3 24.4           0        0 128
## 931   931  61      1     1       0  169.3   68.4 23.9           0        0 129
## 932   932  60      1     3       0  165.0   73.5 27.0           0        0 129
## 933   933  55      1     1       0  158.5   83.1 33.0           0        0 128
## 934   934  52      1     3       0  170.6   68.9 23.7           0        0 121
## 935   935  60      0     1       2  169.3   72.6 25.3           1        0 137
## 936   936  62      1     1       0  167.4   78.8 28.1           1        0 140
## 937   937  54      1     1       2  158.1   73.0 29.2           1        0 131
## 938   938  53      1     1       0  169.3   89.4 31.2           0        0 117
## 939   939  62      0     2       1  162.4   73.1 27.7           1        1 133
## 940   940  62      1     4       1  174.1   83.6 27.6           0        0 124
## 941   941  63      1     1       1  171.7   80.7 27.4           0        0 115
## 942   942  69      0     2       0  172.6   79.9 26.8           1        1 138
## 943   943  51      1     3       1  168.6   78.3 27.5           0        0 128
## 944   944  60      0     1       0  170.3   67.1 23.1           1        0 131
## 945   945  61      1     3       0  168.6   92.1 32.4           1        0 131
## 946   946  60      1     1       0  163.0   73.3 27.6           1        0 131
## 947   947  66      0     1       0  169.2   84.9 29.7           1        0 137
## 948   948  61      0     4       0  173.1   78.4 26.1           0        0 128
## 949   949  57      1     1       0  185.5   76.3 22.2           0        0 118
## 950   950  63      0     1       0  174.1   80.7 26.6           1        0 131
## 951   951  57      0     1       0  169.1   75.0 26.2           0        0 117
## 952   952  53      1     1       0  169.9   85.7 29.7           1        0 143
## 953   953  59      0     1       1  163.2   70.4 26.4           0        0 122
## 954   954  63      1     4       0  175.4   88.7 28.8           1        0 131
## 955   955  58      0     1       0  169.8   87.1 30.2           1        1 137
## 956   956  64      1     1       0  163.1   80.8 30.4           1        0 134
## 957   957  65      0     3       0  177.3   75.2 23.9           0        0 126
## 958   958  59      0     1       0  172.7   64.0 21.4           1        0 139
```

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## 959   959  58      0     3       0  158.5   80.9 32.2            0        0 122
## 960   960  50      0     1       0  169.7   88.6 30.8            0        0 123
## 961   961  62      0     3       0  178.7   74.0 23.2            1        0 143
## 962   962  64      1     3       0  176.1  100.0 32.2            0        0 127
## 963   963  62      1     2       2  167.7   98.3 35.0            0        0 121
## 964   964  56      1     1       0  165.5   78.0 28.5            0        0 118
## 965   965  60      0     1       1  162.6   75.1 28.4            1        0 137
## 966   966  58      1     1       0  171.5   74.5 25.3            1        1 134
## 967   967  56      0     1       1  174.7   96.4 31.6            0        1 126
## 968   968  62      1     1       1  172.0   80.2 27.1            1        0 137
## 969   969  64      1     1       0  170.5   77.2 26.6            1        1 132
## 970   970  57      0     1       1  174.3   84.4 27.8            0        0 120
## 971   971  69      0     1       0  179.2   85.2 26.5            1        1 140
## 972   972  62      1     1       0  168.4   82.6 29.2            1        0 137
## 973   973  57      0     1       0  167.9   86.5 30.7            0        0 121
## 974   974  63      1     1       0  163.0   80.1 30.2            0        0 126
## 975   975  61      1     3       0  181.5   69.4 21.1            1        0 136
## 976   976  63      1     1       1  172.9   95.4 31.9            1        0 135
## 977   977  55      0     1       0  177.7   80.6 25.5            0        0 117
## 978   978  52      1     1       1  163.2   88.9 33.4            0        0 116
## 979   979  53      0     1       1  174.1   75.5 24.9            0        0 127
## 980   980  65      1     1       0  176.9   91.6 29.3            1        0 140
## 981   981  53      1     3       0  170.8   74.6 25.6            1        0 132
## 982   982  61      0     1       2  164.5   78.9 29.1            1        0 136
## 983   983  64      1     1       1  176.3   72.2 23.3            0        0 123
## 984   984  59      0     2       0  160.9   74.8 28.9            0        0 120
## 985   985  68      1     1       1  165.1   70.6 25.9            1        0 141
## 986   986  56      0     1       1  173.6   82.0 27.2            1        0 139
## 987   987  58      0     1       0  177.1   78.6 25.1            1        0 138
## 988   988  63      1     3       0  171.1   74.5 25.5            0        0 127
## 989   989  59      1     1       2  159.5   81.1 31.9            0        0 128
## 990   990  59      0     1       0  161.1   70.2 27.1            1        0 139
## 991   991  67      0     1       0  168.6   70.7 24.9            1        0 133
## 992   992  58      1     4       0  160.0   73.4 28.7            0        0 116
## 993   993  57      0     4       0  166.4   74.3 26.8            0        1 121
## 994   994  66      0     1       1  166.2   87.1 31.5            1        0 138
## 995   995  68      0     1       0  154.5   79.8 33.4            1        0 142
## 996   996  58      0     1       0  162.8   65.1 24.6            0        1 128
## 997   997  55      0     2       0  165.2   72.3 26.5            1        1 135
## 998   998  63      1     1       2  176.2   75.0 24.2            0        0 126
## 999   999  58      1     1       1  176.3   78.6 25.3            0        1 119
## 1000 1000  70      0     1       2  165.2   81.9 30.0            1        1 137
## 1001 1001  59      0     4       2  172.9   87.9 29.4            1        1 137
## 1002 1002  57      0     1       0  171.6   77.7 26.4            1        0 141
## 1003 1003  62      1     4       0  175.4   75.5 24.5            0        0 129
## 1004 1004  57      0     1       0  176.4   77.7 25.0            0        1 118
## 1005 1005  66      0     1       0  176.1   69.6 22.4            1        0 143
## 1006 1006  60      0     1       0  175.3   76.3 24.8            0        0 130
## 1007 1007  61      0     1       0  162.4   77.5 29.4            1        0 134
## 1008 1008  55      1     1       0  169.0   79.5 27.8            0        0 129
## 1009 1009  63      1     1       0  166.6   92.1 33.2            0        0 124
## 1010 1010  63      0     4       1  178.1   77.9 24.6            1        0 133
## 1011 1011  59      1     1       1  174.3   84.1 27.7            0        1 130
## 1012 1012  64      0     1       0  170.8   90.4 31.0            1        0 133
```

```
## 1013 1013  54      0     1       0  181.9   83.7 25.3           0        0 115
## 1014 1014  62      0     1       0  178.2   82.0 25.8           0        1 126
## 1015 1015  58      1     1       2  170.7   81.6 28.0           0        0 127
## 1016 1016  51      0     1       2  158.5   70.5 28.0           0        0 121
## 1017 1017  56      0     4       0  170.4   84.7 29.2           0        0 130
## 1018 1018  50      0     3       0  174.0   70.7 23.4           0        0 126
## 1019 1019  51      1     1       1  178.6   84.3 26.4           0        0 117
## 1020 1020  58      0     1       0  173.7   77.6 25.7           0        0 122
## 1021 1021  62      0     4       2  177.7   88.4 28.0           0        0 125
## 1022 1022  65      1     1       1  160.1   77.1 30.1           0        0 129
## 1023 1023  59      1     1       0  171.6   71.8 24.4           0        0 130
## 1024 1024  59      0     1       2  167.7   79.8 28.4           0        1 126
## 1025 1025  57      0     4       1  177.0   87.8 28.0           0        0 123
## 1026 1026  60      1     1       1  165.3   79.8 29.2           1        0 131
## 1027 1027  62      1     1       0  166.0   84.7 30.7           1        1 136
## 1028 1028  59      0     1       1  171.2   86.7 29.6           1        1 141
## 1029 1029  71      1     1       0  173.5   80.4 26.7           1        1 137
## 1030 1030  61      1     1       2  166.8   85.2 30.6           1        1 139
## 1031 1031  50      1     4       0  175.2   75.0 24.4           0        0 130
## 1032 1032  54      0     1       0  176.2   92.3 29.7           1        0 132
## 1033 1033  64      1     3       0  167.2   86.3 30.9           1        0 132
## 1034 1034  52      1     2       1  165.6   68.0 24.8           0        0 125
## 1035 1035  67      1     4       2  180.4   79.3 24.3           1        0 140
## 1036 1036  65      1     1       0  168.6   87.4 30.7           1        0 139
## 1037 1037  67      0     1       0  168.6   75.0 26.4           1        0 131
## 1038 1038  59      0     1       0  183.1   93.1 27.8           1        0 151
## 1039 1039  61      1     1       1  175.4   92.4 30.0           1        0 144
## 1040 1040  60      0     3       1  176.7   79.2 25.4           0        0 117
## 1041 1041  56      1     3       1  172.0   75.2 25.4           0        0 128
## 1042 1042  62      1     1       1  163.3   80.8 30.3           1        1 138
## 1043 1043  61      1     1       0  164.3   84.5 31.3           0        0 116
## 1044 1044  63      1     3       0  184.7   90.3 26.5           1        0 132
## 1045 1045  61      1     3       1  172.9   83.4 27.9           1        0 142
## 1046 1046  56      0     3       0  175.2   83.8 27.3           1        0 140
## 1047 1047  54      1     1       0  175.8   84.6 27.4           0        0 125
## 1048 1048  61      1     4       0  173.3   78.2 26.0           0        0 124
## 1049 1049  66      0     1       0  177.2   81.2 25.9           0        0 121
## 1050 1050  61      1     4       0  169.2   77.4 27.0           1        0 133
## 1051 1051  62      1     1       0  171.2   85.6 29.2           1        1 140
## 1052 1052  59      0     1       0  167.4   82.3 29.4           0        0 125
## 1053 1053  60      1     3       1  178.0   81.9 25.9           0        0 114
## 1054 1054  68      1     1       0  173.5   68.7 22.8           0        0 125
## 1055 1055  71      0     1       0  171.4   89.3 30.4           1        0 135
## 1056 1056  52      0     1       0  174.7   89.9 29.5           0        0 124
## 1057 1057  56      1     1       0  182.6   75.9 22.8           0        0 123
## 1058 1058  65      0     1       0  175.2   81.0 26.4           0        0 125
## 1059 1059  56      1     1       0  170.5   79.8 27.4           1        1 134
## 1060 1060  55      0     1       0  172.1   77.3 26.1           0        0 127
## 1061 1061  66      0     3       0  169.5   66.4 23.1           1        0 142
## 1062 1062  56      0     1       1  167.6   78.1 27.8           0        0 127
## 1063 1063  51      0     1       0  167.6   81.2 28.9           0        1 124
## 1064 1064  53      0     1       0  167.9   85.1 30.2           0        0 120
## 1065 1065  65      1     1       0  168.7   85.3 30.0           1        1 140
## 1066 1066  59      1     2       0  161.8   80.7 30.8           0        0 124
```

```
## 1067 1067  57      1     1       0  169.1   80.9 28.3           0        0 126
## 1068 1068  56      1     1       0  171.8   85.9 29.1           0        1 126
## 1069 1069  69      0     1       1  171.6   83.9 28.5           1        0 142
## 1070 1070  62      1     1       2  172.4   85.2 28.7           1        0 134
## 1071 1071  60      0     1       0  171.4   83.2 28.3           0        0 121
## 1072 1072  65      1     1       0  165.5   82.4 30.1           1        0 133
## 1073 1073  64      1     1       1  166.4   75.5 27.3           0        0 117
## 1074 1074  53      0     1       2  176.6   83.1 26.7           0        1 115
## 1075 1075  61      0     3       0  166.8   75.7 27.2           0        0 126
## 1076 1076  60      1     1       0  155.9   65.2 26.8           1        1 140
## 1077 1077  74      1     3       0  164.7   71.0 26.2           0        0 127
## 1078 1078  68      0     1       0  169.9   72.7 25.2           1        0 145
## 1079 1079  63      1     1       0  176.8   77.6 24.8           0        1 126
## 1080 1080  63      0     1       1  167.7   76.7 27.3           0        0 128
## 1081 1081  55      1     1       0  173.2   80.2 26.7           0        0 112
## 1082 1082  61      0     1       1  171.1   77.7 26.5           1        0 134
## 1083 1083  57      0     1       0  183.2   88.5 26.4           1        0 132
## 1084 1084  60      0     1       0  164.9   87.6 32.2           1        0 136
## 1085 1085  60      0     1       0  162.4   78.4 29.7           0        0 122
## 1086 1086  67      1     1       0  171.8   85.8 29.1           1        0 133
## 1087 1087  62      1     1       0  159.9   78.9 30.9           0        0 122
## 1088 1088  62      1     4       1  161.8   72.2 27.6           1        1 137
## 1089 1089  57      0     1       0  158.3   71.0 28.3           0        1 124
## 1090 1090  61      0     1       0  167.5   84.9 30.3           0        1 120
## 1091 1091  59      1     1       0  169.6  103.7 36.1           0        0 129
## 1092 1092  56      0     2       0  160.0   78.5 30.7           0        1 125
## 1093 1093  61      0     1       1  177.9   74.6 23.6           1        0 145
## 1094 1094  57      1     3       0  166.1   75.5 27.4           1        0 136
## 1095 1095  64      0     1       0  170.2   84.3 29.1           0        0 124
## 1096 1096  52      0     3       1  172.5   76.5 25.7           0        1 122
## 1097 1097  64      0     1       0  169.9   78.5 27.2           1        0 134
## 1098 1098  60      0     3       0  170.8   80.9 27.7           0        0 123
## 1099 1099  67      1     2       0  169.9   81.8 28.3           1        0 131
## 1100 1100  64      1     3       1  179.7   80.5 24.9           1        1 133
## 1101 1101  63      1     2       0  169.7   74.1 25.7           1        0 139
## 1102 1102  57      0     1       0  165.8   69.5 25.3           1        0 131
## 1103 1103  65      1     1       1  165.4   85.7 31.3           0        0 125
## 1104 1104  70      0     4       1  166.9   66.8 24.0           1        1 142
## 1105 1105  58      1     3       2  177.9   76.8 24.3           0        0 122
## 1106 1106  53      0     1       0  166.0   80.9 29.3           0        1 122
## 1107 1107  53      1     2       0  175.6   71.1 23.1           1        0 131
## 1108 1108  56      1     1       0  164.7   89.8 33.1           0        0 127
## 1109 1109  65      0     1       0  167.3   77.3 27.6           1        1 141
## 1110 1110  57      0     1       0  164.1   87.7 32.6           0        0 114
## 1111 1111  62      1     1       0  171.2   77.4 26.4           1        0 137
## 1112 1112  58      1     1       1  174.0   99.9 33.0           0        1 127
## 1113 1113  65      0     1       1  174.3   88.9 29.2           1        0 133
## 1114 1114  63      0     3       0  166.2   96.9 35.1           0        1 124
## 1115 1115  61      1     1       0  170.1   73.3 25.3           1        1 148
## 1116 1116  66      0     1       0  160.7   83.0 32.1           1        0 133
## 1117 1117  59      1     1       0  174.3   79.0 26.0           0        0 122
## 1118 1118  63      0     1       1  161.1   79.6 30.7           1        0 134
## 1119 1119  58      1     1       1  165.5   86.4 31.6           0        0 125
## 1120 1120  57      1     1       0  166.1   81.7 29.6           0        0 127
```

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## 1121 1121  57      1     1       1  167.8   80.0 28.4           0        0 120
## 1122 1122  53      0     3       0  168.0   72.7 25.8           0        0 127
## 1123 1123  57      0     1       1  165.1   92.2 33.8           0        0 125
## 1124 1124  59      0     2       0  174.8   80.8 26.5           0        0 123
## 1125 1125  59      1     3       1  175.2   91.2 29.7           1        1 131
## 1126 1126  55      0     3       0  175.5   86.4 28.0           0        0 130
## 1127 1127  66      0     1       0  178.3   98.8 31.1           1        0 134
## 1128 1128  56      0     1       0  167.7   82.2 29.2           1        0 132
## 1129 1129  64      0     1       1  164.2   73.1 27.1           1        0 132
## 1130 1130  61      0     2       1  165.6   69.6 25.4           0        0 126
## 1131 1131  69      1     1       0  176.3   77.2 24.8           1        0 139
## 1132 1132  62      1     3       0  171.5   91.3 31.1           1        0 131
## 1133 1133  63      1     1       0  169.9   76.5 26.5           1        0 144
## 1134 1134  61      1     1       1  176.9   76.1 24.3           0        0 127
## 1135 1135  64      1     1       0  160.9   83.2 32.1           1        0 138
## 1136 1136  55      1     1       1  171.2   84.7 28.9           0        0 129
## 1137 1137  59      1     1       2  174.7   82.2 26.9           1        0 135
## 1138 1138  55      0     1       1  162.5   75.0 28.4           0        0 120
## 1139 1139  56      0     1       0  171.7   65.5 22.2           0        0 129
## 1140 1140  53      0     1       0  179.4   79.4 24.7           1        0 131
## 1141 1141  61      1     3       0  171.4   78.9 26.9           0        1 129
## 1142 1142  62      1     3       0  161.5   71.8 27.5           1        1 145
## 1143 1143  67      1     1       0  165.4   84.0 30.7           1        0 135
## 1144 1144  58      1     1       1  165.3   70.5 25.8           0        0 129
## 1145 1145  58      1     1       0  172.3   77.9 26.2           1        0 137
## 1146 1146  59      1     1       1  164.6   76.5 28.2           0        0 129
## 1147 1147  67      0     1       0  170.5   80.1 27.6           1        0 141
## 1148 1148  67      1     2       1  177.6   78.2 24.8           1        1 134
## 1149 1149  53      1     1       2  181.9   90.7 27.4           0        0 129
## 1150 1150  64      1     1       0  166.0   86.4 31.4           1        0 145
## 1151 1151  56      0     3       1  168.0   68.4 24.3           1        0 135
## 1152 1152  72      0     3       0  176.1   81.9 26.4           1        0 144
## 1153 1153  69      1     1       1  180.4  100.2 30.8           1        0 132
## 1154 1154  65      0     1       1  173.7   76.8 25.5           1        0 139
## 1155 1155  64      1     3       0  164.0   87.8 32.6           1        0 136
## 1156 1156  70      0     2       0  166.7   70.8 25.5           0        1 128
## 1157 1157  60      1     1       2  169.6   81.0 28.1           0        0 130
## 1158 1158  66      1     3       1  180.4   84.7 26.1           1        0 137
## 1159 1159  64      1     1       0  177.2   89.6 28.5           1        1 137
## 1160 1160  53      1     4       0  173.4   91.3 30.4           0        0 123
## 1161 1161  61      0     1       1  167.3   83.8 29.9           1        0 134
## 1162 1162  68      0     1       2  173.5   81.3 27.0           1        0 142
## 1163 1163  57      1     1       1  169.2   87.7 30.6           0        1 122
## 1164 1164  53      1     1       0  166.6   79.9 28.8           1        0 136
## 1165 1165  61      0     1       0  162.8   94.3 35.6           1        0 135
## 1166 1166  61      0     1       2  162.7   72.9 27.5           0        0 125
## 1167 1167  65      1     1       0  167.8   77.7 27.6           0        0 127
## 1168 1168  65      0     1       0  169.6   80.1 27.8           1        0 137
## 1169 1169  65      0     1       1  162.9   75.0 28.2           0        0 127
## 1170 1170  57      0     4       2  168.1   71.3 25.2           0        0 121
## 1171 1171  55      0     1       0  161.9   81.3 31.0           0        0 123
## 1172 1172  56      1     1       0  156.1   82.6 33.9           0        0 126
## 1173 1173  63      0     1       0  165.6   85.3 31.1           1        0 132
## 1174 1174  58      1     1       0  186.0   84.1 24.3           0        0 126
```

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## 1175 1175  65      0     2       0  174.7   96.8 31.7            0         0 125
## 1176 1176  48      0     4       0  168.8   77.0 27.0            0         0 124
## 1177 1177  60      0     3       1  166.2   71.0 25.7            1         1 136
## 1178 1178  55      0     1       0  174.9   87.6 28.6            0         0 120
## 1179 1179  64      1     4       2  166.2   78.4 28.4            1         0 131
## 1180 1180  57      0     4       0  168.2   69.8 24.7            1         1 136
## 1181 1181  57      0     1       1  153.7   73.4 31.1            1         0 138
## 1182 1182  58      0     1       0  170.7   80.8 27.7            1         0 139
## 1183 1183  63      1     1       1  173.8   82.5 27.3            1         0 138
## 1184 1184  63      0     3       0  169.4   87.2 30.4            1         0 131
## 1185 1185  53      0     3       0  166.1   80.6 29.2            0         0 114
## 1186 1186  61      1     1       1  160.2   76.2 29.7            1         0 142
## 1187 1187  60      0     4       0  164.6   74.2 27.4            1         0 131
## 1188 1188  64      1     2       0  168.8   87.2 30.6            1         0 132
## 1189 1189  60      1     3       2  181.0   78.0 23.8            0         0 130
## 1190 1190  59      1     1       0  171.2   97.1 33.1            1         0 138
## 1191 1191  59      0     1       1  169.0   76.3 26.7            0         0 119
## 1192 1192  58      0     1       2  166.1   81.3 29.5            0         0 123
## 1193 1193  58      1     1       0  163.8   86.1 32.1            0         0 123
## 1194 1194  61      1     1       0  168.6   68.2 24.0            0         0 121
## 1195 1195  60      0     1       1  161.0   71.1 27.4            0         0 127
## 1196 1196  60      1     1       0  177.3   75.2 23.9            0         0 122
## 1197 1197  59      0     3       0  170.1   78.5 27.1            1         0 131
## 1198 1198  53      0     3       0  170.9   74.8 25.6            0         0 128
## 1199 1199  58      0     3       1  165.7   83.2 30.3            1         0 138
## 1200 1200  56      0     1       0  158.4   74.7 29.8            1         0 131
## 1201 1201  60      0     1       0  162.4   67.1 25.4            0         0 125
## 1202 1202  51      0     3       0  177.8   91.8 29.1            0         0 122
## 1203 1203  55      0     3       1  172.7   81.5 27.3            0         0 118
## 1204 1204  61      1     3       0  170.6   77.1 26.5            0         0 127
## 1205 1205  64      0     1       1  159.7   86.2 33.8            1         0 153
## 1206 1206  55      0     1       0  173.9   76.6 25.3            0         0 129
## 1207 1207  60      0     1       2  180.0   82.4 25.4            1         0 135
## 1208 1208  63      1     1       1  179.3   80.6 25.1            0         0 125
## 1209 1209  55      1     1       1  165.5   70.9 25.9            1         0 132
## 1210 1210  56      0     3       2  176.7   75.7 24.2            0         0 130
## 1211 1211  66      1     1       0  169.3   73.8 25.7            1         0 139
## 1212 1212  61      1     2       0  166.4   72.1 26.0            0         0 119
## 1213 1213  60      1     1       0  164.1   79.5 29.5            1         0 145
## 1214 1214  63      1     1       0  168.0   79.1 28.0            1         0 141
## 1215 1215  59      1     1       1  158.9   77.2 30.6            0         0 112
## 1216 1216  62      1     3       2  172.1   83.5 28.2            0         0 126
## 1217 1217  52      1     2       1  170.9   80.1 27.4            0         1 128
## 1218 1218  64      0     1       0  175.9   85.4 27.6            1         0 150
## 1219 1219  56      0     4       1  172.1   82.6 27.9            0         0 128
## 1220 1220  60      0     1       2  168.1   78.7 27.9            1         0 131
## 1221 1221  63      0     3       1  176.3   73.0 23.5            1         0 135
## 1222 1222  58      1     1       0  167.6   71.1 25.3            0         0 127
## 1223 1223  60      0     1       0  162.9   85.9 32.4            0         1 128
## 1224 1224  63      1     1       0  164.2   80.8 30.0            1         0 135
## 1225 1225  58      1     1       1  175.5   74.2 24.1            0         0 118
## 1226 1226  56      1     3       1  168.3   82.8 29.2            1         0 134
## 1227 1227  62      1     1       1  165.0   71.7 26.3            1         1 142
## 1228 1228  60      1     1       0  172.7   85.9 28.8            0         0 127
```

```
## 1229 1229  66      1     1        0  167.2   78.7 28.1            1         0 136
## 1230 1230  59      0     1        0  170.7   89.3 30.7            0         1 113
## 1231 1231  66      0     1        0  169.0   79.7 27.9            1         0 150
## 1232 1232  62      1     1        0  174.7   87.2 28.6            0         0 125
## 1233 1233  59      1     1        0  165.6   89.0 32.4            0         0 118
## 1234 1234  59      0     4        1  167.8   91.7 32.6            1         0 134
## 1235 1235  66      0     4        0  175.3   78.2 25.5            1         0 142
## 1236 1236  57      1     3        1  159.7   79.4 31.2            0         0 121
## 1237 1237  61      0     1        0  175.1   83.5 27.2            1         0 136
## 1238 1238  55      1     1        1  171.0   89.7 30.7            0         0 123
## 1239 1239  65      1     1        0  171.4   83.0 28.3            1         0 134
## 1240 1240  59      1     1        1  165.0   72.0 26.4            1         0 136
## 1241 1241  53      0     1        1  164.4   77.8 28.8            0         0 124
## 1242 1242  54      1     3        2  170.9   92.0 31.5            1         0 136
## 1243 1243  61      1     1        1  174.5   75.2 24.7            0         1 127
## 1244 1244  60      1     1        0  173.2   73.4 24.5            1         0 138
## 1245 1245  66      1     1        2  168.4   75.6 26.7            1         0 136
## 1246 1246  54      1     1        0  171.1   91.0 31.1            0         1 126
## 1247 1247  56      1     1        0  176.7   96.6 30.9            1         0 131
## 1248 1248  62      0     3        0  162.3   79.4 30.2            1         0 134
## 1249 1249  54      1     1        0  171.6   91.1 30.9            0         1 119
## 1250 1250  57      0     3        0  160.7   79.5 30.8            1         0 142
## 1251 1251  59      1     1        0  171.5   77.2 26.2            1         0 140
## 1252 1252  49      1     4        0  175.3   88.3 28.7            0         0 124
## 1253 1253  57      0     3        0  169.8   81.1 28.1            0         0 124
## 1254 1254  59      0     4        1  173.7   91.2 30.2            1         0 139
## 1255 1255  54      0     1        0  165.8   79.7 29.0            0         0 117
## 1256 1256  56      1     1        0  167.5   76.9 27.4            1         1 135
## 1257 1257  67      1     1        1  168.7   77.4 27.2            1         0 137
## 1258 1258  63      1     4        0  172.3   75.7 25.5            1         0 140
## 1259 1259  64      0     1        0  167.3   77.3 27.6            1         0 132
## 1260 1260  67      1     3        0  164.7   85.5 31.5            1         0 137
## 1261 1261  62      0     1        0  177.2   81.3 25.9            1         1 154
## 1262 1262  64      1     1        0  172.3   74.1 25.0            1         0 131
## 1263 1263  62      1     1        0  160.1   79.2 30.9            0         0 126
## 1264 1264  62      0     2        2  169.1   83.0 29.0            0         0 129
## 1265 1265  64      0     1        0  170.8   86.1 29.5            1         0 136
## 1266 1266  56      1     3        0  173.8   84.4 27.9            1         0 132
## 1267 1267  56      1     1        1  172.1   76.3 25.8            0         0 125
## 1268 1268  68      0     1        0  168.7   73.8 25.9            0         0 128
## 1269 1269  62      1     1        0  175.1   78.4 25.6            1         0 131
## 1270 1270  59      1     3        0  172.2   74.4 25.1            0         0 118
## 1271 1271  70      0     1        1  177.4   91.7 29.1            1         0 144
## 1272 1272  61      0     1        0  166.6   84.3 30.3            1         0 141
## 1273 1273  62      1     4        1  173.1   73.6 24.6            0         0 127
## 1274 1274  61      1     2        1  176.3   90.9 29.3            1         0 137
## 1275 1275  54      0     1        0  173.4   77.4 25.7            0         0 125
## 1276 1276  48      1     1        0  170.3   88.1 30.4            0         1 117
## 1277 1277  53      0     3        1  168.3   77.4 27.3            0         0 122
## 1278 1278  57      0     4        0  157.1   74.9 30.4            0         0 124
## 1279 1279  61      1     1        0  165.1   77.2 28.3            1         0 142
## 1280 1280  64      1     1        1  178.1   92.3 29.1            0         0 126
## 1281 1281  51      0     3        0  175.0   74.6 24.3            0         0 119
## 1282 1282  50      0     1        1  186.1   87.7 25.3            0         0 126
```

```
## 1283 1283  60      0     3       1  171.4   79.0 26.9            0        1 130
## 1284 1284  61      0     2       0  161.8   84.4 32.2            0        0 119
## 1285 1285  57      0     1       0  165.0   72.3 26.5            0        1 125
## 1286 1286  62      0     1       2  169.9   80.4 27.9            0        0 127
## 1287 1287  63      0     1       0  177.2   61.7 19.7            1        0 140
## 1288 1288  51      1     1       0  170.0   77.9 26.9            0        0 126
## 1289 1289  63      0     1       0  165.7   80.3 29.3            1        0 133
## 1290 1290  61      0     1       0  165.4   79.2 29.0            1        0 132
## 1291 1291  64      1     1       1  173.0   84.8 28.3            0        0 124
## 1292 1292  58      1     1       0  162.6   74.8 28.3            0        1 123
## 1293 1293  64      0     4       1  175.7   80.6 26.1            1        1 142
## 1294 1294  61      1     1       0  175.9   90.9 29.4            1        0 136
## 1295 1295  55      1     1       0  169.8   74.2 25.7            1        0 131
## 1296 1296  62      1     3       0  170.2   88.4 30.5            1        0 143
## 1297 1297  61      0     4       0  172.8   69.5 23.3            1        0 132
## 1298 1298  57      1     1       1  169.2   85.9 30.0            1        0 132
## 1299 1299  57      0     1       1  156.5   81.1 33.1            0        0 122
## 1300 1300  57      1     1       1  177.5   70.4 22.4            0        0 126
## 1301 1301  61      1     1       0  173.4   85.9 28.6            0        0 128
## 1302 1302  60      0     1       1  171.0   85.8 29.4            0        0 119
## 1303 1303  64      1     1       0  170.0   81.3 28.1            1        0 131
## 1304 1304  71      0     1       0  168.0   80.5 28.5            1        0 136
## 1305 1305  67      1     3       1  167.5   94.0 33.5            0        0 126
## 1306 1306  66      1     1       0  165.6   80.2 29.2            1        0 136
## 1307 1307  54      0     1       0  178.3   89.4 28.1            0        0 125
## 1308 1308  61      0     1       2  169.1   91.7 32.1            1        0 135
## 1309 1309  56      1     3       0  170.2   79.4 27.4            0        0 125
## 1310 1310  62      1     4       0  152.8   60.2 25.8            0        0 127
## 1311 1311  72      1     1       0  165.2   79.9 29.3            1        0 143
## 1312 1312  59      0     1       0  179.2   82.8 25.8            0        1 127
## 1313 1313  62      0     1       0  182.6   83.5 25.0            0        0 130
## 1314 1314  65      1     3       1  163.1   87.6 32.9            1        0 132
## 1315 1315  54      0     1       1  166.4   81.7 29.5            1        0 132
## 1316 1316  62      1     3       0  180.7   89.8 27.5            1        0 134
## 1317 1317  57      0     1       1  186.1   91.1 26.3            0        0 127
## 1318 1318  58      0     4       2  165.0   82.1 30.2            1        0 132
## 1319 1319  58      0     1       1  171.5   77.5 26.3            1        1 137
## 1320 1320  59      0     3       0  172.1   73.4 24.8            1        1 131
## 1321 1321  57      0     4       0  167.4   70.9 25.3            1        0 133
## 1322 1322  61      1     1       0  170.8   78.5 26.9            1        0 132
## 1323 1323  57      1     3       2  169.0   85.4 29.9            1        0 142
## 1324 1324  49      0     1       0  174.4   68.7 22.6            0        0 105
## 1325 1325  54      1     1       0  178.8   78.3 24.5            0        0 121
## 1326 1326  51      1     1       2  172.8   89.8 30.1            0        0 123
## 1327 1327  60      0     1       0  175.9   77.4 25.0            1        0 140
## 1328 1328  62      0     1       0  163.3   74.3 27.8            1        0 131
## 1329 1329  61      1     1       1  174.9   82.2 26.9            0        0 130
## 1330 1330  59      0     1       0  157.8   87.9 35.3            0        0 123
## 1331 1331  69      0     1       1  180.5   79.7 24.5            1        0 134
## 1332 1332  58      1     3       0  173.0   76.3 25.5            1        0 136
## 1333 1333  59      1     3       1  186.1   93.9 27.1            0        0 129
## 1334 1334  60      0     2       0  175.9   84.4 27.3            0        1 124
## 1335 1335  60      0     1       2  166.2   90.2 32.6            1        0 132
## 1336 1336  58      0     1       0  159.1   86.7 34.2            0        1 123
```

```
## 1337 1337  60      0     1       0  172.4   78.9 26.5            0         0 128
## 1338 1338  58      1     1       0  167.7   81.4 28.9            0         0 127
## 1339 1339  57      1     1       0  174.6   68.4 22.4            1         1 131
## 1340 1340  64      0     3       0  164.2   75.3 27.9            0         0 126
## 1341 1341  64      0     1       0  174.9   82.0 26.8            1         0 135
## 1342 1342  62      0     4       0  177.4   79.3 25.2            0         0 128
## 1343 1343  51      1     1       0  178.5   81.0 25.4            0         0 118
## 1344 1344  60      1     3       1  159.5   75.9 29.8            1         0 155
## 1345 1345  53      0     1       0  188.3   81.3 22.9            1         0 132
## 1346 1346  62      1     1       0  155.7   72.7 30.0            0         0 126
## 1347 1347  65      1     1       0  166.6   77.3 27.9            1         0 138
## 1348 1348  58      1     1       1  158.6   73.3 29.1            0         0 128
## 1349 1349  52      0     1       0  176.1   93.0 30.0            0         0 122
## 1350 1350  53      0     1       0  171.3   84.8 28.9            0         0 125
## 1351 1351  58      0     4       0  170.1   70.3 24.3            0         1 120
## 1352 1352  57      0     3       1  162.8   69.2 26.1            1         0 138
## 1353 1353  64      0     1       1  161.8   79.4 30.3            0         1 121
## 1354 1354  56      0     1       0  159.0   84.4 33.4            1         0 133
## 1355 1355  60      1     1       0  174.1   81.1 26.8            1         0 133
## 1356 1356  63      0     4       0  172.9   78.8 26.4            0         0 126
## 1357 1357  64      0     1       0  162.8   69.6 26.3            1         1 133
## 1358 1358  57      0     3       2  172.5   82.6 27.7            0         0 128
## 1359 1359  65      0     4       1  176.8   94.6 30.3            1         0 136
## 1360 1360  60      0     3       1  167.9   76.7 27.2            1         0 131
## 1361 1361  54      0     1       2  170.0   77.2 26.7            0         0 118
## 1362 1362  67      0     1       1  171.4   82.1 28.0            1         1 141
## 1363 1363  56      1     1       0  175.2   83.2 27.1            0         0 122
## 1364 1364  57      0     3       1  163.7   74.2 27.7            0         0 110
## 1365 1365  59      1     1       0  174.8   74.3 24.3            1         0 137
## 1366 1366  54      0     1       0  168.5   70.4 24.8            0         0 128
## 1367 1367  62      0     1       1  165.9   87.9 31.9            0         0 127
## 1368 1368  63      1     1       1  168.1   87.1 30.8            1         0 133
## 1369 1369  66      0     1       0  174.3   77.8 25.6            0         0 127
## 1370 1370  60      0     1       1  171.0   74.1 25.3            0         0 128
## 1371 1371  65      1     3       2  167.6   77.7 27.7            0         0 128
## 1372 1372  51      0     1       0  154.1   61.5 25.9            0         0 119
## 1373 1373  54      0     1       0  167.5   65.8 23.4            0         0 130
## 1374 1374  58      0     4       0  169.8   72.9 25.3            0         0 121
## 1375 1375  59      0     1       0  173.7   78.8 26.1            0         1 128
## 1376 1376  52      1     1       0  172.6   85.6 28.7            1         0 132
## 1377 1377  58      0     3       1  169.0   66.5 23.3            0         0 129
## 1378 1378  56      0     4       1  178.0   78.9 24.9            0         1 121
## 1379 1379  61      0     1       0  165.2   69.7 25.6            0         0 129
## 1380 1380  55      0     3       1  171.9   78.5 26.6            0         1 127
## 1381 1381  57      1     1       2  164.8   76.2 28.0            0         1 128
## 1382 1382  63      0     2       0  167.9   74.5 26.4            1         0 140
## 1383 1383  63      0     1       0  157.4   80.2 32.4            1         0 137
## 1384 1384  57      1     4       0  172.3   86.5 29.1            1         0 133
## 1385 1385  57      1     1       0  174.1   76.6 25.3            0         0 116
## 1386 1386  57      1     1       0  177.4   82.9 26.3            1         1 132
## 1387 1387  59      0     1       1  172.7   86.9 29.2            0         0 112
## 1388 1388  62      1     1       1  178.9   98.6 30.8            1         0 131
## 1389 1389  67      1     3       1  173.7   73.1 24.2            0         0 128
## 1390 1390  61      1     3       0  160.6   79.3 30.7            1         0 133
```

```
## 1391 1391  57      0     1       1  171.0   76.0 26.0           0        0 128
## 1392 1392  57      0     2       0  169.2   76.7 26.8           0        1 126
## 1393 1393  57      0     1       1  163.5   67.3 25.2           0        0 119
## 1394 1394  64      0     1       1  174.6   76.4 25.1           1        0 141
## 1395 1395  65      0     1       1  166.6   75.3 27.1           1        0 137
## 1396 1396  58      1     2       2  171.6   77.8 26.4           0        0 121
## 1397 1397  60      1     2       1  163.1   83.1 31.2           0        0 130
## 1398 1398  62      0     1       0  174.4   78.6 25.8           1        0 145
## 1399 1399  66      1     1       2  171.3   85.5 29.1           1        0 131
## 1400 1400  60      0     1       0  166.7   81.6 29.4           0        1 128
## 1401 1401  62      1     3       0  160.3   79.2 30.8           1        0 137
## 1402 1402  60      0     1       1  170.4   79.8 27.5           1        0 134
## 1403 1403  53      1     1       0  171.5   91.8 31.2           1        0 135
## 1404 1404  60      0     1       1  182.4   93.7 28.2           0        0 130
## 1405 1405  59      0     1       0  163.9   75.2 28.0           1        1 151
## 1406 1406  67      1     3       1  167.8   78.5 27.9           1        0 134
## 1407 1407  63      1     1       0  167.8   74.2 26.3           0        1 120
## 1408 1408  62      0     4       1  170.7   85.9 29.5           1        0 154
## 1409 1409  65      1     1       0  174.8   86.5 28.3           1        0 140
## 1410 1410  61      0     1       1  171.0   78.4 26.8           1        0 132
## 1411 1411  59      1     2       0  166.5   81.8 29.5           1        0 141
## 1412 1412  55      1     1       2  174.1   80.6 26.6           0        0 121
## 1413 1413  63      1     1       0  163.6   66.2 24.7           0        0 129
## 1414 1414  53      1     1       0  174.1   73.0 24.1           0        0 117
## 1415 1415  59      0     2       2  174.2   88.9 29.3           1        0 138
## 1416 1416  63      0     2       0  172.7   96.4 32.3           0        1 129
## 1417 1417  63      0     1       1  170.0   90.3 31.2           1        0 134
## 1418 1418  57      0     3       0  169.7   79.2 27.5           0        1 129
## 1419 1419  57      1     3       0  177.1   94.7 30.2           1        0 142
## 1420 1420  60      1     1       1  163.2   83.4 31.3           1        0 132
## 1421 1421  62      0     1       2  172.3   69.9 23.6           1        1 133
## 1422 1422  62      1     1       0  171.0   66.0 22.6           1        1 147
## 1423 1423  68      1     1       1  176.2   82.9 26.7           1        0 133
## 1424 1424  55      1     1       0  182.5   82.9 24.9           0        0 123
## 1425 1425  54      1     4       0  166.0   78.8 28.6           0        0 120
## 1426 1426  79      1     1       1  172.6   67.2 22.5           1        1 156
## 1427 1427  58      1     1       2  176.4   76.9 24.7           1        0 135
## 1428 1428  63      0     1       0  172.7   89.4 30.0           1        0 146
## 1429 1429  62      1     1       1  171.5   82.7 28.1           1        1 132
## 1430 1430  60      0     4       1  173.4   67.3 22.4           1        0 136
## 1431 1431  55      1     4       0  167.4   81.9 29.2           0        0 122
## 1432 1432  59      0     1       0  172.8   71.2 23.8           1        0 148
## 1433 1433  53      1     3       1  165.9   86.4 31.4           0        0 127
## 1434 1434  65      1     1       0  171.4   78.0 26.5           1        0 137
## 1435 1435  57      0     1       0  160.4   82.7 32.1           0        0 127
## 1436 1436  64      0     1       0  169.6   82.7 28.7           1        0 131
## 1437 1437  64      1     1       1  178.3   97.9 30.8           1        0 139
## 1438 1438  61      0     1       0  173.2   86.7 28.9           0        0 130
## 1439 1439  55      1     2       0  163.2   90.8 34.1           0        1 115
## 1440 1440  52      0     1       0  169.4   70.5 24.6           0        1 121
## 1441 1441  58      1     3       0  175.4   83.1 27.0           0        0 127
## 1442 1442  57      0     3       0  166.2   82.2 29.8           0        0 127
## 1443 1443  63      1     1       0  178.1   75.4 23.8           1        0 134
## 1444 1444  68      1     1       0  168.4   85.3 30.1           1        0 140
```

```
## 1445 1445  59      1     3       1  156.0   74.9 30.8            1         1 131
## 1446 1446  62      1     3       0  163.3   74.7 28.0            0         0 126
## 1447 1447  66      0     3       0  173.1   74.7 24.9            0         0 125
## 1448 1448  56      1     4       2  166.4   83.2 30.0            0         0 120
## 1449 1449  65      0     1       1  165.0   83.2 30.6            1         0 141
## 1450 1450  61      1     3       0  168.3   82.8 29.2            0         0 127
## 1451 1451  59      1     3       0  167.0   77.7 27.9            1         0 140
## 1452 1452  60      1     1       0  182.1   79.0 23.8            1         0 145
## 1453 1453  61      0     1       1  179.4   87.8 27.3            0         0 112
## 1454 1454  69      1     4       0  165.6   61.6 22.5            1         0 137
## 1455 1455  59      1     1       0  170.9   84.0 28.8            0         0 124
## 1456 1456  65      0     3       0  161.9   69.2 26.4            1         0 149
## 1457 1457  62      0     1       1  178.5   86.5 27.1            0         0 119
## 1458 1458  60      0     1       1  177.1   86.0 27.4            1         0 134
## 1459 1459  60      0     1       0  177.6   86.7 27.5            1         0 133
## 1460 1460  58      1     3       1  164.3   81.3 30.1            1         0 144
## 1461 1461  58      1     1       1  170.4   82.1 28.3            1         0 137
## 1462 1462  54      1     1       2  171.4   73.7 25.1            0         0 109
## 1463 1463  64      1     1       0  175.2   80.2 26.1            1         0 143
## 1464 1464  64      0     1       0  168.3   76.6 27.1            1         0 134
## 1465 1465  58      1     1       2  168.1   68.4 24.2            1         1 131
## 1466 1466  64      0     3       0  172.4   76.2 25.6            0         0 127
## 1467 1467  63      1     4       0  162.7   72.2 27.3            1         0 135
## 1468 1468  61      1     4       2  177.0   79.7 25.5            1         0 144
## 1469 1469  59      1     3       0  168.4   80.8 28.5            0         0 117
## 1470 1470  66      0     1       1  161.1   82.7 31.8            1         0 147
## 1471 1471  58      1     1       0  174.6   80.1 26.3            1         0 134
## 1472 1472  60      1     1       0  174.0   75.4 24.9            0         0 124
## 1473 1473  64      0     3       1  172.5   85.5 28.7            0         0 127
## 1474 1474  66      0     1       2  166.6   75.8 27.3            0         1 130
## 1475 1475  60      0     1       2  162.3   70.3 26.7            0         0 126
## 1476 1476  61      1     1       0  167.1   77.6 27.8            1         0 131
## 1477 1477  58      1     1       2  169.9   86.7 30.0            1         0 134
## 1478 1478  59      1     1       0  168.8   70.4 24.7            1         1 131
## 1479 1479  54      0     1       1  171.4   78.4 26.7            0         0 126
## 1480 1480  62      1     1       0  166.2   66.6 24.1            1         0 131
## 1481 1481  61      1     1       0  169.9   75.7 26.2            0         0 129
## 1482 1482  61      0     1       0  162.1   76.2 29.0            1         0 142
## 1483 1483  57      1     3       2  176.6   90.0 28.8            0         1 124
## 1484 1484  69      1     1       0  167.6   82.7 29.4            1         0 140
## 1485 1485  62      1     1       0  164.0   84.6 31.4            1         0 137
## 1486 1486  54      0     3       1  162.9   89.0 33.5            0         0 124
## 1487 1487  63      1     1       0  171.6   88.3 30.0            1         1 144
## 1488 1488  61      0     3       0  168.7   77.0 27.1            0         0 118
## 1489 1489  59      0     1       2  174.3   77.5 25.5            1         0 133
## 1490 1490  56      0     1       0  168.7   86.8 30.5            0         0 127
## 1491 1491  66      0     1       2  172.9   86.9 29.1            1         1 132
## 1492 1492  47      0     1       0  168.5   84.9 29.9            0         0 125
## 1493 1493  64      0     1       1  168.7   80.0 28.1            1         0 140
## 1494 1494  59      0     1       1  160.4   77.4 30.1            1         1 132
## 1495 1495  61      1     1       0  166.7   74.8 26.9            1         0 138
## 1496 1496  65      1     1       1  169.7   76.6 26.6            0         0 124
## 1497 1497  63      1     1       1  163.9   72.3 26.9            1         0 147
## 1498 1498  62      1     1       0  170.0   83.7 29.0            1         0 149
```

```
## 1499 1499  56      1     3       0  160.8   68.5 26.5            0        0 117
## 1500 1500  64      1     3       0  175.8   80.7 26.1            0        0 124
## 1501 1501  57      1     2       0  163.4   74.7 28.0            0        0 111
## 1502 1502  61      0     1       0  169.2   83.3 29.1            1        0 132
## 1503 1503  61      0     3       0  171.6   84.8 28.8            1        0 134
## 1504 1504  54      1     1       1  170.5   66.6 22.9            1        0 135
## 1505 1505  59      1     1       0  166.6   78.2 28.2            1        0 139
## 1506 1506  62      1     1       1  165.5   83.9 30.6            0        0 130
## 1507 1507  63      0     1       1  171.7   80.8 27.4            1        1 134
## 1508 1508  62      1     3       0  162.1   89.1 33.9            0        0 122
## 1509 1509  57      0     2       0  174.6   72.1 23.7            0        0 126
## 1510 1510  61      1     4       0  157.6   77.5 31.2            0        0 126
## 1511 1511  52      1     3       0  166.1   81.7 29.6            0        0 119
## 1512 1512  61      0     4       0  172.4   75.4 25.4            0        0 129
## 1513 1513  58      0     1       0  176.1   86.3 27.8            1        0 138
## 1514 1514  55      0     1       0  168.7   85.7 30.1            0        1 130
## 1515 1515  57      0     1       0  172.2   80.7 27.2            1        0 135
## 1516 1516  48      1     1       1  160.1   75.4 29.4            0        0 124
## 1517 1517  61      0     3       2  163.7   64.0 23.9            0        0 128
## 1518 1518  65      0     1       0  174.3   80.6 26.5            0        0 126
## 1519 1519  67      0     1       0  168.3   84.4 29.8            1        0 144
## 1520 1520  55      0     3       1  166.2   69.4 25.1            0        0 116
## 1521 1521  61      0     1       0  162.5   74.1 28.1            0        0 118
## 1522 1522  62      0     1       1  171.8   79.1 26.8            0        0 123
## 1523 1523  55      1     3       2  170.0   72.7 25.1            1        0 136
## 1524 1524  58      0     1       2  163.0   66.9 25.2            0        0 129
## 1525 1525  57      0     3       0  168.8   78.0 27.4            1        0 139
## 1526 1526  57      1     1       0  156.7   67.2 27.4            1        0 138
## 1527 1527  67      0     1       1  169.8   72.0 25.0            0        1 128
## 1528 1528  63      1     1       0  183.6   83.5 24.8            1        0 132
## 1529 1529  65      1     3       2  165.4   80.8 29.6            1        1 138
## 1530 1530  55      0     1       1  174.2   83.4 27.5            1        0 136
## 1531 1531  63      1     1       0  162.6   74.9 28.3            1        0 135
## 1532 1532  53      1     1       2  177.1   82.6 26.3            0        1 123
## 1533 1533  65      1     1       2  157.5   87.5 35.3            1        0 147
## 1534 1534  63      1     1       0  178.2   82.6 26.0            1        1 133
## 1535 1535  62      0     1       1  170.4   66.8 23.0            1        0 136
## 1536 1536  55      0     1       0  154.4   76.5 32.1            0        0 117
## 1537 1537  62      0     1       0  181.2   86.6 26.4            0        0 129
## 1538 1538  68      1     3       0  183.1   69.7 20.8            1        0 138
## 1539 1539  54      0     3       1  172.4   83.8 28.2            1        0 133
## 1540 1540  61      1     3       1  174.1   87.8 29.0            1        0 139
## 1541 1541  63      1     1       1  166.2   83.6 30.3            0        0 130
## 1542 1542  57      0     1       0  171.4   96.2 32.7            0        0 129
## 1543 1543  61      0     3       2  171.3   80.8 27.5            1        0 134
## 1544 1544  58      0     1       2  165.5   78.3 28.6            1        0 143
## 1545 1545  60      0     1       0  181.8   85.8 26.0            1        0 131
## 1546 1546  59      1     1       0  176.1   76.8 24.7            1        1 140
## 1547 1547  56      1     4       0  171.3   76.0 25.9            1        0 132
## 1548 1548  68      0     4       0  169.1   79.3 27.7            1        1 136
## 1549 1549  59      0     1       0  170.8   96.6 33.1            1        0 134
## 1550 1550  65      1     1       2  167.2   82.6 29.6            1        0 140
## 1551 1551  64      1     1       0  171.8   94.3 32.0            0        0 128
## 1552 1552  62      0     1       0  171.6   85.5 29.0            0        1 117
```

```
## 1553 1553  58      0     4       0  169.8   85.4 29.6            0         0 118
## 1554 1554  61      1     3       0  161.7   72.9 27.9            1         0 139
## 1555 1555  69      1     4       0  158.2   71.6 28.6            0         0 125
## 1556 1556  63      0     1       1  164.6   70.0 25.8            1         1 135
## 1557 1557  62      0     1       1  172.0   70.8 23.9            1         0 138
## 1558 1558  56      0     1       1  173.7   92.9 30.8            0         0 125
## 1559 1559  63      0     1       0  168.6   76.5 26.9            1         0 131
## 1560 1560  60      1     1       2  174.0   83.4 27.5            0         0 130
## 1561 1561  64      0     1       0  166.7   87.4 31.4            1         0 145
## 1562 1562  63      0     1       0  168.2   83.0 29.3            0         1 130
## 1563 1563  67      0     1       0  164.8   80.2 29.5            1         0 145
## 1564 1564  69      1     1       0  168.7   85.4 30.0            1         0 136
## 1565 1565  58      1     1       0  158.8   77.7 30.8            1         0 142
## 1566 1566  51      0     1       1  174.1   88.1 29.1            0         0 119
## 1567 1567  65      1     1       1  171.0   78.7 26.9            1         1 131
## 1568 1568  58      0     1       0  173.6   79.7 26.4            0         0 124
## 1569 1569  60      1     1       0  170.7   74.6 25.6            0         0 128
## 1570 1570  54      1     1       0  169.5   87.9 30.6            0         0 113
## 1571 1571  54      0     3       0  164.6   74.9 27.6            0         0 127
## 1572 1572  63      0     3       0  173.9   91.1 30.1            1         0 133
## 1573 1573  57      1     1       0  172.8   80.6 27.0            0         0 124
## 1574 1574  67      1     1       2  170.7   85.7 29.4            1         0 142
## 1575 1575  56      1     1       1  174.6   86.0 28.2            0         0 128
## 1576 1576  59      1     1       2  172.9   84.8 28.4            1         0 143
## 1577 1577  60      0     4       0  160.6   77.7 30.1            1         0 136
## 1578 1578  62      1     1       0  177.4   62.6 19.9            1         0 132
## 1579 1579  52      1     1       2  172.7   84.3 28.2            1         1 133
## 1580 1580  66      1     1       1  172.4   80.0 26.9            1         0 135
## 1581 1581  61      1     1       0  172.5   79.2 26.6            0         1 126
## 1582 1582  56      0     2       1  171.9   86.2 29.2            1         0 133
## 1583 1583  73      1     4       0  181.6   83.1 25.2            1         0 138
## 1584 1584  62      0     1       1  168.7   69.7 24.5            0         0 126
## 1585 1585  61      0     1       0  168.5   73.6 25.9            1         1 131
## 1586 1586  64      1     3       0  169.2   82.5 28.8            1         0 142
## 1587 1587  63      0     1       0  162.1   76.1 29.0            1         0 134
## 1588 1588  63      0     3       0  175.9   86.1 27.8            1         0 142
## 1589 1589  59      0     1       0  180.8   76.0 23.3            0         0 124
## 1590 1590  57      0     3       0  173.0   79.3 26.5            0         0 129
## 1591 1591  62      0     1       2  171.1   72.9 24.9            1         0 134
## 1592 1592  54      1     2       0  161.6   87.9 33.7            0         0 116
## 1593 1593  62      0     3       0  166.4   75.6 27.3            1         0 131
## 1594 1594  56      0     1       0  177.8   74.9 23.7            0         0 130
## 1595 1595  61      0     2       0  179.0   87.9 27.4            1         1 132
## 1596 1596  64      1     1       0  173.3   76.7 25.5            0         0 129
## 1597 1597  66      1     4       1  165.0   69.4 25.5            0         0 121
## 1598 1598  61      1     1       0  166.7   80.9 29.1            0         1 128
## 1599 1599  69      1     1       0  171.4   91.2 31.1            1         0 137
## 1600 1600  66      1     1       1  182.4   83.0 24.9            1         0 143
## 1601 1601  68      0     3       0  176.0   78.6 25.4            1         0 151
## 1602 1602  55      0     1       0  176.4   76.6 24.6            0         0 121
## 1603 1603  59      0     1       0  177.1   92.3 29.4            1         0 136
## 1604 1604  67      1     1       2  173.5   78.8 26.2            1         0 137
## 1605 1605  66      1     1       1  168.2   93.9 33.2            0         0 126
## 1606 1606  62      1     3       2  171.7   95.3 32.3            0         1 128
```

```
## 1607 1607  60      0    3       0  173.2   76.2 25.4           0        1 124
## 1608 1608  68      1    3       1  177.1   82.7 26.4           1        0 141
## 1609 1609  57      0    3       0  175.1   70.9 23.1           1        0 137
## 1610 1610  58      0    1       1  172.2   71.4 24.1           0        1 128
## 1611 1611  67      0    1       0  167.2   82.9 29.6           1        1 132
## 1612 1612  61      0    1       0  160.9   72.3 27.9           1        0 132
## 1613 1613  63      1    1       0  170.2  100.2 34.6           0        0 126
## 1614 1614  64      0    1       1  175.4   84.1 27.3           1        1 144
## 1615 1615  60      1    1       1  180.6   91.9 28.2           0        0 128
## 1616 1616  69      0    1       0  165.7   76.0 27.7           0        0 129
## 1617 1617  62      1    1       0  167.4   78.6 28.0           1        0 134
## 1618 1618  66      1    1       0  162.4   90.4 34.3           1        0 140
## 1619 1619  59      0    4       0  159.6   84.3 33.1           0        0 129
## 1620 1620  66      0    4       1  176.1   91.1 29.4           1        0 135
## 1621 1621  54      0    2       1  176.2   72.8 23.4           0        0 113
## 1622 1622  62      0    1       2  168.8   82.2 28.9           1        0 131
## 1623 1623  68      0    4       0  171.0   87.7 30.0           1        0 138
## 1624 1624  64      1    1       0  170.7   79.1 27.2           0        0 126
## 1625 1625  70      1    1       1  177.0   89.0 28.4           1        0 142
## 1626 1626  56      0    1       0  174.7   76.7 25.1           1        0 132
## 1627 1627  57      0    4       0  161.2   76.0 29.2           0        0 120
## 1628 1628  66      1    1       1  174.6   79.2 26.0           1        0 152
## 1629 1629  64      0    1       0  177.1   96.7 30.8           0        0 124
## 1630 1630  57      0    1       0  162.8   75.1 28.4           0        0 117
## 1631 1631  64      0    3       1  164.2   81.1 30.1           1        1 132
## 1632 1632  62      0    1       0  164.2   90.1 33.4           1        0 133
## 1633 1633  58      0    3       0  174.5   83.8 27.5           0        0 130
## 1634 1634  59      0    2       0  165.1   78.7 28.9           0        1 126
## 1635 1635  62      0    1       0  173.1   82.5 27.5           1        0 136
## 1636 1636  51      1    1       1  170.6   80.3 27.6           1        0 136
## 1637 1637  58      1    1       0  166.8   76.0 27.3           0        0 130
## 1638 1638  57      1    1       0  157.9   81.6 32.7           1        1 138
## 1639 1639  63      0    1       0  166.5   80.3 29.0           0        0 125
## 1640 1640  61      0    1       1  174.0   98.3 32.4           1        0 155
## 1641 1641  60      0    1       1  161.4   81.1 31.1           1        0 143
## 1642 1642  64      1    3       0  175.1   79.0 25.8           1        0 132
## 1643 1643  62      1    1       1  167.1   72.6 26.0           1        0 135
## 1644 1644  60      1    1       1  173.7   76.5 25.4           0        0 126
## 1645 1645  56      1    1       1  170.9   78.7 26.9           1        0 132
## 1646 1646  68      0    1       0  183.6   83.5 24.8           1        0 132
## 1647 1647  63      1    1       0  162.1   81.3 31.0           1        0 146
## 1648 1648  60      0    1       2  172.1   70.7 23.9           1        0 134
## 1649 1649  55      0    1       0  183.3   79.4 23.6           0        1 125
## 1650 1650  61      1    1       0  178.6   80.3 25.2           1        1 140
## 1651 1651  69      1    1       0  162.0   86.0 32.8           1        0 138
## 1652 1652  56      1    3       1  169.7   71.6 24.9           0        0 118
## 1653 1653  69      1    1       0  164.4   78.0 28.9           0        0 125
## 1654 1654  57      1    1       0  167.6   82.1 29.2           0        0 113
## 1655 1655  67      0    1       0  163.8   69.7 26.0           1        0 140
## 1656 1656  61      0    3       0  165.4   71.2 26.0           0        0 119
## 1657 1657  58      0    1       0  173.7   75.6 25.1           1        1 133
## 1658 1658  60      1    1       0  177.1   98.2 31.3           1        0 133
## 1659 1659  62      1    3       1  173.4   74.4 24.7           1        0 135
## 1660 1660  65      1    1       0  167.5   74.8 26.7           1        0 139
```

```
## 1661 1661  56      1     1       0  175.4   79.4 25.8           1        0 131
## 1662 1662  62      0     1       0  163.7   72.6 27.1           0        0 128
## 1663 1663  54      1     3       1  164.7   85.9 31.7           0        1 121
## 1664 1664  57      0     4       2  173.0   78.2 26.1           0        0 127
## 1665 1665  67      0     1       0  168.3   79.7 28.1           1        0 151
## 1666 1666  60      1     1       0  171.7   75.9 25.8           1        0 138
## 1667 1667  60      1     1       1  179.9   84.8 26.2           0        0 130
## 1668 1668  58      0     1       2  173.7   85.4 28.3           0        0 123
## 1669 1669  62      1     2       1  180.4   81.7 25.1           1        1 136
## 1670 1670  59      0     1       0  170.7   93.7 32.2           0        0 128
## 1671 1671  61      0     1       1  167.8   75.8 26.9           1        0 132
## 1672 1672  63      0     1       1  164.9   74.5 27.4           1        1 135
## 1673 1673  59      1     1       0  165.8   72.5 26.4           0        0 130
## 1674 1674  69      0     1       0  170.8   84.3 28.9           0        0 129
## 1675 1675  61      0     4       0  178.2   88.6 27.9           1        0 131
## 1676 1676  57      0     1       0  169.7   84.9 29.5           1        0 138
## 1677 1677  62      1     1       1  169.7   89.4 31.0           1        0 137
## 1678 1678  61      1     3       0  172.1   63.6 21.5           1        1 135
## 1679 1679  59      1     3       0  162.4   71.2 27.0           0        0 128
## 1680 1680  62      0     3       0  168.1   86.5 30.6           1        1 142
## 1681 1681  59      1     1       0  168.2   81.1 28.6           1        0 137
## 1682 1682  57      1     1       0  168.5   87.2 30.7           0        0 115
## 1683 1683  65      1     1       0  167.3   83.7 29.9           1        0 141
## 1684 1684  63      1     3       2  166.1   77.2 28.0           1        0 141
## 1685 1685  58      1     2       0  166.5   86.9 31.4           0        0 122
## 1686 1686  57      1     1       1  178.0   78.0 24.6           0        0 125
## 1687 1687  61      0     3       0  173.2   66.0 22.0           0        1 126
## 1688 1688  61      0     3       1  179.0   76.1 23.8           0        0 122
## 1689 1689  66      1     3       0  171.5   63.5 21.6           0        0 126
## 1690 1690  65      0     3       0  162.5   73.2 27.7           1        0 133
## 1691 1691  59      0     1       1  159.7   84.1 33.0           0        1 128
## 1692 1692  60      0     1       0  167.6   75.1 26.7           0        0 116
## 1693 1693  66      0     3       0  170.1   85.6 29.6           0        0 125
## 1694 1694  58      1     1       0  174.2   84.7 27.9           1        0 131
## 1695 1695  55      0     1       0  166.3   82.1 29.7           0        1 122
## 1696 1696  59      0     1       1  172.3   72.4 24.4           1        0 134
## 1697 1697  58      0     1       1  170.7   82.9 28.5           1        0 143
## 1698 1698  62      0     3       0  175.3   74.4 24.2           1        1 132
## 1699 1699  52      0     1       1  168.3   84.7 29.9           0        0 124
## 1700 1700  60      1     2       0  171.1   74.5 25.5           0        0 127
## 1701 1701  67      0     3       0  147.8   77.9 35.7           1        1 140
## 1702 1702  63      1     1       1  168.5   89.3 31.5           0        1 122
## 1703 1703  64      0     1       0  170.8   77.8 26.7           1        0 135
## 1704 1704  58      1     4       0  161.3   77.9 29.9           0        0 112
## 1705 1705  61      1     4       0  170.9   97.9 33.5           1        0 132
## 1706 1706  62      0     1       0  157.9   65.5 26.3           1        0 139
## 1707 1707  62      0     3       1  176.9   89.6 28.6           1        0 131
## 1708 1708  50      1     1       0  178.0   73.8 23.3           0        0 121
## 1709 1709  60      1     1       1  178.2   79.9 25.1           0        0 130
## 1710 1710  60      1     1       1  168.5   83.3 29.3           0        0 116
## 1711 1711  57      0     2       0  166.2   73.6 26.7           0        1 128
## 1712 1712  57      0     1       0  160.8   75.4 29.1           1        0 139
## 1713 1713  61      1     1       0  166.3   66.8 24.2           1        0 139
## 1714 1714  62      1     1       1  174.6   79.6 26.1           0        0 130
```

```
## 1715 1715  68      0     1       0  167.5   80.5 28.7            1         0 140
## 1716 1716  69      1     3       1  164.3   91.9 34.1            1         0 131
## 1717 1717  58      0     4       0  168.7   72.4 25.5            1         0 138
## 1718 1718  65      1     1       0  179.4   77.4 24.0            1         0 132
## 1719 1719  59      1     1       1  163.4   93.7 35.1            0         1 124
## 1720 1720  60      0     1       2  173.5   86.6 28.8            1         0 133
## 1721 1721  58      1     1       0  177.4   80.8 25.7            0         1 129
## 1722 1722  56      0     1       0  165.5   82.7 30.2            0         0 129
## 1723 1723  54      0     1       0  182.7   80.4 24.1            0         1 125
## 1724 1724  60      0     1       1  184.7   64.2 18.8            0         0 129
## 1725 1725  50      1     1       0  168.8   75.4 26.5            0         0 123
## 1726 1726  61      0     1       0  168.8   80.4 28.2            1         0 137
## 1727 1727  64      1     1       1  165.2   72.3 26.5            1         0 132
## 1728 1728  63      1     4       0  173.9   73.5 24.3            0         1 123
## 1729 1729  69      0     2       0  179.9   88.4 27.3            1         0 147
## 1730 1730  59      1     1       0  170.7   72.8 25.0            1         0 135
## 1731 1731  57      1     1       0  157.4   76.9 31.0            0         0 126
## 1732 1732  58      0     1       0  175.7   96.9 31.4            0         1 123
## 1733 1733  65      0     1       0  173.4   84.9 28.3            0         0 120
## 1734 1734  63      0     1       0  176.7   95.0 30.5            1         0 135
## 1735 1735  62      0     1       0  176.1   83.1 26.8            1         0 137
## 1736 1736  57      1     1       2  169.0   77.7 27.2            0         0 128
## 1737 1737  59      0     3       0  165.3   81.8 29.9            0         0 125
## 1738 1738  67      1     1       0  170.3   82.7 28.5            0         0 128
## 1739 1739  59      0     2       0  175.1   77.9 25.4            0         0 122
## 1740 1740  59      0     1       1  168.7   77.0 27.1            1         0 138
## 1741 1741  55      0     3       1  177.2   86.4 27.5            0         1 128
## 1742 1742  56      1     1       0  175.8   95.6 31.0            0         0 124
## 1743 1743  70      1     1       2  170.9   78.0 26.7            1         1 143
## 1744 1744  54      0     1       2  167.8   78.9 28.0            0         1 120
## 1745 1745  68      0     4       0  171.0   84.5 28.9            1         0 136
## 1746 1746  60      0     3       1  175.3   71.8 23.4            0         0 127
## 1747 1747  65      1     1       0  168.4   65.8 23.2            0         0 127
## 1748 1748  64      0     4       0  174.9   85.1 27.8            0         1 126
## 1749 1749  56      0     1       0  170.7   77.5 26.6            0         0 117
## 1750 1750  59      1     1       0  158.6   72.4 28.8            0         1 126
## 1751 1751  58      0     3       1  162.4   81.3 30.8            1         0 132
## 1752 1752  54      0     3       0  162.4   72.3 27.4            0         0 130
## 1753 1753  59      1     3       0  161.3   68.4 26.3            1         0 131
## 1754 1754  56      1     1       0  163.3   90.4 33.9            1         0 135
## 1755 1755  58      0     1       2  167.5   85.1 30.3            0         0 114
## 1756 1756  61      1     1       0  180.2   75.7 23.3            1         0 150
## 1757 1757  57      0     3       0  164.7   80.0 29.5            0         0 118
## 1758 1758  55      0     2       0  163.9   87.3 32.5            1         0 134
## 1759 1759  46      1     1       0  170.2   72.1 24.9            0         0 112
## 1760 1760  58      0     1       2  182.5   86.0 25.8            1         0 136
## 1761 1761  63      1     3       1  156.2   82.2 33.7            1         0 136
## 1762 1762  59      0     1       1  169.1   83.3 29.1            0         0 112
## 1763 1763  60      1     3       0  167.1   77.8 27.9            1         0 142
## 1764 1764  66      0     3       1  172.4   86.2 29.0            1         0 140
## 1765 1765  59      1     1       2  175.6   87.7 28.5            0         0 126
## 1766 1766  63      1     1       2  170.9   74.5 25.5            0         1 128
## 1767 1767  56      1     3       1  168.8   70.7 24.8            0         0 114
## 1768 1768  58      0     3       1  162.8   72.7 27.4            1         0 138
```

```
## 1769 1769  60      0     1       0  171.3   80.6 27.5           1        0 141
## 1770 1770  55      0     1       1  168.6   76.1 26.8           0        0 117
## 1771 1771  64      1     3       1  171.4   83.6 28.4           1        0 134
## 1772 1772  52      0     1       0  171.3   76.5 26.1           0        0 115
## 1773 1773  59      0     1       2  171.4   74.0 25.2           1        0 142
## 1774 1774  62      1     1       0  176.3   76.9 24.8           1        0 133
## 1775 1775  57      1     1       0  177.9   75.3 23.8           0        1 124
## 1776 1776  62      0     1       1  166.4   75.6 27.3           1        1 132
## 1777 1777  59      1     1       0  160.3   86.5 33.7           0        1 128
## 1778 1778  58      0     1       0  166.1   80.8 29.3           0        0 130
## 1779 1779  62      0     1       2  163.0   75.2 28.3           1        0 141
## 1780 1780  65      1     1       0  174.7   78.9 25.9           1        0 133
## 1781 1781  64      0     3       0  174.2   88.3 29.1           1        0 138
## 1782 1782  57      0     3       1  170.9   87.5 30.0           1        1 137
## 1783 1783  59      1     3       0  172.0   78.2 26.4           1        0 135
## 1784 1784  58      1     1       1  155.6   72.9 30.1           0        0 120
## 1785 1785  62      0     1       1  175.4   79.0 25.7           1        0 143
## 1786 1786  57      1     3       1  169.9   81.7 28.3           0        1 129
## 1787 1787  56      0     1       0  164.5   82.3 30.4           0        0 124
## 1788 1788  63      1     3       1  169.1   83.9 29.3           1        0 131
## 1789 1789  54      1     1       0  167.9   66.6 23.6           0        0 130
## 1790 1790  57      0     3       1  171.1   79.5 27.1           0        0 125
## 1791 1791  56      0     1       0  168.0   67.9 24.1           0        0 123
## 1792 1792  62      1     3       1  175.5   71.3 23.2           1        0 140
## 1793 1793  61      1     1       2  183.1   78.6 23.5           1        0 135
## 1794 1794  59      0     1       0  168.6   78.7 27.7           0        0 127
## 1795 1795  68      1     1       0  172.4   89.5 30.1           1        1 138
## 1796 1796  58      0     1       2  162.5   69.2 26.2           0        0 118
## 1797 1797  53      1     1       2  166.5   81.0 29.2           0        0 117
## 1798 1798  65      0     4       0  161.0   75.5 29.1           1        0 141
## 1799 1799  58      0     2       2  182.8   94.1 28.2           1        1 136
## 1800 1800  56      1     3       1  182.2   76.5 23.0           1        0 136
## 1801 1801  61      1     1       1  170.7   85.8 29.4           0        0 128
## 1802 1802  70      0     1       0  176.2   72.8 23.5           1        0 137
## 1803 1803  58      1     1       0  172.0   83.1 28.1           0        0 128
## 1804 1804  62      0     1       1  173.7   78.1 25.9           0        0 116
## 1805 1805  56      0     1       2  162.3   74.5 28.3           0        1 120
## 1806 1806  63      0     4       0  161.2   83.5 32.1           0        0 118
## 1807 1807  60      0     1       0  168.5   77.3 27.2           1        0 136
## 1808 1808  61      0     4       2  169.3   93.0 32.5           1        0 143
## 1809 1809  62      0     2       0  169.9   81.4 28.2           0        0 126
## 1810 1810  53      0     1       2  176.3   86.0 27.7           0        0 120
## 1811 1811  57      1     1       1  160.0   84.3 32.9           1        1 132
## 1812 1812  66      1     1       0  188.6   85.3 24.0           1        0 133
## 1813 1813  63      1     1       1  157.9   82.6 33.2           1        0 136
## 1814 1814  64      0     1       1  165.1   88.1 32.3           1        0 140
## 1815 1815  58      1     2       0  164.4   78.6 29.1           0        1 118
## 1816 1816  63      1     1       2  172.4   98.3 33.1           1        0 131
## 1817 1817  64      0     3       0  166.7   80.3 28.9           0        1 129
## 1818 1818  61      1     3       1  162.6   75.9 28.7           1        0 134
## 1819 1819  57      0     3       0  171.8   81.0 27.5           0        0 121
## 1820 1820  68      0     1       2  172.5   77.7 26.1           0        0 127
## 1821 1821  63      1     2       2  160.2   81.7 31.8           0        0 126
## 1822 1822  59      1     2       2  162.2   55.9 21.3           0        1 129
```

```
## 1823 1823  63      1     3       0  173.2   79.4 26.5           1        0 135
## 1824 1824  59      1     4       0  169.5   86.1 30.0           0        0 127
## 1825 1825  60      1     1       0  159.7   70.0 27.4           1        0 131
## 1826 1826  61      1     1       0  169.2   75.6 26.4           0        0 124
## 1827 1827  61      1     1       1  170.4   76.7 26.4           0        0 126
## 1828 1828  56      1     3       0  178.6   80.1 25.1           0        0 128
## 1829 1829  68      1     1       0  171.3   70.5 24.0           1        0 131
## 1830 1830  67      0     1       0  168.4   80.6 28.4           1        0 139
## 1831 1831  57      1     1       2  157.0   78.4 31.8           0        0 125
## 1832 1832  60      0     3       0  179.8   82.7 25.6           0        0 129
## 1833 1833  50      0     3       0  176.6   79.5 25.5           0        0 125
## 1834 1834  64      0     1       0  171.9   78.2 26.5           1        0 134
## 1835 1835  59      1     1       1  166.4   80.0 28.9           1        0 148
## 1836 1836  62      1     1       0  162.2   77.0 29.3           1        0 131
## 1837 1837  58      1     3       2  170.1   75.8 26.2           1        0 133
## 1838 1838  71      1     4       2  169.7   76.3 26.5           1        0 132
## 1839 1839  60      0     1       1  167.7   74.1 26.3           1        0 140
## 1840 1840  63      0     3       0  170.0   62.5 21.6           1        0 139
## 1841 1841  59      1     4       0  166.4   76.6 27.7           0        0 121
## 1842 1842  64      0     1       0  167.2   81.5 29.2           1        0 146
## 1843 1843  60      1     4       0  167.4   76.2 27.2           0        0 126
## 1844 1844  63      0     1       1  175.4   77.3 25.1           1        1 142
## 1845 1845  69      1     1       0  165.0   81.7 30.0           0        0 126
## 1846 1846  59      1     3       0  171.3   74.2 25.3           0        0 114
## 1847 1847  61      0     1       2  176.5   90.2 29.0           1        0 142
## 1848 1848  59      1     4       0  161.4   73.5 28.2           1        0 136
## 1849 1849  56      1     1       0  165.8   67.2 24.5           1        0 139
## 1850 1850  61      1     1       1  172.3   80.5 27.1           1        0 138
## 1851 1851  60      0     1       0  164.2   75.4 28.0           1        0 136
## 1852 1852  56      1     1       0  166.8   78.8 28.3           0        0 128
## 1853 1853  52      0     1       0  160.6   76.2 29.5           0        0 126
## 1854 1854  53      0     3       1  156.1   71.7 29.4           0        1 128
## 1855 1855  60      1     1       2  172.3   90.1 30.3           1        0 132
## 1856 1856  60      1     1       1  175.8   75.0 24.3           0        0 126
## 1857 1857  61      0     1       2  161.2   75.4 29.0           1        0 140
## 1858 1858  57      1     1       0  173.7   88.1 29.2           1        0 133
## 1859 1859  58      1     1       0  171.3   77.6 26.4           1        0 139
## 1860 1860  54      0     1       0  169.9   84.4 29.3           1        0 131
## 1861 1861  63      0     3       0  166.9   87.0 31.2           0        0 125
## 1862 1862  54      0     1       0  171.6   63.4 21.5           1        0 136
## 1863 1863  55      0     1       0  166.3   87.3 31.6           0        0 130
## 1864 1864  58      0     3       0  172.5   79.0 26.6           0        0 129
## 1865 1865  66      1     2       2  166.3   70.3 25.4           1        0 137
## 1866 1866  67      1     1       0  162.5   83.9 31.8           1        0 133
## 1867 1867  61      0     1       1  166.5   75.8 27.3           1        0 145
## 1868 1868  65      0     1       0  159.5   87.3 34.3           1        0 139
## 1869 1869  57      1     1       0  172.6   84.6 28.4           1        0 133
## 1870 1870  60      0     1       0  166.1   72.5 26.3           1        0 132
## 1871 1871  60      0     4       1  164.0   82.7 30.8           0        0 130
## 1872 1872  62      0     1       0  155.6   70.1 29.0           0        1 126
## 1873 1873  53      1     1       0  172.9   78.2 26.1           0        0 119
## 1874 1874  62      0     1       0  171.2   79.8 27.2           1        0 131
## 1875 1875  65      1     3       0  167.2   85.5 30.6           0        0 130
## 1876 1876  61      1     1       1  164.2   76.1 28.2           1        1 136
```

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## 1877 1877  59      0     1       2  183.7   89.3 26.5           1         0 132
## 1878 1878  64      0     1       0  169.5   79.4 27.6           1         0 140
## 1879 1879  48      1     1       0  175.1   65.5 21.4           0         1 122
## 1880 1880  54      1     3       1  172.2   69.4 23.4           0         0 130
## 1881 1881  62      1     2       0  167.1   78.7 28.2           0         0 125
## 1882 1882  59      1     1       0  173.5   77.5 25.7           0         0 127
## 1883 1883  56      0     1       1  159.8   82.7 32.4           0         0 123
## 1884 1884  61      0     3       1  154.6   63.1 26.4           0         0 122
## 1885 1885  60      1     1       0  179.5   91.6 28.4           0         0 119
## 1886 1886  62      0     1       0  166.0   78.7 28.6           0         0 130
## 1887 1887  63      0     1       2  161.0   74.9 28.9           1         0 131
## 1888 1888  52      1     3       0  169.1   82.5 28.9           0         0 121
## 1889 1889  54      1     1       0  164.4   80.2 29.7           1         1 135
## 1890 1890  56      0     2       0  169.4   85.6 29.8           0         0 129
## 1891 1891  55      0     1       1  166.0   76.7 27.8           0         0 128
## 1892 1892  67      1     1       0  172.0   75.2 25.4           1         0 140
## 1893 1893  62      0     1       0  169.4   86.6 30.2           0         0 130
## 1894 1894  62      1     2       0  166.5   87.2 31.5           1         0 132
## 1895 1895  54      1     2       0  165.6   73.8 26.9           1         0 145
## 1896 1896  61      0     1       0  174.9   67.0 21.9           0         1 127
## 1897 1897  64      0     1       2  167.5   76.7 27.3           1         0 131
## 1898 1898  53      0     4       1  163.9   78.4 29.2           0         1 123
## 1899 1899  53      0     3       0  171.6   84.7 28.7           0         0 122
## 1900 1900  61      1     1       0  168.6   91.5 32.2           0         0 128
## 1901 1901  59      0     3       2  168.5   75.6 26.6           0         0 120
## 1902 1902  66      1     1       1  163.5   75.4 28.2           1         0 137
## 1903 1903  61      0     1       0  175.1   83.6 27.3           1         0 134
## 1904 1904  67      0     3       0  170.8   74.5 25.5           1         0 135
## 1905 1905  67      0     1       1  159.8   82.4 32.3           1         0 137
## 1906 1906  66      0     1       2  168.8   77.4 27.2           0         0 128
## 1907 1907  60      1     3       1  169.6   77.1 26.8           1         1 139
## 1908 1908  60      1     1       0  169.9   81.2 28.1           0         0 128
## 1909 1909  58      1     3       1  181.1   83.3 25.4           0         0 130
## 1910 1910  63      0     1       0  173.9   88.4 29.2           0         0 127
## 1911 1911  60      1     1       1  168.7   84.2 29.6           0         0 120
## 1912 1912  60      1     1       1  166.3   77.3 28.0           1         0 132
## 1913 1913  56      0     1       0  167.2   87.8 31.4           0         0 129
## 1914 1914  61      0     1       0  172.5   77.8 26.1           1         1 141
## 1915 1915  61      1     3       0  166.5   79.5 28.7           1         0 132
## 1916 1916  60      1     1       0  167.8   68.1 24.2           1         0 132
## 1917 1917  61      0     1       0  162.5   70.9 26.9           1         0 133
## 1918 1918  57      1     1       1  167.9   80.7 28.6           0         0 126
## 1919 1919  56      0     1       1  169.1   87.2 30.5           0         0 122
## 1920 1920  69      1     4       1  167.3   81.8 29.2           1         0 139
## 1921 1921  67      0     1       0  172.7   80.6 27.0           1         0 138
## 1922 1922  62      0     1       1  170.7   79.1 27.2           1         0 133
## 1923 1923  60      0     1       2  176.2   74.5 24.0           0         0 122
## 1924 1924  57      0     3       1  177.5   73.5 23.3           1         0 134
## 1925 1925  57      1     1       0  170.2   76.3 26.3           0         0 115
## 1926 1926  61      1     1       0  167.5   78.3 27.9           0         0 122
## 1927 1927  54      0     1       0  167.2   69.5 24.9           0         0 127
## 1928 1928  67      0     1       1  167.9   78.1 27.7           1         1 143
## 1929 1929  57      0     1       0  175.4   79.2 25.7           0         0 130
## 1930 1930  62      1     1       1  173.1   81.5 27.2           1         0 142
```

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## 1931 1931  61      0     1       1  175.6   69.4 22.5           0        0 127
## 1932 1932  62      1     1       0  178.1   82.9 26.1           0        0 127
## 1933 1933  57      1     1       0  165.7   77.4 28.2           0        0 112
## 1934 1934  58      0     1       0  170.9   70.6 24.2           1        0 137
## 1935 1935  64      0     1       1  172.3   79.4 26.7           1        0 138
## 1936 1936  60      0     1       0  167.1   84.3 30.2           0        0 122
## 1937 1937  58      1     4       1  178.2   84.5 26.6           1        0 143
## 1938 1938  51      1     1       1  172.4   90.6 30.5           0        1 115
## 1939 1939  63      1     2       2  172.1   82.0 27.7           1        1 136
## 1940 1940  59      1     1       0  182.1   85.3 25.7           0        0 130
## 1941 1941  62      1     3       0  169.1   82.9 29.0           1        0 135
## 1942 1942  56      1     3       0  174.2   87.9 29.0           0        0 130
## 1943 1943  64      1     1       1  166.9   69.2 24.8           1        1 137
## 1944 1944  58      1     3       1  176.7   75.8 24.3           1        0 133
## 1945 1945  53      0     1       0  162.8   85.9 32.4           1        0 139
## 1946 1946  65      1     3       0  177.2   88.3 28.1           1        0 137
## 1947 1947  60      0     1       0  173.9   81.2 26.8           1        0 134
## 1948 1948  53      0     3       0  181.3   74.4 22.6           0        0 123
## 1949 1949  55      0     1       1  167.0   89.3 32.0           0        0 127
## 1950 1950  56      1     1       2  173.3   76.3 25.4           1        0 133
## 1951 1951  57      0     1       0  162.2   75.0 28.5           0        0 117
## 1952 1952  54      0     1       0  177.6   83.6 26.5           1        0 133
## 1953 1953  67      0     1       0  174.7   91.3 29.9           1        0 147
## 1954 1954  67      0     4       0  168.0   66.0 23.4           1        0 149
## 1955 1955  58      1     1       0  168.1   87.6 31.0           0        0 116
## 1956 1956  61      0     1       0  182.1  101.7 30.7           1        0 132
## 1957 1957  63      1     1       0  161.9   86.0 32.8           0        1 130
## 1958 1958  65      0     3       1  171.2   77.2 26.3           1        0 145
## 1959 1959  53      0     1       0  172.5   87.7 29.5           0        0 123
## 1960 1960  68      0     4       0  169.0   78.3 27.4           1        0 145
## 1961 1961  61      1     1       0  177.3   83.2 26.5           0        1 129
## 1962 1962  60      1     1       0  172.7   61.8 20.7           0        0 124
## 1963 1963  53      0     1       2  160.7   71.7 27.8           0        0 126
## 1964 1964  53      0     3       1  178.7   84.0 26.3           0        0 116
## 1965 1965  57      0     1       0  173.1   95.3 31.8           1        0 133
## 1966 1966  56      1     2       1  174.0   72.2 23.8           0        0 129
## 1967 1967  58      0     3       0  169.9   73.1 25.3           1        0 136
## 1968 1968  58      1     1       0  163.6   81.8 30.6           0        0 119
## 1969 1969  67      0     2       0  160.9   75.1 29.0           1        0 137
## 1970 1970  51      0     1       1  171.9   78.7 26.6           0        0 127
## 1971 1971  66      1     3       0  178.4   69.4 21.8           1        0 138
## 1972 1972  65      1     1       0  172.1   80.2 27.1           1        0 133
## 1973 1973  63      0     1       1  176.3   79.3 25.5           0        0 130
## 1974 1974  55      0     1       0  177.8   84.3 26.7           0        0 118
## 1975 1975  58      1     3       0  176.9   82.7 26.4           1        0 134
## 1976 1976  64      0     1       0  174.7   79.0 25.9           0        0 123
## 1977 1977  59      0     1       1  168.5   74.6 26.2           1        0 136
## 1978 1978  57      0     1       0  177.8   85.6 27.1           0        0 123
## 1979 1979  55      0     1       0  165.2   77.6 28.4           1        0 131
## 1980 1980  59      0     1       0  165.8   69.2 25.2           0        0 123
## 1981 1981  56      0     1       1  170.6   75.7 26.0           1        0 136
## 1982 1982  55      1     1       0  170.2   76.8 26.5           0        0 129
## 1983 1983  60      1     3       0  168.9   89.0 31.2           1        1 135
## 1984 1984  56      0     3       0  170.5   74.4 25.6           0        1 129
```

```
## 1985 1985  55      1     1        0  182.7   91.7 27.5            0         1 115
## 1986 1986  59      0     1        0  174.5   90.2 29.6            0         0 128
## 1987 1987  62      1     3        0  173.9   84.1 27.8            1         0 138
## 1988 1988  61      1     4        0  167.9   87.6 31.1            1         1 149
## 1989 1989  61      1     1        0  163.6   79.6 29.7            0         0 126
## 1990 1990  69      1     4        1  169.6   78.1 27.2            1         0 131
## 1991 1991  63      1     2        0  165.8   85.5 31.1            0         0 120
## 1992 1992  60      1     1        0  174.4   88.9 29.2            0         0 127
## 1993 1993  56      0     3        1  162.7   71.8 27.1            0         0 125
## 1994 1994  54      0     1        2  174.0   74.7 24.7            1         0 132
## 1995 1995  56      0     3        1  173.0   82.7 27.6            0         0 130
## 1996 1996  60      1     3        1  169.1   76.9 26.9            0         0 120
## 1997 1997  51      0     1        0  172.3   70.2 23.6            1         0 141
## 1998 1998  61      0     2        0  175.7   87.7 28.4            1         0 136
## 1999 1999  57      0     1        0  162.5   80.8 30.6            0         0 116
## 2000 2000  58      1     1        0  171.8   80.0 27.1            1         0 131
## 2001 2001  62      1     1        0  164.8   63.1 23.3            0         0 113
## 2002 2002  62      1     1        2  173.0   88.2 29.5            1         0 131
## 2003 2003  65      1     3        0  164.6   70.9 26.2            1         1 138
## 2004 2004  54      0     1        1  166.2   86.2 31.2            0         0 122
## 2005 2005  59      0     1        1  171.4   75.5 25.7            0         0 110
## 2006 2006  67      0     1        2  175.0   88.1 28.8            1         0 140
## 2007 2007  61      0     1        0  164.4   77.5 28.7            1         0 139
## 2008 2008  64      1     1        0  167.6   82.6 29.4            0         0 126
## 2009 2009  45      0     1        0  164.6   82.4 30.4            0         0 120
## 2010 2010  62      0     1        0  167.5   75.0 26.7            0         0 128
## 2011 2011  55      1     1        0  176.7   76.1 24.4            0         0 123
## 2012 2012  59      0     1        1  169.8   75.1 26.0            1         0 136
## 2013 2013  62      0     1        0  178.0   81.0 25.6            1         1 134
## 2014 2014  63      1     4        1  161.6   70.0 26.8            1         0 138
## 2015 2015  59      0     1        0  170.1   67.8 23.4            1         1 135
## 2016 2016  61      0     1        0  174.3   88.5 29.2            1         0 141
## 2017 2017  67      0     1        0  175.6   80.8 26.2            1         0 139
## 2018 2018  58      0     1        1  161.1   70.0 27.0            0         0 129
## 2019 2019  67      1     3        1  171.3   69.7 23.8            1         0 133
## 2020 2020  56      0     1        1  165.2   77.6 28.4            0         0 127
## 2021 2021  61      0     4        1  167.7   81.4 28.9            0         0 128
## 2022 2022  67      0     3        0  169.9   79.4 27.5            1         0 132
## 2023 2023  47      1     1        0  163.2   79.4 29.8            0         0 106
## 2024 2024  68      1     1        0  163.2   85.2 32.0            1         0 133
## 2025 2025  68      1     1        2  165.4   76.3 27.9            1         0 146
## 2026 2026  59      0     1        0  161.8   85.2 32.6            1         0 131
## 2027 2027  54      1     1        1  172.5   85.2 28.6            0         0 124
## 2028 2028  60      0     1        0  171.8   83.2 28.2            0         0 127
## 2029 2029  63      1     1        0  163.2   77.9 29.2            1         0 144
## 2030 2030  66      0     1        1  174.2   71.4 23.5            0         0 126
## 2031 2031  60      0     1        1  170.4   74.7 25.7            0         1 129
## 2032 2032  54      1     3        0  169.8   69.6 24.1            0         0 126
## 2033 2033  56      0     3        0  154.2   77.6 32.6            0         0 127
## 2034 2034  67      1     1        0  170.3   77.0 26.5            1         0 141
## 2035 2035  61      0     1        0  166.6   88.3 31.8            0         0 122
## 2036 2036  65      0     4        0  172.4   78.9 26.5            1         0 131
## 2037 2037  59      1     1        0  167.5   74.1 26.4            0         0 126
## 2038 2038  64      1     2        1  178.5   73.6 23.1            1         0 132
```

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## 2039 2039  63      1     1       2  155.8   75.5 31.1            0         0 128
## 2040 2040  63      0     1       0  160.0   66.7 26.1            0         0 130
## 2041 2041  61      0     1       0  160.3   82.2 32.0            1         0 136
## 2042 2042  62      1     3       1  157.7   76.3 30.7            1         0 139
## 2043 2043  61      1     1       1  167.6   69.4 24.7            1         0 145
## 2044 2044  67      1     1       1  166.8   78.4 28.2            1         0 133
## 2045 2045  51      0     1       0  168.8   74.4 26.1            0         0 121
## 2046 2046  59      1     3       0  175.5   70.0 22.7            1         0 138
## 2047 2047  67      0     1       0  178.4   77.3 24.3            1         0 142
## 2048 2048  55      1     1       1  173.3   82.9 27.6            1         0 131
## 2049 2049  62      0     1       0  172.0   69.0 23.3            1         0 137
## 2050 2050  65      0     1       0  165.8   73.2 26.6            1         0 142
## 2051 2051  61      1     1       0  178.0   69.7 22.0            1         1 142
## 2052 2052  58      1     1       2  152.6   72.6 31.2            1         1 135
## 2053 2053  62      0     1       1  169.7   68.9 23.9            1         0 133
## 2054 2054  60      0     1       0  172.1   76.9 26.0            1         0 133
## 2055 2055  57      1     1       0  171.6   79.9 27.1            1         0 146
## 2056 2056  61      0     1       1  166.4   83.4 30.1            1         0 136
## 2057 2057  57      1     1       0  163.1   75.5 28.4            0         1 122
## 2058 2058  63      1     1       1  175.4   86.8 28.2            0         0 115
## 2059 2059  55      1     1       0  165.1   91.5 33.6            0         0 124
## 2060 2060  57      1     4       1  164.6   77.5 28.6            1         1 135
## 2061 2061  65      0     3       0  165.1   72.0 26.4            0         1 127
## 2062 2062  56      1     4       2  167.3   77.1 27.6            0         0 119
## 2063 2063  66      1     3       0  156.8   86.9 35.4            1         0 132
## 2064 2064  60      1     1       0  165.6   86.7 31.6            1         0 131
## 2065 2065  62      1     1       0  170.6   70.5 24.2            1         0 132
## 2066 2066  57      0     4       0  164.5   74.1 27.4            0         0 127
## 2067 2067  64      1     1       1  172.8   80.0 26.8            0         0 127
## 2068 2068  59      1     1       0  164.5   88.4 32.7            0         1 127
## 2069 2069  70      1     3       0  180.5   84.8 26.0            1         0 136
## 2070 2070  58      1     1       1  172.2   76.8 25.9            1         0 147
## 2071 2071  61      0     1       0  166.3   82.8 29.9            1         0 133
## 2072 2072  53      1     3       1  167.2   75.0 26.8            0         0 123
## 2073 2073  62      0     1       0  172.7   69.3 23.2            1         0 139
## 2074 2074  63      0     1       0  175.5   81.8 26.5            1         0 142
## 2075 2075  57      1     3       0  170.3   68.7 23.7            1         0 135
## 2076 2076  56      0     1       2  169.2   76.6 26.8            1         0 137
## 2077 2077  54      1     3       0  163.3   67.3 25.2            0         0 122
## 2078 2078  57      1     1       0  166.8   70.4 25.3            1         0 133
## 2079 2079  55      1     1       0  175.0   92.2 30.1            0         1 113
## 2080 2080  55      1     1       0  170.9   78.2 26.8            1         0 135
## 2081 2081  67      0     3       1  166.9   79.8 28.6            1         0 140
## 2082 2082  60      0     1       0  177.9   86.0 27.2            1         0 138
## 2083 2083  54      0     1       0  175.5   86.4 28.0            0         0 128
## 2084 2084  61      0     1       0  169.4   89.4 31.1            0         0 124
## 2085 2085  60      0     1       0  169.1   98.4 34.4            1         0 155
## 2086 2086  61      0     1       0  174.4   78.6 25.8            1         1 144
## 2087 2087  58      1     1       0  166.0   89.3 32.4            1         0 137
## 2088 2088  53      0     1       1  169.5   82.4 28.7            1         0 138
## 2089 2089  64      0     3       0  167.1   80.0 28.7            0         0 121
## 2090 2090  53      0     4       0  169.8   90.7 31.5            1         1 133
## 2091 2091  57      0     1       0  161.9   86.6 33.1            1         0 132
## 2092 2092  60      0     1       2  169.7   81.0 28.2            1         0 137
```

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## 2093 2093  59      0     1       1  176.9   86.4 27.6           1         0 148
## 2094 2094  54      0     1       0  179.9   74.7 23.1           0         0 130
## 2095 2095  57      0     1       0  166.7   80.3 28.9           0         0 129
## 2096 2096  54      1     3       0  152.5   78.4 33.7           0         0 115
## 2097 2097  66      1     1       0  173.6   73.6 24.4           0         0 115
## 2098 2098  57      1     1       1  171.4   74.5 25.4           0         1 126
## 2099 2099  58      1     1       0  168.3   68.4 24.2           0         0 128
## 2100 2100  65      1     3       1  173.0   84.9 28.4           1         0 138
## 2101 2101  62      0     1       1  177.9   81.8 25.9           0         0 124
## 2102 2102  63      1     1       0  176.5   96.4 31.0           0         1 129
## 2103 2103  55      0     1       1  155.0   78.7 32.8           0         0 125
## 2104 2104  64      0     1       1  159.7   76.4 30.0           0         0 122
## 2105 2105  50      0     1       0  174.8   78.1 25.6           0         0 122
## 2106 2106  60      1     3       0  181.1   96.7 29.5           0         0 124
## 2107 2107  55      0     4       0  179.0   87.1 27.2           0         0 120
## 2108 2108  62      0     1       2  166.4   68.1 24.6           0         1 123
## 2109 2109  56      0     3       0  168.4   89.9 31.7           0         0 122
## 2110 2110  56      1     1       0  167.6   83.8 29.8           1         0 135
## 2111 2111  52      0     1       0  167.3   75.7 27.1           0         0 127
## 2112 2112  47      1     1       0  164.7   79.4 29.3           1         0 133
## 2113 2113  58      0     1       0  178.2   84.5 26.6           0         0 125
## 2114 2114  61      0     1       2  167.6   89.6 31.9           0         0 127
## 2115 2115  62      0     1       2  165.0   78.7 28.9           0         0 129
## 2116 2116  61      1     1       0  164.6   88.5 32.7           0         0 130
## 2117 2117  66      1     3       0  167.3   70.7 25.2           0         1 129
## 2118 2118  64      0     1       0  170.2   80.2 27.7           1         1 141
## 2119 2119  59      0     1       0  164.5   85.6 31.6           0         0 128
## 2120 2120  57      1     2       0  179.7   77.8 24.1           1         0 131
## 2121 2121  57      0     1       1  173.8   65.6 21.7           0         0 127
## 2122 2122  57      1     1       0  176.9   79.5 25.4           0         0 127
## 2123 2123  60      0     3       0  160.1   74.7 29.1           0         0 125
## 2124 2124  62      0     1       2  175.5   79.9 25.9           1         0 131
## 2125 2125  64      1     1       0  177.8   83.2 26.3           1         0 135
## 2126 2126  61      0     3       0  183.8   76.9 22.8           1         0 131
## 2127 2127  58      0     1       2  175.1   89.0 29.0           1         1 138
## 2128 2128  63      1     2       0  169.0   83.3 29.2           0         0 128
## 2129 2129  55      0     1       0  170.3   79.7 27.5           0         0 127
## 2130 2130  63      0     1       0  164.1   81.1 30.1           0         0 126
## 2131 2131  49      1     4       0  171.8   93.5 31.7           0         0 124
## 2132 2132  66      0     1       1  176.6   82.1 26.3           1         0 135
## 2133 2133  56      1     1       0  188.5   75.8 21.3           0         0 130
## 2134 2134  54      0     3       0  173.8   88.7 29.4           0         0 123
## 2135 2135  63      1     3       1  173.2   89.9 30.0           1         0 137
## 2136 2136  65      0     1       0  178.4   84.0 26.4           1         0 141
## 2137 2137  70      1     1       0  166.0   80.3 29.2           1         0 132
## 2138 2138  64      0     1       0  170.5   84.6 29.1           0         0 126
## 2139 2139  64      1     4       0  166.5   74.7 26.9           1         0 144
## 2140 2140  66      0     4       1  166.3   85.1 30.7           1         0 138
## 2141 2141  60      1     1       0  171.6   86.6 29.4           1         0 139
## 2142 2142  62      1     4       1  172.6   77.8 26.1           1         0 139
## 2143 2143  62      1     1       0  168.5   84.7 29.8           1         0 142
## 2144 2144  62      0     1       0  168.7   83.1 29.2           1         0 144
## 2145 2145  64      1     4       1  178.2   89.6 28.2           1         0 138
## 2146 2146  57      0     1       0  162.1   81.4 31.0           0         0 120
```

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## 2147 2147  65      1     1        0  170.8   85.9 29.4            0         1 128
## 2148 2148  53      1     2        0  173.8   76.0 25.2            1         1 131
## 2149 2149  59      0     1        2  171.8   76.6 25.9            1         0 133
## 2150 2150  64      0     3        0  168.1   75.4 26.7            1         0 139
## 2151 2151  61      1     1        2  170.1   81.7 28.2            0         0 130
## 2152 2152  56      0     3        0  170.0   87.3 30.2            0         1 109
## 2153 2153  57      1     1        0  170.2   93.7 32.3            0         0 125
## 2154 2154  64      1     1        0  162.7   72.3 27.3            1         0 135
## 2155 2155  58      1     1        0  176.7   75.6 24.2            0         0 127
## 2156 2156  57      0     2        0  164.5   72.5 26.8            1         0 136
## 2157 2157  66      1     3        0  173.2   84.2 28.1            1         1 132
## 2158 2158  61      0     2        0  177.5   82.1 26.1            0         0 127
## 2159 2159  62      0     1        0  165.6   81.4 29.7            1         0 141
## 2160 2160  60      1     4        0  172.3   89.7 30.2            1         0 137
## 2161 2161  61      1     1        0  165.9   83.9 30.5            1         0 134
## 2162 2162  57      1     1        0  178.8   72.0 22.5            0         0 126
## 2163 2163  66      1     2        2  177.5   79.0 25.1            1         0 132
## 2164 2164  57      0     3        1  168.0   79.4 28.1            1         0 134
## 2165 2165  59      1     1        0  163.0   77.2 29.0            0         0 121
## 2166 2166  57      1     1        0  170.2   60.5 20.9            0         0 127
## 2167 2167  66      1     3        0  175.5   73.5 23.9            0         0 127
## 2168 2168  59      1     3        0  178.3   86.2 27.1            1         1 135
## 2169 2169  57      1     4        0  159.4   63.6 25.0            1         0 134
## 2170 2170  61      0     1        0  174.0   84.2 27.8            1         0 141
## 2171 2171  59      0     1        0  174.2   78.2 25.8            0         0 126
## 2172 2172  64      0     1        0  174.2   77.8 25.6            1         0 151
## 2173 2173  68      0     4        1  172.9   83.0 27.8            1         0 141
## 2174 2174  68      0     1        0  173.2   82.0 27.3            1         0 136
## 2175 2175  60      0     4        0  169.0   84.7 29.7            0         0 124
## 2176 2176  63      0     3        1  160.1   68.6 26.8            1         0 140
## 2177 2177  65      0     4        1  163.6   85.3 31.9            1         0 138
## 2178 2178  58      1     1        0  178.5   89.6 28.1            0         0 125
## 2179 2179  60      1     1        1  176.9   84.5 27.0            0         0 119
## 2180 2180  69      1     1        0  171.8   80.5 27.3            1         0 139
## 2181 2181  63      0     1        0  168.8   74.0 26.0            1         0 139
## 2182 2182  62      1     1        1  174.2   77.4 25.5            0         0 130
## 2183 2183  65      0     1        1  176.3   81.5 26.2            1         0 137
## 2184 2184  63      0     1        0  173.3   76.3 25.4            1         1 138
## 2185 2185  57      0     1        0  174.6   82.2 26.9            0         0 112
## 2186 2186  61      0     3        0  168.5   81.1 28.6            0         0 125
## 2187 2187  56      0     1        1  167.1   76.0 27.2            1         0 137
## 2188 2188  61      1     1        1  169.5   74.5 25.9            0         0 127
## 2189 2189  62      1     3        0  156.8   73.2 29.8            0         0 117
## 2190 2190  54      0     1        2  164.3   81.8 30.3            0         0 115
## 2191 2191  57      0     4        1  172.3   93.3 31.4            0         1 128
## 2192 2192  62      1     1        0  180.3   87.8 27.0            1         0 132
## 2193 2193  57      0     1        0  160.7   85.8 33.2            1         0 134
## 2194 2194  59      1     1        2  166.2   67.9 24.6            1         0 133
## 2195 2195  67      0     1        0  165.9   75.9 27.6            0         0 130
## 2196 2196  53      1     1        1  169.4   90.0 31.4            0         0 127
## 2197 2197  64      0     3        0  164.4   84.5 31.3            1         1 139
## 2198 2198  58      1     3        1  166.3   75.6 27.3            0         1 126
## 2199 2199  63      1     1        1  180.1   77.7 23.9            0         0 128
## 2200 2200  62      1     1        0  165.9   76.3 27.7            1         0 135
```

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## 2201 2201  54      1     1       1  187.6   78.5 22.3            0        0 129
## 2202 2202  62      0     1       0  168.6   75.0 26.4            0        0 118
## 2203 2203  59      0     1       0  178.1   98.1 30.9            0        0 125
## 2204 2204  60      1     4       0  171.4   79.7 27.1            0        1 129
## 2205 2205  59      0     1       2  166.8   78.8 28.3            1        0 132
## 2206 2206  58      0     1       1  170.1   81.4 28.1            1        0 135
## 2207 2207  60      1     1       0  167.3   78.4 28.0            0        0 128
## 2208 2208  62      1     1       1  177.3   67.3 21.4            1        0 138
## 2209 2209  58      0     1       2  161.8   75.1 28.7            0        0 112
## 2210 2210  59      0     3       0  173.9   90.7 30.0            1        0 138
## 2211 2211  59      1     1       1  173.3   79.4 26.4            1        1 131
## 2212 2212  59      1     1       1  156.4   81.3 33.2            0        0 129
## 2213 2213  62      1     1       0  175.6   80.8 26.2            0        0 125
## 2214 2214  63      0     1       1  173.7   67.0 22.2            0        0 125
## 2215 2215  59      0     1       0  171.3   93.7 31.9            0        0 129
## 2216 2216  64      0     4       0  181.0   82.0 25.0            1        0 134
## 2217 2217  57      1     1       1  168.7   80.4 28.3            1        0 131
## 2218 2218  69      0     4       1  167.2   85.5 30.6            1        0 138
## 2219 2219  61      1     3       1  172.4   78.7 26.5            0        0 126
## 2220 2220  56      0     1       0  169.4   81.7 28.5            1        0 134
## 2221 2221  57      0     1       1  172.2   75.7 25.5            1        0 133
## 2222 2222  64      1     2       1  179.0   77.6 24.2            1        0 135
## 2223 2223  56      0     3       0  166.3   87.2 31.5            0        0 128
## 2224 2224  64      1     3       0  166.6   84.4 30.4            0        0 130
## 2225 2225  66      0     1       0  162.6   67.5 25.5            0        0 126
## 2226 2226  59      0     1       1  175.8   80.4 26.0            0        0 127
## 2227 2227  58      0     3       1  180.1   92.2 28.4            1        0 132
## 2228 2228  61      0     1       0  174.1   84.5 27.9            1        0 132
## 2229 2229  57      0     1       0  175.3   86.1 28.0            0        0 130
## 2230 2230  64      1     1       0  167.4   89.2 31.8            1        0 131
## 2231 2231  59      0     4       0  162.5   84.3 31.9            1        0 139
## 2232 2232  59      0     1       1  169.1   69.7 24.4            1        0 132
## 2233 2233  63      1     1       0  175.5   94.9 30.8            0        0 129
## 2234 2234  64      0     1       2  172.9   83.5 27.9            0        0 129
## 2235 2235  60      0     1       1  165.4   79.0 28.9            1        0 131
## 2236 2236  56      1     3       0  164.5   86.6 32.0            1        0 138
## 2237 2237  59      0     1       0  171.5   82.1 27.9            1        0 140
## 2238 2238  67      1     3       0  167.9   85.1 30.2            1        0 133
## 2239 2239  65      0     4       0  169.3   87.0 30.3            1        0 131
## 2240 2240  59      0     4       2  176.6   76.6 24.6            0        0 120
## 2241 2241  62      0     1       0  168.1   72.9 25.8            0        0 127
## 2242 2242  56      0     4       1  167.1   84.3 30.2            1        0 136
## 2243 2243  64      1     3       1  168.6   76.0 26.7            0        0 122
## 2244 2244  60      0     4       0  159.7   69.2 27.1            1        0 135
## 2245 2245  58      1     1       1  169.7   84.5 29.3            1        0 141
## 2246 2246  57      1     1       0  159.1   79.7 31.5            1        0 138
## 2247 2247  56      0     1       0  163.1   77.1 29.0            0        0 127
## 2248 2248  58      0     1       1  174.0   83.3 27.5            0        0 119
## 2249 2249  55      0     1       0  165.8   85.6 31.2            0        1 128
## 2250 2250  52      1     3       1  178.1   70.3 22.2            0        1 129
## 2251 2251  61      0     4       0  165.7   78.3 28.5            1        0 141
## 2252 2252  58      0     4       0  168.5   74.2 26.1            0        0 119
## 2253 2253  65      1     1       0  167.8   91.1 32.4            1        1 145
## 2254 2254  62      0     3       2  167.8   80.1 28.4            0        0 120
```

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## 2255 2255  58      0     4       1  170.1   82.5 28.5           0        1 125
## 2256 2256  64      0     1       1  163.6   86.7 32.4           0        1 117
## 2257 2257  54      1     1       2  166.0   73.8 26.8           1        0 132
## 2258 2258  53      1     2       1  170.3   85.7 29.5           0        0 124
## 2259 2259  59      1     1       0  164.6   76.7 28.3           1        0 131
## 2260 2260  59      0     1       0  175.6   74.2 24.1           1        0 133
## 2261 2261  65      1     1       1  172.0   75.0 25.4           1        1 138
## 2262 2262  57      1     3       0  173.1   84.1 28.1           0        0 126
## 2263 2263  51      0     3       1  174.3   80.4 26.5           0        0 124
## 2264 2264  58      0     4       1  170.4   87.7 30.2           1        0 137
## 2265 2265  51      0     1       1  167.6   74.6 26.5           0        0 117
## 2266 2266  63      0     1       0  168.2   80.0 28.3           1        0 142
## 2267 2267  66      0     1       1  168.6   74.7 26.3           1        0 134
## 2268 2268  57      0     1       0  173.0   83.1 27.7           1        0 132
## 2269 2269  65      1     3       0  154.6   72.5 30.3           1        0 134
## 2270 2270  63      1     4       0  169.3   78.8 27.5           1        0 135
## 2271 2271  63      0     1       1  172.0   87.1 29.5           1        0 132
## 2272 2272  54      0     1       0  175.8   76.6 24.8           0        1 124
## 2273 2273  60      0     1       0  161.5   77.2 29.6           0        0 117
## 2274 2274  55      1     3       0  157.1   73.5 29.8           1        0 141
## 2275 2275  59      0     1       0  171.5   94.9 32.3           1        0 135
## 2276 2276  65      0     2       1  168.1   72.4 25.6           1        1 133
## 2277 2277  59      0     1       0  182.0   78.1 23.6           1        0 132
## 2278 2278  67      0     1       0  166.7   88.2 31.7           1        0 137
## 2279 2279  65      1     1       0  177.5   86.6 27.5           1        1 146
## 2280 2280  64      0     1       0  158.4   75.5 30.1           0        0 113
## 2281 2281  59      0     1       1  164.3   81.1 30.0           0        0 126
## 2282 2282  61      1     1       1  179.7   75.9 23.5           0        0 128
## 2283 2283  57      1     2       2  175.6   83.7 27.1           0        0 126
## 2284 2284  56      0     1       1  174.8   81.8 26.8           0        0 114
## 2285 2285  61      1     3       1  180.2   73.4 22.6           1        1 131
## 2286 2286  65      0     1       0  163.2   77.0 28.9           1        0 135
## 2287 2287  68      1     4       0  168.8   92.2 32.3           1        0 144
## 2288 2288  54      1     1       0  171.4   82.5 28.1           0        0 106
## 2289 2289  62      1     1       0  175.2   88.3 28.8           0        1 125
## 2290 2290  62      1     3       0  172.3   89.8 30.2           0        1 127
## 2291 2291  62      0     3       0  167.7   84.8 30.2           0        0 129
## 2292 2292  60      1     3       0  167.3   83.7 29.9           0        0 122
## 2293 2293  62      1     1       0  170.1   77.1 26.7           0        0 127
## 2294 2294  65      1     1       0  167.0   87.4 31.3           1        0 144
## 2295 2295  60      1     2       0  173.2   87.4 29.1           0        0 126
## 2296 2296  59      0     2       0  173.0   92.5 30.9           0        0 130
## 2297 2297  57      1     1       1  174.1   80.3 26.5           0        0 114
## 2298 2298  61      0     3       2  169.5   86.3 30.1           1        0 146
## 2299 2299  62      0     1       0  172.4   81.0 27.2           1        0 147
## 2300 2300  62      0     1       0  164.4   80.0 29.6           0        0 127
## 2301 2301  58      0     3       1  180.3   78.1 24.0           1        0 132
## 2302 2302  59      0     3       1  180.4   77.6 23.8           0        0 124
## 2303 2303  53      0     2       0  166.6   93.1 33.6           0        0 130
## 2304 2304  61      0     4       0  162.8   78.7 29.7           1        0 133
## 2305 2305  57      1     1       0  167.6   88.3 31.4           0        0 130
## 2306 2306  61      0     2       0  161.5   75.6 29.0           1        0 133
## 2307 2307  57      0     2       0  182.3   79.7 24.0           0        0 116
## 2308 2308  57      0     1       1  162.8   81.9 30.9           0        1 126
```

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## 2309 2309  55      0     1       1  173.6   76.3 25.3           0        1 120
## 2310 2310  58      1     1       1  164.5   82.8 30.6           1        0 135
## 2311 2311  60      0     1       1  165.7   78.6 28.6           0        0 124
## 2312 2312  60      0     1       0  172.9   76.7 25.7           0        0 126
## 2313 2313  61      1     3       1  161.8   90.1 34.4           0        0 124
## 2314 2314  68      0     1       1  169.7   77.8 27.0           1        0 145
## 2315 2315  62      0     3       1  162.4   75.9 28.8           1        0 132
## 2316 2316  64      1     1       0  163.5   66.8 25.0           0        1 125
## 2317 2317  57      0     1       0  162.6   67.1 25.4           1        1 145
## 2318 2318  65      1     3       0  164.1   88.4 32.8           1        0 133
## 2319 2319  53      1     1       1  161.2   92.1 35.5           0        0 123
## 2320 2320  63      1     3       0  174.8   84.8 27.8           1        0 140
## 2321 2321  58      1     1       1  162.0   86.7 33.1           0        0 126
## 2322 2322  59      0     3       1  159.8   70.9 27.8           0        0 126
## 2323 2323  58      1     3       0  171.3   80.8 27.5           0        1 127
## 2324 2324  60      0     1       1  169.7   86.7 30.1           1        0 131
## 2325 2325  67      1     1       1  169.6   79.0 27.5           1        1 139
## 2326 2326  54      0     1       0  165.8   78.9 28.7           0        0 115
## 2327 2327  60      0     1       0  171.2   84.4 28.8           0        0 125
## 2328 2328  61      1     2       1  167.3   84.8 30.3           1        0 139
## 2329 2329  58      0     1       0  171.8   88.3 29.9           0        0 129
## 2330 2330  68      0     1       1  171.0   92.7 31.7           1        0 141
## 2331 2331  68      1     1       0  167.2   79.2 28.3           1        0 138
## 2332 2332  60      1     1       0  180.8   80.0 24.5           1        0 131
## 2333 2333  63      0     1       0  168.8   76.3 26.8           0        0 119
## 2334 2334  62      0     1       0  167.8   81.2 28.8           0        1 125
## 2335 2335  65      1     1       0  166.5   77.6 28.0           1        1 134
## 2336 2336  62      1     1       0  170.6   80.7 27.8           0        0 125
## 2337 2337  49      0     1       0  178.6   74.9 23.5           0        1 120
## 2338 2338  63      0     3       0  168.5   82.6 29.1           0        0 124
## 2339 2339  53      0     1       1  167.5   86.7 30.9           0        0 121
## 2340 2340  60      1     1       0  164.7   81.1 29.9           1        0 137
## 2341 2341  63      1     3       2  170.4   85.8 29.5           0        0 128
## 2342 2342  61      1     1       0  171.8   80.7 27.3           0        0 129
## 2343 2343  63      1     3       0  165.3   75.3 27.6           0        0 130
## 2344 2344  55      1     1       0  168.1   68.3 24.2           1        0 132
## 2345 2345  61      0     1       2  173.9   86.7 28.6           0        0 127
## 2346 2346  66      0     1       2  160.5   77.5 30.1           1        0 137
## 2347 2347  56      0     3       2  175.8   88.4 28.6           0        0 126
## 2348 2348  64      0     1       2  176.3   80.9 26.0           1        0 132
## 2349 2349  65      0     1       1  168.6   86.1 30.3           1        1 132
## 2350 2350  61      0     1       1  164.3   89.1 33.0           0        1 126
## 2351 2351  59      1     1       0  170.7   79.3 27.2           1        0 139
## 2352 2352  65      0     3       0  173.0   74.1 24.7           0        0 128
## 2353 2353  61      0     1       0  179.1   87.4 27.2           0        0 128
## 2354 2354  59      1     1       0  159.4   74.7 29.4           0        1 129
## 2355 2355  66      1     1       1  161.8   69.5 26.5           1        0 144
## 2356 2356  55      1     1       0  176.9   87.1 27.8           0        0 127
## 2357 2357  63      1     1       0  177.9   84.7 26.8           0        1 128
## 2358 2358  58      0     3       0  173.1   81.3 27.1           1        0 136
## 2359 2359  62      0     1       2  165.0   86.3 31.7           0        0 123
## 2360 2360  67      1     1       0  174.1   99.4 32.8           1        0 135
## 2361 2361  50      0     1       0  159.7   76.5 30.0           0        0 127
## 2362 2362  59      1     1       0  168.7   84.4 29.7           0        0 128
```

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## 2363 2363  66      1     2       0  167.0   93.2 33.4           1        0 134
## 2364 2364  67      0     1       1  172.3   84.1 28.3           1        1 141
## 2365 2365  58      0     4       1  175.5   73.3 23.8           1        0 132
## 2366 2366  63      0     2       1  177.8   78.9 25.0           0        0 125
## 2367 2367  62      1     3       1  174.1   73.3 24.2           0        0 125
## 2368 2368  60      0     4       0  168.5   71.0 25.0           1        0 136
## 2369 2369  57      1     1       0  160.0   73.0 28.5           1        0 133
## 2370 2370  58      1     1       0  176.1   94.8 30.6           0        1 119
## 2371 2371  57      0     1       1  161.8   76.2 29.1           1        0 137
## 2372 2372  59      1     1       0  175.6   83.3 27.0           1        0 135
## 2373 2373  63      0     1       0  169.6   87.6 30.4           0        0 122
## 2374 2374  61      1     1       0  176.3   77.1 24.8           1        0 143
## 2375 2375  58      1     3       0  170.6   75.8 26.0           0        0 129
## 2376 2376  61      0     2       0  171.1   72.5 24.8           1        0 133
## 2377 2377  57      1     1       0  163.5   77.3 28.9           0        0 123
## 2378 2378  56      0     1       1  164.7   81.5 30.1           0        0 129
## 2379 2379  61      1     1       0  172.9   93.9 31.4           0        1 124
## 2380 2380  70      1     1       1  180.7   91.6 28.1           0        0 127
## 2381 2381  59      1     1       0  170.0   84.5 29.2           0        0 124
## 2382 2382  67      1     1       0  161.6   69.5 26.6           1        0 140
## 2383 2383  61      1     1       1  173.4   82.7 27.5           1        0 132
## 2384 2384  63      1     4       2  174.9   82.0 26.8           1        0 141
## 2385 2385  63      0     1       0  159.4   87.1 34.3           1        0 133
## 2386 2386  64      1     1       0  181.4   74.9 22.8           0        0 124
## 2387 2387  54      0     1       0  171.2   87.5 29.9           0        0 122
## 2388 2388  62      0     1       1  178.5   75.4 23.7           0        0 123
## 2389 2389  58      1     1       0  173.1   75.6 25.2           1        0 140
## 2390 2390  49      0     1       0  168.0   81.8 29.0           0        0 111
## 2391 2391  58      0     1       1  166.9   73.7 26.5           0        0 123
## 2392 2392  59      1     3       0  185.6   87.3 25.3           1        0 143
## 2393 2393  58      1     3       0  172.6   74.0 24.8           0        0 116
## 2394 2394  61      0     4       0  178.6   98.5 30.9           0        0 127
## 2395 2395  53      0     1       2  170.6   70.0 24.1           0        0 130
## 2396 2396  62      1     1       0  165.7   80.1 29.2           1        0 133
## 2397 2397  62      1     1       1  167.6   90.8 32.3           0        0 129
## 2398 2398  59      0     1       2  168.9   92.3 32.3           0        0 129
## 2399 2399  57      1     3       1  161.6   70.0 26.8           0        0 112
## 2400 2400  62      1     1       2  164.9   62.2 22.9           1        0 134
## 2401 2401  60      1     3       2  176.1   80.3 25.9           1        1 142
## 2402 2402  57      0     3       0  160.5   74.9 29.1           1        0 133
## 2403 2403  66      0     1       1  166.7   80.8 29.1           1        0 134
## 2404 2404  62      0     1       1  174.7   72.1 23.6           0        0 130
## 2405 2405  60      0     1       0  171.2   88.2 30.1           1        0 131
## 2406 2406  63      1     4       0  173.3   78.4 26.1           1        0 147
## 2407 2407  62      1     4       2  175.8   95.2 30.8           1        0 136
## 2408 2408  53      1     4       0  182.5   77.8 23.4           0        0 125
## 2409 2409  60      0     1       2  176.3   69.1 22.2           0        1 124
## 2410 2410  60      1     3       1  170.7   77.7 26.6           1        0 133
## 2411 2411  60      0     1       0  167.5   71.5 25.5           1        1 132
## 2412 2412  60      0     4       1  169.9   71.6 24.8           0        0 128
## 2413 2413  65      1     1       0  169.6   68.2 23.7           1        0 141
## 2414 2414  65      0     1       0  168.5   75.9 26.7           1        0 137
## 2415 2415  62      0     1       0  173.4   81.5 27.1           0        0 129
## 2416 2416  62      1     4       1  168.9   81.3 28.5           0        0 129
```

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## 2417 2417  63      0     3       1  172.3   77.8 26.2           1        0 132
## 2418 2418  60      0     1       2  167.1   80.9 29.0           0        0 126
## 2419 2419  46      1     1       0  162.4   58.4 22.2           0        0 123
## 2420 2420  62      0     1       0  183.6   86.9 25.8           0        0 125
## 2421 2421  60      0     1       0  173.6   81.1 26.9           1        0 146
## 2422 2422  60      0     1       0  172.8   82.3 27.6           1        0 136
## 2423 2423  63      1     1       2  164.2   87.3 32.4           1        0 134
## 2424 2424  58      0     3       1  176.3   86.4 27.8           0        0 113
## 2425 2425  61      0     4       0  164.8   79.6 29.3           0        0 129
## 2426 2426  54      0     3       0  172.9   84.3 28.2           0        1 112
## 2427 2427  66      1     1       1  182.5   76.2 22.9           1        0 136
## 2428 2428  62      1     4       0  161.6   95.5 36.6           0        0 130
## 2429 2429  59      0     1       0  164.0   78.4 29.1           1        0 132
## 2430 2430  49      0     1       0  169.3   74.8 26.1           0        0 120
## 2431 2431  58      0     1       1  167.1   92.6 33.2           0        0 127
## 2432 2432  58      0     2       0  161.5   88.4 33.9           0        0 123
## 2433 2433  59      0     1       0  159.6   84.5 33.2           0        0 130
## 2434 2434  68      1     1       0  158.9   68.6 27.2           1        0 142
## 2435 2435  60      0     1       0  168.3   75.4 26.6           0        0 123
## 2436 2436  60      1     2       0  176.2   67.9 21.9           1        0 138
## 2437 2437  55      0     4       0  152.9   84.0 35.9           0        0 124
## 2438 2438  65      1     3       1  170.5   78.0 26.8           1        0 140
## 2439 2439  61      0     1       0  171.8   66.2 22.4           1        0 135
## 2440 2440  61      1     3       1  169.2   86.4 30.2           0        0 112
## 2441 2441  63      1     1       0  172.2   69.8 23.5           1        0 134
## 2442 2442  59      1     1       1  155.2   79.2 32.9           1        0 137
## 2443 2443  70      0     1       1  168.4   77.7 27.4           1        0 144
## 2444 2444  65      1     1       1  148.1   78.6 35.9           1        0 147
## 2445 2445  61      1     1       1  164.0   79.7 29.6           1        0 136
## 2446 2446  61      0     1       0  170.0   79.9 27.6           1        0 136
## 2447 2447  63      0     1       0  176.4   84.1 27.0           1        0 140
## 2448 2448  57      1     1       1  168.4   76.5 27.0           0        1 116
## 2449 2449  58      1     1       0  176.7   85.7 27.4           1        0 138
## 2450 2450  58      0     1       0  177.3   91.8 29.2           0        0 121
## 2451 2451  66      0     1       0  172.1   75.3 25.4           1        0 141
## 2452 2452  62      1     1       1  168.6   88.2 31.0           1        0 134
## 2453 2453  60      1     3       2  167.4   85.2 30.4           0        0 123
## 2454 2454  65      1     2       1  162.5   65.1 24.7           1        0 140
## 2455 2455  58      0     4       1  166.6   75.5 27.2           1        0 131
## 2456 2456  62      1     3       0  174.0   78.1 25.8           0        0 119
## 2457 2457  70      1     1       1  167.2   70.2 25.1           1        0 143
## 2458 2458  57      0     1       2  173.8   88.2 29.2           0        0 127
## 2459 2459  64      1     1       0  169.3   69.0 24.1           0        0 129
## 2460 2460  55      0     1       0  163.9   74.1 27.6           0        0 118
## 2461 2461  53      1     1       0  169.4   79.8 27.8           0        0 119
## 2462 2462  55      1     3       1  181.1   79.2 24.2           0        0 105
## 2463 2463  68      0     1       0  168.5   73.7 26.0           1        0 136
## 2464 2464  62      0     1       1  177.2   77.3 24.6           1        0 133
## 2465 2465  63      0     3       1  169.7   88.2 30.6           1        0 132
## 2466 2466  64      0     3       0  171.5   77.3 26.3           1        0 137
## 2467 2467  56      0     1       0  185.9   81.1 23.5           0        0 126
## 2468 2468  63      1     1       0  159.9   76.7 30.0           0        0 128
## 2469 2469  64      1     1       0  172.6   78.1 26.2           1        1 136
## 2470 2470  61      1     1       0  176.4   81.6 26.2           1        0 144
```

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## 2471 2471  64      0     1       0  176.7   90.1 28.9           1        1 139
## 2472 2472  60      1     1       1  178.2   83.2 26.2           0        0 121
## 2473 2473  53      0     1       0  165.8   69.5 25.3           0        0 115
## 2474 2474  64      1     1       1  172.7   71.1 23.8           1        0 136
## 2475 2475  64      1     1       0  167.2   90.2 32.3           1        1 135
## 2476 2476  67      1     1       1  179.9   84.0 26.0           1        1 144
## 2477 2477  59      1     1       0  174.2   88.2 29.1           1        0 139
## 2478 2478  64      0     1       1  168.4   77.8 27.4           1        0 139
## 2479 2479  61      0     3       0  165.9   94.3 34.2           1        0 131
## 2480 2480  57      1     1       0  168.3   78.7 27.8           0        0 126
## 2481 2481  55      0     1       0  163.9   70.4 26.2           1        0 133
## 2482 2482  50      1     1       2  172.6   76.6 25.7           0        0 123
## 2483 2483  50      0     1       2  175.1   78.3 25.5           0        0 117
## 2484 2484  65      0     1       0  159.7   75.1 29.4           0        1 121
## 2485 2485  53      1     3       0  174.1   73.2 24.1           0        1 126
## 2486 2486  60      0     4       0  160.1   78.0 30.4           1        0 135
## 2487 2487  56      1     3       1  176.4   77.2 24.8           1        1 136
## 2488 2488  63      1     2       0  185.5   76.4 22.2           1        0 131
## 2489 2489  57      0     4       1  164.6   77.6 28.7           1        1 135
## 2490 2490  64      0     4       1  164.1   81.9 30.4           1        0 134
## 2491 2491  61      0     1       0  168.9   87.8 30.8           0        0 130
## 2492 2492  59      1     4       1  167.6   76.5 27.3           0        0 118
## 2493 2493  57      0     3       1  178.1   80.3 25.3           1        0 137
## 2494 2494  63      1     2       1  165.1   72.8 26.7           1        0 134
## 2495 2495  56      1     1       0  173.7   88.8 29.4           0        0 110
## 2496 2496  55      1     3       1  174.7   76.5 25.0           1        0 138
## 2497 2497  68      1     1       0  172.8   76.0 25.5           1        0 132
## 2498 2498  65      1     3       0  154.0   75.7 31.9           0        0 124
## 2499 2499  61      0     3       0  179.4   90.6 28.1           1        0 135
## 2500 2500  57      0     3       0  167.4   82.8 29.5           1        0 131
## 2501 2501  63      0     4       0  172.9   88.6 29.6           1        1 132
## 2502 2502  57      0     1       0  177.8   68.7 21.7           1        0 137
## 2503 2503  56      0     1       0  169.2   78.5 27.4           0        1 122
## 2504 2504  62      0     4       2  174.6   79.1 25.9           1        0 132
## 2505 2505  63      0     4       1  167.3   76.0 27.2           0        0 119
## 2506 2506  63      1     4       2  170.4   86.0 29.6           1        1 131
## 2507 2507  60      1     1       2  177.9   78.9 25.0           1        0 135
## 2508 2508  61      1     3       0  180.9   84.3 25.8           1        0 133
## 2509 2509  59      1     1       0  166.7   75.4 27.2           1        0 139
## 2510 2510  66      1     3       0  161.0   60.9 23.5           1        0 141
## 2511 2511  62      0     2       1  165.7   72.7 26.5           1        0 134
## 2512 2512  61      1     1       0  161.4   81.5 31.3           0        0 130
## 2513 2513  54      0     1       0  163.9   72.3 26.9           0        0 129
## 2514 2514  63      1     4       1  164.4   70.6 26.1           1        0 131
## 2515 2515  56      0     3       1  184.5   92.7 27.2           1        0 131
## 2516 2516  63      0     1       1  155.7   72.2 29.8           1        0 139
## 2517 2517  65      1     1       0  169.0   77.9 27.3           1        1 131
## 2518 2518  55      0     1       1  174.6   77.4 25.4           0        0 119
## 2519 2519  52      0     4       0  172.3   84.6 28.5           0        0 126
## 2520 2520  63      0     1       0  163.6   76.0 28.4           0        0 124
## 2521 2521  59      1     1       0  166.1   88.9 32.2           1        0 133
## 2522 2522  58      1     1       0  167.4   77.2 27.6           1        0 139
## 2523 2523  54      1     1       1  170.1   86.7 30.0           1        1 138
## 2524 2524  60      1     3       1  158.2   67.8 27.1           0        0 128
```

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## 2525 2525  53      0     4       0  165.3   79.1 29.0           1        0 136
## 2526 2526  61      0     1       0  163.5   74.9 28.0           0        0 123
## 2527 2527  60      1     1       0  173.8   80.8 26.7           1        0 136
## 2528 2528  60      0     1       1  176.4   77.8 25.0           0        0 119
## 2529 2529  63      1     2       0  176.5   78.2 25.1           1        0 143
## 2530 2530  62      0     1       0  168.6   88.3 31.1           0        0 129
## 2531 2531  59      0     1       0  167.7   76.1 27.1           0        0 126
## 2532 2532  67      0     1       2  170.8   80.3 27.5           1        0 136
## 2533 2533  64      1     1       1  167.7   71.1 25.3           1        0 135
## 2534 2534  56      1     1       0  184.9   75.8 22.2           1        0 131
## 2535 2535  50      1     1       0  165.4   85.2 31.1           0        0 122
## 2536 2536  61      1     1       0  176.4   87.1 28.0           0        0 126
## 2537 2537  59      0     2       0  159.1   68.9 27.2           1        0 135
## 2538 2538  70      0     3       1  180.4   74.1 22.8           0        0 129
## 2539 2539  59      1     3       0  167.1   70.8 25.4           0        0 120
## 2540 2540  57      0     3       2  171.4   80.4 27.4           0        0 126
## 2541 2541  49      0     1       0  171.2   80.8 27.6           0        0 126
## 2542 2542  61      1     4       1  173.3   72.2 24.0           0        0 126
## 2543 2543  60      1     3       1  165.0   80.3 29.5           0        0 125
## 2544 2544  56      1     1       0  172.5   77.3 26.0           0        0 128
## 2545 2545  59      0     1       1  157.8   74.5 29.9           0        0 119
## 2546 2546  52      0     3       1  177.9   71.4 22.6           0        1 126
## 2547 2547  66      0     3       0  166.4   82.6 29.8           0        0 130
## 2548 2548  58      1     4       0  176.5   72.3 23.2           1        0 143
## 2549 2549  60      1     1       0  168.4   85.5 30.2           0        0 121
## 2550 2550  55      1     1       1  171.9   77.6 26.2           0        0 126
## 2551 2551  60      1     1       0  172.1   85.5 28.9           1        0 134
## 2552 2552  59      1     1       2  179.8   81.6 25.2           1        0 131
## 2553 2553  60      1     1       1  181.3   91.0 27.7           0        1 128
## 2554 2554  58      0     1       1  170.4   90.4 31.1           0        0 122
## 2555 2555  61      1     3       0  168.9   70.9 24.9           1        0 133
## 2556 2556  61      1     1       1  172.1   64.6 21.8           0        0 125
## 2557 2557  65      1     1       0  170.3   79.8 27.5           1        1 140
## 2558 2558  65      0     1       1  167.8   92.9 33.0           0        0 129
## 2559 2559  66      0     1       0  155.0   87.6 36.4           1        0 139
## 2560 2560  57      1     1       1  165.8   68.1 24.8           0        0 112
## 2561 2561  52      1     1       0  161.4   81.3 31.2           0        1 115
## 2562 2562  62      1     1       0  167.8   89.6 31.8           0        0 118
## 2563 2563  60      1     3       1  179.6   85.3 26.4           0        0 124
## 2564 2564  57      1     3       1  175.0   89.8 29.3           1        1 139
## 2565 2565  59      1     3       0  168.1   86.8 30.7           0        0 118
## 2566 2566  57      0     3       0  173.8   75.6 25.0           0        1 126
## 2567 2567  61      0     4       1  164.6   79.9 29.5           1        0 138
## 2568 2568  68      0     1       0  173.8   69.2 22.9           0        0 129
## 2569 2569  65      1     2       0  182.3   81.9 24.7           1        0 141
## 2570 2570  62      0     1       0  168.6   77.3 27.2           1        0 131
## 2571 2571  61      1     1       1  173.1   74.4 24.8           0        0 130
## 2572 2572  54      0     3       0  170.5   79.4 27.3           0        1 119
## 2573 2573  57      0     1       0  168.7   78.1 27.5           0        0 126
## 2574 2574  54      1     4       0  162.8   75.1 28.3           1        0 132
## 2575 2575  57      0     1       0  165.0   78.2 28.7           0        0 117
## 2576 2576  62      0     1       0  166.5   84.3 30.4           0        0 126
## 2577 2577  58      0     1       1  169.4   79.4 27.6           1        1 132
## 2578 2578  65      0     1       0  172.2   82.4 27.8           0        0 127
```

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## 2579 2579  61      1     1       1  170.4   88.8 30.6            1         0 144
## 2580 2580  62      1     1       0  166.9   94.7 34.0            1         1 131
## 2581 2581  58      1     3       0  171.2   78.1 26.7            1         0 134
## 2582 2582  61      1     1       2  174.2   93.4 30.8            1         1 138
## 2583 2583  58      1     1       0  167.8   81.3 28.9            1         0 132
## 2584 2584  64      1     1       1  163.6   81.4 30.4            1         0 135
## 2585 2585  59      1     3       0  176.1   77.4 25.0            1         0 133
## 2586 2586  57      1     3       1  173.3   87.0 29.0            1         0 140
## 2587 2587  62      1     1       0  163.1   83.8 31.5            1         0 139
## 2588 2588  55      1     1       0  172.3   90.5 30.5            0         0 122
## 2589 2589  63      0     1       0  169.6   74.1 25.8            1         0 139
## 2590 2590  59      1     1       0  166.6   72.7 26.2            1         0 131
## 2591 2591  60      0     1       1  172.5   93.1 31.3            0         0 126
## 2592 2592  59      1     3       0  167.1   85.1 30.5            0         0 115
## 2593 2593  49      1     1       0  171.8   67.9 23.0            0         1 121
## 2594 2594  54      0     1       0  170.1   62.6 21.6            0         0 115
## 2595 2595  61      0     1       1  166.4   71.7 25.9            1         0 143
## 2596 2596  58      0     3       2  178.7   92.4 28.9            0         0 127
## 2597 2597  67      0     1       1  171.5   83.2 28.3            1         0 138
## 2598 2598  63      1     4       0  157.5   73.8 29.8            0         1 128
## 2599 2599  58      0     1       2  168.1   77.8 27.5            0         0 130
## 2600 2600  66      1     1       1  176.8   93.1 29.8            1         0 136
## 2601 2601  60      0     1       0  167.4   75.8 27.1            1         0 138
## 2602 2602  58      1     1       0  168.7   78.9 27.7            0         0 130
## 2603 2603  58      1     3       1  171.1   86.3 29.5            1         0 144
## 2604 2604  61      1     4       1  176.4   79.5 25.5            1         0 140
## 2605 2605  65      1     1       1  170.8   74.8 25.6            1         0 132
## 2606 2606  63      1     3       0  171.9   69.7 23.6            1         0 144
## 2607 2607  63      1     1       0  169.6   73.0 25.4            0         0 128
## 2608 2608  61      1     1       0  174.4   82.9 27.2            1         0 139
## 2609 2609  58      0     1       0  168.7   76.0 26.7            0         0 129
## 2610 2610  60      1     1       0  168.7   74.6 26.2            0         0 116
## 2611 2611  56      1     3       1  176.7   79.4 25.5            0         0 129
## 2612 2612  65      0     1       0  178.3   86.5 27.2            0         0 126
## 2613 2613  58      0     4       0  167.2   70.8 25.3            0         0 124
## 2614 2614  64      1     1       0  149.2   78.5 35.3            0         0 126
## 2615 2615  54      0     1       0  167.0   74.4 26.7            0         0 121
## 2616 2616  52      1     3       0  165.8   72.7 26.5            0         0 110
## 2617 2617  59      1     1       1  167.8   65.6 23.3            1         1 133
## 2618 2618  54      0     1       1  166.4   82.7 29.8            0         0 121
## 2619 2619  56      1     1       2  175.8   83.9 27.2            1         0 138
## 2620 2620  65      1     1       2  177.9   68.1 21.5            1         0 133
## 2621 2621  60      0     1       2  163.6   74.4 27.8            0         0 128
## 2622 2622  58      1     3       1  164.2   80.5 29.9            1         1 134
## 2623 2623  57      1     3       1  177.7   80.9 25.6            0         0 122
## 2624 2624  62      0     3       2  164.3   79.0 29.3            1         0 133
## 2625 2625  64      0     3       1  172.8   76.8 25.7            1         0 135
## 2626 2626  60      0     1       1  171.4   76.8 26.1            0         0 127
## 2627 2627  58      0     3       1  159.6   75.2 29.5            1         1 144
## 2628 2628  58      0     1       0  174.4   75.3 24.8            1         0 147
## 2629 2629  55      1     2       1  170.5   85.9 29.5            0         0 130
## 2630 2630  64      0     4       0  178.9   89.2 27.9            1         0 132
## 2631 2631  55      1     1       0  170.7   71.9 24.7            0         0 122
## 2632 2632  58      1     4       1  163.5   73.3 27.4            1         0 139
```

```
## 2633 2633  61      0     4       0  166.0   79.5 28.8          1        0 131
## 2634 2634  62      1     1       0  168.0   69.7 24.7          1        0 132
## 2635 2635  56      1     3       0  169.2   84.4 29.5          0        0 122
## 2636 2636  63      1     3       1  174.5   80.8 26.5          1        0 143
## 2637 2637  59      1     4       1  172.5   75.6 25.4          0        0 120
## 2638 2638  62      0     1       0  168.2   71.2 25.2          1        0 145
## 2639 2639  62      0     4       1  176.2   77.8 25.1          1        0 131
## 2640 2640  57      1     1       0  171.2   74.8 25.5          1        0 132
## 2641 2641  65      1     1       0  168.8   89.3 31.3          0        0 129
## 2642 2642  67      0     1       0  163.6   77.2 28.9          1        0 141
## 2643 2643  64      1     3       0  165.5   89.1 32.5          0        0 130
## 2644 2644  61      0     1       0  171.0   82.5 28.2          1        0 144
## 2645 2645  55      1     2       0  173.3   75.7 25.2          0        0 126
## 2646 2646  52      0     1       1  168.2   84.5 29.9          0        0 113
## 2647 2647  68      1     1       1  172.8   88.3 29.5          1        0 137
## 2648 2648  56      0     1       0  180.1   78.5 24.2          1        0 133
## 2649 2649  56      1     1       1  173.5   81.5 27.0          0        0 115
## 2650 2650  77      0     2       1  167.1   80.6 28.8          1        0 142
## 2651 2651  61      1     1       1  156.9   65.6 26.6          0        1 126
## 2652 2652  67      0     1       0  163.8   70.5 26.3          0        0 124
## 2653 2653  61      0     1       1  164.5   82.2 30.4          1        0 131
## 2654 2654  53      1     1       2  167.0   75.7 27.2          0        0 124
## 2655 2655  58      1     1       1  173.9   90.1 29.8          0        0 124
## 2656 2656  64      1     1       0  173.2   79.7 26.6          1        0 133
## 2657 2657  66      0     1       1  163.8   59.1 22.0          1        0 131
## 2658 2658  58      1     1       0  174.3   84.1 27.7          1        0 134
## 2659 2659  70      0     1       0  175.5   97.2 31.6          1        0 136
## 2660 2660  53      1     1       0  166.5   83.0 29.9          0        0 118
## 2661 2661  62      1     4       1  166.2   65.9 23.9          0        0 124
## 2662 2662  56      1     3       2  168.6   88.2 31.0          0        0 122
## 2663 2663  57      1     1       2  182.8   91.2 27.3          0        0 124
## 2664 2664  63      0     1       1  171.4   83.8 28.5          1        0 139
## 2665 2665  63      1     3       0  165.6   80.0 29.2          1        0 135
## 2666 2666  58      1     1       1  167.4   68.3 24.4          0        0 130
## 2667 2667  62      0     3       0  169.5   88.9 30.9          1        0 139
## 2668 2668  54      1     3       1  171.7   79.7 27.0          0        0 126
## 2669 2669  60      0     1       0  163.5   73.0 27.3          1        0 137
## 2670 2670  56      0     1       0  170.9   73.8 25.3          0        0 122
## 2671 2671  63      1     1       0  172.6   83.2 27.9          1        0 135
## 2672 2672  64      0     1       2  164.4   82.1 30.4          0        0 127
## 2673 2673  61      0     4       0  160.8   72.9 28.2          1        0 135
## 2674 2674  60      0     1       0  174.5   82.5 27.1          1        0 142
## 2675 2675  66      1     1       0  177.1   79.7 25.4          1        0 145
## 2676 2676  65      0     1       0  173.2   78.4 26.1          0        0 127
## 2677 2677  63      1     1       0  172.7   96.9 32.5          1        0 135
## 2678 2678  65      1     3       0  172.0   80.2 27.1          1        0 141
## 2679 2679  60      0     1       2  168.9   86.2 30.2          1        0 149
## 2680 2680  63      0     3       0  165.3   88.5 32.4          0        0 129
## 2681 2681  58      1     1       0  175.7   69.2 22.4          0        0 130
## 2682 2682  60      1     2       0  173.3   71.1 23.7          0        0 126
## 2683 2683  61      1     1       0  164.0   87.0 32.4          0        0 127
## 2684 2684  53      0     1       0  154.2   78.3 32.9          0        0 118
## 2685 2685  73      0     1       1  170.3   79.0 27.2          1        0 138
## 2686 2686  59      0     1       0  172.8   79.2 26.5          1        0 133
```

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## 2687 2687  66      0     1       0  164.0   66.3 24.7           1        0 134
## 2688 2688  59      1     3       0  169.5   80.2 27.9           1        0 138
## 2689 2689  63      1     1       0  173.1   81.0 27.0           0        1 127
## 2690 2690  55      0     1       0  165.2   66.8 24.5           0        1 130
## 2691 2691  58      0     3       0  170.5   80.1 27.5           0        0 124
## 2692 2692  58      0     3       1  172.2   87.2 29.4           0        0 123
## 2693 2693  59      0     4       0  155.8   80.8 33.3           0        0 122
## 2694 2694  62      1     1       0  165.3   87.8 32.1           1        1 131
## 2695 2695  57      0     3       0  175.4   82.5 26.8           1        1 133
## 2696 2696  58      0     1       0  170.8   89.7 30.8           0        1 110
## 2697 2697  53      1     3       0  173.6   84.1 27.9           0        0 121
## 2698 2698  59      0     4       0  174.4   90.3 29.7           1        0 136
## 2699 2699  59      0     1       1  176.4   79.7 25.6           1        0 131
## 2700 2700  59      1     1       0  162.9   60.5 22.8           0        0 130
## 2701 2701  59      0     1       1  170.1   80.4 27.8           0        0 126
## 2702 2702  51      0     1       1  164.1   67.9 25.2           0        1 114
## 2703 2703  55      0     2       2  173.5   74.1 24.6           0        0 126
## 2704 2704  63      0     2       0  166.1   78.4 28.4           1        0 136
## 2705 2705  63      1     1       0  169.3   88.2 30.8           1        0 141
## 2706 2706  65      0     1       1  173.3   81.4 27.1           1        0 134
## 2707 2707  63      0     4       0  162.5   93.1 35.2           0        0 128
## 2708 2708  63      0     1       2  168.4   88.3 31.1           0        0 130
## 2709 2709  66      1     1       0  176.6   84.6 27.1           0        0 125
## 2710 2710  61      1     1       1  157.3   79.4 32.1           1        0 132
## 2711 2711  64      0     1       0  166.8   79.0 28.4           0        0 130
## 2712 2712  68      1     1       2  170.3   82.9 28.6           1        1 137
## 2713 2713  61      0     3       0  172.9   86.5 28.9           0        0 121
## 2714 2714  65      1     1       0  169.3   83.8 29.2           1        1 132
## 2715 2715  61      0     1       0  174.4   89.2 29.3           0        0 118
## 2716 2716  59      1     3       0  164.8   84.7 31.2           0        1 124
## 2717 2717  60      0     1       1  168.6   73.4 25.8           0        0 129
## 2718 2718  69      1     3       0  178.8   93.7 29.3           1        1 134
## 2719 2719  61      1     3       0  176.7   87.7 28.1           0        0 128
## 2720 2720  58      1     3       1  173.5   77.5 25.7           0        0 124
## 2721 2721  64      0     1       1  165.1   87.9 32.2           1        0 138
## 2722 2722  58      0     3       2  178.8   95.6 29.9           0        1 127
## 2723 2723  63      1     1       1  172.8   74.9 25.1           1        0 136
## 2724 2724  57      0     3       1  175.6   83.1 27.0           0        0 125
## 2725 2725  61      1     1       0  175.5   95.7 31.1           0        0 129
## 2726 2726  57      0     1       0  170.1   85.2 29.4           0        0 130
## 2727 2727  61      1     1       0  176.7   83.1 26.6           1        0 131
## 2728 2728  66      1     2       1  177.9   86.2 27.2           1        0 140
## 2729 2729  63      0     1       1  175.1   78.8 25.7           1        0 134
## 2730 2730  71      1     1       0  170.3   75.5 26.0           1        1 147
## 2731 2731  58      0     3       1  160.8   75.5 29.2           1        0 135
## 2732 2732  53      0     1       1  174.5   84.6 27.8           0        0 121
## 2733 2733  62      0     1       0  167.6   80.4 28.6           0        0 128
## 2734 2734  62      0     1       0  162.1   84.1 32.0           1        0 136
## 2735 2735  64      0     4       0  176.7   81.3 26.0           1        0 135
## 2736 2736  69      1     1       0  162.3   71.3 27.1           1        0 140
## 2737 2737  60      1     1       1  176.9   76.0 24.3           1        0 137
## 2738 2738  59      0     1       2  169.6   69.9 24.3           0        0 121
## 2739 2739  63      1     1       0  177.2   84.8 27.0           1        0 135
## 2740 2740  59      1     1       0  171.6   83.1 28.2           0        1 129
```

```
## 2741 2741  67      0     1       2  168.9   75.5 26.5           0         0 128
## 2742 2742  58      0     1       0  173.5   80.4 26.7           0         0 114
## 2743 2743  65      1     1       0  181.0   90.4 27.6           1         0 139
## 2744 2744  57      0     1       0  184.2   81.4 24.0           0         0 119
## 2745 2745  61      0     3       1  171.4   81.3 27.7           1         0 134
## 2746 2746  68      0     2       0  174.0   83.3 27.5           1         1 131
## 2747 2747  56      1     3       0  175.9   85.9 27.8           0         0 127
## 2748 2748  59      0     1       1  167.4   75.1 26.8           1         0 137
## 2749 2749  53      0     1       1  170.5   77.4 26.6           0         0 128
## 2750 2750  60      1     4       1  169.7   86.0 29.9           1         0 135
## 2751 2751  63      0     1       1  181.1   84.2 25.7           1         1 139
## 2752 2752  58      1     2       0  170.3   76.2 26.3           0         0 127
## 2753 2753  67      1     1       1  180.3   97.0 29.8           1         0 146
## 2754 2754  58      1     1       0  169.6   68.8 23.9           0         0 125
## 2755 2755  59      1     1       2  184.7   76.1 22.3           1         0 133
## 2756 2756  65      1     1       0  164.1   68.5 25.5           1         0 142
## 2757 2757  62      1     3       1  166.6   78.0 28.1           0         0 119
## 2758 2758  62      0     1       1  182.5   63.9 19.2           1         0 140
## 2759 2759  62      0     3       2  169.0   74.7 26.2           0         1 122
## 2760 2760  53      1     1       1  180.0   87.1 26.9           0         0 118
## 2761 2761  58      1     3       0  169.3   84.5 29.5           0         0 121
## 2762 2762  57      1     3       1  180.4   90.6 27.8           1         0 131
## 2763 2763  60      0     1       0  166.1   67.3 24.4           0         0 119
## 2764 2764  61      0     2       2  161.4   79.6 30.6           0         1 129
## 2765 2765  56      0     1       0  175.3   81.4 26.5           1         1 142
## 2766 2766  58      1     1       1  182.8   83.9 25.1           1         1 141
## 2767 2767  67      0     4       1  169.4   80.3 28.0           1         0 135
## 2768 2768  59      1     4       0  172.7   71.8 24.1           0         0 127
## 2769 2769  53      0     3       1  159.0   80.2 31.7           1         0 132
## 2770 2770  53      1     1       0  172.3   75.0 25.3           1         0 141
## 2771 2771  54      0     3       1  170.1   84.7 29.3           0         0 113
## 2772 2772  54      1     1       0  169.0   78.9 27.6           0         1 124
## 2773 2773  62      0     1       0  170.1   80.2 27.7           1         0 146
## 2774 2774  64      0     1       0  170.4   79.2 27.2           1         1 133
## 2775 2775  53      0     1       0  170.1   84.7 29.3           0         0 127
## 2776 2776  58      0     1       0  168.4   76.6 27.0           0         0 125
## 2777 2777  56      1     1       0  174.8   87.0 28.5           0         0 114
## 2778 2778  65      1     1       1  173.1   73.6 24.6           1         0 136
## 2779 2779  58      1     3       0  173.7   66.9 22.2           0         0 127
## 2780 2780  57      1     3       1  164.0   90.2 33.5           0         0 122
## 2781 2781  73      0     1       0  175.7   68.2 22.1           0         0 129
## 2782 2782  63      1     1       0  175.9   83.7 27.0           1         1 139
## 2783 2783  59      1     1       0  165.3   74.4 27.2           1         0 133
## 2784 2784  55      0     1       0  169.2   84.7 29.6           0         0 125
## 2785 2785  55      1     1       0  172.2   75.9 25.6           1         1 138
## 2786 2786  66      1     4       0  170.1   89.3 30.9           0         0 127
## 2787 2787  62      1     1       1  172.9   84.9 28.4           1         0 138
## 2788 2788  65      0     4       0  181.8   79.1 23.9           1         0 138
## 2789 2789  53      0     1       1  166.2   75.2 27.2           1         1 131
## 2790 2790  57      0     1       1  166.9   81.5 29.3           0         0 125
## 2791 2791  61      1     1       1  161.6   77.3 29.6           1         0 139
## 2792 2792  60      0     3       1  174.7   81.0 26.5           1         0 141
## 2793 2793  67      1     1       1  169.1   76.5 26.7           0         0 122
## 2794 2794  59      0     1       0  169.5   80.0 27.9           0         0 127
```

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## 2795 2795  62      1     1        0  159.5   82.6 32.5            0         0 128
## 2796 2796  62      0     1        1  164.4   73.6 27.2            1         0 132
## 2797 2797  58      1     1        0  172.8   82.6 27.7            1         0 138
## 2798 2798  60      1     1        0  166.9   80.5 28.9            0         0 115
## 2799 2799  51      0     4        1  161.5   75.2 28.8            0         0 120
## 2800 2800  60      0     1        2  165.5   78.0 28.5            1         0 137
## 2801 2801  61      1     1        0  174.8   85.2 27.9            1         0 135
## 2802 2802  57      0     1        0  167.1   84.1 30.1            0         1 130
## 2803 2803  62      1     1        0  172.5   73.3 24.7            0         1 105
## 2804 2804  70      1     3        0  163.8   81.6 30.4            1         0 147
## 2805 2805  66      0     1        0  178.8   87.9 27.5            0         0 125
## 2806 2806  61      0     1        0  176.8   68.7 22.0            1         0 133
## 2807 2807  63      0     1        1  168.1   94.2 33.4            0         0 124
## 2808 2808  67      0     1        0  163.5   73.0 27.3            1         0 135
## 2809 2809  60      1     1        0  173.9   84.4 27.9            0         0 128
## 2810 2810  67      1     2        0  176.4   79.9 25.7            1         0 147
## 2811 2811  57      0     4        0  173.9   78.2 25.9            1         0 137
## 2812 2812  64      1     4        0  177.5   82.6 26.2            1         0 133
## 2813 2813  55      1     1        0  166.6   72.8 26.2            0         0 128
## 2814 2814  60      0     2        1  169.0   93.5 32.7            1         0 135
## 2815 2815  60      0     1        0  168.4   82.1 29.0            0         0 129
## 2816 2816  53      0     1        0  178.4   90.3 28.4            0         0 128
## 2817 2817  64      0     2        1  156.7   88.9 36.2            0         0 128
## 2818 2818  55      1     1        0  166.8   70.6 25.4            0         0 128
## 2819 2819  57      0     1        0  176.8   80.5 25.7            1         0 132
## 2820 2820  60      0     1        1  167.7   83.8 29.8            1         0 132
## 2821 2821  58      0     1        0  177.2   69.1 22.0            1         1 131
## 2822 2822  66      1     3        0  165.1   69.3 25.4            1         0 137
## 2823 2823  60      1     4        0  166.5   72.6 26.2            1         0 136
## 2824 2824  50      1     1        0  172.8   94.2 31.6            0         0 127
## 2825 2825  63      0     4        0  165.8   82.0 29.8            0         0 130
## 2826 2826  54      1     1        0  163.1   84.2 31.7            0         0 127
## 2827 2827  60      1     1        0  176.0   89.1 28.7            1         0 138
## 2828 2828  58      0     3        1  170.4   84.7 29.2            0         0 129
## 2829 2829  59      0     3        0  170.0   81.2 28.1            0         1 125
## 2830 2830  61      1     1        0  168.9   81.8 28.7            0         0 126
## 2831 2831  56      1     3        0  169.6   81.4 28.3            0         0 129
## 2832 2832  48      0     2        0  166.8   82.3 29.6            0         1 123
## 2833 2833  56      0     1        0  164.4   80.9 29.9            0         0 126
## 2834 2834  61      1     1        1  175.4   73.4 23.9            0         0 125
## 2835 2835  56      1     3        1  174.8   82.7 27.1            0         0 128
## 2836 2836  50      0     1        0  160.7   79.2 30.6            1         0 133
## 2837 2837  60      1     1        1  168.1   84.2 29.8            0         0 123
## 2838 2838  65      1     3        1  171.1   81.0 27.7            1         0 134
## 2839 2839  64      1     1        2  158.9   81.1 32.1            0         0 127
## 2840 2840  59      1     1        2  169.9   78.7 27.3            0         0 129
## 2841 2841  67      0     1        0  175.9   85.0 27.5            1         0 133
## 2842 2842  56      0     4        0  175.5   89.3 29.0            0         0 123
## 2843 2843  67      1     1        0  169.9   77.4 26.8            1         0 142
## 2844 2844  57      1     2        0  174.6   87.5 28.7            1         0 146
## 2845 2845  58      0     1        1  158.2   70.6 28.2            0         0 127
## 2846 2846  62      1     1        2  170.0   68.3 23.6            0         0 124
## 2847 2847  53      0     1        0  165.6   86.2 31.5            0         0 126
## 2848 2848  53      0     3        0  166.0   77.8 28.3            0         0 124
```

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## 2849 2849  65      0     1       0  164.6   65.7 24.2            1        0 140
## 2850 2850  54      1     1       0  167.8   73.2 26.0            1        1 132
## 2851 2851  68      1     3       2  175.3   87.7 28.6            0        0 130
## 2852 2852  64      0     1       0  172.8   68.6 23.0            0        0 123
## 2853 2853  58      0     3       0  169.6   80.4 28.0            1        0 136
## 2854 2854  67      0     3       0  174.7   83.7 27.4            1        1 138
## 2855 2855  60      1     3       0  169.8   89.2 30.9            0        0 124
## 2856 2856  56      1     1       2  163.5   87.7 32.8            0        0 130
## 2857 2857  53      0     4       2  176.7   78.2 25.1            0        1 128
## 2858 2858  63      0     1       0  171.8   84.6 28.6            1        0 136
## 2859 2859  63      0     4       2  172.9   81.7 27.3            1        0 141
## 2860 2860  69      0     1       2  165.0   73.1 26.8            0        0 128
## 2861 2861  66      0     1       2  174.5   76.6 25.2            1        0 140
## 2862 2862  63      1     1       1  175.2   88.3 28.8            1        0 138
## 2863 2863  62      0     3       1  181.7   87.2 26.4            1        0 152
## 2864 2864  64      0     1       0  173.1   67.2 22.4            1        0 145
## 2865 2865  51      1     3       2  168.2   82.8 29.3            0        0 125
## 2866 2866  52      1     2       0  177.8   80.6 25.5            0        0 115
## 2867 2867  61      0     1       0  170.2   66.0 22.8            1        0 132
## 2868 2868  61      1     1       0  179.5   80.6 25.0            0        0 129
## 2869 2869  63      1     1       2  177.4   77.8 24.7            0        0 122
## 2870 2870  64      0     1       0  171.0   73.8 25.3            1        0 135
## 2871 2871  56      0     1       0  176.6   80.6 25.9            0        1 130
## 2872 2872  54      1     1       0  166.2   78.7 28.5            0        0 118
## 2873 2873  64      0     3       2  183.6   83.3 24.7            1        0 142
## 2874 2874  56      1     4       0  170.3   79.5 27.4            0        0 124
## 2875 2875  49      0     3       0  163.7   68.3 25.5            0        0 122
## 2876 2876  57      1     1       0  172.2   74.8 25.2            0        0 128
## 2877 2877  64      1     1       0  178.1   81.5 25.7            1        0 134
## 2878 2878  52      1     1       1  165.1   88.3 32.4            1        0 135
## 2879 2879  57      1     1       0  163.9   75.6 28.1            0        0 110
## 2880 2880  67      0     1       1  165.4   66.6 24.4            1        1 141
## 2881 2881  59      1     1       0  163.7   89.3 33.3            0        0 130
## 2882 2882  66      1     1       1  169.9   86.3 29.9            1        1 139
## 2883 2883  63      1     1       1  176.6   81.6 26.2            1        0 141
## 2884 2884  56      0     1       0  172.4   78.6 26.5            0        0 127
## 2885 2885  57      0     1       0  169.7   87.3 30.3            0        1 116
## 2886 2886  74      0     3       2  165.4   78.1 28.6            1        0 141
## 2887 2887  63      0     4       0  163.2   84.4 31.7            1        1 131
## 2888 2888  60      0     3       0  156.3   69.8 28.6            0        1 116
## 2889 2889  63      0     1       0  170.4   83.2 28.7            1        0 133
## 2890 2890  62      1     1       0  180.6   74.2 22.7            0        0 126
## 2891 2891  57      1     1       1  170.8   73.2 25.1            0        0 126
## 2892 2892  61      1     2       0  157.4   81.6 32.9            1        0 132
## 2893 2893  57      1     1       0  177.0   78.2 24.9            0        1 130
## 2894 2894  54      0     1       0  170.8   81.8 28.0            0        0 125
## 2895 2895  64      0     1       1  178.3   83.9 26.4            0        0 127
## 2896 2896  63      0     1       2  174.8   84.1 27.5            1        0 136
## 2897 2897  62      1     1       2  160.3   63.8 24.8            1        0 139
## 2898 2898  59      0     3       1  163.2   71.8 26.9            0        0 126
## 2899 2899  66      0     4       0  169.3   69.3 24.2            1        0 139
## 2900 2900  62      1     2       0  171.2   79.7 27.2            1        0 137
## 2901 2901  60      1     3       1  167.4   72.6 25.9            1        0 145
## 2902 2902  63      0     1       0  166.7   77.8 28.0            1        0 137
```

```
## 2903 2903  54      1     1        0  172.5   63.3 21.3            0         0 118
## 2904 2904  64      1     4        2  172.7   82.1 27.5            1         0 131
## 2905 2905  59      1     1        0  170.7   74.2 25.5            0         0 129
## 2906 2906  56      1     1        1  173.0   84.7 28.3            1         0 132
## 2907 2907  56      0     1        0  174.4   92.4 30.4            0         0 129
## 2908 2908  54      1     3        0  172.6   88.2 29.6            0         0 125
## 2909 2909  55      1     1        2  159.6   79.8 31.3            0         0 125
## 2910 2910  55      1     1        0  170.2   77.9 26.9            0         0 115
## 2911 2911  59      0     1        1  168.4   59.1 20.9            0         0 128
## 2912 2912  60      0     1        1  168.8   80.2 28.1            1         1 131
## 2913 2913  55      1     3        0  161.9   66.2 25.3            0         0 128
## 2914 2914  66      1     1        1  170.3   67.9 23.4            1         0 141
## 2915 2915  63      0     1        0  176.4   82.5 26.5            0         0 130
## 2916 2916  58      0     1        1  164.3   85.1 31.5            0         0 128
## 2917 2917  59      0     1        0  174.7   74.4 24.4            0         0 123
## 2918 2918  64      1     3        0  173.4   84.6 28.2            0         0 127
## 2919 2919  59      0     3        2  173.4   80.9 26.9            0         0 115
## 2920 2920  55      1     3        0  172.2   91.5 30.9            0         1 124
## 2921 2921  63      0     1        2  169.1   77.4 27.0            0         0 129
## 2922 2922  57      0     1        1  173.7   91.0 30.2            0         0 120
## 2923 2923  59      1     1        0  158.5   72.8 29.0            0         0 126
## 2924 2924  60      0     3        2  168.2   79.4 28.0            0         0 116
## 2925 2925  58      0     3        1  169.3   67.3 23.5            0         0 117
## 2926 2926  59      1     2        0  166.2   71.9 26.0            1         0 133
## 2927 2927  62      0     1        0  167.3   83.7 29.9            1         0 131
## 2928 2928  61      0     1        0  166.8   68.3 24.6            0         0 118
## 2929 2929  54      0     1        0  164.9   75.7 27.8            0         0 108
## 2930 2930  54      1     1        0  169.0   86.0 30.1            0         0 127
## 2931 2931  61      0     1        1  169.4   90.6 31.6            0         0 114
## 2932 2932  70      0     2        0  162.9   86.4 32.5            1         0 133
## 2933 2933  57      1     1        2  170.8   92.4 31.7            1         0 136
## 2934 2934  57      1     4        0  171.6   83.6 28.4            0         1 129
## 2935 2935  64      0     1        1  173.5   84.2 28.0            1         1 135
## 2936 2936  62      0     1        1  167.1   79.0 28.3            1         0 133
## 2937 2937  62      1     3        0  165.7   68.4 24.9            0         0 128
## 2938 2938  61      1     1        0  160.5   73.7 28.6            0         0 129
## 2939 2939  57      1     3        2  178.6   87.8 27.5            0         0 126
## 2940 2940  56      1     1        0  169.9   95.6 33.1            0         0 124
## 2941 2941  61      0     3        1  178.9   68.6 21.4            1         0 134
## 2942 2942  63      0     1        0  166.6   82.1 29.6            1         0 133
## 2943 2943  62      0     1        1  177.2   87.0 27.7            0         0 118
## 2944 2944  62      1     4        1  171.2   86.5 29.5            0         1 129
## 2945 2945  66      0     3        0  170.7   61.9 21.2            1         1 140
## 2946 2946  58      0     4        1  167.4   81.7 29.2            0         1 122
## 2947 2947  60      0     3        0  165.3   84.7 31.0            0         0 127
## 2948 2948  59      1     1        0  175.8   71.2 23.0            0         0 124
## 2949 2949  65      0     1        1  175.4   70.2 22.8            0         0 127
## 2950 2950  56      0     1        0  169.0   81.1 28.4            0         0 120
## 2951 2951  54      1     1        1  164.6   78.1 28.8            0         0 130
## 2952 2952  53      1     3        0  160.9   74.2 28.7            1         0 134
## 2953 2953  60      0     1        2  178.5   92.6 29.1            0         0 127
## 2954 2954  59      1     1        2  170.9   76.7 26.3            1         0 135
## 2955 2955  65      1     4        1  186.2   84.4 24.4            0         0 130
## 2956 2956  68      0     1        0  165.5   83.1 30.3            0         0 125
```

```
## 2957 2957  47      0    1       0  176.9   79.2 25.3           0        0 124
## 2958 2958  61      0    1       0  171.4   91.8 31.2           1        0 138
## 2959 2959  65      0    1       1  165.7   78.6 28.6           1        0 137
## 2960 2960  65      1    1       1  171.1   80.5 27.5           0        0 127
## 2961 2961  67      0    2       0  170.1   75.8 26.2           0        1 123
## 2962 2962  64      1    1       2  175.8   72.3 23.4           0        0 123
## 2963 2963  67      1    1       1  168.7   80.4 28.2           1        1 137
## 2964 2964  75      0    1       1  170.9   74.3 25.4           1        0 144
## 2965 2965  62      0    1       0  164.2   82.1 30.4           0        0 130
## 2966 2966  60      1    1       2  159.8   82.5 32.3           1        0 133
## 2967 2967  63      1    1       0  164.5   87.6 32.3           1        0 133
## 2968 2968  59      0    1       0  158.3   83.9 33.5           0        0 130
## 2969 2969  61      1    1       0  177.2   79.5 25.3           0        0 128
## 2970 2970  57      0    1       0  168.5   76.2 26.8           0        0 130
## 2971 2971  60      0    1       1  170.8   77.5 26.5           1        0 133
## 2972 2972  63      1    1       1  167.0   70.9 25.4           1        0 133
## 2973 2973  66      1    3       1  163.1   76.4 28.7           1        0 136
## 2974 2974  51      1    1       0  159.6   66.9 26.3           0        0 125
## 2975 2975  66      1    1       0  164.0   93.5 34.8           1        0 134
## 2976 2976  60      0    3       0  163.4   81.1 30.4           0        0 122
## 2977 2977  64      0    1       0  167.6   88.5 31.5           1        0 135
## 2978 2978  64      0    1       2  171.7   74.5 25.3           0        0 127
## 2979 2979  58      0    1       0  170.8   86.4 29.6           1        0 131
## 2980 2980  66      1    1       0  171.6   86.2 29.3           0        0 129
## 2981 2981  58      1    1       0  168.5   90.3 31.8           0        0 122
## 2982 2982  62      1    1       0  158.9   98.3 38.9           1        0 133
## 2983 2983  62      1    1       1  180.8   84.7 25.9           0        0 126
## 2984 2984  61      1    1       1  173.4   84.0 27.9           1        0 154
## 2985 2985  61      1    1       2  180.0   75.0 23.2           1        0 132
## 2986 2986  60      1    1       0  164.8   70.9 26.1           0        0 128
## 2987 2987  62      1    1       1  168.9   77.9 27.3           1        0 142
## 2988 2988  60      1    3       0  174.0   75.0 24.8           1        0 135
## 2989 2989  63      1    1       0  174.8   83.6 27.4           1        0 137
## 2990 2990  62      1    1       1  168.5   66.7 23.5           1        0 144
## 2991 2991  60      0    3       0  174.0   76.3 25.2           1        0 142
## 2992 2992  65      1    3       0  163.9   87.8 32.7           1        0 147
## 2993 2993  58      1    1       0  170.6   72.0 24.7           0        0 121
## 2994 2994  58      0    1       0  178.0   86.8 27.4           1        0 132
## 2995 2995  60      0    1       0  172.9   95.5 31.9           0        0 124
## 2996 2996  57      1    1       0  170.2   83.7 28.9           0        0 124
## 2997 2997  60      1    4       1  177.1   83.4 26.6           0        0 128
## 2998 2998  55      1    1       0  171.9   96.2 32.6           0        0 126
## 2999 2999  63      1    3       0  180.4   82.1 25.2           0        0 125
## 3000 3000  56      0    4       0  175.7   71.3 23.1           1        1 134
##      LDL vaccine severity study recovery_time
## 1     97       0        0     A            31
## 2    112       0        0     A            44
## 3     88       1        0     A            29
## 4     87       0        1     A            47
## 5    118       1        0     A            40
## 6    104       0        0     A            34
## 7     66       0        0     A            31
## 8    104       1        0     A            41
## 9    126       1        1     A            50
```

```
## 10   123       1       0     A          33
## 11   102       0       0     A          39
## 12   106       0       0     A          94
## 13   117       1       0     A          36
## 14   112       1       0     A          17
## 15   103       1       0     A          35
## 16   120       0       0     A          35
## 17   146       1       0     A          51
## 18   109       1       1     A          62
## 19    82       0       0     A          39
## 20   122       0       0     A          53
## 21    93       1       0     A          37
## 22   139       0       0     A          48
## 23    80       0       0     A          49
## 24   136       1       0     A          29
## 25   120       1       0     A          36
## 26   115       1       0     A          47
## 27    71       1       1     A          40
## 28    98       0       0     A          47
## 29    80       1       0     A          12
## 30    95       1       0     A          44
## 31   148       1       1     A          30
## 32   113       1       0     A          30
## 33   107       0       0     A          41
## 34   104       0       1     A          51
## 35    94       0       0     A          56
## 36   126       1       1     A          42
## 37   109       1       0     A          71
## 38    97       1       0     A          30
## 39   137       1       0     A          45
## 40    96       1       0     A          37
## 41   139       0       0     A          54
## 42    87       1       1     A          42
## 43    88       0       0     A          37
## 44   128       1       0     A          40
## 45    70       1       0     A          46
## 46    96       1       0     A          39
## 47   119       0       0     A          40
## 48   137       1       0     A          32
## 49   109       1       0     A          42
## 50   110       0       0     A          38
## 51   115       0       0     A          55
## 52   121       1       0     A          39
## 53   111       1       0     A          19
## 54   118       1       0     A          31
## 55   117       1       0     A          28
## 56    97       1       0     A          24
## 57    73       0       0     A          43
## 58    67       1       0     A          36
## 59   132       0       0     A          44
## 60   115       1       0     A          26
## 61    96       1       0     A          47
## 62   123       1       0     A          40
## 63   137       0       0     A          30
```

```
## 64   112       0       0     A           48
## 65   118       1       0     A           36
## 66   118       1       1     A           60
## 67   104       0       0     A           36
## 68   131       0       0     A           46
## 69    90       0       0     A           31
## 70   126       0       0     A           56
## 71   102       1       0     A           32
## 72   104       1       0     A           41
## 73   108       0       0     A           57
## 74   100       1       0     A           43
## 75   100       1       0     A           49
## 76    81       1       0     A           37
## 77    95       0       0     A           51
## 78   121       0       0     A           42
## 79   112       1       1     A           39
## 80    99       1       0     A           31
## 81   119       1       0     A           41
## 82    65       0       0     A           37
## 83   124       0       0     A           50
## 84   111       1       0     A           50
## 85   108       0       0     A           56
## 86   118       0       0     A           38
## 87    95       1       0     A           41
## 88   112       1       0     A           33
## 89   104       1       0     A           33
## 90   154       0       0     A           41
## 91    84       1       0     A           35
## 92   129       1       0     A           48
## 93    94       0       0     A           49
## 94   116       0       0     A           27
## 95   108       1       0     A           51
## 96    95       0       0     A           61
## 97    59       1       0     A           52
## 98   126       0       0     A           43
## 99   109       1       0     A           32
## 100  146       1       0     A           45
## 101  105       1       0     A           51
## 102  103       1       0     A           47
## 103  115       0       0     A           45
## 104  116       0       0     A           31
## 105   82       1       1     A           38
## 106  127       0       0     A           27
## 107  130       1       0     A           35
## 108  131       1       0     A           37
## 109  121       0       0     A           40
## 110  118       1       0     A           53
## 111   98       1       0     A           38
## 112  143       1       0     A           36
## 113  146       1       0     A           33
## 114  119       1       0     A           58
## 115   94       0       0     A           41
## 116  139       0       0     A           56
## 117   94       1       0     A           44
```

```
## 118   96       1       0     A           48
## 119  112       1       0     A           30
## 120  123       1       0     A           28
## 121  151       0       0     A           37
## 122   76       1       0     A           51
## 123   87       1       0     A           30
## 124   97       1       0     A           35
## 125  140       0       0     A           35
## 126  115       1       0     A           39
## 127  137       1       0     A           40
## 128  115       0       0     A           31
## 129  119       1       0     A           43
## 130  117       1       0     A           17
## 131  104       0       0     A           56
## 132   73       1       1     A           50
## 133   77       0       1     A           42
## 134   86       0       0     A           53
## 135   78       1       1     A           43
## 136   71       1       0     A           34
## 137  126       1       0     A           24
## 138   58       1       0     A           29
## 139  159       0       1     A           37
## 140  106       0       0     A           43
## 141  141       1       0     A           34
## 142   91       1       0     A           35
## 143   78       1       1     A           49
## 144  102       1       0     A           54
## 145  144       1       0     A           28
## 146   99       1       0     A           25
## 147  127       1       0     A           48
## 148  123       1       1     A           31
## 149   89       0       0     A           51
## 150   94       1       0     A           66
## 151   89       0       0     A           36
## 152  117       1       0     A           40
## 153   77       0       0     A           44
## 154  111       1       0     A           40
## 155   90       1       0     A           34
## 156  144       1       0     A           40
## 157   82       0       0     A           46
## 158  115       1       0     A           41
## 159  137       1       0     A           38
## 160  103       1       0     A           44
## 161  136       1       0     A           40
## 162  109       1       0     A           63
## 163  130       1       0     A           57
## 164   98       1       0     A           42
## 165  157       0       0     A           43
## 166  108       0       0     A           44
## 167   76       1       0     A           31
## 168   97       1       0     A           46
## 169  128       0       0     A           49
## 170  104       1       1     A           51
## 171  118       1       0     A           44
```

```
## 172   98       0       0     A           58
## 173  128       1       0     A           45
## 174  125       0       0     A           37
## 175  100       1       0     A           49
## 176   82       0       0     A           41
## 177  119       0       0     A           49
## 178  139       0       0     A           23
## 179  104       1       0     A           30
## 180  117       0       0     A           45
## 181   58       1       0     A           31
## 182   82       0       0     A           33
## 183  102       0       0     A           24
## 184  118       1       0     A           32
## 185  109       1       0     A           49
## 186  112       1       0     A           37
## 187  142       1       0     A           34
## 188  127       1       0     A           38
## 189   99       1       0     A           30
## 190  108       0       0     A           50
## 191   97       1       1     A           47
## 192  112       1       0     A           21
## 193  122       1       0     A           35
## 194  121       1       0     A           40
## 195   97       1       0     A           41
## 196  152       1       0     A           34
## 197  106       0       0     A           38
## 198  123       1       0     A           43
## 199   96       1       1     A           75
## 200   68       1       0     A           50
## 201  111       0       0     A           24
## 202  121       1       0     A           48
## 203   84       1       0     A           46
## 204  116       1       0     A           40
## 205  114       1       1     A           51
## 206  107       1       1     A           25
## 207  101       1       0     A           26
## 208  147       1       1     A           37
## 209  116       0       0     A           45
## 210  157       0       0     A           32
## 211  153       1       0     A           28
## 212   95       0       0     A           39
## 213  111       1       0     A           43
## 214   88       1       0     A           36
## 215  109       0       0     A           59
## 216   86       1       0     A           33
## 217  123       0       0     A           34
## 218  119       1       0     A           54
## 219  138       1       0     A           40
## 220  121       1       0     A           31
## 221  148       0       0     A           29
## 222  127       1       0     A           38
## 223  153       1       0     A           48
## 224  121       1       0     A           38
## 225  102       0       0     A           55
```

```
## 226  132        0        0     A             32
## 227  106        1        0     A             21
## 228   77        1        0     A             18
## 229  131        0        0     A             45
## 230  110        0        0     A             45
## 231  142        1        0     A             33
## 232  106        0        0     A             43
## 233  120        1        1     A             38
## 234  111        1        0     A             35
## 235  107        0        0     A             48
## 236  109        0        0     A             43
## 237  121        0        0     A             44
## 238  101        1        0     A             50
## 239  116        0        1     A             33
## 240   84        1        0     A             46
## 241  112        1        0     A             38
## 242  110        0        0     A             31
## 243   98        1        0     A             20
## 244  111        0        1     A             30
## 245  132        0        0     A             25
## 246   79        1        0     A             44
## 247  111        1        0     A             39
## 248  122        1        0     A             49
## 249   86        1        0     A             41
## 250  113        0        0     A             29
## 251   98        1        0     A             83
## 252   84        1        0     A             37
## 253  119        0        0     A             44
## 254  117        0        0     A             47
## 255  114        1        0     A             40
## 256  102        1        0     A             23
## 257   92        1        0     A             53
## 258  114        0        0     A             67
## 259  134        1        0     A             33
## 260  127        1        0     A             56
## 261  125        1        0     A             53
## 262  137        1        0     A             28
## 263  118        1        1     A             24
## 264   68        1        0     A             37
## 265  139        1        0     A             46
## 266  119        1        0     A             43
## 267  122        1        0     A             39
## 268   90        1        1     A             50
## 269   91        1        0     A             31
## 270  143        1        0     A             49
## 271  107        1        0     A             26
## 272  147        1        0     A             40
## 273  111        0        0     A             21
## 274  111        0        1     A             54
## 275   92        0        0     A             59
## 276  131        0        0     A             59
## 277  111        1        0     A             37
## 278  111        1        0     A             18
## 279  110        1        0     A             34
```

```
## 280   96       1       0     A           27
## 281  124       1       0     A           31
## 282  113       1       1     A           67
## 283  108       1       0     A           53
## 284   85       0       0     A           43
## 285  128       0       0     A           55
## 286  112       0       0     A           44
## 287  109       0       0     A           60
## 288  107       1       0     A           49
## 289   89       1       0     A           40
## 290  122       1       0     A           39
## 291  106       0       0     A           39
## 292  104       1       0     A           23
## 293  123       1       0     A           30
## 294   83       0       0     A           23
## 295  114       1       0     A           38
## 296   89       1       0     A           41
## 297  102       1       0     A           57
## 298  113       1       0     A           40
## 299  108       1       0     A           32
## 300  116       0       0     A           44
## 301  123       1       0     A           49
## 302  129       0       0     A           32
## 303  122       1       0     A           43
## 304  142       0       0     A           44
## 305  121       1       0     A           42
## 306  115       0       0     A           27
## 307  115       1       0     A           42
## 308  130       1       0     A           36
## 309  117       1       1     A           53
## 310   99       1       0     A           62
## 311  105       1       0     A           39
## 312  114       0       0     A           45
## 313   70       1       0     A           30
## 314  115       1       0     A           29
## 315  118       0       0     A           46
## 316   88       0       0     A           34
## 317  141       0       0     A           49
## 318  120       1       0     A           58
## 319   91       0       0     A           12
## 320  126       1       0     A           55
## 321   81       0       0     A           41
## 322   89       1       0     A           33
## 323   89       1       0     A           51
## 324  107       1       0     A           42
## 325  110       1       0     A           42
## 326  146       1       0     A           35
## 327  120       1       0     A           17
## 328  115       0       1     A           45
## 329  113       0       0     A           52
## 330  102       0       0     A           46
## 331  101       0       0     A           42
## 332  103       1       0     A           49
## 333   77       1       0     A           29
```

```
## 334   87        0        0     A             46
## 335  119        0        0     A             46
## 336  117        1        0     A             30
## 337  154        0        0     A             22
## 338  131        0        0     A             52
## 339  108        1        0     A             40
## 340   95        0        1     A             73
## 341  140        1        0     A             49
## 342  104        1        0     A             22
## 343  118        0        0     A             67
## 344   89        1        0     A             41
## 345   70        1        0     A             21
## 346  119        0        0     A             45
## 347   94        1        1     A             45
## 348  120        1        0     A             40
## 349  122        1        0     A             38
## 350  130        1        1     A             32
## 351   96        0        0     A             54
## 352  115        1        0     A             30
## 353  119        1        0     A             38
## 354   91        1        0     A             31
## 355  126        1        0     A             37
## 356  133        0        0     A             33
## 357   88        0        0     A             40
## 358  102        1        0     A             36
## 359  124        1        1     A             32
## 360  161        0        0     A             48
## 361  151        0        0     A             33
## 362  112        0        0     A             90
## 363  100        1        0     A             56
## 364  102        1        0     A             48
## 365  114        0        0     A             33
## 366   98        0        1     A             27
## 367   99        1        0     A             46
## 368   69        1        1     A             25
## 369   85        1        0     A             21
## 370   73        1        0     A             52
## 371  112        0        0     A             37
## 372  141        1        0     A             41
## 373  102        0        0     A             47
## 374  134        1        0     A             36
## 375   91        0        0     A             26
## 376  111        1        0     A             43
## 377   94        0        0     A             44
## 378  108        1        0     A             43
## 379  129        1        0     A             21
## 380  112        1        0     A             34
## 381  140        1        0     A             32
## 382  113        0        0     A             50
## 383   93        1        0     A             33
## 384   95        0        0     A             36
## 385   77        1        0     A             34
## 386  113        1        0     A             21
## 387   96        1        0     A             42
```

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## 388  108       1       0     A          25
## 389  105       1       0     A          45
## 390  100       1       0     A          40
## 391  109       1       0     A          45
## 392  143       1       0     A          50
## 393  115       1       0     A          35
## 394   83       0       0     A          49
## 395   83       0       0     A          34
## 396  121       1       1     A          52
## 397  130       0       0     A          43
## 398  127       0       0     A          32
## 399  105       1       1     A          58
## 400   77       1       0     A          29
## 401  125       0       0     A          34
## 402  122       0       0     A          44
## 403  101       1       0     A          33
## 404   97       1       0     A          30
## 405  102       1       0     A          28
## 406  109       0       1     A          20
## 407  140       1       0     A          39
## 408  142       0       0     A          41
## 409  129       1       0     A          25
## 410  106       0       0     A          50
## 411  113       1       0     A          22
## 412  114       1       0     A          26
## 413  122       1       0     A          32
## 414  140       1       0     A          30
## 415  121       1       1     A          33
## 416  104       1       0     A          40
## 417  127       0       1     A          48
## 418   98       0       0     A          27
## 419  112       0       0     A          24
## 420  110       0       0     A          42
## 421  115       0       0     A          49
## 422  118       1       0     A          29
## 423   80       1       1     A          37
## 424  116       0       0     A          46
## 425  125       1       0     A          21
## 426  115       0       0     A          34
## 427  117       0       1     A          30
## 428  110       1       0     A          47
## 429  109       0       0     A          47
## 430  139       1       0     A          35
## 431   90       0       0     A          37
## 432  107       1       0     A          38
## 433   79       0       0     A          25
## 434   63       1       0     A          41
## 435   98       1       1     A          67
## 436  104       1       0     A          44
## 437   97       1       0     A          32
## 438  167       0       1     A          37
## 439  122       1       1     A          38
## 440  118       1       0     A          29
## 441  134       1       0     A          28
```

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## 442  107       0       0     A           39
## 443  108       0       0     A           40
## 444  125       1       0     A           38
## 445  144       0       0     A           36
## 446  119       0       0     A           47
## 447   98       0       0     A           48
## 448   86       1       0     A           21
## 449  114       0       0     A           89
## 450  110       1       0     A           35
## 451   94       0       0     A           50
## 452   93       0       0     A           39
## 453  138       0       0     A           45
## 454  116       1       0     A           41
## 455  115       0       0     A           44
## 456  104       0       0     A           39
## 457   86       1       1     A           41
## 458  135       1       0     A           27
## 459  108       1       0     A           36
## 460  138       0       0     A           58
## 461  118       1       1     A           20
## 462  118       1       0     A           32
## 463  109       1       0     A           42
## 464  132       1       0     A           33
## 465  116       0       0     A           34
## 466   97       1       1     A           54
## 467   69       1       0     A           47
## 468  125       1       0     A           45
## 469   93       1       0     A           50
## 470   64       1       1     A           46
## 471  102       1       0     A           46
## 472  134       0       1     A           34
## 473   92       1       0     A           27
## 474   84       1       0     A           22
## 475  102       0       0     A           55
## 476  135       0       0     A           50
## 477   73       0       0     A           33
## 478  114       0       0     A           52
## 479  134       0       0     A           35
## 480  124       1       0     A           33
## 481  104       1       0     A           52
## 482   99       0       0     A           60
## 483   98       0       0     A           38
## 484  105       1       0     A           35
## 485  140       0       0     A           33
## 486   92       0       0     A           35
## 487  143       0       1     A           35
## 488  139       1       0     A           30
## 489   80       0       0     A           35
## 490   84       1       0     A           43
## 491  132       0       0     A           46
## 492  120       1       0     A           33
## 493  102       0       0     A           35
## 494  100       0       1     A           44
## 495  102       1       0     A           29
```

```
## 496  120       0       1     A           41
## 497  142       0       0     A          104
## 498  110       1       0     A           36
## 499  106       0       0     A           30
## 500  136       1       0     A           46
## 501  115       1       0     A           30
## 502  122       1       0     A           53
## 503  119       0       1     A           35
## 504  130       1       0     A           43
## 505  121       0       0     A           50
## 506  103       0       0     A           42
## 507  107       1       0     A           56
## 508  115       0       1     A           49
## 509   83       0       0     A           53
## 510  100       1       0     A           41
## 511  111       1       0     A           34
## 512  108       1       0     A           40
## 513  116       0       1     A           79
## 514  109       1       0     A           48
## 515  105       0       0     A           27
## 516   87       0       0     A           41
## 517  105       0       0     A           54
## 518   85       1       0     A           29
## 519  102       0       1     A           45
## 520   92       1       0     A           33
## 521  103       1       0     A           39
## 522   91       1       0     A           50
## 523  115       1       1     A           36
## 524  110       1       0     A           18
## 525  135       1       0     A           16
## 526   81       0       0     A           51
## 527   88       0       0     A           34
## 528  112       1       0     A           28
## 529   91       0       0     A           61
## 530  139       0       0     A           33
## 531  153       1       0     A           36
## 532   96       0       0     A           43
## 533  127       1       0     A           35
## 534   90       1       0     A           40
## 535  132       1       0     A           27
## 536  108       0       0     A           41
## 537  125       1       0     A           46
## 538  120       0       0     A           62
## 539  110       1       0     A           42
## 540   96       1       0     A           33
## 541  104       1       0     A           45
## 542   93       0       0     A           23
## 543  127       0       0     A           51
## 544  100       0       0     A           37
## 545  128       1       0     A           40
## 546   66       1       1     A           34
## 547  110       0       0     A           40
## 548  119       0       0     A           33
## 549  128       1       0     A           44
```

```
## 550  101        0        0     A           35
## 551  131        0        0     A           49
## 552   83        0        1     A           56
## 553  109        1        0     A           37
## 554  144        1        0     A           42
## 555  140        1        0     A           30
## 556   99        0        0     A           44
## 557   94        0        0     A           32
## 558  136        0        0     A           36
## 559   97        1        0     A           38
## 560   99        0        0     A           59
## 561   92        0        0     A           43
## 562  142        0        0     A           36
## 563  108        0        0     A           22
## 564   98        1        0     A           24
## 565   79        0        0     A           37
## 566  117        0        0     A           37
## 567  115        1        0     A           48
## 568   69        0        0     A           41
## 569  132        0        0     A           24
## 570   84        1        0     A           39
## 571  101        0        0     A           30
## 572  125        1        0     A           33
## 573  143        0        0     A           38
## 574  107        1        0     A           32
## 575  107        1        0     A           35
## 576  132        1        1     A           42
## 577   97        1        0     A           34
## 578  105        1        0     A           45
## 579  104        0        0     A           20
## 580  143        0        0     A           92
## 581  158        0        0     A           54
## 582  108        0        0     A           40
## 583   99        0        1     A           52
## 584  130        1        0     A           43
## 585  133        1        0     A           42
## 586  130        0        0     A           43
## 587   83        0        0     A           37
## 588  124        0        0     A           37
## 589  126        1        0     A           32
## 590   99        1        0     A           31
## 591  108        0        0     A           48
## 592   80        1        0     A           49
## 593  127        1        1     A           32
## 594   94        0        0     A           43
## 595   86        0        0     A           36
## 596   91        1        1     A           36
## 597   98        0        0     A           50
## 598  114        1        0     A           47
## 599   92        0        0     A           46
## 600   98        1        0     A           25
## 601  116        1        0     A           33
## 602  115        0        0     A           25
## 603  109        1        0     A           34
```

```
## 604  117       1       1     A          46
## 605   93       0       0     A          34
## 606  123       1       0     A          54
## 607  110       0       0     A          53
## 608  111       1       0     A          26
## 609  100       1       0     A          41
## 610   87       1       0     A          49
## 611   57       1       0     A          24
## 612  109       1       0     A          38
## 613  126       0       0     A          22
## 614  135       1       0     A          43
## 615  129       0       0     A          53
## 616   78       0       0     A          34
## 617  131       0       0     A          40
## 618   94       1       0     A          37
## 619  120       0       0     A          53
## 620   80       1       0     A          36
## 621   99       0       0     A          42
## 622   75       0       0     A          39
## 623  126       1       0     A          31
## 624  125       0       0     A          45
## 625   93       0       0     A          62
## 626  111       0       0     A          64
## 627  132       0       0     A          40
## 628  114       1       0     A          44
## 629  134       0       0     A          55
## 630  120       1       0     A          19
## 631  113       1       0     A          42
## 632  126       1       0     A          48
## 633  118       1       0     A          38
## 634  107       1       0     A          41
## 635   81       0       0     A          27
## 636  124       1       0     A          48
## 637  139       1       0     A          32
## 638   98       0       0     A          42
## 639  110       0       0     A          48
## 640   74       0       0     A          49
## 641   74       1       0     A          51
## 642  103       0       0     A          55
## 643   71       0       0     A          48
## 644  107       0       0     A          59
## 645  128       1       0     A          37
## 646  120       0       0     A          52
## 647  115       1       0     A          32
## 648  121       0       0     A          28
## 649  125       0       0     A          50
## 650  126       1       0     A          19
## 651  126       1       0     A          33
## 652   80       1       0     A          42
## 653   93       1       0     A          47
## 654  112       1       0     A          45
## 655  126       1       0     A          35
## 656  101       1       1     A          45
## 657   71       0       0     A          40
```

```
## 658  109       1       0     A          31
## 659   98       1       0     A          36
## 660  110       0       0     A          25
## 661  106       1       1     A          27
## 662  114       0       0     A          44
## 663  127       0       0     A          40
## 664   96       1       0     A          45
## 665  125       1       0     A          39
## 666  117       1       0     A          50
## 667  133       1       0     A          28
## 668   81       0       0     A          45
## 669  102       0       1     A          39
## 670  127       0       0     A          45
## 671  143       0       0     A          56
## 672   92       1       0     A          46
## 673  137       0       0     A          34
## 674  135       1       0     A          25
## 675  129       1       0     A          62
## 676  114       1       1     A          46
## 677  115       1       0     A          37
## 678  115       0       1     A          19
## 679  107       1       0     A          33
## 680  108       0       0     A          61
## 681   86       1       0     A          26
## 682  101       0       0     A          46
## 683  108       1       1     A          43
## 684  141       0       0     A          48
## 685  125       1       0     A          25
## 686  103       1       0     A          33
## 687   93       1       1     A          48
## 688  139       1       0     A          65
## 689   77       1       0     A          28
## 690   91       0       0     A          42
## 691   96       0       0     A          45
## 692  123       0       0     A          42
## 693  141       1       0     A          49
## 694  113       0       0     A          57
## 695   93       0       0     A          77
## 696   71       0       0     A          31
## 697  143       1       0     A          49
## 698  113       1       0     A          38
## 699   58       0       0     A          37
## 700  101       1       1     A          33
## 701  111       1       0     A          43
## 702  110       0       0     A          37
## 703  112       0       0     A          42
## 704  111       1       0     A          41
## 705  103       0       0     A          43
## 706   98       0       0     A          45
## 707  141       1       0     A          42
## 708  131       1       0     A          43
## 709   87       1       0     A          29
## 710   96       1       0     A          39
## 711  114       0       0     A          45
```

```
## 712   86       0       1     A           48
## 713  123       0       0     A           49
## 714   92       0       0     A           52
## 715  107       0       1     A           33
## 716  139       0       0     A           49
## 717   86       0       0     A           34
## 718   94       0       0     A           64
## 719  106       0       1     A           38
## 720  125       1       0     A           53
## 721   91       0       0     A           37
## 722  116       0       0     A           52
## 723  129       1       0     A           30
## 724  108       0       0     A           25
## 725  103       1       0     A           38
## 726  133       0       0     A           34
## 727  129       1       0     A           21
## 728  117       1       0     A           29
## 729  127       1       0     A           34
## 730  101       1       1     A           40
## 731  126       1       0     A           30
## 732  106       1       0     A           41
## 733   87       0       0     A           48
## 734  143       1       0     A           33
## 735  126       0       0     A           21
## 736   93       0       0     A           96
## 737  134       0       0     A           46
## 738  112       0       1     A           34
## 739   92       0       0     A           36
## 740  142       0       0     A           33
## 741  100       0       0     A           34
## 742  135       0       0     A           52
## 743  121       1       1     A           37
## 744  131       1       0     A           38
## 745  138       0       0     A          113
## 746   90       0       0     A           55
## 747  118       0       1     A           22
## 748   28       1       0     A           25
## 749   93       0       0     A           51
## 750  121       1       1     A           28
## 751  134       1       0     A           35
## 752  127       1       0     A           38
## 753  128       0       0     A           52
## 754  109       1       0     A           44
## 755  126       0       0     A           30
## 756  127       1       0     A           38
## 757  148       0       0     A           27
## 758  120       0       1     A           22
## 759  104       0       0     A           16
## 760   90       1       0     A           39
## 761   90       1       0     A           32
## 762   99       1       0     A           52
## 763   80       1       0     A           36
## 764  115       0       0     A           49
## 765  171       0       1     A           33
```

```
## 766   82       1       0     A           29
## 767  102       1       0     A           38
## 768  132       0       0     A           40
## 769   90       1       0     A           31
## 770  100       0       0     A           38
## 771  132       0       0     A           47
## 772  116       1       0     A           58
## 773  118       0       0     A           40
## 774  113       0       0     A           49
## 775   98       1       0     A           64
## 776   98       1       0     A           40
## 777   87       1       0     A           42
## 778  103       0       0     A           59
## 779   94       0       0     A           28
## 780  144       1       0     A           47
## 781  127       1       0     A           52
## 782  159       0       0     A           44
## 783  105       0       0     A           55
## 784  123       0       1     A           44
## 785   77       1       0     A           36
## 786  137       1       0     A           22
## 787  138       1       0     A           22
## 788   82       1       0     A           48
## 789  142       1       0     A           56
## 790  127       1       0     A           47
## 791  100       1       0     A           47
## 792  127       1       0     A           52
## 793   84       0       0     A           66
## 794  106       1       0     A           52
## 795  134       0       0     A           62
## 796  135       0       0     A           34
## 797  146       1       0     A           70
## 798  121       1       0     A           44
## 799  114       0       0     A           49
## 800  116       0       0     A           41
## 801  123       1       0     A           37
## 802  107       1       1     A           46
## 803  103       0       0     A           37
## 804  120       1       0     A           51
## 805   78       0       0     A           75
## 806  152       1       0     A           47
## 807  131       1       0     A           39
## 808   74       1       0     A           47
## 809  143       1       0     A           41
## 810  154       0       0     A           46
## 811  142       1       0     A           29
## 812  104       1       0     A           32
## 813   80       1       0     A           35
## 814  129       1       0     A           45
## 815   80       1       0     A           40
## 816   90       1       0     A           20
## 817  108       0       1     A           40
## 818  118       0       0     A           36
## 819  117       0       0     A           47
```

```
## 820  148       1       0     A          48
## 821   98       1       0     A          29
## 822   85       0       0     A          32
## 823  101       1       0     A          34
## 824   98       1       0     A          25
## 825  114       1       1     A          35
## 826  106       1       0     A          30
## 827  115       1       0     A          41
## 828  100       0       0     A          38
## 829   84       0       0     A          41
## 830  102       1       0     A          27
## 831  111       1       0     A          38
## 832  162       1       0     A          42
## 833  112       1       0     A          46
## 834   93       1       0     A          34
## 835  105       0       0     A          29
## 836   92       1       0     A          55
## 837  127       0       0     A          51
## 838  134       0       0     A          32
## 839  129       0       0     A          39
## 840   92       0       0     A          42
## 841  129       1       0     A          46
## 842  111       0       0     A          43
## 843  111       0       0     A          49
## 844  126       0       0     A          39
## 845   86       1       0     A          42
## 846  104       1       0     A          33
## 847  114       0       0     A          35
## 848  124       1       0     A          32
## 849  110       1       0     A          36
## 850  118       0       0     A          49
## 851  136       1       0     A          38
## 852  145       1       0     A          31
## 853  120       0       0     A          35
## 854   87       0       0     A          29
## 855   80       1       0     A          20
## 856   84       1       0     A          40
## 857  121       1       1     A          32
## 858  117       1       0     A          34
## 859  124       1       1     A          59
## 860  116       1       0     A          42
## 861  124       0       0     A          57
## 862   82       1       0     A          28
## 863   89       0       0     A          40
## 864   97       1       0     A          44
## 865  100       1       0     A          74
## 866   66       1       0     A          50
## 867  101       0       0     A          51
## 868  133       1       0     A          32
## 869  109       1       0     A          40
## 870  124       1       0     A          49
## 871  117       0       0     A          27
## 872  131       1       0     A          46
## 873   95       1       1     A          34
```

```
## 874   88       0       0     A           31
## 875  131       0       1     A           45
## 876  105       1       0     A           48
## 877  103       1       0     A           26
## 878  130       0       0     A           33
## 879  107       1       0     A           42
## 880  116       1       1     A           32
## 881  112       1       0     A           41
## 882  117       1       0     A           52
## 883  131       0       1     A           56
## 884   76       1       0     A           43
## 885  139       1       0     A           40
## 886  123       1       0     A           25
## 887   89       1       0     A           38
## 888   72       1       0     A           35
## 889  143       0       0     A           53
## 890   87       1       0     A           36
## 891   65       0       0     A           45
## 892  138       1       0     A           40
## 893   99       1       0     A           30
## 894  132       0       0     A           38
## 895   67       1       0     A           43
## 896  108       0       0     A           27
## 897  100       1       0     A           45
## 898  130       0       0     A           26
## 899  105       0       0     A           37
## 900   89       1       0     A           43
## 901  125       0       0     A           35
## 902  108       1       0     A           26
## 903  133       0       0     A           58
## 904  102       0       0     A           47
## 905  135       1       0     A           52
## 906  116       0       0     A           56
## 907  131       1       0     A           48
## 908  138       0       0     A           41
## 909  110       1       1     A           54
## 910  115       1       0     A           36
## 911  128       1       0     A           34
## 912  128       1       0     A           34
## 913  119       1       0     A           65
## 914  118       0       0     A           52
## 915   88       0       1     A           53
## 916   97       1       1     A           30
## 917  122       1       0     A           25
## 918  111       1       0     A           37
## 919  120       0       0     A           52
## 920  130       1       0     A           40
## 921   91       1       0     A           29
## 922  125       1       0     A           25
## 923  133       1       0     A           42
## 924  121       0       0     A           51
## 925  118       1       0     A           34
## 926  134       1       0     A           27
## 927   90       1       0     A           53
```

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## 928  143       1       0     A          33
## 929   98       0       0     A          27
## 930  109       1       0     A          40
## 931  107       0       0     A          44
## 932  110       1       0     A          35
## 933  112       0       0     A          42
## 934   72       1       1     A          46
## 935  140       1       0     A          49
## 936  113       1       0     A          33
## 937  121       1       1     A          49
## 938   85       0       0     A          34
## 939  126       1       0     A          24
## 940   95       1       0     A          26
## 941   96       0       0     A          16
## 942   98       1       0     A          38
## 943  121       0       0     A          47
## 944  106       0       0     A          51
## 945  118       1       0     A          44
## 946  112       1       0     A          25
## 947   96       1       0     A          45
## 948  113       1       0     A          37
## 949  125       1       0     A          58
## 950  107       0       0     A          43
## 951   80       1       0     A          35
## 952   68       1       0     A          56
## 953   82       1       0     A          41
## 954  100       0       0     A          24
## 955  107       1       1     A          52
## 956  123       0       0     A          37
## 957  102       0       0     A          41
## 958  102       1       0     A          56
## 959   98       1       0     A          56
## 960   89       1       0     A          29
## 961  103       1       0     A          53
## 962  112       0       0     A          37
## 963  100       0       0     A          74
## 964  126       1       0     A          32
## 965  113       1       0     A          33
## 966  108       1       0     A          39
## 967  124       1       0     A          56
## 968  100       1       0     A          21
## 969   83       1       0     A          33
## 970   83       0       0     A          41
## 971  106       1       1     A          30
## 972   93       1       0     A          42
## 973   94       0       0     A          41
## 974   94       1       0     A          27
## 975  104       1       0     A          30
## 976  136       0       0     A          50
## 977   74       1       1     A          35
## 978   96       0       0     A          59
## 979  132       0       0     A          52
## 980   98       0       0     A          42
## 981  132       0       0     A          38
```

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## 982   97       1       0     A           29
## 983  131       1       0     A           37
## 984  112       1       0     A           48
## 985  109       1       0     A           46
## 986   87       1       0     A           44
## 987  178       0       0     A           37
## 988   87       1       0     A           42
## 989  105       1       0     A           54
## 990   97       1       0     A           33
## 991  120       1       0     A           40
## 992   87       1       0     A           43
## 993   83       1       1     A           38
## 994  112       1       0     A           47
## 995   87       0       0     A           50
## 996  109       1       0     A           19
## 997  135       1       1     A           31
## 998  100       1       0     A           39
## 999  130       0       0     A           38
## 1000 116       0       0     A           54
## 1001 116       0       0     A           57
## 1002 109       1       0     A           46
## 1003 113       1       0     A           23
## 1004 107       1       0     A           36
## 1005  90       1       0     A           46
## 1006 135       0       0     A           43
## 1007 127       1       0     A           48
## 1008  89       0       0     A           34
## 1009 135       1       0     A           62
## 1010 115       1       0     A           33
## 1011 128       0       0     A           38
## 1012  85       1       0     A           45
## 1013 127       1       0     A           26
## 1014 125       0       0     A           45
## 1015  99       1       0     A           45
## 1016 106       0       1     A           38
## 1017 122       1       0     A           39
## 1018 116       0       0     A           44
## 1019 120       1       1     A           32
## 1020 126       0       0     A           42
## 1021 110       0       1     A           62
## 1022 110       1       0     A           38
## 1023 121       0       0     A           37
## 1024 104       0       0     A           53
## 1025 106       0       0     A           39
## 1026  94       1       0     A           53
## 1027 104       1       0     A           38
## 1028  93       1       0     A           33
## 1029 127       0       0     A           48
## 1030 118       0       0     A           53
## 1031  88       0       0     A           34
## 1032 104       1       1     A           24
## 1033 101       1       0     A           57
## 1034 115       0       0     A           47
## 1035 111       0       0     A           60
```

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## 1036 108       1       0     A           48
## 1037  85       0       0     A           37
## 1038  98       1       0     A           34
## 1039 102       0       1     A           57
## 1040 137       0       0     A           46
## 1041 104       1       0     A           28
## 1042 152       0       0     A           62
## 1043  91       1       0     A           53
## 1044 125       1       0     A           13
## 1045 130       0       0     A           47
## 1046 134       1       0     A           36
## 1047  88       1       0     A           38
## 1048  71       1       1     A           38
## 1049 122       0       0     A           19
## 1050 130       1       0     A           35
## 1051 102       1       0     A           14
## 1052  85       1       0     A           47
## 1053 109       1       0     A           40
## 1054  58       1       0     A           42
## 1055 158       1       0     A           49
## 1056  92       1       0     A           41
## 1057  94       1       0     A           45
## 1058 110       0       0     A           36
## 1059  87       1       0     A           17
## 1060  95       0       0     A           52
## 1061  91       1       1     A           59
## 1062 111       1       0     A           40
## 1063 125       0       0     A           50
## 1064  93       1       0     A           43
## 1065 111       1       0     A           26
## 1066 121       1       0     A           47
## 1067 123       0       0     A           26
## 1068  88       0       0     A           29
## 1069 113       1       0     A           20
## 1070  96       1       0     A           32
## 1071 132       0       0     A           30
## 1072  79       1       0     A           34
## 1073 104       0       0     A           26
## 1074  92       0       0     A           45
## 1075  70       1       0     A           33
## 1076  95       0       0     A           33
## 1077 107       0       0     A           42
## 1078 111       0       0     A           45
## 1079 104       1       0     A           30
## 1080 125       1       1     A           35
## 1081 103       1       0     A           28
## 1082 141       1       1     A           40
## 1083 105       0       0     A           43
## 1084 102       1       0     A           48
## 1085  98       1       0     A           50
## 1086 136       1       0     A           44
## 1087 102       0       0     A           42
## 1088 111       1       0     A           31
## 1089  92       0       0     A           31
```

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## 1090 102       0       0     A           39
## 1091 100       1       0     A           74
## 1092 102       1       0     A           36
## 1093 138       0       0     A           61
## 1094  73       1       1     A           42
## 1095  90       1       0     A           44
## 1096 106       1       0     A           27
## 1097 118       0       0     A           34
## 1098  83       0       1     A           43
## 1099 108       1       1     A           28
## 1100 124       0       0     A           27
## 1101 138       0       1     A           34
## 1102  86       1       0     A           42
## 1103 112       1       0     A           33
## 1104  94       0       1     A           34
## 1105  70       0       0     A           34
## 1106  62       1       1     A           46
## 1107  98       1       0     A           46
## 1108 111       1       0     A           36
## 1109 124       0       1     A           57
## 1110 121       0       1     A           58
## 1111 127       1       0     A           41
## 1112  88       0       0     A           67
## 1113 115       1       1     A           53
## 1114 108       1       0     A           72
## 1115  97       0       1     A           32
## 1116  93       1       0     A           53
## 1117 117       1       0     A           37
## 1118 103       0       0     A           56
## 1119  93       1       1     A           38
## 1120  90       1       0     A           29
## 1121 124       1       0     A           38
## 1122  87       0       0     A           36
## 1123 133       1       0     A           32
## 1124 123       1       0     A           47
## 1125 101       1       0     A           24
## 1126 124       1       0     A           25
## 1127 141       1       0     A           34
## 1128 107       0       1     A           54
## 1129 100       1       0     A           48
## 1130 134       0       1     A           41
## 1131  71       1       0     A           46
## 1132 144       1       1     A           21
## 1133 116       1       0     A           21
## 1134 123       1       0     A           44
## 1135 102       1       1     A           66
## 1136 101       0       0     A           32
## 1137 113       1       0     A           37
## 1138  77       1       0     A           21
## 1139 114       0       0     A           62
## 1140 109       1       0     A           42
## 1141  80       1       0     A           27
## 1142 135       0       0     A           42
## 1143 119       0       0     A           43
```

```
## 1144 135       0       0     A           34
## 1145 108       1       1     A           46
## 1146  99       1       0     A           42
## 1147 152       1       1     A           44
## 1148 109       1       0     A           45
## 1149  98       1       0     A           42
## 1150 130       1       0     A           52
## 1151 110       1       0     A           30
## 1152 123       1       0     A           37
## 1153  86       1       1     A           54
## 1154 129       0       0     A           35
## 1155 127       0       0     A           59
## 1156 133       1       0     A           30
## 1157 134       1       0     A           33
## 1158 117       0       0     A           44
## 1159 136       1       1     A           52
## 1160 108       1       0     A           38
## 1161 103       1       0     A           24
## 1162 131       1       0     A           49
## 1163  91       1       0     A           37
## 1164 112       1       0     A           43
## 1165  98       1       0     A           77
## 1166 115       1       0     A           40
## 1167 106       0       0     A           27
## 1168 149       1       0     A           52
## 1169 127       0       0     A           44
## 1170 108       1       0     A           35
## 1171 116       0       0     A           27
## 1172 108       0       0     A           38
## 1173 156       1       0     A           39
## 1174 129       1       0     A           34
## 1175 105       1       0     A           37
## 1176 104       1       0     A           34
## 1177 100       1       0     A           10
## 1178  96       1       0     A           36
## 1179 107       1       0     A           32
## 1180 121       0       1     A           29
## 1181  88       1       1     A           31
## 1182 103       0       0     A           44
## 1183 104       0       0     A           56
## 1184 150       1       0     A           35
## 1185  80       1       0     A           43
## 1186 121       0       0     A           43
## 1187  90       1       1     A           41
## 1188  97       1       0     A           25
## 1189 111       1       0     A           32
## 1190 126       0       1     A           47
## 1191 120       1       0     A           44
## 1192 122       0       0     A           48
## 1193  95       1       0     A           51
## 1194 133       1       0     A           50
## 1195 137       0       0     A           62
## 1196  99       1       0     A           28
## 1197  82       1       0     A           50
```

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## 1198  68       0       0     A           31
## 1199  50       1       1     A           69
## 1200 113       1       0     A           42
## 1201  74       1       0     A           47
## 1202 113       1       0     A           37
## 1203  89       1       0     A           41
## 1204 125       1       0     A           34
## 1205 101       1       0     A           53
## 1206 119       0       0     A           45
## 1207  99       0       0     A           28
## 1208 116       0       0     A           30
## 1209 119       1       0     A           45
## 1210 143       1       0     A           47
## 1211  82       0       0     A           34
## 1212 116       0       1     A           48
## 1213 135       1       0     A           11
## 1214 104       1       0     A           39
## 1215 136       1       0     A           46
## 1216 116       1       0     A           17
## 1217 110       0       0     A           44
## 1218 137       0       0     A           44
## 1219  93       1       0     A           33
## 1220  82       0       0     A           38
## 1221 114       0       0     A           50
## 1222 109       0       0     A           32
## 1223  89       0       0     A           47
## 1224 112       1       0     A           49
## 1225 107       1       0     A           37
## 1226  90       1       0     A           28
## 1227 113       0       0     A           39
## 1228 120       1       0     A           33
## 1229 110       0       0     A           41
## 1230  93       0       0     A           51
## 1231 117       1       0     A           40
## 1232 104       1       0     A           36
## 1233 104       1       0     A           42
## 1234 111       1       1     A           56
## 1235  95       0       0     A           51
## 1236  78       0       1     A           47
## 1237  98       1       0     A           43
## 1238  94       1       0     A           48
## 1239 142       1       0     A           25
## 1240  95       1       0     A           38
## 1241  80       1       0     A           26
## 1242 100       0       0     A           66
## 1243 109       1       0     A           24
## 1244 106       0       0     A           35
## 1245 152       1       0     A           51
## 1246 104       1       0     A           41
## 1247  96       1       0     A           47
## 1248 133       0       0     A           54
## 1249  78       0       0     A           51
## 1250 111       1       0     A           48
## 1251 128       1       0     A           29
```

```
## 1252  92       0       0     A           40
## 1253 126       1       0     A           40
## 1254  90       0       0     A           45
## 1255 131       1       1     A           51
## 1256 101       0       0     A           54
## 1257 100       1       1     A           40
## 1258  86       1       0     A           47
## 1259 115       1       0     A           43
## 1260 114       0       1     A           53
## 1261 118       1       0     A           36
## 1262 124       0       0     A           49
## 1263 110       1       0     A           53
## 1264  72       1       0     A           53
## 1265 112       0       1     A           51
## 1266  86       1       0     A           35
## 1267 109       1       0     A           29
## 1268 105       1       1     A           36
## 1269  76       0       0     A           45
## 1270 106       1       0     A           34
## 1271 114       0       0     A           48
## 1272 132       0       0     A           62
## 1273 120       1       0     A           32
## 1274 137       0       0     A           25
## 1275 119       1       0     A           24
## 1276  77       1       0     A           37
## 1277 109       0       0     A           33
## 1278  98       0       0     A           48
## 1279  96       1       0     A           27
## 1280 131       0       0     A           32
## 1281  97       0       0     A           40
## 1282 101       1       0     A           43
## 1283  92       0       0     A           37
## 1284 125       0       0     A           42
## 1285 115       0       0     A           31
## 1286 114       1       0     A           27
## 1287  84       0       0     A           84
## 1288  89       1       0     A           30
## 1289 101       1       0     A           44
## 1290 120       0       0     A           49
## 1291 127       1       0     A           28
## 1292 116       0       0     A           43
## 1293  99       1       0     A           25
## 1294 123       0       0     A           50
## 1295 109       1       0     A           36
## 1296 138       0       0     A           43
## 1297 116       0       1     A           72
## 1298  89       0       0     A           51
## 1299  92       1       0     A           55
## 1300 108       1       1     A           33
## 1301 111       1       0     A           35
## 1302 105       1       0     A           24
## 1303 109       1       0     A           42
## 1304 130       1       0     A           31
## 1305  93       1       1     A           69
```

```
## 1306  96       1       1     A           34
## 1307 116       1       0     A           30
## 1308 149       0       0     A           51
## 1309  62       1       0     A           28
## 1310 150       1       0     A           30
## 1311 105       1       0     A           30
## 1312 129       1       0     A           44
## 1313 104       1       0     A           42
## 1314  91       0       0     A           68
## 1315 106       0       0     A           35
## 1316 104       1       0     A           24
## 1317 120       1       0     A           26
## 1318 108       0       0     A           43
## 1319 107       1       0     A           56
## 1320  98       0       0     A           40
## 1321 109       1       0     A           23
## 1322 106       1       0     A           41
## 1323 123       0       0     A           47
## 1324  80       1       0     A           44
## 1325  98       0       0     A           32
## 1326 106       0       0     A           40
## 1327  96       1       0     A           30
## 1328 138       1       0     A           23
## 1329 103       1       0     A           36
## 1330 142       1       0     A           68
## 1331 137       1       0     A           50
## 1332 108       0       0     A           44
## 1333  70       0       0     A           33
## 1334 110       1       0     A           29
## 1335 119       1       0     A           46
## 1336 103       0       0     A           62
## 1337 136       1       0     A           33
## 1338  83       0       0     A           30
## 1339 144       0       0     A           72
## 1340 112       0       0     A           47
## 1341  57       1       1     A           58
## 1342 101       1       0     A           29
## 1343 137       1       0     A           34
## 1344 123       1       0     A           26
## 1345  99       0       0     A           35
## 1346 101       0       0     A           34
## 1347 131       1       0     A           42
## 1348 149       0       1     A           44
## 1349  91       1       0     A           37
## 1350  83       1       1     A           41
## 1351  82       0       1     A           52
## 1352  99       0       0     A           47
## 1353  74       0       1     A           53
## 1354 129       1       0     A           72
## 1355 111       1       0     A           29
## 1356 100       0       0     A           22
## 1357 101       0       0     A           50
## 1358 112       0       0     A           42
## 1359 101       1       0     A           51
```

```
## 1360  95       0       0     A           56
## 1361 125       0       0     A           45
## 1362  92       0       0     A           36
## 1363 107       0       0     A           42
## 1364  91       1       0     A           27
## 1365 142       1       0     A           22
## 1366  94       0       0     A           54
## 1367 143       0       0     A           51
## 1368 111       0       0     A           19
## 1369  78       1       0     A           28
## 1370 127       1       0     A           32
## 1371 131       0       0     A           30
## 1372 120       1       0     A           24
## 1373 126       0       0     A           40
## 1374 138       1       0     A           29
## 1375 104       1       0     A           36
## 1376  73       0       0     A           20
## 1377  89       1       0     A           45
## 1378  94       1       0     A           41
## 1379 101       0       0     A           40
## 1380  95       1       0     A           22
## 1381  94       0       1     A           48
## 1382 135       0       0     A           46
## 1383  96       1       0     A           42
## 1384  79       1       0     A           27
## 1385 111       1       0     A           33
## 1386 156       1       0     A           22
## 1387 118       0       0     A           28
## 1388 112       1       0     A           36
## 1389 119       0       0     A           38
## 1390 112       1       0     A           36
## 1391 112       1       0     A           46
## 1392 113       1       0     A           47
## 1393 112       1       0     A           37
## 1394 126       1       0     A           38
## 1395 116       1       1     A           48
## 1396  99       1       0     A           36
## 1397 128       1       0     A           45
## 1398 137       1       1     A           41
## 1399  87       1       0     A           38
## 1400 132       1       0     A           32
## 1401 141       0       0     A           50
## 1402  89       1       0     A           40
## 1403  72       1       0     A           51
## 1404 111       1       0     A           38
## 1405  83       1       0     A           26
## 1406 112       1       0     A           23
## 1407  95       1       0     A           27
## 1408 142       0       1     A           52
## 1409  90       0       0     A           48
## 1410 111       1       0     A           31
## 1411  95       1       0     A           41
## 1412  75       1       0     A           36
## 1413 138       1       1     A           48
```

```
## 1414  98       0       0     A           27
## 1415 134       1       0     A           35
## 1416 115       0       0     A           53
## 1417 139       1       0     A           43
## 1418  93       0       0     A           33
## 1419 123       0       0     A           50
## 1420  92       1       0     A           44
## 1421 127       0       0     A           58
## 1422 154       1       0     A           50
## 1423 109       1       0     A           36
## 1424 114       0       1     A           57
## 1425 107       1       0     A           29
## 1426 126       1       1     A           57
## 1427 115       0       0     A           49
## 1428 114       0       0     A           32
## 1429  99       1       0     A           31
## 1430  94       0       0     A           53
## 1431  98       1       0     A           47
## 1432 148       0       0     A           39
## 1433 101       0       0     A           60
## 1434 115       0       0     A           36
## 1435 122       0       0     A           66
## 1436  90       1       0     A           42
## 1437 140       1       0     A           45
## 1438  96       1       0     A           34
## 1439  96       0       0     A           39
## 1440 112       1       0     A           37
## 1441 119       1       0     A           32
## 1442 111       1       0     A           43
## 1443 117       0       0     A           50
## 1444  90       0       0     A           44
## 1445 112       1       0     A           43
## 1446 100       1       0     A           41
## 1447 116       1       0     A           40
## 1448  90       1       0     A           30
## 1449  84       1       0     A           49
## 1450 111       1       0     A           34
## 1451  95       0       0     A           43
## 1452  94       1       0     A           24
## 1453 117       0       1     A           55
## 1454 129       1       0     A           34
## 1455 160       1       0     A           29
## 1456 108       1       0     A           22
## 1457 101       0       0     A           42
## 1458  95       1       0     A           48
## 1459 117       0       0     A           32
## 1460  84       1       0     A           38
## 1461 119       1       0     A           43
## 1462  81       0       0     A           38
## 1463  74       1       0     A           52
## 1464 101       1       0     A           21
## 1465 121       1       0     A           45
## 1466 117       0       0     A           35
## 1467 115       0       0     A           34
```

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## 1468 113       0       0     A          44
## 1469  79       1       0     A          18
## 1470 104       1       0     A          53
## 1471 127       0       0     A          44
## 1472 113       0       0     A          30
## 1473 103       0       0     A          53
## 1474 133       1       0     A          36
## 1475  88       0       0     A          15
## 1476  90       0       0     A          43
## 1477 121       1       0     A          46
## 1478 115       0       0     A          41
## 1479 123       1       0     A          39
## 1480 144       1       0     A          48
## 1481 117       0       0     A          42
## 1482  95       1       0     A          42
## 1483 115       1       0     A          24
## 1484 143       1       0     A          39
## 1485 125       0       0     A          48
## 1486  88       1       0     A          51
## 1487 116       0       0     A          48
## 1488  89       0       0     A          47
## 1489 112       1       0     A          38
## 1490 125       1       0     A          55
## 1491 104       0       0     A          39
## 1492 122       1       0     A          32
## 1493 112       1       0     A          41
## 1494  90       1       0     A          44
## 1495 106       1       0     A          31
## 1496  94       1       0     A          36
## 1497 131       0       0     A          39
## 1498 124       1       0     A          42
## 1499  81       1       0     A          26
## 1500  86       1       0     A          41
## 1501  92       0       0     A          40
## 1502  98       1       0     A          33
## 1503 111       0       0     A          46
## 1504 104       1       0     A          47
## 1505  84       0       0     A          33
## 1506 129       1       1     A          47
## 1507 122       1       0     A          45
## 1508  98       0       0     A          59
## 1509 111       1       0     A          47
## 1510  88       1       1     A          35
## 1511  79       1       0     A          39
## 1512 104       1       0     A          26
## 1513 162       0       0     A          49
## 1514  70       1       0     A          46
## 1515 139       1       0     A          34
## 1516 141       1       0     A          46
## 1517  70       1       0     A          42
## 1518 117       1       0     A          31
## 1519 105       0       1     A          25
## 1520  79       0       1     A          47
## 1521 113       1       0     A          40
```

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## 1522 103       1       1     A          51
## 1523 125       0       0     A          32
## 1524 131       0       0     A          37
## 1525 100       1       0     A          38
## 1526 122       0       0     A          49
## 1527  91       1       0     A          34
## 1528 120       1       0     A          40
## 1529 109       1       0     A          43
## 1530  88       0       0     A          36
## 1531 106       0       0     A          42
## 1532  87       1       0     A          15
## 1533 148       0       0     A         104
## 1534 142       1       0     A          36
## 1535  97       0       0     A          51
## 1536 106       1       1     A          50
## 1537 109       1       0     A          35
## 1538 103       1       0     A          54
## 1539  98       0       0     A          39
## 1540 128       1       0     A          38
## 1541 129       0       0     A          30
## 1542 117       1       0     A          37
## 1543 137       1       0     A          40
## 1544  95       0       0     A          43
## 1545 100       1       0     A          49
## 1546 112       1       0     A          39
## 1547 101       1       0     A          40
## 1548 113       0       0     A          22
## 1549 121       1       0     A          59
## 1550 109       1       0     A          33
## 1551 115       1       0     A          24
## 1552  91       1       0     A          32
## 1553 106       0       0     A          24
## 1554 146       1       0     A          33
## 1555 114       0       0     A          53
## 1556 110       1       0     A          43
## 1557 100       1       0     A          40
## 1558 128       0       0     A          43
## 1559 149       0       0     A          38
## 1560 133       1       0     A          35
## 1561 123       0       0     A          65
## 1562 103       0       1     A          29
## 1563  97       1       0     A          25
## 1564 104       1       1     A          37
## 1565  98       0       0     A          36
## 1566 103       0       0     A          36
## 1567 131       1       0     A          31
## 1568 108       0       1     A          45
## 1569  93       1       0     A          30
## 1570 105       1       1     A          44
## 1571 107       1       0     A          19
## 1572 102       0       0     A          29
## 1573 116       1       0     A          38
## 1574  83       1       0     A          35
## 1575 115       0       0     A          30
```

```
## 1576 118       1       1     A          39
## 1577 100       1       0     A          51
## 1578  93       1       0     A          48
## 1579 165       1       0     A          39
## 1580 122       1       0     A          16
## 1581 120       1       0     A          33
## 1582 120       1       0     A          53
## 1583 147       1       0     A          32
## 1584 106       0       0     A          53
## 1585  93       0       0     A          41
## 1586 112       0       0     A          34
## 1587 101       0       0     A          33
## 1588 127       0       0     A          48
## 1589  95       1       1     A          48
## 1590  70       1       0     A          41
## 1591 113       1       0     A          41
## 1592  75       0       0     A          61
## 1593  78       0       0     A          31
## 1594  97       0       0     A          49
## 1595 106       1       0     A          34
## 1596  98       1       0     A          34
## 1597  77       0       0     A          47
## 1598  83       1       0     A          30
## 1599  62       0       1     A          45
## 1600 135       1       0     A          25
## 1601 122       1       0     A          28
## 1602 134       0       0     A          33
## 1603  99       1       0     A          37
## 1604 143       1       1     A          40
## 1605 133       1       0     A          51
## 1606  96       1       0     A          25
## 1607  84       0       0     A          42
## 1608 104       1       0     A          42
## 1609 126       0       0     A          51
## 1610 144       1       0     A          51
## 1611 104       0       0     A          48
## 1612 113       0       0     A          54
## 1613  83       1       0     A          78
## 1614 112       1       0     A          42
## 1615  76       1       0     A          42
## 1616 145       1       1     A          40
## 1617 128       1       0     A          35
## 1618 138       1       0     A          67
## 1619  92       1       1     A          59
## 1620 142       1       0     A          46
## 1621 114       1       0     A          32
## 1622 132       1       0     A          22
## 1623 106       1       1     A          38
## 1624 103       1       0     A          34
## 1625 150       1       1     A          42
## 1626 129       1       0     A          35
## 1627 121       1       0     A          32
## 1628 117       0       0     A          40
## 1629 127       0       0     A          42
```

```
## 1630 107       1       0     A           38
## 1631 140       1       0     A           48
## 1632  79       1       0     A           34
## 1633  89       1       0     A           37
## 1634 111       0       0     A           30
## 1635  81       0       0     A           43
## 1636 125       1       0     A           49
## 1637 101       1       0     A           27
## 1638 102       0       0     A           49
## 1639 111       1       0     A           41
## 1640  97       0       0     A           62
## 1641 130       0       0     A           43
## 1642 116       0       0     A           25
## 1643 129       0       0     A           38
## 1644  82       1       0     A           40
## 1645 142       1       0     A           31
## 1646 133       1       0     A           42
## 1647 106       1       0     A           42
## 1648  63       1       0     A           35
## 1649 134       0       0     A           44
## 1650 147       1       0     A           42
## 1651 120       1       0     A           37
## 1652 109       0       0     A           53
## 1653 128       1       0     A           38
## 1654  83       1       0     A           47
## 1655 148       1       0     A           42
## 1656  67       1       1     A           33
## 1657 124       0       0     A           29
## 1658 120       0       0     A           38
## 1659 141       1       0     A           35
## 1660 123       1       0     A           24
## 1661  98       1       0     A           16
## 1662 103       0       0     A           34
## 1663 100       1       0     A           39
## 1664 107       1       1     A           51
## 1665 123       1       0     A           51
## 1666 130       1       0     A           44
## 1667  68       1       0     A           34
## 1668  88       0       0     A           43
## 1669  71       1       0     A           30
## 1670  99       0       1     A           59
## 1671 154       1       0     A           35
## 1672 123       0       0     A           26
## 1673 100       1       0     A           35
## 1674  83       0       0     A           35
## 1675 136       1       1     A           54
## 1676 127       1       0     A           49
## 1677 110       1       0     A           39
## 1678  80       0       0     A           22
## 1679 106       0       0     A           40
## 1680 140       0       0     A           41
## 1681 113       0       0     A           45
## 1682  96       0       0     A           50
## 1683 119       0       0     A           44
```

```
## 1684 143       1       0     A           49
## 1685  85       1       0     A           56
## 1686  75       1       0     A           41
## 1687 103       1       1     A           49
## 1688  97       1       0     A           39
## 1689 101       1       1     A           39
## 1690 146       0       0     A           47
## 1691 116       0       0     A           55
## 1692  92       1       0     A           38
## 1693 133       1       0     A           46
## 1694 132       0       0     A           39
## 1695  84       1       0     A           33
## 1696 118       1       1     A           48
## 1697 123       1       0     A           36
## 1698 114       0       0     A           38
## 1699 103       1       0     A           38
## 1700 107       0       0     A           39
## 1701  98       1       0     A           82
## 1702 139       1       0     A           35
## 1703 120       0       0     A           26
## 1704  74       1       0     A           31
## 1705 111       1       0     A           54
## 1706 129       0       0     A           48
## 1707  96       1       0     A           38
## 1708  79       0       0     A           27
## 1709 107       1       0     A           36
## 1710 100       0       0     A           47
## 1711 111       0       0     A           32
## 1712 101       0       0     A           57
## 1713 117       1       0     A           28
## 1714  73       0       0     A           36
## 1715 110       1       0     A           39
## 1716 121       1       0     A           53
## 1717 106       1       0     A           32
## 1718 129       0       0     A           37
## 1719  87       1       0     A           79
## 1720 110       1       0     A           47
## 1721 114       0       0     A           21
## 1722 121       1       1     A           44
## 1723  97       1       0     A           31
## 1724 111       0       0     A           70
## 1725  96       1       0     A           34
## 1726 117       0       0     A           55
## 1727 136       1       1     A           51
## 1728 122       1       0     A           39
## 1729 108       1       0     A           27
## 1730 126       1       1     A           33
## 1731 113       0       0     A           52
## 1732 109       0       0     A           38
## 1733 125       1       1     A           41
## 1734 116       0       0     A           54
## 1735 119       1       0     A           48
## 1736 144       1       0     A           48
## 1737 136       1       0     A           52
```

```
## 1738  81       0       0     A           41
## 1739 132       0       0     A           39
## 1740 131       0       0     A           33
## 1741 103       1       0     A           35
## 1742 114       1       0     A           33
## 1743 100       1       0     A           35
## 1744 131       1       0     A           25
## 1745 145       0       0     A           49
## 1746 114       0       0     A           36
## 1747  78       0       0     A           40
## 1748  77       1       0     A           22
## 1749 106       1       0     A           39
## 1750  91       0       0     A           32
## 1751 100       1       0     A           55
## 1752 150       1       0     A           35
## 1753 119       0       0     A           39
## 1754 114       1       0     A           59
## 1755 131       1       0     A           27
## 1756 119       1       0     A           43
## 1757 143       1       0     A           41
## 1758 153       0       1     A           62
## 1759  80       0       0     A           35
## 1760 120       1       0     A           43
## 1761 125       1       0     A           36
## 1762 128       1       0     A           51
## 1763  95       1       0     A           32
## 1764  97       1       1     A           45
## 1765 101       1       0     A           42
## 1766 121       1       0     A           31
## 1767  86       1       0     A           32
## 1768 122       1       1     A           44
## 1769  82       1       0     A           44
## 1770 145       0       0     A           37
## 1771 103       0       0     A           35
## 1772  79       1       0     A           40
## 1773 132       1       0     A           41
## 1774 133       0       0     A           51
## 1775  61       1       0     A           23
## 1776 120       0       0     A           47
## 1777 117       0       0     A           55
## 1778 107       1       0     A           30
## 1779 139       1       0     A           37
## 1780 134       0       0     A           44
## 1781 147       0       1     A           42
## 1782 122       1       0     A           52
## 1783 105       1       0     A           47
## 1784  89       0       0     A           33
## 1785 131       1       0     A           33
## 1786 102       0       0     A           44
## 1787 103       1       0     A           31
## 1788  87       1       0     A           39
## 1789  92       1       0     A           26
## 1790  92       0       0     A           34
## 1791  66       0       0     A           44
```

```
## 1792 139       1       0     A           30
## 1793 108       1       0     A           54
## 1794 124       1       0     A           20
## 1795 123       1       0     A           39
## 1796  99       1       0     A           33
## 1797  77       0       0     A           34
## 1798 144       0       0     A           42
## 1799 132       0       0     A           45
## 1800 119       0       1     A           30
## 1801  99       0       0     A           36
## 1802 142       1       0     A           30
## 1803 126       1       0     A           22
## 1804 151       1       0     A           30
## 1805  81       1       0     A           50
## 1806 124       1       0     A           30
## 1807 113       1       0     A           37
## 1808 100       1       0     A           63
## 1809  94       1       0     A           41
## 1810 101       1       0     A           41
## 1811 108       0       0     A           33
## 1812 134       0       0     A           36
## 1813  88       1       0     A           55
## 1814 102       1       0     A           43
## 1815 103       0       0     A           52
## 1816  96       1       0     A           55
## 1817 144       1       0     A           36
## 1818 139       0       0     A           44
## 1819  99       0       0     A           39
## 1820 103       0       0     A           34
## 1821  86       0       0     A           75
## 1822  97       1       1     A           25
## 1823 101       1       0     A           49
## 1824 127       0       0     A           28
## 1825 114       1       0     A           28
## 1826 131       1       0     A           33
## 1827  92       0       0     A           44
## 1828 108       1       0     A           40
## 1829  99       1       0     A           14
## 1830  94       0       0     A           41
## 1831 102       0       0     A           52
## 1832 128       0       0     A           32
## 1833 129       1       0     A           39
## 1834  92       1       0     A           48
## 1835 118       0       0     A           42
## 1836 123       1       0     A           35
## 1837 106       0       0     A           52
## 1838 109       1       0     A           47
## 1839 101       1       0     A           41
## 1840 132       0       0     A           59
## 1841 104       0       0     A           45
## 1842 143       1       0     A           22
## 1843 139       1       0     A           38
## 1844 125       0       0     A           56
## 1845 145       1       0     A           34
```

```
## 1846 100       1       0     A           31
## 1847  94       1       0     A           50
## 1848 102       1       0     A           42
## 1849 102       1       0     A           37
## 1850 120       1       0     A           24
## 1851  81       1       0     A           51
## 1852 108       0       0     A           31
## 1853  77       1       1     A           40
## 1854  81       0       0     A           30
## 1855 157       0       0     A           54
## 1856 119       1       0     A           36
## 1857 109       0       0     A           52
## 1858 130       0       0     A           37
## 1859 150       1       0     A           34
## 1860 109       0       0     A           53
## 1861 120       1       0     A           54
## 1862  92       0       0     A           52
## 1863  71       0       0     A           37
## 1864 119       1       0     A           36
## 1865 116       1       1     A           44
## 1866 114       0       1     A           46
## 1867 121       1       0     A           48
## 1868 141       0       0     A           53
## 1869 127       1       0     A           44
## 1870 118       1       0     A           42
## 1871 102       0       0     A           47
## 1872 116       0       0     A           55
## 1873 106       1       0     A           32
## 1874  99       1       0     A           35
## 1875 118       1       0     A           49
## 1876 113       0       0     A           38
## 1877  95       1       0     A           44
## 1878 129       1       0     A           49
## 1879 125       0       0     A           59
## 1880 111       1       0     A           35
## 1881 125       0       0     A           39
## 1882 121       0       1     A           36
## 1883 118       1       0     A           50
## 1884 118       1       0     A           43
## 1885 148       1       0     A           39
## 1886 107       1       0     A           27
## 1887  93       0       0     A           37
## 1888 105       1       1     A           38
## 1889  86       0       0     A           46
## 1890 104       1       0     A           37
## 1891  86       1       0     A           41
## 1892 124       0       1     A           44
## 1893 115       1       0     A           43
## 1894 143       0       0     A           51
## 1895 101       0       0     A           48
## 1896 127       0       0     A           39
## 1897 138       0       0     A           41
## 1898  78       1       0     A           31
## 1899 126       0       0     A           34
```

```
## 1900  68       1       0     A           40
## 1901 106       0       0     A           25
## 1902 124       1       0     A           38
## 1903 124       1       0     A           40
## 1904 100       1       1     A           51
## 1905 160       1       0     A           57
## 1906 118       0       0     A           29
## 1907 115       1       0     A           35
## 1908  92       0       0     A           31
## 1909 151       1       0     A           42
## 1910 117       0       0     A           35
## 1911 105       0       0     A           22
## 1912 116       1       0     A           41
## 1913 114       1       0     A           26
## 1914 129       1       0     A           24
## 1915 126       1       0     A           39
## 1916 133       0       0     A           42
## 1917 122       1       0     A           38
## 1918 119       0       0     A           55
## 1919 108       0       0     A           30
## 1920 116       0       1     A           57
## 1921 120       0       0     A           27
## 1922 129       0       0     A           47
## 1923  96       1       0     A           38
## 1924 133       0       0     A           26
## 1925 103       1       0     A           42
## 1926 122       1       0     A           20
## 1927 113       1       0     A           32
## 1928 132       1       0     A           41
## 1929 110       1       1     A           33
## 1930 107       1       1     A           19
## 1931  80       0       0     A           39
## 1932  91       1       0     A           42
## 1933  97       0       0     A           29
## 1934 113       0       0     A           49
## 1935 127       0       0     A           52
## 1936 102       0       0     A           45
## 1937 100       1       1     A           25
## 1938  65       1       0     A           30
## 1939 148       0       0     A           57
## 1940 106       0       0     A           36
## 1941 149       1       0     A           37
## 1942 110       1       1     A           45
## 1943 124       1       0     A           29
## 1944 109       1       0     A           32
## 1945 107       0       0     A           48
## 1946  98       1       0     A           29
## 1947 143       1       0     A           35
## 1948 122       1       0     A           30
## 1949 108       1       0     A           42
## 1950  85       0       0     A           22
## 1951  76       1       0     A           36
## 1952 119       0       0     A           37
## 1953 123       1       0     A           45
```

```
## 1954 126       1       0     A           64
## 1955  82       1       0     A           39
## 1956 107       0       0     A           26
## 1957 152       1       0     A           51
## 1958 118       1       0     A           34
## 1959  91       0       0     A           41
## 1960 114       1       0     A           41
## 1961 103       0       0     A           45
## 1962  76       1       0     A           54
## 1963  80       1       0     A           42
## 1964 100       1       0     A           43
## 1965 115       1       0     A           41
## 1966 116       1       1     A           37
## 1967 140       0       0     A           47
## 1968  99       0       0     A           38
## 1969 120       0       0     A           48
## 1970  79       1       0     A           35
## 1971  98       1       0     A           40
## 1972 120       1       0     A           46
## 1973 118       1       0     A           44
## 1974 125       1       0     A           29
## 1975 117       0       0     A           37
## 1976  92       0       0     A           39
## 1977 102       1       1     A           37
## 1978 143       1       0     A           31
## 1979 143       0       0     A           30
## 1980  80       0       0     A           33
## 1981 112       0       0     A           44
## 1982 103       1       0     A           45
## 1983 127       1       0     A           15
## 1984 149       0       0     A           45
## 1985  86       0       0     A           49
## 1986 117       1       0     A           38
## 1987 112       1       0     A           39
## 1988 123       1       1     A           41
## 1989 138       1       0     A           24
## 1990 133       1       1     A           47
## 1991 102       1       0     A           34
## 1992 108       0       0     A           39
## 1993 109       0       0     A           37
## 1994 110       0       0     A           33
## 1995  98       1       0     A           28
## 1996 101       0       0     A           52
## 1997  87       1       0     A           59
## 1998  91       0       0     A           34
## 1999 121       1       0     A           40
## 2000 123       0       0     A           32
## 2001 103       0       0     B           12
## 2002 165       1       0     B           14
## 2003 115       1       0     B           20
## 2004 101       0       1     B           52
## 2005 104       0       0     B           41
## 2006 131       0       1     B           97
## 2007 104       0       0     B           61
```

```
## 2008 121       1       0     B            15
## 2009 131       0       0     B            79
## 2010  80       1       0     B            13
## 2011  82       1       0     B            36
## 2012  99       0       0     B            34
## 2013 105       0       1     B            33
## 2014  75       0       0     B            24
## 2015  97       0       0     B            77
## 2016 135       0       1     B           172
## 2017 122       1       0     B            10
## 2018 124       0       0     B            56
## 2019 105       1       0     B             5
## 2020  89       1       1     B            44
## 2021 126       1       0     B            23
## 2022 124       1       0     B            56
## 2023 101       0       0     B           105
## 2024 140       0       0     B            69
## 2025 159       1       0     B            27
## 2026 136       1       0     B           109
## 2027  84       0       0     B             3
## 2028  98       1       1     B            35
## 2029 146       0       0     B            47
## 2030 114       1       0     B            66
## 2031 120       0       0     B            15
## 2032 121       0       0     B            30
## 2033 108       0       1     B           173
## 2034 132       1       0     B            14
## 2035 105       1       0     B            54
## 2036 119       0       0     B            80
## 2037  84       1       0     B            29
## 2038 111       1       1     B            80
## 2039 119       1       0     B            23
## 2040 108       1       0     B            23
## 2041 105       0       0     B            84
## 2042 114       0       0     B            54
## 2043 158       0       0     B            24
## 2044  99       1       0     B            52
## 2045  99       0       0     B            83
## 2046 165       0       0     B             7
## 2047 131       0       0     B            29
## 2048 129       0       1     B            35
## 2049  69       1       0     B            18
## 2050 119       1       0     B            13
## 2051  91       0       0     B            96
## 2052 130       1       0     B            37
## 2053 108       1       0     B            67
## 2054 107       1       0     B            16
## 2055 123       0       0     B            26
## 2056 132       1       0     B             7
## 2057  75       0       1     B            82
## 2058 118       1       0     B            34
## 2059 108       1       0     B            36
## 2060 126       1       0     B            30
## 2061 106       0       1     B           131
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## 2062  84       1        0     B            22
## 2063 110       1        0     B           177
## 2064  94       1        0     B            40
## 2065 127       0        0     B            23
## 2066 102       1        0     B            42
## 2067 118       1        0     B            22
## 2068  93       0        0     B            60
## 2069 139       1        0     B            39
## 2070 108       0        0     B            31
## 2071  87       1        0     B            51
## 2072 127       1        0     B            14
## 2073 120       1        0     B            49
## 2074 136       0        0     B            49
## 2075  90       1        0     B            27
## 2076 114       0        0     B            55
## 2077 109       1        0     B            20
## 2078 120       1        0     B             9
## 2079  73       0        0     B             2
## 2080 131       0        0     B            68
## 2081 104       1        1     B            90
## 2082 132       1        0     B            41
## 2083  99       1        0     B            36
## 2084 114       0        0     B            29
## 2085 128       1        0     B            87
## 2086  95       1        0     B            29
## 2087  71       1        0     B            63
## 2088 120       1        0     B            13
## 2089  72       0        0     B            43
## 2090  86       0        0     B            63
## 2091 120       0        1     B           158
## 2092  89       1        0     B            29
## 2093 115       0        0     B            52
## 2094 104       0        0     B            24
## 2095  82       0        0     B            40
## 2096  90       1        0     B           106
## 2097 116       0        0     B            20
## 2098 112       1        0     B            40
## 2099 154       1        0     B            46
## 2100 103       1        0     B            26
## 2101 120       1        0     B            32
## 2102 105       1        0     B            16
## 2103  88       0        0     B            75
## 2104 115       1        0     B            67
## 2105 100       1        0     B             9
## 2106 119       1        0     B            22
## 2107 107       1        1     B            51
## 2108 117       1        0     B            19
## 2109 123       0        0     B            35
## 2110 134       1        0     B            23
## 2111 108       0        0     B            76
## 2112  91       1        0     B            29
## 2113  91       1        0     B            32
## 2114  99       0        1     B           107
## 2115 136       0        0     B            60
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## 2116 139       1       0     B          100
## 2117  91       0       0     B           43
## 2118 120       0       0     B           22
## 2119 116       1       1     B           73
## 2120 127       0       0     B           43
## 2121 107       1       0     B           72
## 2122 101       1       0     B           47
## 2123 129       1       0     B           27
## 2124 110       1       0     B           22
## 2125 110       1       0     B           29
## 2126  84       0       0     B           70
## 2127 106       0       0     B            8
## 2128  97       0       0     B           76
## 2129 115       1       0     B           14
## 2130  89       1       0     B           35
## 2131  83       1       0     B           17
## 2132 137       0       0     B           61
## 2133 130       1       0     B          125
## 2134  91       1       0     B           27
## 2135  81       0       0     B           18
## 2136  96       1       0     B           50
## 2137 110       1       0     B           37
## 2138 109       0       0     B           34
## 2139 110       1       0     B           14
## 2140 138       0       0     B           42
## 2141 124       0       0     B            6
## 2142 116       1       0     B           21
## 2143 130       0       0     B           49
## 2144 111       0       0     B           61
## 2145 107       0       0     B           20
## 2146  89       0       0     B           59
## 2147  82       1       0     B           62
## 2148 122       0       0     B           54
## 2149  90       1       0     B           20
## 2150  96       1       0     B           46
## 2151 105       1       0     B           33
## 2152 112       1       0     B           14
## 2153 154       0       1     B           66
## 2154  97       0       0     B           54
## 2155 122       1       0     B           39
## 2156 127       0       1     B           23
## 2157 112       1       0     B           31
## 2158  88       1       0     B           17
## 2159 107       1       0     B           30
## 2160 126       1       0     B           24
## 2161 121       1       0     B           53
## 2162  99       1       0     B           61
## 2163  87       0       0     B            9
## 2164 102       0       1     B           89
## 2165 152       1       0     B           33
## 2166 101       1       0     B           57
## 2167 116       1       0     B           13
## 2168 132       0       0     B           30
## 2169  96       0       0     B           57
```

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## 2170 103       1       0     B            23
## 2171  90       1       0     B            20
## 2172 125       0       0     B            43
## 2173 151       0       0     B            90
## 2174 141       1       0     B            27
## 2175 136       0       0     B             8
## 2176 137       1       0     B            10
## 2177 114       1       0     B            28
## 2178 119       1       0     B            11
## 2179 111       0       1     B            47
## 2180 119       0       0     B            62
## 2181  99       0       0     B            52
## 2182  95       0       0     B            55
## 2183  97       1       0     B            55
## 2184 151       0       0     B            34
## 2185 116       1       0     B            12
## 2186  74       1       0     B            22
## 2187  85       0       0     B            63
## 2188 122       1       0     B            17
## 2189  86       1       0     B            54
## 2190  82       1       0     B            16
## 2191 126       0       0     B            47
## 2192  93       1       0     B            11
## 2193  79       1       0     B           197
## 2194  81       1       0     B            18
## 2195 111       0       0     B            17
## 2196  98       1       0     B            52
## 2197 121       0       0     B            97
## 2198  95       1       0     B            24
## 2199 132       1       0     B            27
## 2200 142       0       0     B            27
## 2201 120       1       0     B            36
## 2202  96       1       1     B            39
## 2203 112       1       0     B            49
## 2204 104       0       0     B            44
## 2205  65       1       0     B            47
## 2206 106       1       0     B            30
## 2207  95       0       0     B            33
## 2208 118       1       0     B             2
## 2209 112       1       0     B            50
## 2210 110       1       0     B            41
## 2211  93       0       0     B           110
## 2212 105       0       0     B            33
## 2213 102       1       0     B            42
## 2214 103       1       0     B            18
## 2215 126       0       0     B            63
## 2216 162       1       0     B             4
## 2217  83       0       0     B            23
## 2218 115       1       0     B            78
## 2219 115       0       0     B             8
## 2220 124       0       1     B            36
## 2221  81       0       0     B            80
## 2222 107       0       0     B            13
## 2223  73       1       0     B            54
```

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## 2224 127       0       0     B          22
## 2225 152       0       0     B          41
## 2226 134       1       0     B          54
## 2227 126       1       0     B          21
## 2228 128       1       0     B          19
## 2229  86       0       1     B          66
## 2230 129       0       1     B         152
## 2231 117       1       1     B          68
## 2232 106       1       1     B          79
## 2233 130       1       0     B          48
## 2234 123       1       0     B          97
## 2235 103       1       1     B          22
## 2236 142       0       0     B          83
## 2237 115       1       0     B          48
## 2238 125       1       0     B          76
## 2239 108       0       0     B          51
## 2240  98       1       0     B          12
## 2241  89       1       0     B          37
## 2242 108       1       0     B          82
## 2243 118       0       0     B          31
## 2244 103       0       0     B          27
## 2245 107       0       0     B          22
## 2246  88       1       0     B          42
## 2247  95       0       1     B          14
## 2248 116       1       0     B          30
## 2249 142       1       0     B          38
## 2250 115       0       1     B          63
## 2251  77       0       0     B          40
## 2252  80       1       0     B          11
## 2253 122       0       0     B          94
## 2254  99       0       0     B          22
## 2255 106       1       0     B          21
## 2256  79       0       0     B         142
## 2257 115       1       0     B          28
## 2258  87       0       0     B          30
## 2259 104       0       0     B           9
## 2260 113       1       0     B          14
## 2261 125       1       0     B          27
## 2262 131       1       0     B          15
## 2263  68       0       0     B           7
## 2264  98       1       0     B          45
## 2265  92       1       0     B           9
## 2266 125       0       0     B          35
## 2267 101       1       1     B          72
## 2268 123       1       1     B           9
## 2269  80       1       0     B           4
## 2270  92       1       0     B          44
## 2271  60       1       1     B          46
## 2272  72       0       1     B          62
## 2273  97       0       0     B          22
## 2274  88       1       0     B          41
## 2275 126       0       0     B          74
## 2276 101       0       1     B          84
## 2277  98       1       0     B          73
```

```
## 2278 127       0       0     B           148
## 2279 160       0       0     B             6
## 2280 101       1       0     B            21
## 2281  91       1       0     B            59
## 2282 131       1       0     B            70
## 2283 135       0       0     B            26
## 2284 132       0       0     B            18
## 2285 112       0       1     B            50
## 2286  92       1       0     B            66
## 2287 114       0       0     B            67
## 2288 103       0       0     B            77
## 2289 119       0       0     B            59
## 2290  97       1       0     B             7
## 2291 116       0       0     B            66
## 2292  98       1       0     B            26
## 2293 118       0       0     B            37
## 2294  96       1       0     B            30
## 2295 157       0       1     B            22
## 2296 104       0       0     B            16
## 2297  95       0       0     B            57
## 2298 128       1       1     B            93
## 2299  93       0       0     B           106
## 2300 113       1       0     B            37
## 2301 122       0       0     B           103
## 2302 103       1       1     B            24
## 2303  87       0       0     B            80
## 2304 145       1       0     B            27
## 2305 105       1       1     B            41
## 2306 140       0       0     B            25
## 2307 104       1       1     B           119
## 2308  58       1       0     B            23
## 2309  82       1       0     B            23
## 2310 115       1       1     B            89
## 2311 119       1       0     B            22
## 2312 121       1       1     B            24
## 2313  98       1       0     B           203
## 2314 134       1       0     B             5
## 2315 108       1       0     B            13
## 2316 131       0       0     B            34
## 2317 126       1       0     B            48
## 2318 116       0       0     B            23
## 2319  78       0       0     B           228
## 2320 130       0       0     B            62
## 2321 128       1       0     B            61
## 2322 116       0       0     B            36
## 2323  87       0       0     B            15
## 2324  98       1       0     B            85
## 2325 144       1       0     B            20
## 2326  90       0       0     B            64
## 2327  96       1       0     B            14
## 2328 127       1       0     B            40
## 2329 120       1       0     B            53
## 2330 113       0       0     B            87
## 2331 127       1       0     B            21
```

```
## 2332 102       1       1     B          12
## 2333 149       0       0     B          38
## 2334 118       1       0     B          21
## 2335 114       1       0     B          25
## 2336 106       0       0     B          49
## 2337  81       1       0     B          20
## 2338 138       1       0     B          21
## 2339  90       0       0     B          28
## 2340 149       0       0     B          45
## 2341  91       0       0     B          14
## 2342  82       1       0     B          17
## 2343  75       1       0     B          14
## 2344 122       1       0     B          52
## 2345  70       1       0     B          36
## 2346  95       0       0     B         118
## 2347  80       1       1     B          26
## 2348 139       1       0     B          23
## 2349  87       1       1     B          11
## 2350 102       1       0     B          90
## 2351 103       1       0     B           7
## 2352 100       1       0     B          10
## 2353 110       0       0     B           6
## 2354 126       1       0     B          52
## 2355  99       1       1     B          52
## 2356 105       1       0     B          24
## 2357 104       0       1     B          57
## 2358 121       0       0     B          71
## 2359  95       1       0     B          13
## 2360 120       1       1     B          96
## 2361 120       0       0     B          52
## 2362 113       1       0     B          19
## 2363 105       0       0     B         222
## 2364 103       0       0     B          34
## 2365 136       0       0     B          46
## 2366  85       0       0     B          63
## 2367 117       1       0     B          32
## 2368  94       0       0     B         100
## 2369 108       1       0     B          17
## 2370  94       1       0     B          32
## 2371 102       1       1     B          89
## 2372 104       0       0     B          18
## 2373 115       1       0     B          39
## 2374 112       1       1     B          22
## 2375 132       1       0     B          28
## 2376  65       0       0     B         105
## 2377  99       1       0     B          31
## 2378 110       0       0     B          59
## 2379 117       1       0     B          27
## 2380  76       1       0     B          47
## 2381 137       0       0     B          34
## 2382  98       1       0     B          30
## 2383 111       1       0     B          63
## 2384 127       1       0     B          47
## 2385 117       1       0     B          89
```

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## 2386 116       0       0     B            4
## 2387 104       1       0     B           13
## 2388  98       1       0     B           68
## 2389 132       1       0     B           24
## 2390 105       0       0     B           16
## 2391 134       1       0     B           19
## 2392 104       1       0     B            4
## 2393  89       1       0     B            4
## 2394 134       1       0     B           68
## 2395 116       1       0     B           38
## 2396 119       1       0     B           34
## 2397 126       0       0     B           84
## 2398 114       0       0     B           45
## 2399  83       0       0     B           40
## 2400 104       1       0     B           75
## 2401 119       0       0     B           64
## 2402  73       0       1     B           92
## 2403 129       1       0     B           56
## 2404 105       1       1     B          137
## 2405 109       0       0     B           21
## 2406 108       0       0     B           14
## 2407 121       0       0     B          116
## 2408 100       0       0     B           20
## 2409  93       1       0     B           69
## 2410 110       0       1     B           46
## 2411 141       0       0     B           52
## 2412 105       0       0     B           25
## 2413 102       0       0     B           52
## 2414 123       0       0     B           48
## 2415 107       1       1     B           44
## 2416 120       1       0     B           30
## 2417 144       1       0     B           31
## 2418 107       1       0     B           12
## 2419 104       1       0     B           20
## 2420 129       0       0     B           19
## 2421 140       0       0     B           73
## 2422 119       1       0     B            9
## 2423 115       0       0     B           63
## 2424 147       0       0     B           15
## 2425  92       1       0     B           53
## 2426  88       1       0     B           24
## 2427 109       1       0     B           44
## 2428 129       1       0     B          151
## 2429 127       0       0     B           77
## 2430 108       0       0     B           18
## 2431  83       0       0     B           95
## 2432 135       1       1     B           33
## 2433 110       1       0     B           78
## 2434  90       0       1     B           74
## 2435 128       0       0     B           37
## 2436 146       0       0     B           30
## 2437  77       1       1     B          296
## 2438 132       1       0     B           71
## 2439  84       0       0     B           65
```

```
## 2440 103       1       0     B            27
## 2441 135       0       1     B            30
## 2442 106       1       0     B            85
## 2443 125       1       0     B            19
## 2444 141       0       1     B           330
## 2445 141       0       0     B            69
## 2446 118       1       0     B            49
## 2447 113       1       0     B            54
## 2448  70       1       0     B            32
## 2449 136       1       0     B            27
## 2450 115       0       0     B            20
## 2451 133       1       0     B             4
## 2452  78       1       0     B            71
## 2453 101       1       0     B            57
## 2454 106       1       0     B            71
## 2455 144       1       0     B            18
## 2456  68       1       0     B            43
## 2457 156       0       0     B             3
## 2458 128       1       1     B            35
## 2459 128       1       0     B            45
## 2460  97       1       0     B            33
## 2461  74       1       0     B            29
## 2462 117       1       0     B            21
## 2463 107       1       0     B            34
## 2464 109       0       0     B            78
## 2465 144       0       0     B            68
## 2466 130       0       0     B            63
## 2467 110       0       0     B            90
## 2468 147       0       0     B            49
## 2469 125       0       0     B            69
## 2470  90       0       0     B            43
## 2471 109       1       0     B            34
## 2472  89       0       0     B            47
## 2473  79       0       1     B            19
## 2474 145       0       0     B            47
## 2475 128       0       0     B            88
## 2476 113       0       0     B            42
## 2477 140       1       0     B            26
## 2478 112       0       0     B            51
## 2479  80       1       0     B           140
## 2480 133       1       1     B            55
## 2481  77       1       0     B            45
## 2482 106       1       0     B            23
## 2483  85       1       0     B            22
## 2484  97       1       0     B            26
## 2485 111       0       0     B            55
## 2486 140       0       0     B            29
## 2487 131       1       0     B            15
## 2488  95       1       0     B            41
## 2489 122       0       0     B            16
## 2490 101       1       0     B            44
## 2491  88       1       0     B            77
## 2492 118       1       0     B            20
## 2493  90       1       0     B            48
```

```
## 2494 122       1       0     B          31
## 2495 106       0       0     B          32
## 2496 117       1       0     B          26
## 2497 120       1       0     B          41
## 2498 117       0       1     B         113
## 2499 115       1       0     B          36
## 2500  77       1       0     B          27
## 2501 112       0       0     B          52
## 2502 131       1       0     B          71
## 2503 116       1       0     B          24
## 2504 119       1       0     B          37
## 2505  96       1       0     B          75
## 2506 150       0       0     B          58
## 2507 126       0       0     B          31
## 2508 113       0       0     B          33
## 2509 134       1       0     B          27
## 2510 114       1       0     B          20
## 2511 120       1       1     B          72
## 2512 106       0       1     B         161
## 2513  73       1       0     B          38
## 2514 114       1       1     B          37
## 2515  94       0       0     B          60
## 2516 133       0       0     B          86
## 2517 131       1       0     B          34
## 2518  91       0       0     B          12
## 2519 109       1       0     B          47
## 2520 100       0       1     B          35
## 2521 128       0       0     B          61
## 2522  99       1       0     B          12
## 2523 112       0       1     B          27
## 2524 121       1       0     B          36
## 2525  79       1       0     B          14
## 2526 100       1       0     B          32
## 2527 139       1       0     B          26
## 2528 104       0       0     B          22
## 2529  95       1       0     B          27
## 2530 108       1       0     B          22
## 2531 132       1       0     B          17
## 2532 113       0       0     B          18
## 2533  70       1       0     B          60
## 2534  91       1       0     B          17
## 2535 117       1       0     B          30
## 2536 136       1       0     B          32
## 2537  75       1       1     B          26
## 2538  97       1       0     B          40
## 2539 152       0       0     B          44
## 2540 108       1       0     B          66
## 2541  85       0       0     B          10
## 2542  91       0       1     B          55
## 2543 144       0       0     B          27
## 2544 125       1       0     B          14
## 2545  62       1       0     B          43
## 2546  97       1       1     B          49
## 2547 125       1       0     B          35
```

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## 2548  77       0       0     B            62
## 2549  91       1       0     B            45
## 2550  96       1       0     B            28
## 2551 124       0       0     B            31
## 2552  97       0       1     B            16
## 2553 103       1       0     B            26
## 2554  56       1       0     B            71
## 2555 107       1       0     B            19
## 2556 125       1       0     B            60
## 2557 120       0       0     B            23
## 2558 107       0       0     B           103
## 2559 143       1       0     B           365
## 2560 149       0       0     B            47
## 2561  96       1       0     B            29
## 2562 117       1       0     B            76
## 2563  96       1       1     B            50
## 2564 105       1       0     B            60
## 2565  89       1       0     B            15
## 2566  94       1       0     B            62
## 2567  87       0       0     B            92
## 2568 145       0       0     B            34
## 2569  91       1       0     B            39
## 2570 102       1       0     B            10
## 2571  83       1       0     B            29
## 2572 138       0       0     B            27
## 2573 121       1       0     B            24
## 2574 134       1       0     B            27
## 2575 105       0       0     B            33
## 2576 145       0       0     B            63
## 2577 109       0       0     B            66
## 2578 118       1       0     B            13
## 2579 114       1       0     B            97
## 2580 104       0       0     B            12
## 2581  95       1       0     B            39
## 2582 121       1       0     B            83
## 2583 135       1       0     B            54
## 2584 143       0       0     B            64
## 2585 115       1       0     B            31
## 2586 110       0       1     B            64
## 2587 122       1       0     B            56
## 2588  89       0       0     B            48
## 2589 135       1       0     B            25
## 2590 114       1       0     B            23
## 2591 105       1       0     B            12
## 2592 153       1       1     B            30
## 2593 136       1       0     B            33
## 2594 110       1       0     B            50
## 2595  79       1       1     B            29
## 2596 127       1       0     B            88
## 2597 135       0       0     B            41
## 2598 108       1       0     B            68
## 2599 117       0       0     B            39
## 2600 126       0       0     B            51
## 2601 113       1       0     B            22
```

```
## 2602 113       1       0     B            30
## 2603  98       1       0     B            33
## 2604  95       1       0     B            11
## 2605 140       1       0     B            29
## 2606 102       1       0     B            46
## 2607  90       1       0     B            43
## 2608 114       0       0     B            70
## 2609 119       0       0     B            23
## 2610 123       1       0     B            10
## 2611  96       0       0     B            57
## 2612  97       1       0     B            49
## 2613 107       1       0     B            11
## 2614  84       0       0     B           194
## 2615 124       0       0     B            25
## 2616  53       0       0     B            56
## 2617 116       0       0     B            42
## 2618  91       0       0     B            44
## 2619 113       0       0     B            20
## 2620 113       1       0     B           152
## 2621  94       0       0     B            39
## 2622 101       0       0     B            20
## 2623 129       0       0     B            53
## 2624 104       0       0     B            93
## 2625 129       1       0     B            62
## 2626 132       1       0     B            22
## 2627 105       0       0     B            40
## 2628 100       0       0     B            39
## 2629  89       1       0     B             9
## 2630 127       1       0     B            22
## 2631 112       1       1     B            49
## 2632 159       0       0     B            30
## 2633  91       0       0     B            21
## 2634 124       1       1     B            62
## 2635  95       1       0     B            12
## 2636 129       1       0     B            36
## 2637 100       0       0     B            63
## 2638  96       0       0     B            55
## 2639 106       1       0     B            20
## 2640  99       1       0     B            17
## 2641 102       1       0     B            90
## 2642  93       0       0     B            47
## 2643 128       0       0     B           102
## 2644 148       0       0     B            32
## 2645 125       1       0     B            46
## 2646  90       0       1     B             5
## 2647 145       1       0     B            70
## 2648 125       1       0     B            28
## 2649  95       0       0     B            58
## 2650 114       1       0     B            27
## 2651 102       0       0     B            39
## 2652 107       0       0     B            17
## 2653 113       1       1     B            84
## 2654  87       0       0     B            50
## 2655 115       1       0     B            61
```

```
## 2656 119       1       0     B            20
## 2657 133       1       0     B            25
## 2658 101       1       0     B            27
## 2659 156       0       0     B            56
## 2660 118       1       0     B            17
## 2661 101       0       0     B            59
## 2662 101       0       0     B            57
## 2663 100       0       0     B            28
## 2664  91       0       0     B            43
## 2665 141       1       0     B            34
## 2666 128       1       0     B            33
## 2667 118       1       0     B            44
## 2668 121       1       0     B            15
## 2669  95       1       0     B            38
## 2670  86       1       1     B            41
## 2671 108       1       0     B            44
## 2672 122       1       0     B            39
## 2673 148       1       0     B            29
## 2674 126       1       0     B            25
## 2675 123       0       0     B            54
## 2676 123       1       0     B            26
## 2677  94       1       0     B            51
## 2678 119       1       0     B            42
## 2679 102       1       0     B            26
## 2680 112       0       0     B            72
## 2681 101       1       0     B            55
## 2682  65       0       0     B            20
## 2683 118       1       0     B           116
## 2684 124       0       0     B            59
## 2685  99       0       0     B            63
## 2686 124       1       0     B            58
## 2687 122       0       0     B            75
## 2688 113       1       0     B            13
## 2689 112       1       0     B            43
## 2690  88       0       0     B            11
## 2691  72       1       0     B            35
## 2692  95       1       0     B            33
## 2693 117       1       0     B           117
## 2694 147       0       0     B            60
## 2695 114       0       0     B            49
## 2696 106       1       0     B             5
## 2697 123       1       0     B            20
## 2698 137       1       0     B            28
## 2699  99       1       0     B            21
## 2700  90       1       0     B            29
## 2701  89       1       0     B            62
## 2702 100       0       0     B            44
## 2703  98       0       0     B            53
## 2704 150       0       0     B            30
## 2705 130       0       0     B            18
## 2706 133       0       0     B            82
## 2707  84       1       0     B            58
## 2708 116       0       0     B            65
## 2709 149       1       0     B            34
```

```
## 2710 122       1       0     B            80
## 2711 111       0       0     B            63
## 2712 109       1       1     B            57
## 2713 114       1       0     B            49
## 2714 135       0       0     B            16
## 2715 116       1       0     B            70
## 2716  82       0       0     B            88
## 2717 124       1       1     B            27
## 2718 118       1       0     B            10
## 2719  90       0       0     B            26
## 2720  95       1       0     B            21
## 2721 112       0       0     B           134
## 2722 135       1       0     B            33
## 2723 112       0       0     B            28
## 2724 102       1       0     B            45
## 2725 108       1       1     B            28
## 2726 141       1       0     B            16
## 2727 124       0       0     B            23
## 2728 127       0       0     B            69
## 2729 140       1       0     B            54
## 2730 130       0       1     B            32
## 2731 107       0       0     B            65
## 2732  95       1       0     B            26
## 2733 149       0       0     B            10
## 2734 111       1       0     B            76
## 2735 118       1       0     B            52
## 2736 121       1       0     B            42
## 2737 139       1       0     B            45
## 2738 104       1       0     B            23
## 2739 110       1       0     B            35
## 2740 137       1       0     B            50
## 2741  96       1       0     B            52
## 2742 129       0       1     B            33
## 2743 156       1       0     B            26
## 2744 103       1       0     B            13
## 2745 116       0       0     B            47
## 2746 106       1       0     B            30
## 2747 100       0       0     B            20
## 2748  86       1       0     B            33
## 2749 120       0       0     B            37
## 2750 103       1       0     B            35
## 2751 113       1       0     B            28
## 2752 110       1       0     B            38
## 2753 108       1       0     B            26
## 2754 108       0       0     B            25
## 2755 138       0       0     B            56
## 2756 117       1       0     B            15
## 2757  76       0       0     B            44
## 2758  90       1       0     B           176
## 2759 115       0       0     B            81
## 2760  95       0       0     B            22
## 2761 126       1       0     B            38
## 2762 123       1       0     B            37
## 2763  72       1       0     B            40
```

```
## 2764 114       1        0     B            50
## 2765 125       0        0     B            62
## 2766  98       1        0     B            85
## 2767 135       1        0     B            49
## 2768 112       1        0     B            50
## 2769 108       1        0     B           118
## 2770 118       0        0     B            30
## 2771  85       1        1     B            13
## 2772 105       1        0     B            15
## 2773  83       1        0     B            17
## 2774 132       1        0     B            13
## 2775 111       1        0     B            65
## 2776  98       1        1     B            35
## 2777  82       1        0     B            34
## 2778 115       1        0     B            25
## 2779  65       0        0     B            14
## 2780  95       1        0     B            95
## 2781 140       0        0     B            32
## 2782 123       1        0     B            38
## 2783 146       1        0     B            40
## 2784 130       1        0     B            48
## 2785 128       1        0     B             8
## 2786 128       1        0     B            71
## 2787 108       1        0     B            14
## 2788 138       1        0     B            40
## 2789 110       1        0     B            23
## 2790  83       0        0     B            33
## 2791  94       1        1     B            11
## 2792 131       1        0     B            11
## 2793  97       1        0     B            44
## 2794 109       0        0     B            82
## 2795 127       1        0     B            26
## 2796  89       1        0     B            62
## 2797 120       1        0     B            17
## 2798  91       1        0     B            34
## 2799 101       1        0     B            43
## 2800 116       1        1     B            20
## 2801 128       1        0     B            23
## 2802 100       1        0     B            90
## 2803 121       1        0     B            48
## 2804 147       1        0     B            37
## 2805 133       0        0     B            34
## 2806  71       0        0     B            96
## 2807  96       1        0     B            61
## 2808  89       1        0     B            47
## 2809 125       0        0     B            11
## 2810 139       1        1     B            32
## 2811 122       1        0     B            60
## 2812 124       1        0     B            33
## 2813  95       1        0     B            31
## 2814  87       1        1     B            63
## 2815  95       1        1     B            37
## 2816 128       0        0     B            17
## 2817 129       0        0     B           365
```

```
## 2818  90       0       0     B            62
## 2819  87       0       1     B            22
## 2820 100       0       0     B            82
## 2821 151       1       0     B            21
## 2822 138       1       0     B             9
## 2823 103       1       0     B            19
## 2824  77       0       0     B            25
## 2825 110       0       0     B            86
## 2826 113       0       0     B            88
## 2827  89       1       0     B            19
## 2828 105       0       1     B            40
## 2829 118       1       0     B            15
## 2830 118       0       0     B             9
## 2831  93       1       0     B             8
## 2832 113       0       0     B            43
## 2833  98       1       0     B            28
## 2834 108       0       0     B            57
## 2835 104       1       0     B            37
## 2836 133       0       0     B            23
## 2837  95       0       0     B            82
## 2838 127       1       0     B            72
## 2839 139       0       0     B            97
## 2840 131       1       0     B            26
## 2841 130       0       0     B            57
## 2842  93       0       0     B            37
## 2843 112       1       0     B            54
## 2844  99       0       0     B            19
## 2845 123       0       0     B            21
## 2846 117       1       0     B            38
## 2847 113       0       0     B            24
## 2848  70       0       0     B            55
## 2849  83       1       0     B            17
## 2850  82       1       0     B            47
## 2851  94       1       0     B            79
## 2852  96       0       0     B            17
## 2853  96       1       0     B            57
## 2854 110       1       0     B             7
## 2855 119       1       0     B            35
## 2856 100       0       0     B           138
## 2857  95       0       0     B            53
## 2858 110       0       0     B            74
## 2859 100       0       0     B            17
## 2860 114       1       1     B            33
## 2861 110       0       0     B            82
## 2862  94       1       0     B            44
## 2863 140       1       1     B            31
## 2864 154       0       0     B            47
## 2865  91       0       1     B            76
## 2866 116       1       0     B            28
## 2867 109       0       0     B            18
## 2868 104       1       0     B            18
## 2869 132       1       0     B            92
## 2870 111       1       0     B            20
## 2871 118       0       0     B            16
```

```
## 2872 114       0       0     B          29
## 2873  80       1       1     B          76
## 2874  95       1       0     B          19
## 2875 116       1       0     B          36
## 2876  78       0       0     B          11
## 2877 116       0       0     B          37
## 2878 111       1       0     B          56
## 2879  78       1       1     B          51
## 2880 125       1       0     B          52
## 2881  98       1       0     B          34
## 2882 103       0       0     B          74
## 2883 109       0       0     B          19
## 2884 112       1       0     B          40
## 2885 124       0       0     B          21
## 2886 127       1       0     B          73
## 2887 140       1       0     B          51
## 2888  92       0       0     B          30
## 2889 101       0       0     B          74
## 2890  96       1       0     B          50
## 2891 102       1       0     B          37
## 2892 116       1       0     B          63
## 2893  91       0       0     B          18
## 2894 109       1       0     B          43
## 2895 143       1       0     B          36
## 2896 125       1       0     B          29
## 2897 108       0       0     B          20
## 2898 111       1       0     B           4
## 2899 121       1       0     B          19
## 2900 111       0       1     B          17
## 2901 145       1       0     B          14
## 2902 144       0       0     B          48
## 2903  96       1       0     B          84
## 2904 103       0       1     B          32
## 2905 143       1       0     B          14
## 2906  88       0       0     B          54
## 2907 136       1       0     B          28
## 2908 139       1       0     B           4
## 2909 107       0       0     B          40
## 2910 107       1       0     B          16
## 2911 108       1       0     B          88
## 2912 109       1       0     B          66
## 2913 127       0       0     B          33
## 2914 131       1       0     B           5
## 2915 114       0       1     B         133
## 2916 101       0       0     B          16
## 2917  82       0       0     B          38
## 2918  71       1       0     B          22
## 2919 111       0       0     B          15
## 2920  65       1       0     B          47
## 2921 107       1       0     B          36
## 2922 146       0       0     B          77
## 2923  71       1       0     B          31
## 2924 113       1       0     B          52
## 2925 106       0       0     B          61
```

```
## 2926  95       1        0     B            50
## 2927 106       1        0     B            52
## 2928  93       0        0     B            51
## 2929  85       1        0     B            29
## 2930 105       0        1     B            92
## 2931 129       0        0     B            20
## 2932 152       0        1     B           160
## 2933  97       1        0     B            62
## 2934 139       1        0     B            15
## 2935 138       0        0     B            15
## 2936 138       0        0     B            41
## 2937  97       1        0     B            47
## 2938 121       0        0     B            19
## 2939 109       1        0     B             8
## 2940 169       1        0     B            79
## 2941 116       0        0     B            85
## 2942 145       0        0     B            37
## 2943 118       1        0     B            34
## 2944 160       0        0     B            36
## 2945  92       1        0     B            11
## 2946 100       0        0     B            97
## 2947  96       0        0     B            23
## 2948  99       1        0     B            57
## 2949  81       0        0     B            60
## 2950 142       1        0     B            27
## 2951 121       0        0     B            35
## 2952  87       1        0     B            40
## 2953 111       1        0     B           110
## 2954 105       1        0     B            31
## 2955 109       1        0     B            23
## 2956 123       0        0     B            97
## 2957 118       1        0     B            24
## 2958  91       1        0     B            20
## 2959  80       0        0     B           126
## 2960 145       1        0     B            46
## 2961  97       1        0     B            18
## 2962  98       0        0     B            11
## 2963 109       0        0     B            25
## 2964 133       1        0     B            37
## 2965 124       1        0     B            28
## 2966 139       0        0     B           120
## 2967 113       1        0     B           101
## 2968 102       1        0     B            51
## 2969 118       1        0     B            31
## 2970 104       0        0     B            23
## 2971  97       1        0     B            23
## 2972 114       1        0     B            48
## 2973  74       0        0     B            74
## 2974  76       1        0     B            30
## 2975 112       0        0     B            31
## 2976  88       1        1     B            17
## 2977  92       0        0     B            80
## 2978 124       1        0     B            10
## 2979 105       0        0     B            29
```

```
## 2980 132       0        0     B            19
## 2981  82       0        0     B           101
## 2982 128       0        0     B           232
## 2983  96       0        0     B            38
## 2984 123       0        0     B            37
## 2985 138       0        0     B            20
## 2986 131       1        0     B            36
## 2987 119       1        0     B            16
## 2988  94       0        0     B            25
## 2989 108       1        0     B            14
## 2990 104       0        0     B            80
## 2991  99       1        0     B            40
## 2992  97       0        0     B            98
## 2993  79       0        0     B            33
## 2994  98       1        0     B            47
## 2995 134       1        0     B            35
## 2996 101       1        0     B            16
## 2997 106       0        0     B            32
## 2998  98       0        0     B            93
## 2999 120       1        0     B            26
## 3000 102       1        0     B            15
```

```
set.seed(2)

# create a random split of 80% training and 20% test data
data_split <- initial_split(data = dat, prop = 0.8)

# partitioned datasets
training_data = training(data_split)
testing_data = testing(data_split)

# training data
x <- model.matrix(recovery_time ~ ., training_data)[, -1] # matrix of predictors
head(x)
```

```
##     id age gender race2 race3 race4 smoking1 smoking2 height weight  bmi
## 1  975  61      1     0     1     0        0        0  181.5   69.4 21.1
## 2  710  61      0     0     0     0        0        0  183.2   90.5 27.0
## 3 2822  66      1     0     1     0        0        0  165.1   69.3 25.4
## 4  416  67      1     0     1     0        0        1  173.5   79.3 26.3
## 5  392  65      1     0     0     0        0        0  169.0   85.9 30.1
## 6  273  63      1     0     0     0        0        1  170.8   87.2 29.9
##   hypertension diabetes SBP LDL vaccine severity studyB
## 1            1        0 136 104       1        0      0
## 2            0        0 130  96       1        0      0
## 3            1        0 137 138       1        0      1
## 4            1        0 136 104       1        0      0
## 5            1        0 131 143       1        0      0
## 6            0        0 128 111       0        0      0
```

```
y <- training_data$recovery_time # vector of response

# testing data
x2 <- model.matrix(recovery_time ~ .,testing_data)[, -1] # matrix of predictors
y2 <- testing_data$recovery_time # vector of response
```

Exploratory analysis and data visualization

```
dat_ds <- dat |>
  mutate(across(.fns = as.factor)) |>
  rename_with(~str_to_title(.x), everything()) |>
  mutate(
    Age = as.numeric(Age),
    Gender = factor(Gender, levels = c(0, 1), labels = c("Female", "Male")),
    `Race/Ethnicity` = factor(Race, levels = c(1, 2, 3, 4), labels = c("White", "Asian", "Black", "Hispa
    `Smoking status` = factor(Smoking, levels = c(0, 1, 2), labels = c("Never smoked", "Former smoker",
    Height = as.numeric(Height),
    Weight = as.numeric(Weight),
    `Body Mass Index (BMI)` = as.numeric(Bmi),
    Hypertension = factor(Hypertension, levels = c(0, 1), labels = c("No", "Yes")),
    Diabetes = factor(Diabetes, levels = c(0, 1), labels = c("No", "Yes")),
    `Systolic Blood Pressure (SBP)` = as.numeric(Sbp),
    `Low-density lipoprotein cholesterol (LDL)` = as.numeric(Ldl),
    `Vaccination status at the time of infection (vaccine)` = factor(Vaccine, levels = c(0, 1), labels =
    `Severity of COVID-19 infection (severity)` = factor(Severity, levels = c(0, 1), labels = c("Not se
    `Time from COVID-19 infection to recovery (recovery_time)` = as.numeric(Recovery_time),
    Study = factor(Study, levels = c("A", "B"), labels = c("Study A", "Study B"))
    )

units(dat_ds$Height) <- "cm"
units(dat_ds$Weight) <- "kg"
units(dat_ds$`Body Mass Index (BMI)`) <- "kg/m^2"
units(dat_ds$`Systolic Blood Pressure (SBP)`) <- "mm/Hg"
units(dat_ds$`Low-density lipoprotein cholesterol (LDL)`) <- "mg/dL"
units(dat_ds$`Time from COVID-19 infection to recovery (recovery_time)`) <- "days"

# descriptive statistics
descriptive_table <- table1(~ Age + Gender + `Race/Ethnicity` + `Smoking status` + Height + Weight + `B
                            data = dat_ds,
                            overall = "Total",
                            caption = "Descriptive Statistics")
t1kable(descriptive_table)
```

Table 1: Descriptive Statistics

	Study A	Study B	Total
	(N=2000)	(N=1000)	(N=3000)
Age			
Mean (SD)	17.2 (4.52)	17.2 (4.38)	17.2 (4.47)
Median [Min, Max]	17.0 [1.00, 34.0]	17.0 [2.00, 33.0]	17.0 [1.00, 34.0]
Gender			
Female	1036 (51.8%)	508 (50.8%)	1544 (51.5%)
Male	964 (48.2%)	492 (49.2%)	1456 (48.5%)
Race/Ethnicity			
White	1312 (65.6%)	655 (65.5%)	1967 (65.6%)
Asian	108 (5.4%)	50 (5.0%)	158 (5.3%)
Black	408 (20.4%)	196 (19.6%)	604 (20.1%)
Hispanic	172 (8.6%)	99 (9.9%)	271 (9.0%)
Smoking status			
Never smoked	1225 (61.3%)	597 (59.7%)	1822 (60.7%)
Former smoker	557 (27.9%)	302 (30.2%)	859 (28.6%)
Current smoker	218 (10.9%)	101 (10.1%)	319 (10.6%)
Height (cm)			
Mean (SD)	160 (58.8)	161 (59.1)	160 (58.9)
Median [Min, Max]	160 [1.00, 313]	161 [2.00, 312]	160 [1.00, 313]
Weight (kg)			
Mean (SD)	181 (70.0)	182 (70.5)	182 (70.2)
Median [Min, Max]	178 [1.00, 364]	182 [3.00, 358]	180 [1.00, 364]
Body Mass Index (BMI) (kg/m^2)			
Mean (SD)	77.6 (27.5)	77.6 (28.3)	77.6 (27.8)
Median [Min, Max]	77.0 [1.00, 162]	76.0 [2.00, 163]	76.5 [1.00, 163]
Hypertension			
No	998 (49.9%)	510 (51.0%)	1508 (50.3%)
Yes	1002 (50.1%)	490 (49.0%)	1492 (49.7%)
Diabetes			
No	1678 (83.9%)	859 (85.9%)	2537 (84.6%)
Yes	322 (16.1%)	141 (14.1%)	463 (15.4%)
Systolic Blood Pressure (SBP) (mm/Hg)			
Mean (SD)	26.6 (8.02)	26.3 (7.88)	26.5 (7.97)
Median [Min, Max]	27.0 [1.00, 52.0]	26.0 [1.00, 51.0]	26.0 [1.00, 52.0]
Low-density lipoprotein cholesterol (LDL) (mg/dL)			
Mean (SD)	58.3 (19.7)	58.7 (19.7)	58.4 (19.7)
Median [Min, Max]	58.0 [1.00, 114]	58.0 [3.00, 112]	58.0 [1.00, 114]
Vaccination status at the time of infection (vaccine)			
Not vaccinated	797 (39.9%)	415 (41.5%)	1212 (40.4%)
Vaccinated	1203 (60.2%)	585 (58.5%)	1788 (59.6%)
Severity of COVID-19 infection (severity)			
Not severe	1785 (89.3%)	894 (89.4%)	2679 (89.3%)
Severe	215 (10.8%)	106 (10.6%)	321 (10.7%)
Time from COVID-19 infection to recovery (recovery_time) (days)			
Mean (SD)	39.4 (11.1)	42.8 (28.1)	40.5 (18.7)
Median [Min, Max]	39.0 [9.00, 107]	36.0 [1.00, 140]	38.0 [1.00, 140]

Model Fitting

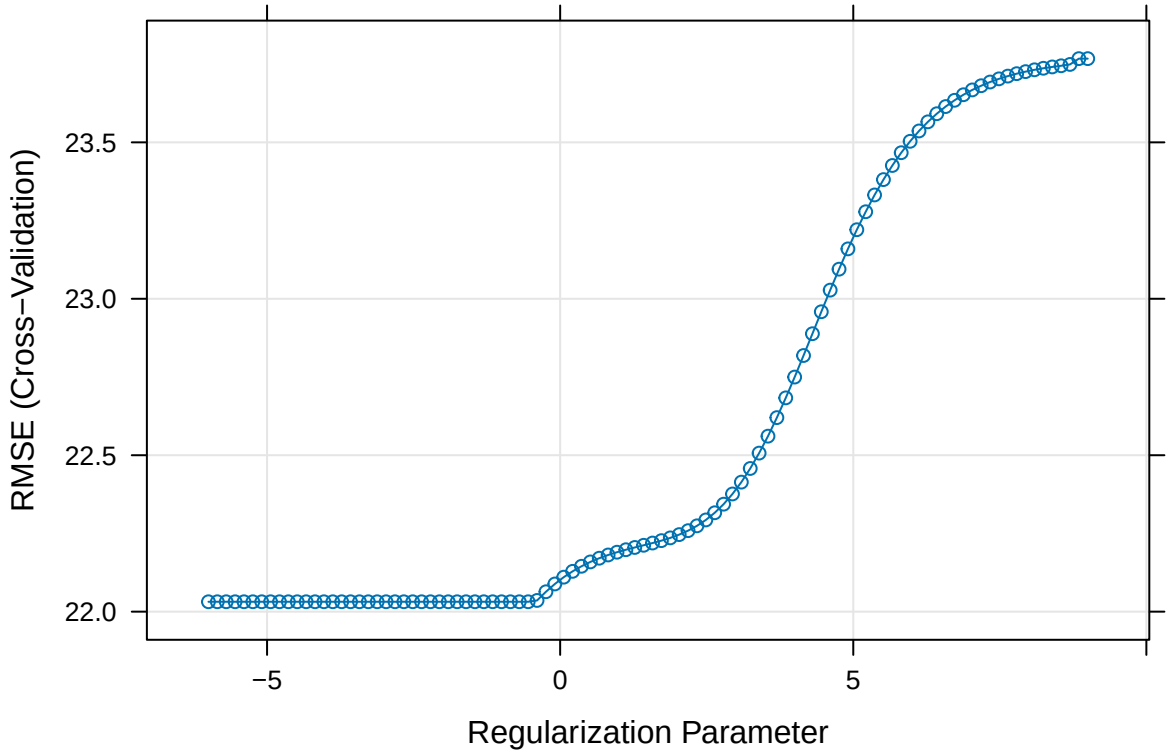
Ridge Regression

```
# setting a 10-fold cross-validation
ctrl <- trainControl(method = "cv", number = 10)

# ridge using `caret`
set.seed(2)

ridge.fit <- train(x, y,
                   method = "glmnet",
                   tuneGrid = expand.grid(alpha = 0,
                                          lambda = exp(seq(9, -6, length=100))),
                   trControl = ctrl)

plot(ridge.fit, xTrans = log)
```




```
ridge.fit$bestTune
```

```
##    alpha    lambda
## 37     0 0.5795783
```

```
# coefficients in the final model
coef(ridge.fit$finalModel, s = ridge.fit$bestTune$lambda)
```

```
## 19 x 1 sparse Matrix of class "dgCMatrix"
##                              s1
## (Intercept)  -1.174063e+02
## id            3.216048e-04
## age           1.930739e-01
```

```
## gender       -2.490035e+00
## race2         2.098690e+00
## race3        -1.552059e+00
## race4        -6.429424e-01
## smoking1      2.430060e+00
## smoking2      2.883935e+00
## height        5.287125e-01
## weight       -8.998103e-01
## bmi           4.444267e+00
## hypertension  2.315258e+00
## diabetes     -2.048871e+00
## SBP           8.693633e-02
## LDL          -3.367851e-02
## vaccine      -6.877570e+00
## severity      8.295065e+00
## studyB        5.276166e+00
```

```
ridge.pred <- predict(ridge.fit, newdata = model.matrix(recovery_time ~ ., testing_data)[,-1])

# test error
mean((ridge.pred - testing_data[, "recovery_time"])^2)
```

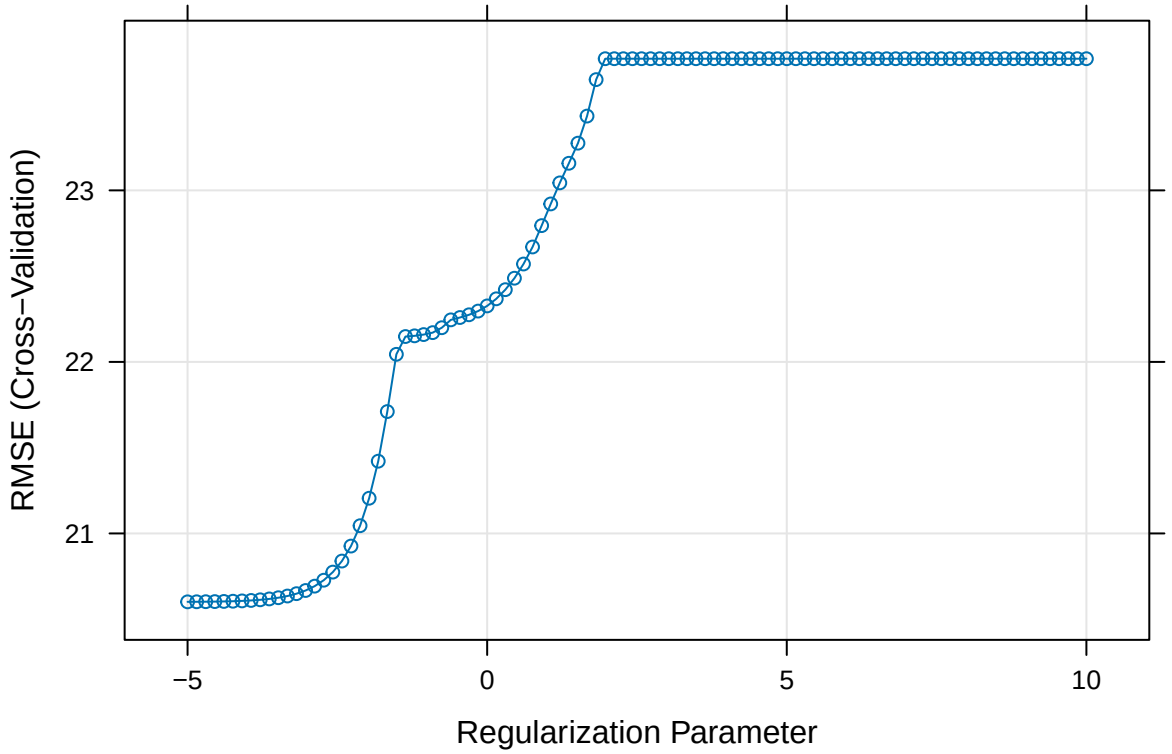
```
## [1] 336.7393
```

Lasso

```
set.seed(2)

# lasso using caret
lasso.fit <- train(x, y,
                   method = "glmnet",
                   tuneGrid = expand.grid(alpha = 1,
                                          lambda = exp(seq(10, -5, length=100))),
                   trControl = ctrl)

plot(lasso.fit, xTrans = log)
```




```
lasso.fit$bestTune
```

```
##   alpha      lambda
## 1     1 0.006737947
```

```
# coefficients in the final model
coef(lasso.fit$finalModel, lasso.fit$bestTune$lambda)
```

```
## 19 x 1 sparse Matrix of class "dgCMatrix"
##                           s1
## (Intercept)  -2.271185e+03
## id            5.063120e-04
## age           2.003580e-01
## gender       -2.866032e+00
## race2         1.278141e+00
## race3        -1.808456e+00
## race4         .
## smoking1      2.494706e+00
## smoking2      2.784944e+00
## height        1.322999e+01
## weight       -1.435067e+01
## bmi           4.309086e+01
## hypertension  2.132095e+00
## diabetes     -1.620051e+00
## SBP           7.609604e-02
## LDL          -3.792133e-02
## vaccine      -6.804369e+00
## severity      8.226819e+00
## studyB        4.949873e+00
```

Elastic Net

```
set.seed(2)

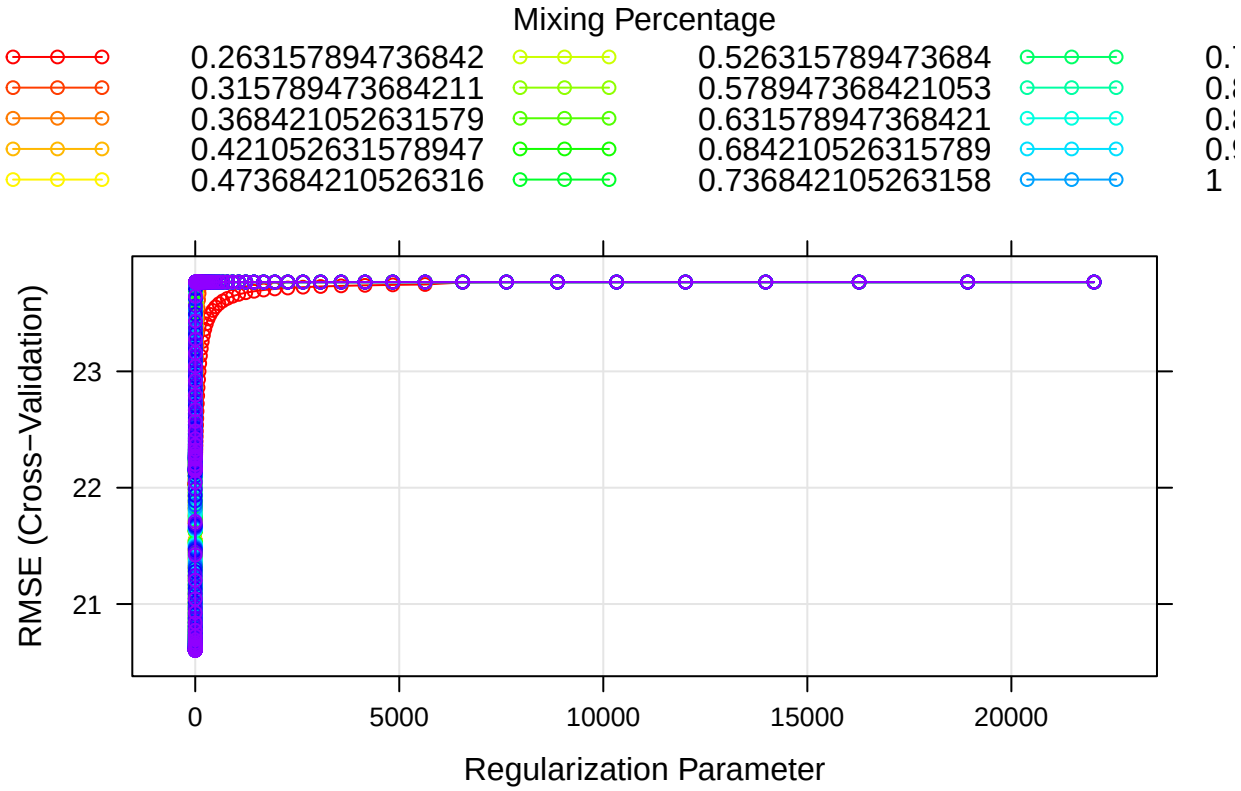
# elastic net using caret
enet.fit <- train(x, y,
                  method = "glmnet",
                  tuneGrid = expand.grid(alpha = seq(0, 1, length = 20),
                                         lambda = exp(seq(10, -5, length=100))),
                  trControl = ctrl)

enet.fit$bestTune
```

```
##       alpha      lambda
## 1901      1 0.006737947
```

```
myCol <- rainbow(25)
myPar <- list(superpose.symbol = list(col = myCol),
              superpose.line = list(col = myCol))

plot(enet.fit, par.settings = myPar)
```




```
# coefficients in the final model
coef(enet.fit$finalModel, enet.fit$bestTune$lambda)
```

```
## 19 x 1 sparse Matrix of class "dgCMatrix"
##                        s1
## (Intercept) -2.271185e+03
## id           5.063120e-04
## age          2.003580e-01
```

```
## gender       -2.866032e+00
## race2         1.278141e+00
## race3        -1.808456e+00
## race4         .
## smoking1      2.494706e+00
## smoking2      2.784944e+00
## height        1.322999e+01
## weight       -1.435067e+01
## bmi           4.309086e+01
## hypertension  2.132095e+00
## diabetes     -1.620051e+00
## SBP           7.609604e-02
## LDL          -3.792133e-02
## vaccine      -6.804369e+00
## severity      8.226819e+00
## studyB        4.949873e+00
```

PCR

```
set.seed(2)

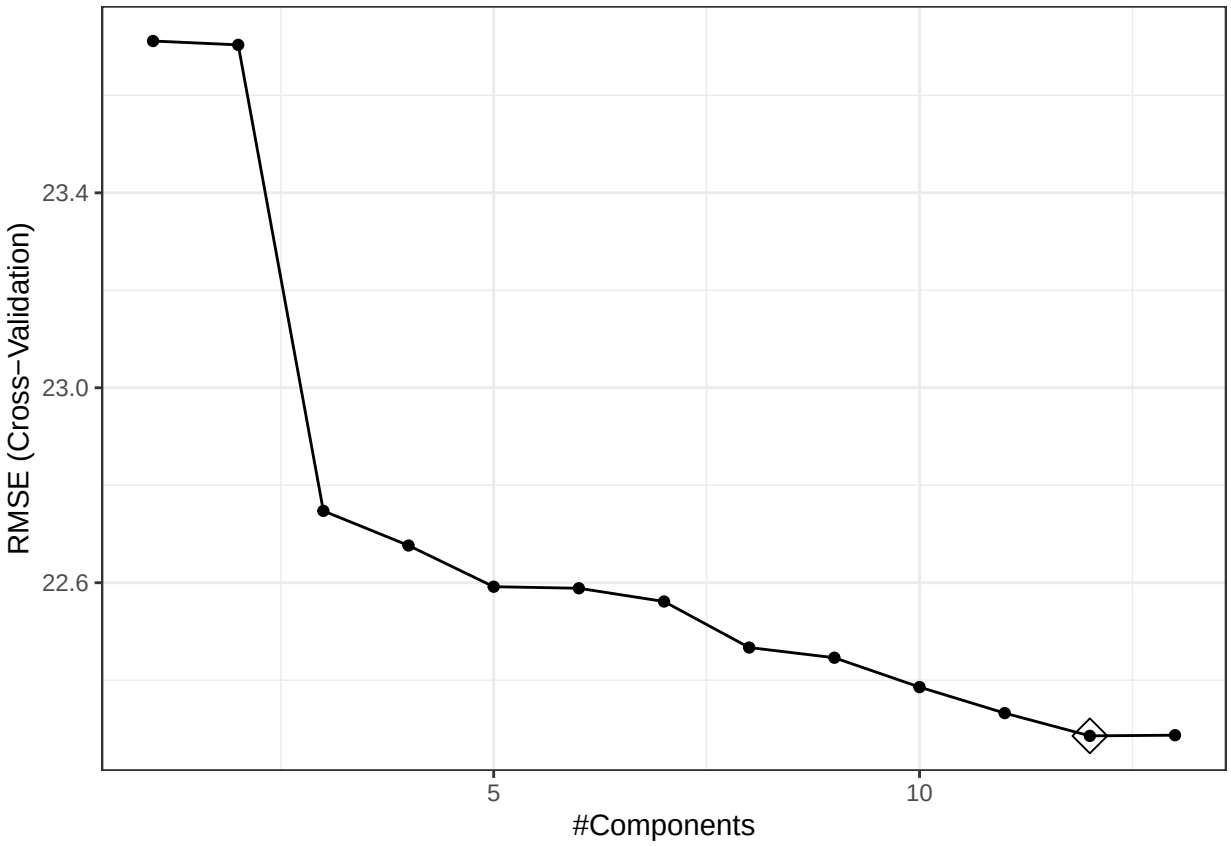
# pcr using caret
pcr.fit <- train(x, y,
                 method = "pcr",
                 tuneGrid = data.frame(ncomp = 1:13),
                 trControl = ctrl,
                 preProcess = c("center", "scale"))

predy2.pcr2 <- predict(pcr.fit, newdata = x2)

mean((y2 - predy2.pcr2)^2)
```

```
## [1] 345.8087
```

```
ggplot(pcr.fit, highlight = TRUE) + theme_bw()
```



PLS

```
set.seed(2)

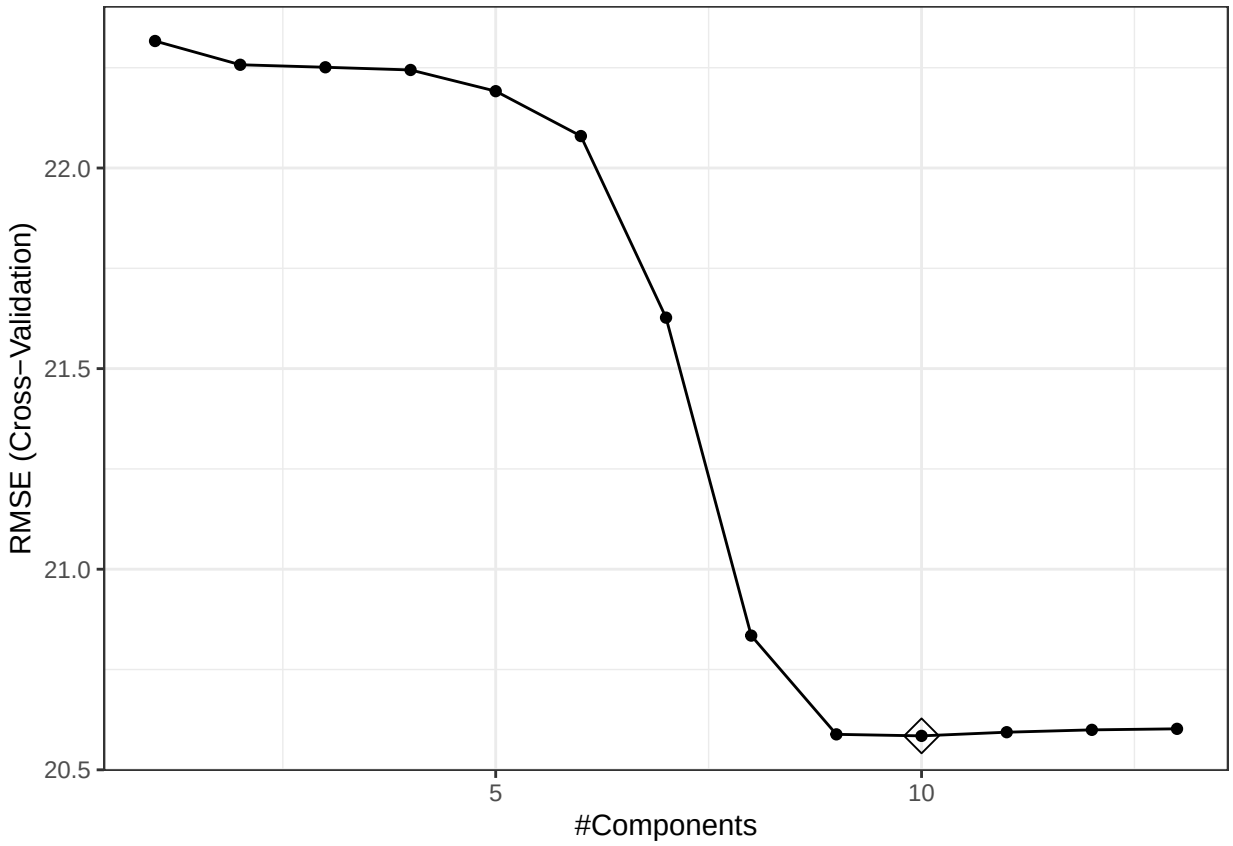
# pls using caret
pls.fit <- train(x, y,
                 method = "pls",
                 tuneGrid = data.frame(ncomp = 1:13),
                 trControl = ctrl,
                 preProcess = c("center", "scale"))

predy2.pls2 <- predict(pls.fit, newdata = x2)

mean((y2 - predy2.pls2)^2)
```

```
## [1] 327.9915
```

```
ggplot(pls.fit, highlight = TRUE) + theme_bw()
```



GAM

```
set.seed(2)

gam.fit <- train(x, y,
                 method = "gam",
                 tuneGrid = data.frame(method = "GCV.Cp",
                                       select = c(TRUE, FALSE)),
                 trControl = ctrl)

gam.fit$bestTune
```

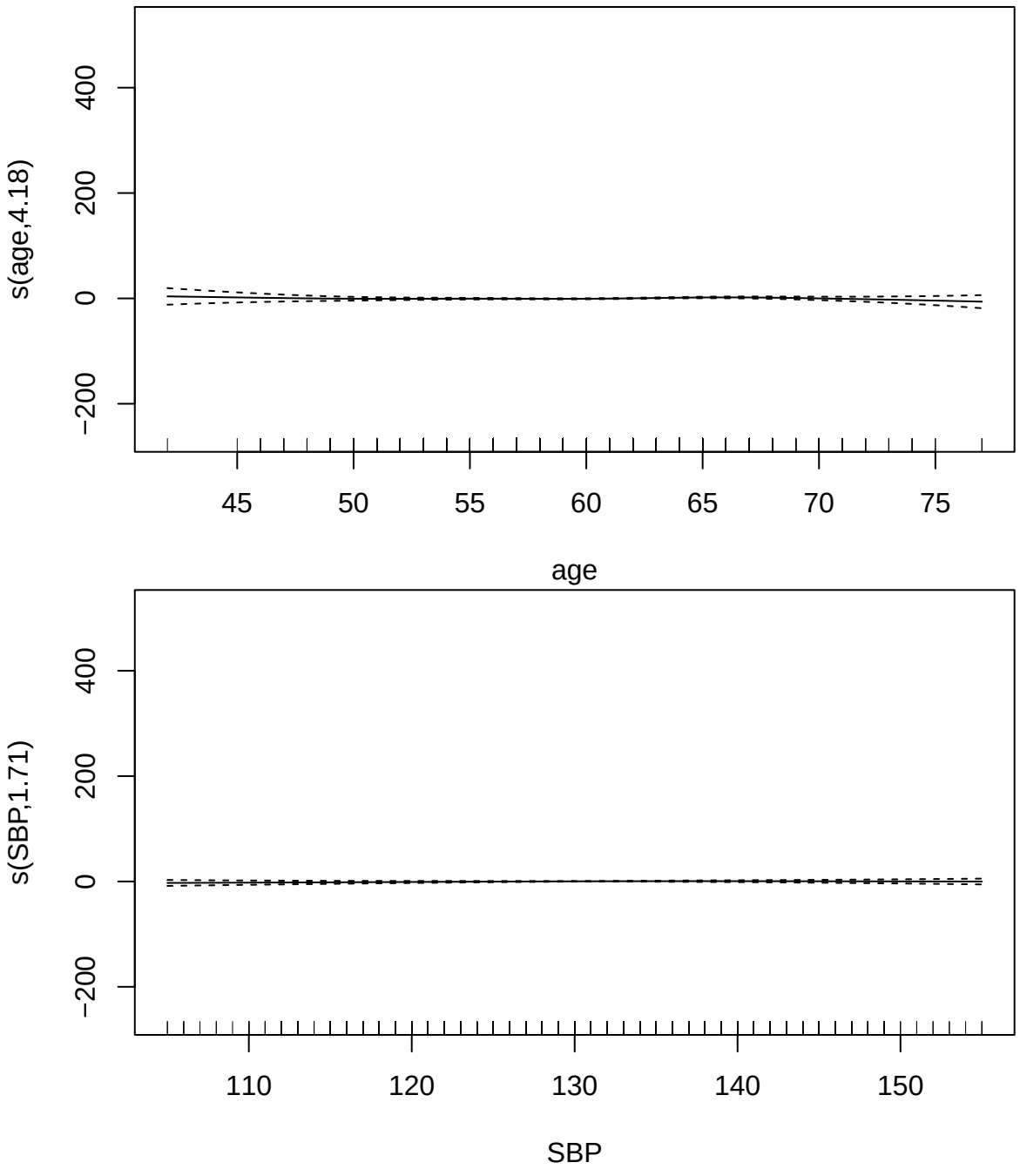
```
##   select method
## 1  FALSE GCV.Cp
```

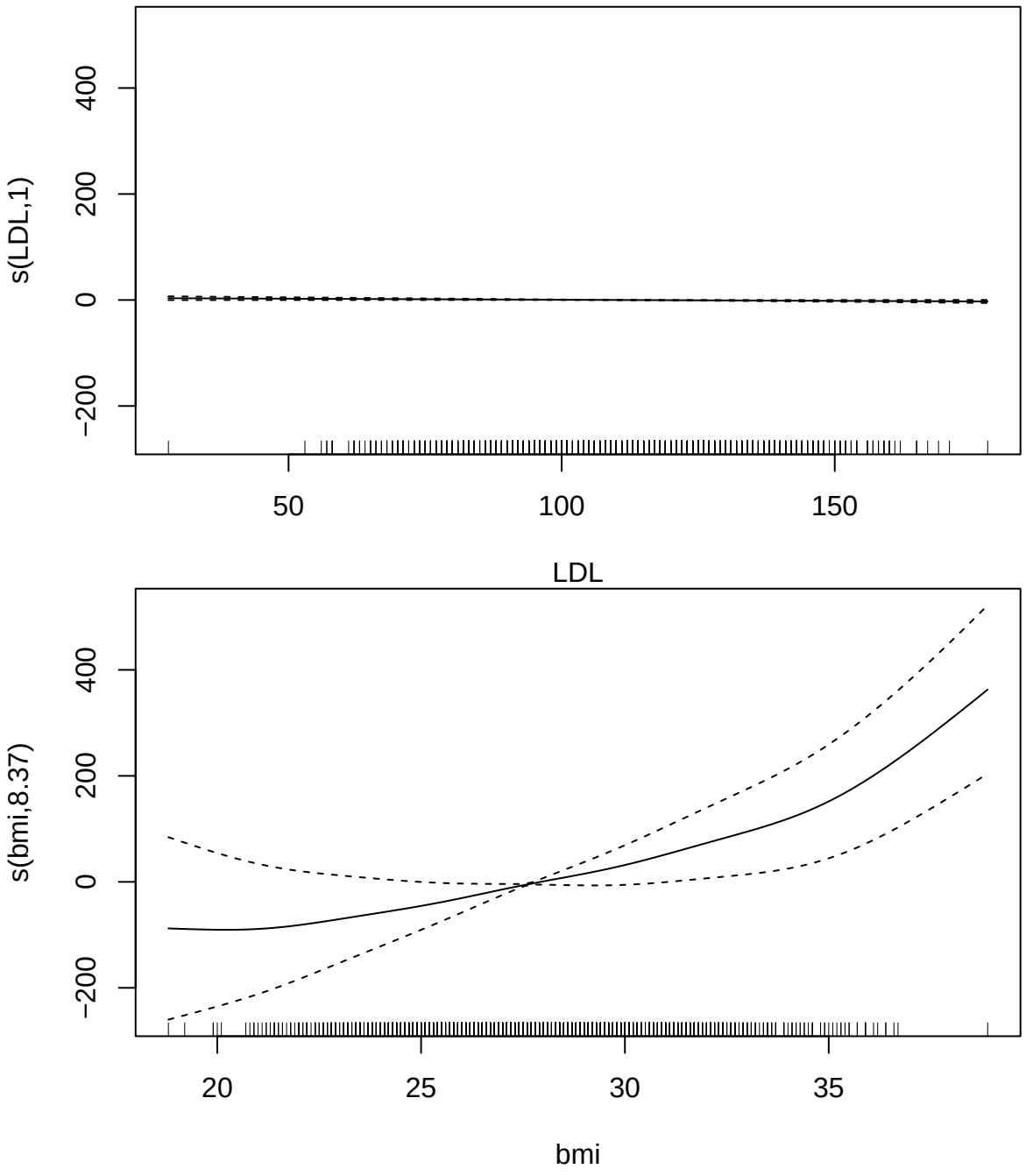
```
gam.fit$finalModel
```

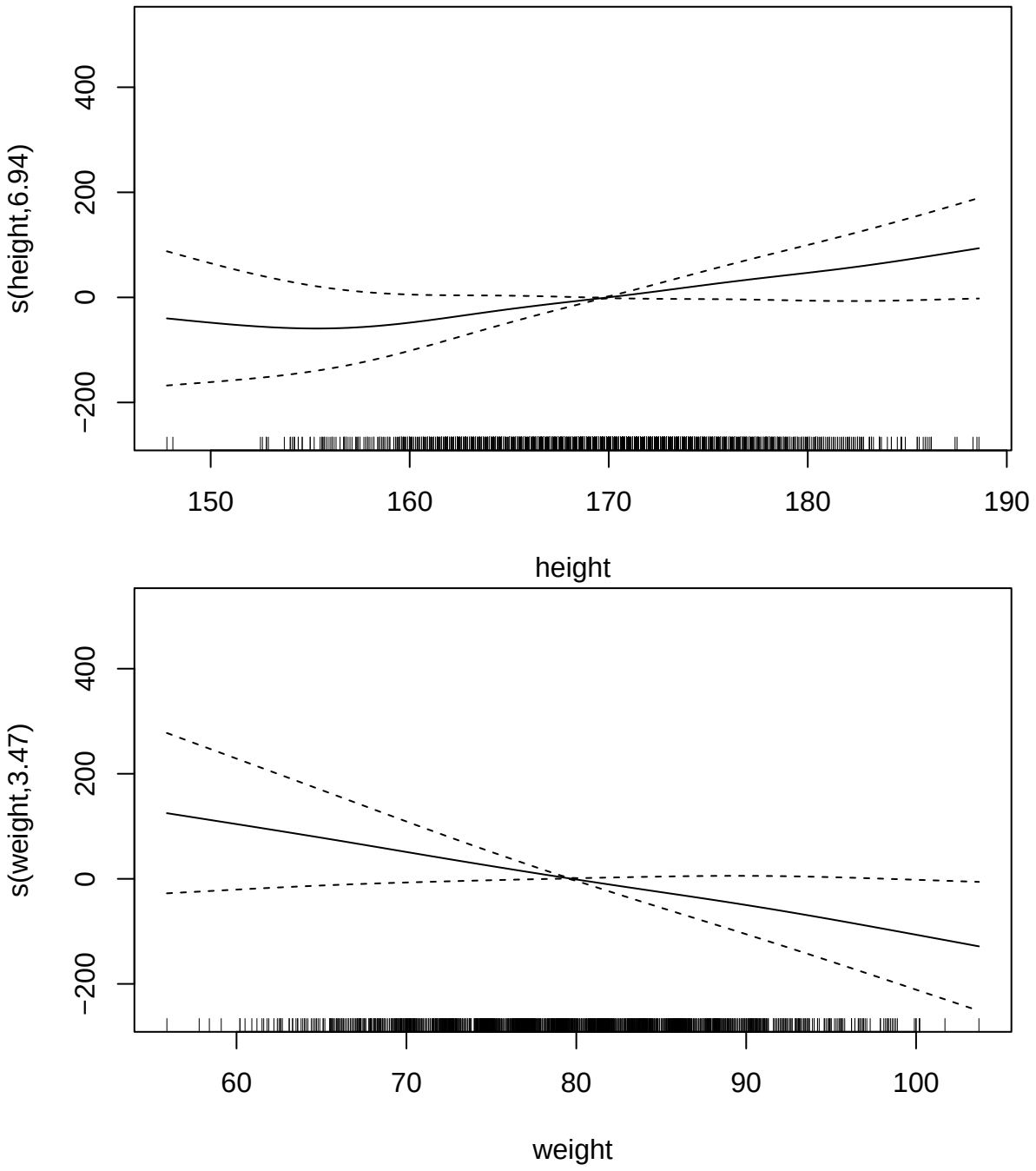
```
##
## Family: gaussian
## Link function: identity
##
## Formula:
## .outcome ~ gender + race2 + race3 + race4 + smoking1 + smoking2 +
##     hypertension + diabetes + vaccine + severity + studyB + s(age) +
##     s(SBP) + s(LDL) + s(bmi) + s(height) + s(weight) + s(id)
##
## Estimated degrees of freedom:
```

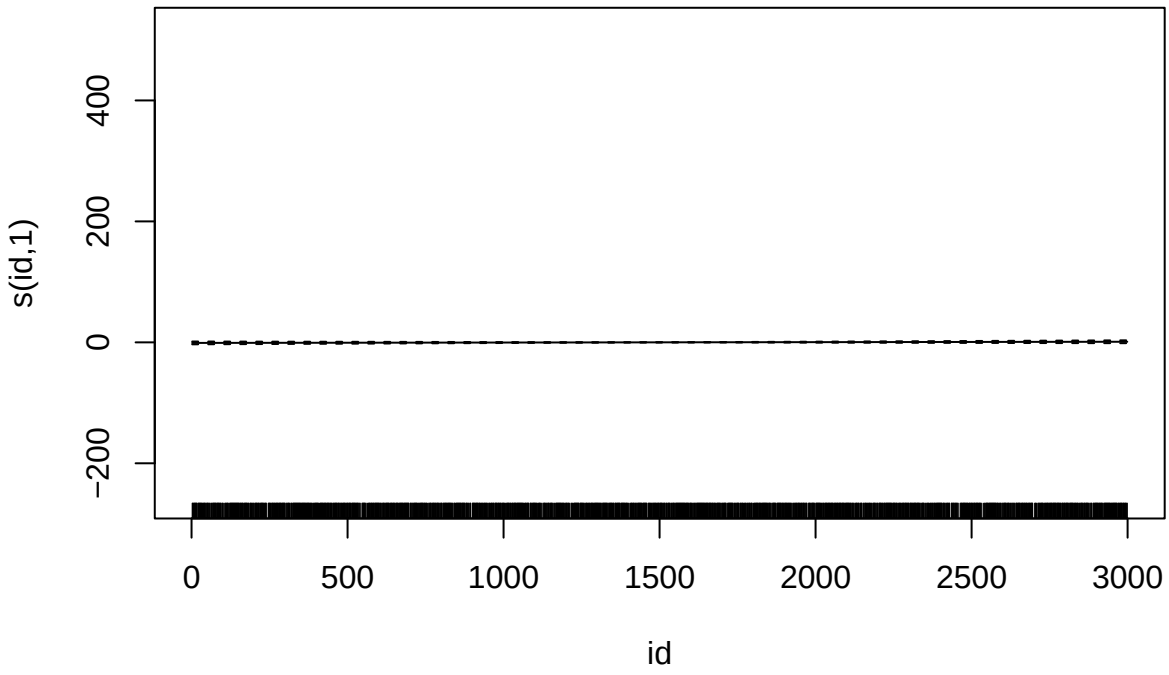
```
## 4.18 1.71 1.00 8.37 6.94 3.47 1.00
##  total = 38.67
##
## GCV score: 376.0881
```

```
plot(gam.fit$finalModel)
```




s(LDL,1)
400
200
0
−200
50
100
150
LDL
s(bmi,8.37)
400
200
0
−200
20
25
30
35
bmi


s(height,6.94)
400
200
0
−200
150
160
170
180
190
height
s(weight,3.47)
400
200
0
−200
60
70
80
90
100
weight

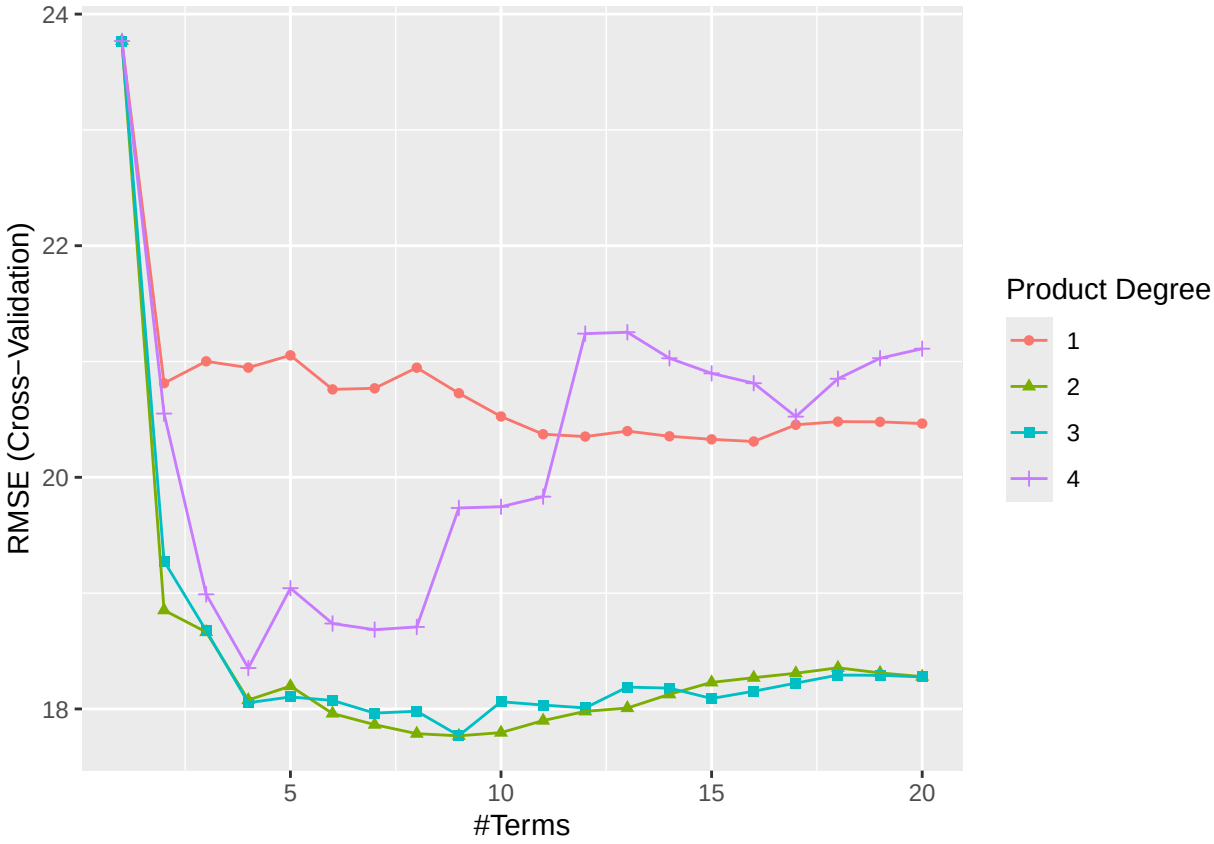


MARS

```
# set grid
mars_grid <- expand.grid(degree = 1:4, nprune = 1:20)

set.seed(2)

# fit a MARS model
mars.fit <- train(x, y,
                  method = "earth",
                  tuneGrid = mars_grid,
                  trControl = ctrl)
# plot
ggplot(mars.fit)
```




```
# best tuning parameters
mars.fit$bestTune
```

```
##    nprune degree
## 29      9      2
```

```
# regression function
mars.fit$finalModel
```

```
## Selected 9 of 28 terms, and 6 of 18 predictors (nprune=9)
## Termination condition: Reached nk 37
## Importance: bmi, studyB, height, vaccine, severity, weight, id-unused, ...
## Number of terms at each degree of interaction: 1 3 5
## GCV 298.3891    RSS 703656.4    GRSq 0.4847193    RSq 0.493275
```

```
# report the regression function
summary(mars.fit)
```

```
## Call: earth(x=matrix[2400,18], y=c(30,39,9,40,50...), keepxy=TRUE, degree=2,
##             nprune=9)
##
##                                coefficients
## (Intercept)                      -5.2669231
## vaccine                          -6.3585662
## h(bmi-24.5)                       7.7118874
## h(30.9-bmi)                       6.9728117
## h(bmi-24.5) * severity            1.8498609
## h(bmi-30.9) * studyB             25.7460428
## h(159-height) * h(bmi-30.9)       2.8177334
```

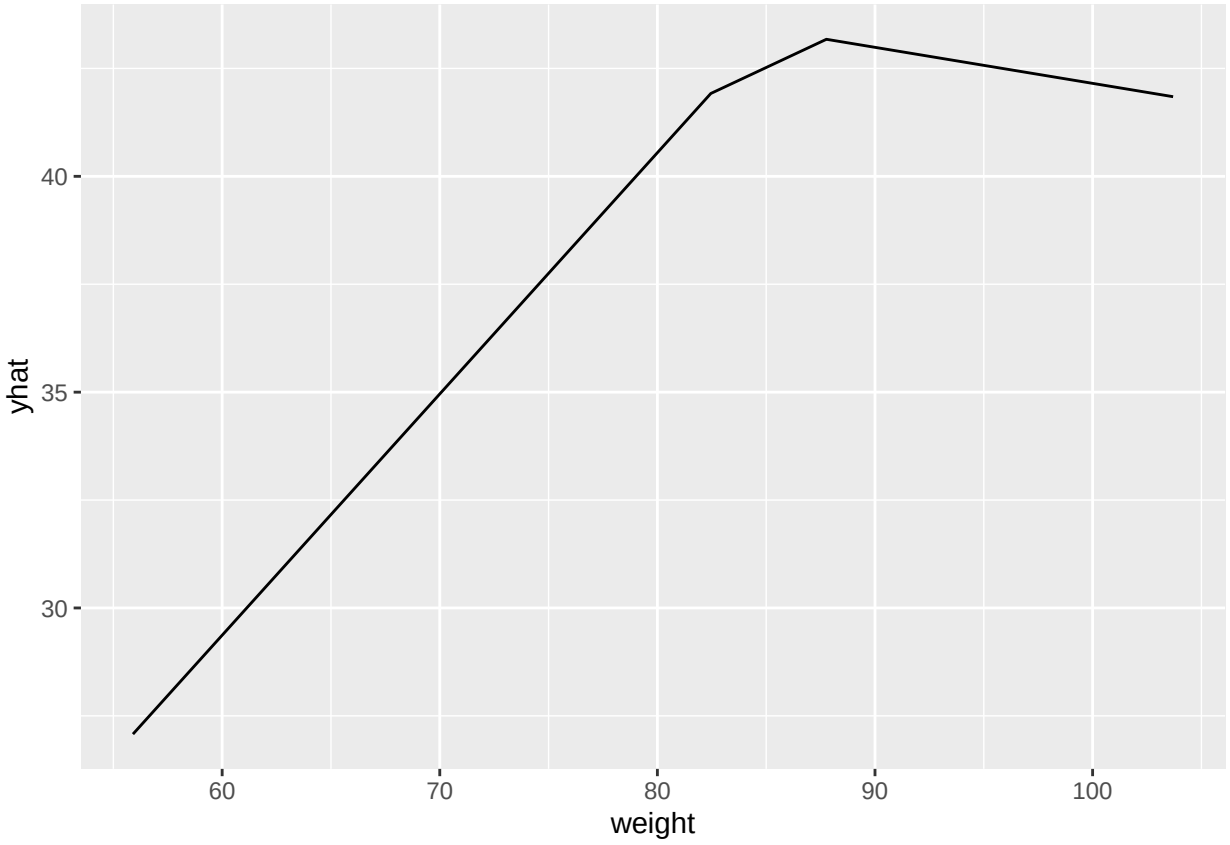
```
## h(85.1-weight) * h(bmi-30.9)   -2.7210715
## h(weight-85.1) * h(bmi-30.9)   -0.4065098
##
## Selected 9 of 28 terms, and 6 of 18 predictors (nprune=9)
## Termination condition: Reached nk 37
## Importance: bmi, studyB, height, vaccine, severity, weight, id-unused, ...
## Number of terms at each degree of interaction: 1 3 5
## GCV 298.3891    RSS 703656.4    GRSq 0.4847193    RSq 0.493275
```

```
coef(mars.fit$finalModel)
```

```
##                   (Intercept)                   h(30.9-bmi)
##                    -5.2669231                     6.9728117
##          h(bmi-30.9) * studyB                   h(bmi-24.5)
##                    25.7460428                     7.7118874
##  h(159-height) * h(bmi-30.9)                        vaccine
##                     2.8177334                    -6.3585662
##       h(bmi-24.5) * severity h(weight-85.1) * h(bmi-30.9)
##                     1.8498609                    -0.4065098
## h(85.1-weight) * h(bmi-30.9)
##                    -2.7210715
```

```
# partial dependence plot on a predictors of interest, study
p1 <- pdp::partial(mars.fit, pred.var = c("weight"), grid.resolution = 10) |>
  autoplot()

p1
```



```r
# test error
pred.mars <- predict(mars.fit, newdata = testing_data)

test.error.mars <- mean((pred.mars - y2)^2)
```

Linear Model

```r
set.seed(2)

# fit a linear model
lm.fit <- train(x, y,
                method = "lm",
                trControl = ctrl)

summary(lm.fit)
```

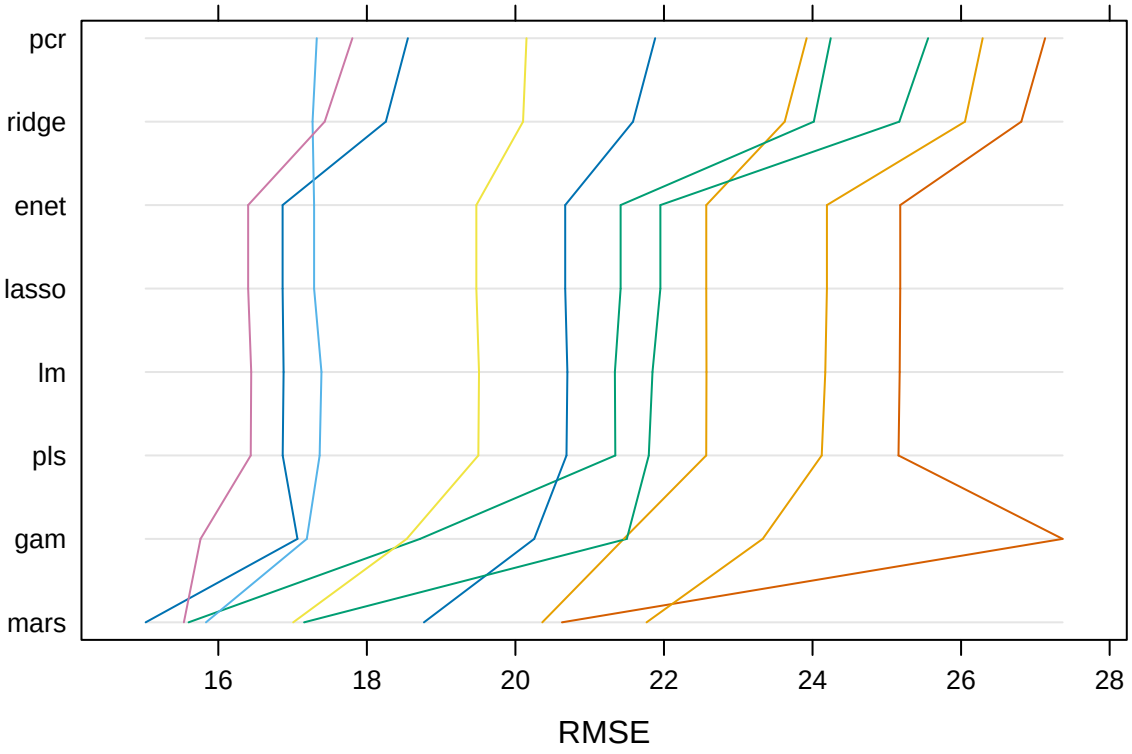
```
##
## Call:
## lm(formula = .outcome ~ ., data = dat)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -57.546 -11.443  -0.021   8.724 252.302
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -2.370e+03  1.194e+02 -19.850  < 2e-16 ***
## id            5.275e-04  8.423e-04   0.626  0.53120
## age           2.018e-01  1.049e-01   1.922  0.05466 .
## gender       -2.895e+00  8.457e-01  -3.423  0.00063 ***
## race2         1.263e+00  1.852e+00   0.682  0.49510
## race3        -1.838e+00  1.086e+00  -1.692  0.09079 .
## race4         8.259e-03  1.522e+00   0.005  0.99567
## smoking1      2.514e+00  9.555e-01   2.631  0.00857 **
## smoking2      2.804e+00  1.413e+00   1.985  0.04724 *
## height        1.381e+01  7.003e-01  19.726  < 2e-16 ***
## weight       -1.497e+01  7.398e-01 -20.234  < 2e-16 ***
## bmi           4.486e+01  2.123e+00  21.133  < 2e-16 ***
## hypertension  2.126e+00  1.401e+00   1.518  0.12907
## diabetes     -1.617e+00  1.173e+00  -1.378  0.16825
## SBP           7.630e-02  9.170e-02   0.832  0.40545
## LDL          -3.861e-02  2.253e-02  -1.714  0.08666 .
## vaccine      -6.808e+00  8.639e-01  -7.880 4.92e-15 ***
## severity      8.236e+00  1.362e+00   6.049 1.69e-09 ***
## studyB        4.924e+00  1.556e+00   3.164  0.00158 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 20.65 on 2381 degrees of freedom
## Multiple R-squared:  0.2685, Adjusted R-squared:  0.263
## F-statistic: 48.55 on 18 and 2381 DF,  p-value: < 2.2e-16
```

Model Comparison

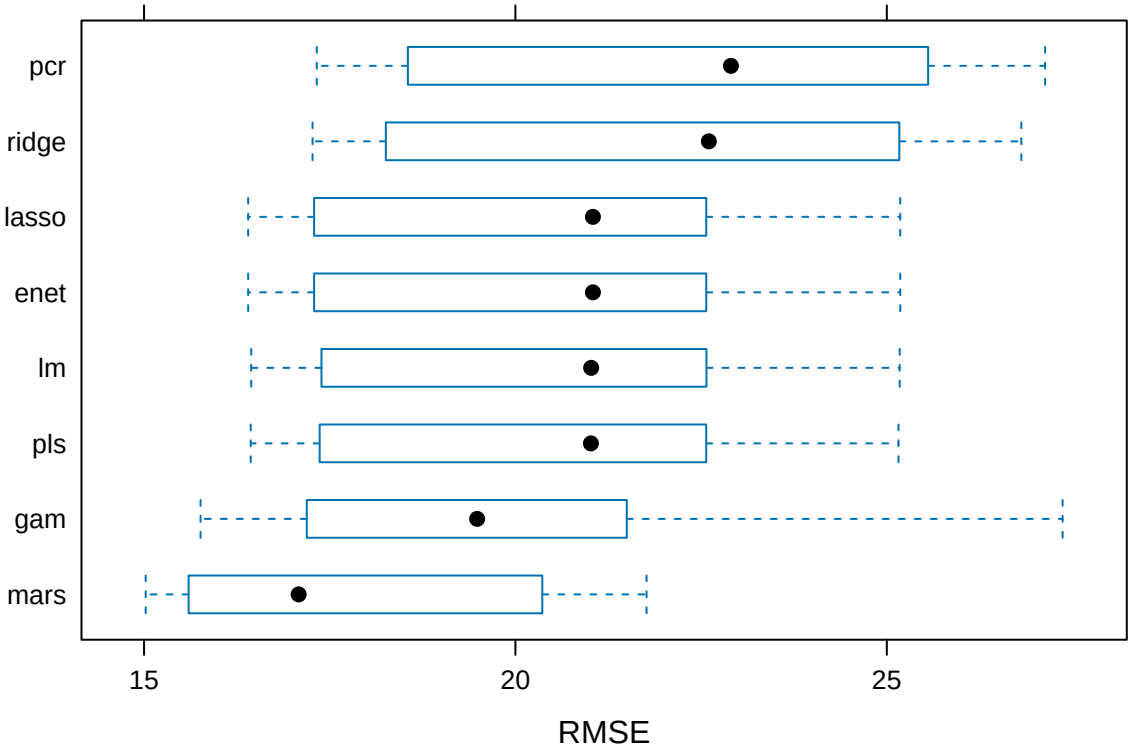
```
# compare models
resamp <- resamples(list(ridge = ridge.fit, lasso = lasso.fit, enet = enet.fit, pcr = pcr.fit, pls = pls

summary(resamp)
```

```
##
## Call:
## summary.resamples(object = resamp)
##
## Models: ridge, lasso, enet, pcr, pls, gam, mars, lm
## Number of resamples: 10
##
## MAE
##           Min.  1st Qu.   Median     Mean  3rd Qu.     Max. NA's
## ridge 11.95419 13.09713 13.82525 13.60576 14.27556 14.43242    0
## lasso 12.42432 12.87440 13.67856 13.59012 14.17276 14.78653    0
## enet  12.42432 12.87440 13.67856 13.59012 14.17276 14.78653    0
## pcr   11.97817 13.37654 13.95859 13.78445 14.46120 14.63802    0
## pls   12.46034 12.94421 13.71400 13.64253 14.19205 14.89051    0
## gam   11.89583 12.28734 12.84104 13.01002 13.69248 14.55730    0
## mars  11.02436 11.21466 11.96777 12.04809 12.77086 13.61189    0
## lm    12.47367 12.97157 13.69829 13.64742 14.22819 14.88266    0
##
## RMSE
##           Min.  1st Qu.   Median     Mean  3rd Qu.     Max. NA's
## ridge 17.26900 18.71725 22.60420 22.03160 24.88056 26.81073    0
## lasso 16.40186 17.83574 21.04329 20.60128 22.41492 25.18080    0
## enet  16.40186 17.83574 21.04329 20.60128 22.41492 25.18080    0
## pcr   17.32552 18.95158 22.90113 22.28578 25.22850 27.13115    0
## pls   16.43656 17.89855 21.01607 20.58459 22.37527 25.15740    0
## gam   15.76082 17.52743 19.48463 20.11772 21.48924 27.36675    0
## mars  15.02199 15.65849 17.08160 17.76782 19.96343 21.76556    0
## lm    16.44321 17.91892 21.01935 20.60218 22.39042 25.17347    0
##
## Rsquared
##             Min.   1st Qu.    Median      Mean   3rd Qu.      Max. NA's
## ridge 0.08393988 0.1239158 0.1445848 0.1485488 0.1761223 0.2026307    0
## lasso 0.15522528 0.2192565 0.2576243 0.2613936 0.2778165 0.3785837    0
## enet  0.15522528 0.2192565 0.2576243 0.2613936 0.2778165 0.3785837    0
## pcr   0.07966331 0.1009466 0.1239078 0.1290165 0.1627291 0.1766716    0
## pls   0.15652309 0.2190345 0.2581140 0.2630034 0.2791654 0.3806098    0
## gam   0.18624192 0.2451659 0.3119389 0.3094201 0.3443334 0.5114948    0
## mars  0.32424416 0.3693999 0.4073587 0.4405951 0.4634952 0.6618530    0
## lm    0.15588370 0.2176346 0.2576008 0.2618155 0.2782721 0.3808718    0
```

```
parallelplot(resamp, metric = "RMSE")
```




```
bwplot(resamp, metric = "RMSE")
```



MARS has lowest mean and median RMSE -> model I pick