# Eric\_Hirsch\_621\_Assignment\_4

# Predicting Insurance Claims

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We examine records of car insurance customers to build two predictive models: one for whether the customer would have crashed, and second, the \$ amount paid for the crash.

The main issue in the dataset are outliers. Without transformation, the distribution of residuals is not normal, and there are too many influential points to create reliable models.

## 1. Data Exploration

**A. Summary Statistics** We first examine the data. The dataset consists of 8161 observations and 26 variables (including two target variables, TARGET\_FLAG and TARGET\_AMT). 14 of the predictor variables are numeric. Approximately 27% of customers had an accident - the rest did not. TARGET\_AMT appears to be highly skewed. There is a large degree of missing values.

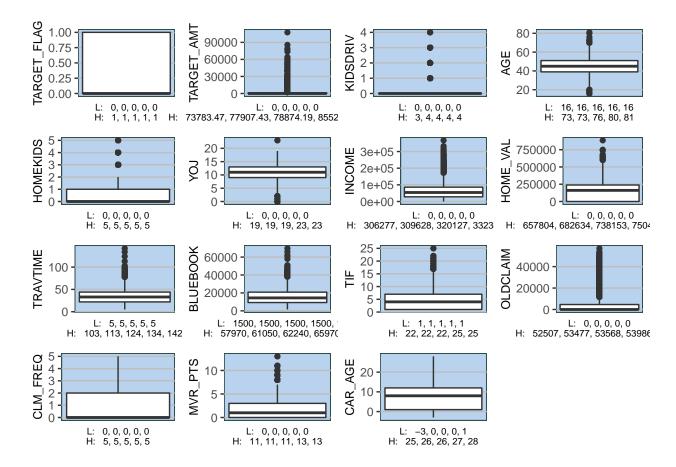
```
INDEX
                    TARGET FLAG
##
                                      TARGET AMT
                                                       KIDSDRIV
##
         :
                   Min.
                          :0.0000
                                                    Min.
                                                           :0.0000
   Min.
               1
                                    Min. :
                                                 0
                   1st Qu.:0.0000
   1st Qu.: 2559
                                    1st Qu.:
                                                 0
                                                     1st Qu.:0.0000
   Median: 5133
                   Median :0.0000
                                    Median :
                                                    Median :0.0000
##
                                                 0
   Mean : 5152
                   Mean :0.2638
                                    Mean : 1504
                                                    Mean :0.1711
##
   3rd Qu.: 7745
                   3rd Qu.:1.0000
                                    3rd Qu.: 1036
                                                    3rd Qu.:0.0000
##
   Max. :10302
                   Max. :1.0000
                                    Max. :107586
                                                    Max. :4.0000
##
##
        AGE
                      HOMEKIDS
                                         YOJ
                                                       INCOME
##
   Min. :16.00
                   Min. :0.0000
                                                   Min. :
                                                               0
                                    Min. : 0.0
   1st Qu.:39.00
                   1st Qu.:0.0000
                                    1st Qu.: 9.0
                                                   1st Qu.: 28097
   Median :45.00
                   Median :0.0000
                                    Median:11.0
                                                   Median : 54028
##
   Mean :44.79
                   Mean :0.7212
                                    Mean :10.5
                                                   Mean : 61898
                                    3rd Qu.:13.0
##
   3rd Qu.:51.00
                   3rd Qu.:1.0000
                                                   3rd Qu.: 85986
##
   Max.
          :81.00
                   Max.
                         :5.0000
                                    Max.
                                           :23.0
                                                   Max.
                                                         :367030
                                           :454
##
   NA's
          :6
                                    NA's
                                                   NA's
                                                          :445
##
     PARENT1
                         HOME_VAL
                                         MSTATUS
                                                             SEX
##
   Length:8161
                      Min. :
                                       Length:8161
                                                         Length:8161
##
   Class : character
                      1st Qu.:
                                       Class : character
                                                         Class : character
                                   0
   Mode :character
                                       Mode :character
                                                         Mode :character
##
                      Median :161160
##
                      Mean
                             :154867
##
                      3rd Qu.:238724
##
                      Max.
                             :885282
##
                      NA's
                             :464
##
    EDUCATION
                                            TRAVTIME
                                                           CAR USE
                          JOB
   Length:8161
                      Length:8161
                                         Min. : 5.00
                                                         Length:8161
##
   Class :character
                      Class : character
                                         1st Qu.: 22.00
                                                         Class : character
##
   Mode :character
                      Mode :character
                                         Median : 33.00
                                                         Mode :character
##
                                         Mean : 33.49
##
                                         3rd Qu.: 44.00
##
                                         Max. :142.00
##
      BLUEBOOK
                        TIF
                                      CAR_TYPE
##
                                                         RED_CAR
   Min. : 1500
                   Min. : 1.000
                                    Length:8161
                                                      Length:8161
##
##
   1st Qu.: 9280
                   1st Qu.: 1.000
                                    Class :character
                                                       Class : character
##
   Median :14440
                   Median : 4.000
                                    Mode :character
                                                      Mode :character
   Mean :15710
                   Mean : 5.351
##
   3rd Qu.:20850
                   3rd Qu.: 7.000
##
   Max. :69740
                   Max. :25.000
##
##
      OLDCLAIM
                      CLM FREQ
                                      REVOKED
                                                         MVR PTS
##
   Min. : 0
                   Min. :0.0000
                                    Length:8161
                                                      Min. : 0.000
   1st Qu.:
               0
                   1st Qu.:0.0000
                                    Class : character
                                                       1st Qu.: 0.000
##
   Median :
                   Median :0.0000
                                    Mode :character
                                                       Median : 1.000
               0
   Mean : 4037
                   Mean :0.7986
                                                       Mean : 1.696
   3rd Qu.: 4636
                   3rd Qu.:2.0000
                                                       3rd Qu.: 3.000
##
   Max. :57037
##
                   Max. :5.0000
                                                       Max. :13.000
##
                     URBANICITY
##
      CAR_AGE
  Min. :-3.000
##
                    Length:8161
   1st Qu.: 1.000
                    Class :character
##
  Median : 8.000
                    Mode :character
## Mean : 8.328
## 3rd Qu.:12.000
```

```
##
   Max.
           :28.000
##
   NA's
          :510
  'data.frame':
                   8161 obs. of 26 variables:
##
   $ INDEX
                : int 1 2 4 5 6 7 8 11 12 13 ...
   $ TARGET_FLAG: int
                       0 0 0 0 0 1 0 1 1 0 ...
##
                       0 0 0 0 0 ...
   $ TARGET_AMT : num
   $ KIDSDRIV
                       0 0 0 0 0 0 0 1 0 0 ...
                 : int
   $ AGE
                       60 43 35 51 50 34 54 37 34 50 ...
##
                 : int
##
   $ HOMEKIDS
                : int
                       0 0 1 0 0 1 0 2 0 0 ...
##
   $ YOJ
                       11 11 10 14 NA 12 NA NA 10 7 ...
                 : int
##
   $ INCOME
                 : num
                       67349 91449 16039 NA 114986 ...
                       "No" "No" "No" "No" ...
##
   $ PARENT1
                 : chr
##
   $ HOME VAL
                       0 257252 124191 306251 243925 ...
                 : num
##
   $ MSTATUS
                 : chr
                       "z No" "z No" "Yes" "Yes" ...
##
   $ SEX
                 : chr
                       "M" "M" "z_F" "M" ...
   $ EDUCATION : chr
                       "PhD" "z_High School" "z_High School" "<High School" ...
##
                       "Professional" "z_Blue Collar" "Clerical" "z_Blue Collar" ...
##
   $ JOB
                 : chr
                       14 22 5 32 36 46 33 44 34 48 ...
##
   $ TRAVTIME
                 : int
   $ CAR_USE
                        "Private" "Commercial" "Private" "Private" ...
##
                 : chr
##
   $ BLUEBOOK
                 : num
                       14230 14940 4010 15440 18000 ...
##
   $ TIF
                 : int
                       11 1 4 7 1 1 1 1 1 7 ...
##
   $ CAR_TYPE
                        "Minivan" "Z_SUV" "Minivan" ...
                 : chr
   $ RED_CAR
                        "yes" "yes" "no" "yes" ...
##
                 : chr
   $ OLDCLAIM
                       4461 0 38690 0 19217 ...
##
                 : num
##
  $ CLM FREQ
                 : int
                       2 0 2 0 2 0 0 1 0 0 ...
   $ REVOKED
                        "No" "No" "No" "No" ...
                 : chr
   $ MVR_PTS
                        3 0 3 0 3 0 0 10 0 1 ...
##
                 : int
##
   $ CAR AGE
                 : int
                       18 1 10 6 17 7 1 7 1 17 ...
                        "Highly Urban/ Urban" "Highly Urban/ Urban" "Highly Urban/ Urban" "Highly Urban
  $ URBANICITY : chr
```

**B. Distributions** We examine distributions of numeric variables through boxplots and histograms:

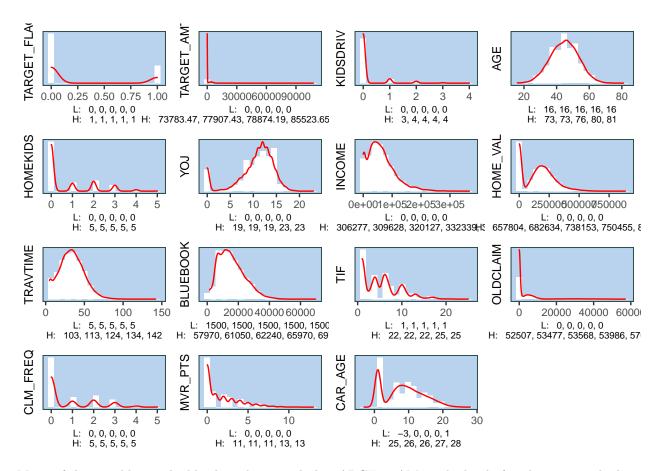
#### 1. Boxplots

The boxplots show significant skewness and outliers.



#### 2. Histograms

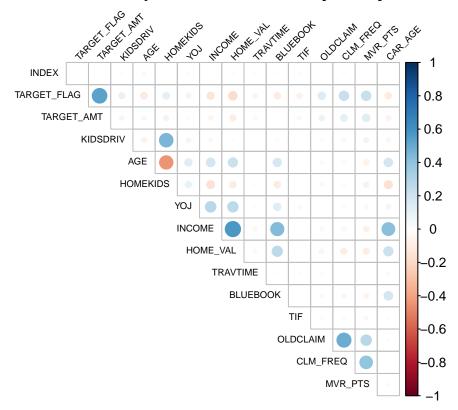
We can see from the histograms a number of opportunities to perform log and other transformations.



Many of the variables are highly skewed, particularly TARGET\_AMT. The level of outliers is very high.

**C.** Multicollinearity The chart below shows multicollinearity for numerical variables only. There are no surprises here - older people tend not to have children at home, income and home value are related, etc. Multicollinearity does not present offhand as a major issue.

# **Heatmap for Multicollinearity Analysis**



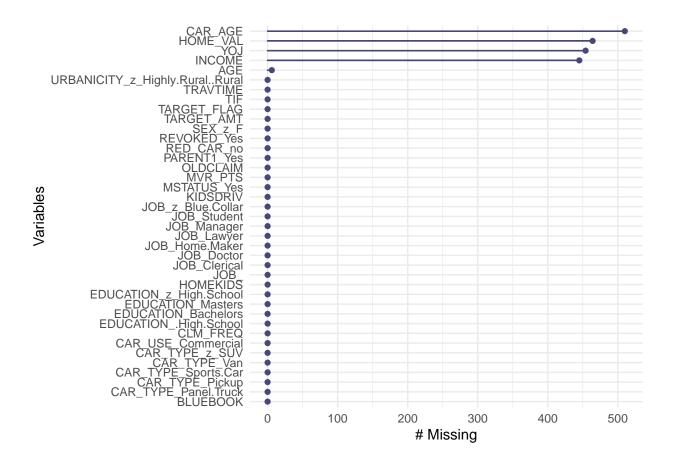
## 2. Data Preparation

**A. Create Dummy Variables** We create dummy variables from the character variables in the database.

**B. Address Missing Values** We consider the missing values. Over 20% of the records have missing values.

We disregard missing values in character columns because these NAs were isolated out in their own columns when we dummified the data. We convert the 0s in INCOME and HOME\_VAL to NA since 0 is implausible. We create flags to track the NAs for the columns with the most significant NAs - INCOME, HOME\_VAL, CAR\_AGE, and YOJ. Finally we use MICE to populate the missing values.

## [[1]]



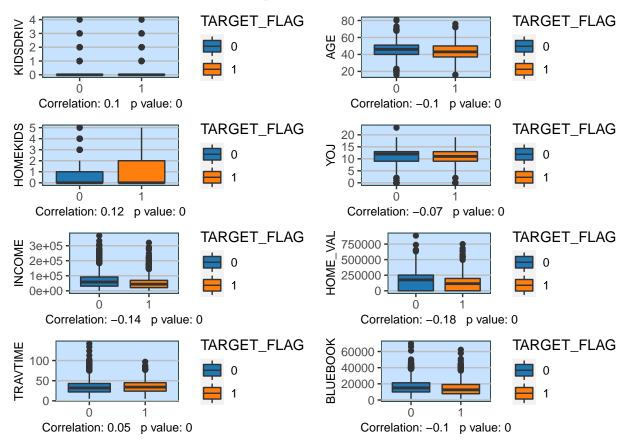
#### ###. C. Perform Transformations

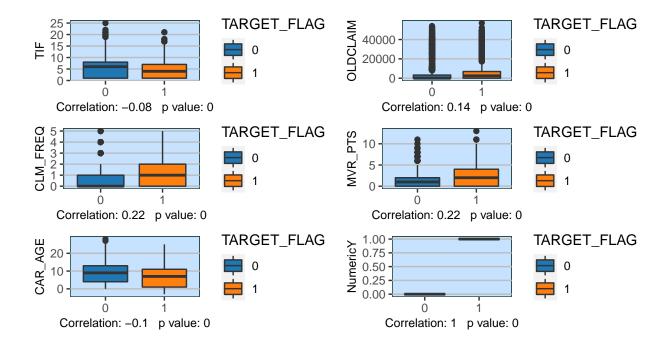
We perform log and other transformations, as well as add an interaction term, to the analysis. These transformations are based on an examination of the distributions of the indepenent variables. They include:

```
ageSquared
yojSquared
income_log
homeval_log
travtime_log
bluebook_log
carage_log
oldclaim_log
clm_freq_log
mvr_pts_log
tif_log
kidsdriv_log
homekids_log
inter (interaction term = KIDSDRIV*AGE
```

#### 3. Predict TARGET\_FLAG

**A. Explore relationships** We can see from the boxplots run on the original numeric variables against TARGET\_FLAG that the correlations are quite low.





#### **B.** Create Models

Create Model 1 - a base model with the original numeric variables.

```
##
## Call:
   glm(formula = fla, family = "binomial", data = df)
##
##
  Deviance Residuals:
##
       Min
                 1Q
                      Median
                                    3Q
                                            Max
##
   -2.0236
            -0.7694
                     -0.5736
                                0.9104
                                          2.6679
##
##
  Coefficients:
##
                 Estimate Std. Error z value Pr(>|z|)
## (Intercept) -4.351e-01
                            2.109e-01
                                       -2.063
                                               0.03910 *
## KIDSDRIV
                2.484e-01
                            6.211e-02
                                        3.999 6.35e-05 ***
## AGE
               -1.042e-02
                            4.047e-03
                                       -2.574
                                                0.01006 *
## HOMEKIDS
                7.194e-02
                            3.355e-02
                                        2.144
                                                0.03204 *
               -5.932e-03
                            7.734e-03
## YOJ
                                       -0.767
                                                0.44309
## INCOME
               -2.767e-07
                            9.289e-07
                                       -0.298
                                                0.76576
## HOME_VAL
               -2.502e-06
                            2.932e-07
                                       -8.532
                                                < 2e-16 ***
## TRAVTIME
                7.828e-03
                            1.885e-03
                                        4.153 3.28e-05 ***
## BLUEBOOK
               -1.260e-05
                            4.135e-06
                                       -3.047
                                               0.00231 **
                                       -5.838 5.29e-09 ***
## TIF
               -4.439e-02 7.604e-03
```

```
## OLDCLAIM
                6.626e-06 3.501e-06
                                        1.893 0.05842 .
## CLM FREQ
                2.683e-01
                           2.866e-02
                                        9.361
                                               < 2e-16 ***
                                        9.910
## MVR PTS
                1.397e-01
                           1.410e-02
                                               < 2e-16 ***
                           5.987e-03
                                       -3.987 6.68e-05 ***
## CAR_AGE
               -2.387e-02
##
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
##
##
   (Dispersion parameter for binomial family taken to be 1)
##
##
       Null deviance: 7445.1 on 6447
                                        degrees of freedom
  Residual deviance: 6674.3 on 6434
                                        degrees of freedom
     (1713 observations deleted due to missingness)
##
## AIC: 6702.3
##
## Number of Fisher Scoring iterations: 4
##
                      KIDSDRIV
                                                   HOMEKIDS
                                                                       YOJ
     (Intercept)
                                          AGE
  -4.350637e-01
                  2.484120e-01 -1.041761e-02
                                               7.193553e-02 -5.931651e-03
                                                   BLUEBOOK
##
          INCOME
                      HOME_VAL
                                     TRAVTIME
##
   -2.767441e-07 -2.501621e-06
                                7.828270e-03 -1.259763e-05 -4.438976e-02
##
        OLDCLAIM
                      CLM_FREQ
                                      MVR_PTS
                                                    CAR_AGE
##
    6.626042e-06
                  2.682667e-01
                                1.397392e-01 -2.387229e-02
##
## [[2]]
## [1] 0
##
## [[3]]
## [1] 0
```

Most of the predictors are significant. This may in part be due to the fact that there are over 8,000 predictions. The model has an AIC of 6702. Almost 20% of the records are missing so the model is not necessarily reliable.

We run the model 100 times at a 80/20 split. The base model has an accuracy of .748, an AIC of 5266 and an AUC of .716.

# Create Model 2 - a model with missing values addressed and all of the transformed and added variables included.

```
##
## Call:
  glm(formula = fla, family = "binomial", data = df)
##
## Deviance Residuals:
##
       Min
                 10
                      Median
                                    30
                                            Max
  -2.7164
           -0.6978
                    -0.3849
                                0.5989
                                         3.0770
##
## Coefficients:
##
                                       Estimate Std. Error z value Pr(>|z|)
## (Intercept)
                                      9.370e+00
                                                3.577e+00
                                                              2.620 0.008796 **
## KIDSDRIV
                                     -1.031e+00 5.121e-01 -2.013 0.044160 *
## AGE
                                     -1.962e-01 2.646e-02 -7.416 1.21e-13 ***
```

```
## HOMEKIDS
                                   -2.136e-01 1.537e-01 -1.390 0.164430
## YO.J
                                   -7.017e-02 3.271e-02 -2.145 0.031931 *
## INCOME
                                   -1.059e-05 3.245e-06 -3.263 0.001101 **
## HOME_VAL
                                   4.376e-06 2.282e-06
                                                         1.917 0.055225
## TRAVTIME
                                   4.900e-03 5.456e-03
                                                         0.898 0.369170
## BLUEBOOK
                                   4.828e-06 1.092e-05
                                                        0.442 0.658465
## TIF
                                   -7.933e-03 2.344e-02 -0.338 0.735042
                                   -2.782e-05 5.608e-06 -4.961 7.00e-07 ***
## OLDCLAIM
## CLM FREQ
                                   1.874e-01 2.635e-01
                                                          0.711 0.476965
## MVR_PTS
                                   1.133e-01
                                             4.321e-02 2.622 0.008736 **
## CAR_AGE
                                   8.331e-03 1.965e-02 0.424 0.671562
## PARENT1_Yes
                                    2.036e-01 1.217e-01
                                                         1.673 0.094244
## MSTATUS_Yes
                                   -6.146e-01 8.769e-02 -7.009 2.40e-12 ***
## SEX_z_F
                                   -4.600e-02 1.135e-01 -0.405 0.685361
## EDUCATION_.High.School
                                                         0.803 0.421930
                                   1.776e-01 2.212e-01
## EDUCATION_Bachelors
                                   -1.565e-01
                                              1.875e-01 -0.835 0.403714
## EDUCATION_Masters
                                   -5.231e-02 1.559e-01 -0.336 0.737231
## EDUCATION_z_High.School
                                   2.258e-01 2.033e-01
                                                         1.111 0.266763
## JOB
                                   -1.751e-01 1.797e-01 -0.974 0.330022
## JOB Clerical
                                   2.385e-01 1.274e-01
                                                         1.872 0.061239
## JOB_Doctor
                                  -5.960e-01 2.775e-01 -2.148 0.031718 *
## JOB Home.Maker
                                  -1.446e-01 1.759e-01 -0.822 0.411063
                                  -5.107e-02 1.694e-01 -0.301 0.763081
## JOB_Lawyer
## JOB Manager
                                  -7.251e-01 1.333e-01 -5.439 5.36e-08 ***
## JOB Student
                                  -2.660e-01 1.775e-01 -1.498 0.134063
## JOB_z_Blue.Collar
                                   2.029e-01 1.212e-01 1.674 0.094202
## CAR_USE_Commercial
                                   7.684e-01 9.299e-02 8.263 < 2e-16 ***
## CAR_TYPE_Panel.Truck
                                   5.206e-01 1.672e-01 3.113 0.001852 **
## CAR_TYPE_Pickup
                                   5.876e-01 1.019e-01 5.765 8.17e-09 ***
## CAR_TYPE_Sports.Car
                                   8.974e-01 1.325e-01 6.772 1.27e-11 ***
## CAR_TYPE_Van
                                    6.546e-01
                                             1.281e-01
                                                          5.110 3.22e-07 ***
## CAR_TYPE_z_SUV
                                   7.259e-01 1.130e-01
                                                          6.422 1.35e-10 ***
## RED_CAR_no
                                   3.971e-02 8.747e-02
                                                          0.454 0.649852
                                   9.685e-01 9.406e-02 10.297
## REVOKED_Yes
                                                                < 2e-16 ***
## URBANICITY_z_Highly.Rural..Rural -2.369e+00
                                             1.143e-01 -20.735
## YOJ_NA
                                   -5.498e-02 1.282e-01 -0.429 0.668095
## INCOME NA
                                   -1.351e-01 1.274e-01 -1.061 0.288885
## CAR_AGE_NA
                                   -1.530e-01 1.193e-01 -1.283 0.199554
## HOME_VAL_NA
                                              7.785e-02 -3.327 0.000878 ***
                                   -2.590e-01
## ageSquared
                                   2.107e-03 2.908e-04 7.245 4.33e-13 ***
## yojSquared
                                   3.284e-03 1.750e-03
                                                        1.876 0.060595
## income log
                                   -5.300e-02 6.199e-02 -0.855 0.392558
## homeval_log
                                  -2.485e-01 3.413e-01 -0.728 0.466634
## travtime_log
                                   2.947e-01 1.542e-01
                                                         1.911 0.055958
## bluebook_log
                                   -3.583e-01 1.246e-01 -2.877 0.004015 **
                                   -8.735e-02 1.221e-01 -0.716 0.474288
## carage_log
## oldclaim_log
                                   9.244e-02 4.254e-02
                                                         2.173 0.029783 *
## clm_freq_log
                                   -4.504e-01 7.973e-01 -0.565 0.572122
## mvr_pts_log
                                   -7.221e-02 1.293e-01 -0.558 0.576596
## tif_log
                                   -2.875e-01
                                             1.344e-01 -2.138 0.032482 *
## kidsdriv_log
                                   1.452e+00 6.156e-01
                                                        2.359 0.018334 *
## homekids_log
                                   4.649e-01 3.446e-01 1.349 0.177373
## inter
                                   1.652e-02 8.421e-03
                                                        1.962 0.049747 *
## ---
```

```
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
   (Dispersion parameter for binomial family taken to be 1)
##
       Null deviance: 9415.3 on 8159 degrees of freedom
## Residual deviance: 7156.9 on 8104
                                        degrees of freedom
     (1 observation deleted due to missingness)
## AIC: 7268.9
## Number of Fisher Scoring iterations: 5
   [[1]]
##
                         (Intercept)
                                                               KIDSDRIV
##
                        9.370156e+00
                                                         -1.030672e+00
##
                                 AGE
                                                               HOMEKIDS
##
                       -1.962298e-01
                                                         -2.136347e-01
##
                                 YOJ
                                                                 INCOME
##
                       -7.016521e-02
                                                         -1.059150e-05
##
                            HOME_VAL
                                                               TRAVTIME
##
                        4.375603e-06
                                                          4.899993e-03
##
                            BLUEBOOK
                                                                    TIF
##
                        4.827554e-06
                                                         -7.932672e-03
##
                            OLDCLAIM
                                                               CLM_FREQ
##
                       -2.782041e-05
                                                          1.873694e-01
                                                                CAR AGE
##
                             MVR PTS
##
                        1.132953e-01
                                                          8.331462e-03
##
                         PARENT1 Yes
                                                           MSTATUS Yes
                        2.035901e-01
##
                                                          -6.146059e-01
##
                             SEX_z_F
                                                EDUCATION_.High.School
##
                       -4.600387e-02
                                                          1.776204e-01
##
                EDUCATION Bachelors
                                                     EDUCATION_Masters
##
                       -1.565376e-01
                                                         -5.231392e-02
                                                                   JOB_
##
            EDUCATION_z_High.School
##
                        2.257944e-01
                                                          -1.750627e-01
##
                        JOB_Clerical
                                                             JOB_Doctor
##
                        2.385014e-01
                                                          -5.960141e-01
##
                      JOB_Home.Maker
                                                             JOB_Lawyer
##
                       -1.446106e-01
                                                         -5.107468e-02
##
                         JOB_Manager
                                                           JOB_Student
##
                       -7.251163e-01
                                                          -2.659940e-01
                                                    CAR_USE_Commercial
##
                   JOB_z_Blue.Collar
##
                        2.028571e-01
                                                          7.683794e-01
##
               CAR TYPE Panel.Truck
                                                       CAR_TYPE_Pickup
##
                        5.205814e-01
                                                          5.875796e-01
                CAR_TYPE_Sports.Car
##
                                                          CAR_TYPE_Van
##
                        8.974411e-01
                                                          6.545880e-01
##
                      CAR_TYPE_z_SUV
                                                             RED_CAR_no
##
                       7.259328e-01
                                                          3.970691e-02
                         REVOKED_Yes URBANICITY_z_Highly.Rural..Rural
##
                        9.684759e-01
##
                                                         -2.369379e+00
##
                              YOJ_NA
                                                              INCOME_NA
##
                       -5.497836e-02
                                                         -1.350652e-01
##
                          CAR_AGE_NA
                                                           HOME_VAL_NA
                       -1.529934e-01
##
                                                         -2.590234e-01
```

```
##
                          ageSquared
                                                              yojSquared
##
                        2.106869e-03
                                                            3.283852e-03
##
                          income log
                                                             homeval log
##
                       -5.299784e-02
                                                           -2.484832e-01
##
                        travtime_log
                                                            bluebook log
                        2.946639e-01
##
                                                           -3.583411e-01
##
                          carage_log
                                                            oldclaim log
##
                       -8.734651e-02
                                                            9.244048e-02
##
                        clm_freq_log
                                                             mvr_pts_log
##
                       -4.504258e-01
                                                           -7.221226e-02
##
                              tif_log
                                                            kidsdriv_log
                       -2.874765e-01
##
                                                            1.451993e+00
##
                        homekids_log
                                                                    inter
##
                        4.648545e-01
                                                            1.652350e-02
##
## [[2]]
  [1] 0
##
##
## [[3]]
## [1] 0
```

##

In the "kitchen sink" model many of the predictors are not significant. This model risks overprediction. AIC has increased to 7269.

We run the model 100 times at a 80/20 split. The kitchen sink model has an accuracy of .79, an AIC of 5723 and an AUC of .815. Despite possible overprediction, this model offers significant improvement.

Create Model 3 - Use backward elmination to choose the best model: We use backward elimination to achieve a better fit and lower AIC.

```
glm(formula = fla, family = "binomial", data = df)
## Deviance Residuals:
##
      Min
                 1Q
                      Median
                                   3Q
                                           Max
## -2.5304
           -0.7393 -0.4235
                               0.7285
                                        2.8625
##
## Coefficients:
##
                                      Estimate Std. Error z value Pr(>|z|)
## (Intercept)
                                    -9.854e-01
                                                1.277e-01 -7.716 1.20e-14 ***
## INCOME
                                    -7.501e-06
                                                7.651e-07
                                                           -9.805 < 2e-16 ***
## TRAVTIME
                                     1.395e-02
                                                1.837e-03
                                                            7.594 3.11e-14 ***
                                                           -3.010 0.00261 **
## BLUEBOOK
                                    -1.321e-05
                                               4.388e-06
## TIF
                                    -5.591e-02
                                               7.193e-03
                                                           -7.773 7.69e-15 ***
                                                                   0.20362
## OLDCLAIM
                                                           -1.271
                                    -4.926e-06
                                                3.875e-06
## PARENT1_Yes
                                     7.579e-01
                                                8.255e-02
                                                            9.181
                                                                    < 2e-16 ***
                                                           -2.319
## SEX_z_F
                                    -2.041e-01 8.798e-02
                                                                   0.02038 *
## JOB_Manager
                                    -8.476e-01
                                               1.041e-01
                                                           -8.139 4.00e-16 ***
## CAR_USE_Commercial
                                     9.257e-01
                                               6.478e-02
                                                           14.291
                                                                   < 2e-16 ***
## CAR_TYPE_Pickup
                                     3.612e-01
                                               8.695e-02
                                                            4.155 3.26e-05 ***
## CAR_TYPE_Sports.Car
                                     9.408e-01
                                               1.232e-01
                                                            7.639 2.19e-14 ***
## CAR_TYPE_z_SUV
                                     6.999e-01 1.049e-01
                                                            6.671 2.54e-11 ***
```

```
## URBANICITY_z_Highly.Rural..Rural -2.342e+00 1.119e-01 -20.933 < 2e-16 ***
## HOME VAL NA
                                     -4.871e-01
                                                6.124e-02 -7.954 1.80e-15 ***
## oldclaim log
                                      7.761e-02
                                                 8.507e-03
                                                              9.123 < 2e-16 ***
                                                1.208e-03
                                                             8.018 1.08e-15 ***
## inter
                                      9.684e-03
##
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
##
  (Dispersion parameter for binomial family taken to be 1)
##
##
       Null deviance: 9418.0 on 8160 degrees of freedom
## Residual deviance: 7553.3 on 8144
                                        degrees of freedom
  AIC: 7587.3
##
##
## Number of Fisher Scoring iterations: 5
## [[1]]
##
                         (Intercept)
                                                                INCOME
##
                      -9.853727e-01
                                                        -7.501381e-06
##
                           TRAVTIME
                                                              BLUEBOOK
                       1.395330e-02
##
                                                        -1.320759e-05
                                                              OLDCLAIM
##
                                 TIF
##
                      -5.590842e-02
                                                        -4.925857e-06
                        PARENT1_Yes
##
                                                              SEX_z_F
##
                                                        -2.040512e-01
                       7.579452e-01
                        JOB Manager
                                                   CAR USE Commercial
##
##
                      -8.475772e-01
                                                         9.257383e-01
##
                    CAR_TYPE_Pickup
                                                  CAR_TYPE_Sports.Car
##
                       3.612426e-01
                                                          9.407812e-01
##
                     CAR_TYPE_z_SUV URBANICITY_z_Highly.Rural..Rural
##
                       6.999295e-01
                                                        -2.341684e+00
##
                        HOME_VAL_NA
                                                         oldclaim_log
                                                         7.760677e-02
##
                      -4.870927e-01
##
                               inter
##
                       9.684202e-03
##
## [[2]]
## [1] 0
##
## [[3]]
## [1] 0
```

The refined model has an AIC of 7587. This is not an improvement.

We run the model 100 times at a 80/20 split. The refined model has an accuracy of .77, an AIC of 5805 and an AUC of .79. Despite lower AIC, this model does not predict the data as well. Again, the AIC does not fall and the model does not predict as well.

#### **4. Select model** Below is a table of results:

	Base Model	Kitchen Sink Model	Refined Model
Accuracy	0.748	0.790	0.770
AIC	5266.000	5723.000	5805.000

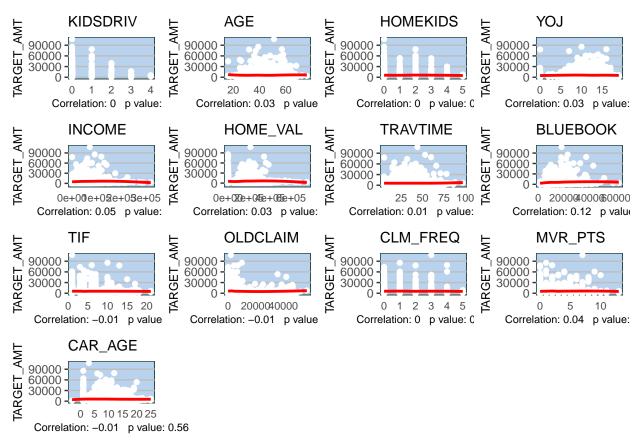
	Base Model	Kitchen Sink Model	Refined Model
AUC	0.716	0.815	0.795

Despite the apparent superior predictability of the second model, we choose the third. This model has a lower AIC and is more interpretable and coherent than the second model.

#### 4. Predict TARGET\_AMT

Now we predict the target amount for those customers who have had an accident.

#### **A.Explore Relationships** We look at scatterplots of numeric variables:

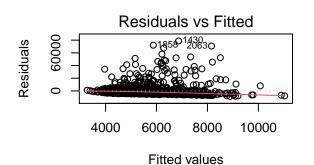


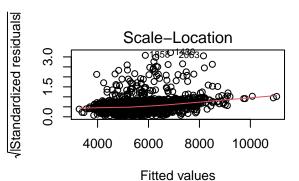
We can see that correlations are quite low.

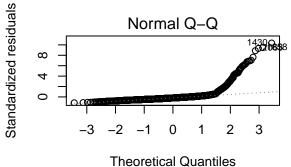
#### B. Create models

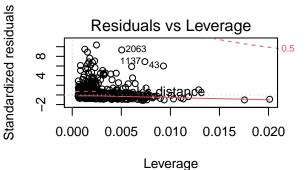
Create Model 1 - the base model with the original numeric variables. We use stepAIC to choose the best model. The model retains very few predictor variables.

```
##
## Call:
  lm(formula = TARGET_AMT ~ BLUEBOOK + MVR_PTS + CAR_AGE, data = df)
##
##
  Residuals:
##
     Min
              1Q Median
                            3Q
                                  Max
##
    -8566 -3086 -1519
                           287
                                78658
##
##
  Coefficients:
##
                 Estimate Std. Error t value Pr(>|t|)
  (Intercept) 4021.48678
                           459.06110
                                       8.760 < 2e-16 ***
                             0.02243
                                       5.439 6.15e-08 ***
## BLUEBOOK
                  0.12199
## MVR_PTS
                            70.96899
                109.75419
                                       1.547
                                                0.122
## CAR_AGE
                -50.90781
                            34.04373
                                      -1.495
                                                0.135
##
## Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1
##
## Residual standard error: 7605 on 1699 degrees of freedom
## Multiple R-squared: 0.01821,
                                    Adjusted R-squared: 0.01648
## F-statistic: 10.51 on 3 and 1699 DF, p-value: 7.581e-07
##
## [1] "VIF Analysis"
## BLUEBOOK MVR_PTS CAR_AGE
## 1.037901 1.005499 1.036879
```









medical Quantile

## NULL

```
## $coefficients
                   BLUEBOOK
                                 MVR PTS
    (Intercept)
                                                CAR AGE
                   0.1219936 109.7541892 -50.9078077
  4021.4867795
##
##
   $residuals
                                                                          6
##
                              3
                                             4
               1
   -2845.4802274 -2835.9070694
                                  383.0165887 -6031.9693314 -1908.0044695
##
               7
                              9
                                            10
                                                          11
                                                                         12
##
    1823.8569452
                  -708.1745806
                                 -534.8258786
                                               3476.9779442 -5187.9576612
              14
##
                             15
                                            16
                                                          17
   -3943.8948031
                  3697.8616651 -1489.9644125 -1492.9996434 -4231.6138413
                             21
                                            22
                                                          24
##
              20
                                                                         26
##
   -3587.5913718
                    88.7080189
                                 7940.2754415
                                                2010.6607562
                                                                 46.1937285
                                            29
##
              27
                             28
                                                           30
   -2697.4512133 -5198.6247542
                                 4058.7347967
                                                1239.2577485
                                                              1113.8769104
##
              34
                             35
                                            36
                                                           37
                  -593.4390198
                                 1325.5104368
                                                  45.8775043 -3325.6929799
   -1445.2145518
              39
                             40
                                                          43
                                            41
    1385.3934405
                  -812.9546448 -3416.5091168 45377.0566205 -1097.7432105
##
##
              45
                             47
                                            49
                                                          50
##
   -1201.5176704 -3412.6669451 -1408.3933267 -1995.8422453 -1052.8406626
              52
##
                             54
                                            55
##
   -3224.1307777
                  2015.8390466 -2704.4169124 -4124.9016494 -4804.3826859
##
              59
                             61
                                            62
                                                          63
##
     115.4980069 -2886.2802214
                                  931.4892431 -1518.5137361 -3716.9323092
##
              66
                             67
                                            68
                                                          69
##
    -608.8030204 -4482.0512369
                                 -280.6237318
                                                 758.9410101
                                                                497.6388321
##
              72
                             74
                                            75
                                                          77
##
    -195.5736503 -3586.8932034 -2230.3883514 -1926.4348656 -2732.5217423
##
              79
                             80
                                            81
                                                          82
##
   -1308.8134639 -4296.3374220
                                 -891.0918804
                                               -240.9845581
                                                               -436.5548099
##
              85
                             86
                                            87
                                                          88
   32641.0744649 -4633.8340697 -2637.3348647 -2832.8319097
                                                               9074.8502446
##
              90
                             92
                                           93
                                                          94
    -3728.7371499 -1816.5357865
                                  191.7202851 -4631.7612337 -1322.0781709
              97
                             98
                                           99
                                                         100
##
   -3463.4635351
                  -709.5322378
                                 1132.5611181 -2164.6341104 -2899.4405260
                                           104
                                                         105
##
             102
                            103
   -2164.6107653
                  1622.2760175
                                  519.1629159
                                                 297.2263679
                                                               1976.0945060
##
             109
                            110
                                                         112
                                           111
   -3160.2948318
                   387.7617999
                                   34.8329023
                                               -636.2470702 -2014.1377556
##
             116
                            117
                                           118
                                                         119
   -3877.5226825 41684.9512988 -4270.7781882 -2728.6529713 -3570.4940098
##
##
                            123
             121
                                           125
                                                         126
   -6330.6667773 -3581.1915195
                                  802.0713287 -1017.5412719
                                                                540.1015085
             128
                                           130
##
                            129
                                                         131
   20918.3360878 -1219.2208544 -3602.6261892 -1585.1660530 -2168.2572454
             133
                            135
                                           136
                                                         137
   -2978.1457658 -2816.3508471 -1277.7396495 2312.4688956 -3996.0819340
##
             141
                            142
                                           143
                                                         145
    -448.5957734 16292.4037696 53498.0263202 11491.1745311
##
                                                              -330.1414276
##
             148
                            151
                                           152
                  -394.8961249 -1238.0559253 19150.9151948
##
    1592.4525017
                                                               162.7719976
##
             155
                            156
                                           157
                                                         158
```

```
## -1227.9147701 -5814.8771538 1122.6343876
                                               10.4566093 1178.2546985
##
             160
                            162
                                          163
                                                         164
   -1705.1185598
                    76.0255426 -4199.9755440 -3446.3675001
                                                              -215.9956048
##
             166
                            167
                                          168
                                                         170
                                                                        171
##
    4369.7139173
                  -763.8622511
                                 -970.5909232 -1752.5241089 -2771.5800702
                           174
##
             173
                                          175
                                                         176
##
    -133.7859890 -5607.2761679 -3325.1913638 -1700.4992076 -2691.4095663
##
             181
                            182
                                          183
                                                         184
##
    -573.5784242 -5098.6770175
                                  621.8617508 -2453.7858500
                                                              -943.6605009
##
             186
                            187
                                          188
                                                         190
   15168.9560621 -4322.2096326
                                -453.8463693 -2903.8995306 -2210.4972098
##
             193
                            194
                                          195
                                                         196
##
   -2560.5535381
                  1420.8473581 -3312.9550247 -3586.5806512 15093.6564538
##
             200
                            201
                                          202
                                                         203
   -2510.7480605 -4330.1977334 -2343.7178012 -1138.3449972
##
                                                              4334.7221557
##
             205
                            206
                                          207
                                                         209
   -3408.4233908 -4775.6094996
                                -468.6177293
                                               -300.1775950
                                                               309.0193428
##
             213
                                          215
##
                            214
                                                         216
##
    2031.3445895 -1410.6138454 -2469.7485577
                                               -367.3939242 23644.6792288
##
             219
                            221
                                          222
                                                         223
##
    -459.1032362 -1595.6606889
                                6734.7923858
                                                1327.3468200
                                                              -385.6077380
##
             225
                            226
                                          228
   -1917.4409951 -2112.1803896 -3130.5212190 -3311.9051777
##
                                                              1218.0768810
##
             231
                            232
                                          233
                                                         234
##
    8339.0438464
                  1532.7444692 -1617.8909098
                                               -603.4740680 -1951.3503128
##
             236
                            237
                                          238
                                                         239
   -3996.9983994
                  1111.4331232 -2162.0478666 -1948.1982920 -1988.3466464
##
##
             241
                            242
                                          243
                                                         244
                                                 575.2629021 -3382.8368046
   -1660.4642895 -4175.8485459 -1778.5668341
##
##
             246
                            247
                                          248
                                                         251
##
    -624.8574067 -3326.6517537
                                  224.7508463 48625.7056418
                                                              -140.3235312
##
             253
                            254
                                          255
                                                         256
##
     196.7347967 -1542.9019713 -6831.2222045
                                               1072.1987503
                                                              -294.1205520
##
             260
                            261
                                          262
                                                         263
                                                                        264
   -1359.8975977
                   516.6294873 -1365.3229217 -1062.4981314 -3199.0002786
##
##
             265
                            266
                                          267
                                                         268
   -1570.1443301 -3846.3006259 -2728.4905272 -3195.5860990
##
             270
                            272
                                          273
                                                         274
   -2316.6349683 -3343.9380804 -939.1039342 15524.7005794 27897.7138139
##
             276
                            277
                                          278
                                                         279
   -1024.5859979 -1656.9369121 -2933.9885744 -1812.6066525 -4740.2306388
##
             281
                            282
                                          283
                                                         284
                                                                        285
##
   -2558.7462305 -1935.2887341 -1050.3181989 -2376.5885530
                                                               175.1727784
             286
                                          288
##
                            287
                                                         289
   -1694.9936053 -5874.1267798
                                  877.6826169
                                                2427.3708407
                                                              2069.0129639
             291
                                          293
##
                            292
                                                         294
   -1413.1414794 -2020.8894443 -1777.5807404
                                                1047.2385197 21935.0986846
##
             297
                            298
                                          299
                                                         300
##
   10168.0617086 -3612.8439786
                                -856.1957728
                                                 577.4584972
                                                              1763.2477759
##
             303
                            304
                                          305
                                                         306
                                                                        307
    3947.2873600 -1469.2614424
                                 -991.6754706
##
                                                1083.6062526
                                                              1560.4182951
##
             308
                            309
                                          310
                                                         311
##
    -620.9939180 -1836.8736092 -4330.3629941
                                               -423.5015684 -3302.1950912
##
             313
                            314
                                          315
                                                         316
```

```
## -2118.9520806 -3638.6171483 2786.4598336
                                               279.7960887
##
             318
                           319
                                          320
                                                         321
                                                                       322
    -202.9360155 -3501.5311803
##
                                4772.6887792 -2091.8341311 -2043.8794982
             323
                           324
                                          326
                                                         327
##
##
   -1608.7221504 -3842.0954367
                                 1858.7319516 -1811.7541118 -2296.1105645
                                                         334
##
             329
                           330
                                          331
   -2677.7632987 -2861.7708132 -1515.8319097
                                               -715.0333625 -1374.5468108
##
             336
                            338
                                          339
                                                         340
##
     477.2254537
                   147.1608193
                                 8008.4685942 -1843.1559523
                                                              3299.5805569
##
             342
                            344
                                          347
                                                         348
   -3737.7665364 -4012.3710924 10339.3472838
                                               2309.7869482
                                                               347.1777277
##
             352
                           353
                                          354
                                                         355
                                                                       356
##
    -993.0590826 -3283.8816916 -4677.1419454 -3247.4561977 -3230.7879110
##
             358
                           359
                                          360
                                                         361
   -2937.2790520
                  -888.9183655 -2304.7443648 18483.5143503
##
                                                             1215.9303424
##
             363
                            366
                                          367
                                                         368
                                  966.6037147 -1470.4064886
##
    -746.4243592 -4284.7271048
                                                               580.0222173
             370
                                          372
                                                         373
##
                            371
   -4203.6656880 -1587.4005209
                                 3812.3260498 12138.0007157 -1088.7138278
##
             377
                           378
                                          380
                                                         381
##
   -1014.4840459
                   -77.5803478 -2955.1566393 -2376.4075870
                                                             -611.7908921
             383
                           384
                                          386
   -1521.2750043 -8565.9260884 -6081.6029979 -4886.5026168 -2043.6511094
##
             389
                           390
                                          391
   -6669.6403994
                  2061.0021741
                                -159.1488638 -4089.2011758 -4825.6907724
             397
                           399
                                          400
                                                         401
  -1537.4409823
                   550.5332140
                                1520.4633308 -4516.9405935 -1152.6441141
##
             405
                           406
                                          407
                                                         408
  -1393.4777997 -1145.0037471 -1794.6656041
                                              -375.3805166 -3487.5274995
             414
                           415
                                          416
                                                         417
   -3635.9764645
                  3601.5132504 -3390.6383981 -2054.1225831 -3811.7902066
##
             419
                           421
                                          422
                                                         423
   -4139.5907822 -1826.5369428
                                -852.7123605 -3643.7975650
                                                               789.6277949
##
             425
                           426
                                          427
                                                         428
                                                                       429
   -4184.1414315
                  -733.8527894 -2195.6529041 -1173.8749368 -2949.6593295
##
             431
                           432
                                          433
                                                         434
   -3702.0197780 -3111.7109715 -4196.0944775
                                              8253.8689595
                                                              -345.9962043
                                          438
##
             436
                           437
                                                         439
   -1284.5358610 -1534.8467694
                                 2997.3521303 -1623.6004655 -4638.9696571
##
##
             441
                           442
                                          443
    -485.0962241 -3640.5462130 -3596.9094729
##
                                               8307.0629794 35001.8240166
##
             447
                           448
                                          449
                                                         450
##
    -695.1296697
                  1880.9004449 26817.5489204
                                               1586.3891134
                                                              1436.4986094
##
             452
                           453
                                          454
                                                         455
   -3091.6619849 -2191.6411927 -1672.1039715 -2589.4215234 -1733.9747458
##
             457
                            458
                                          459
                                                         460
   14661.8875307 -2495.9746064 -4672.2477097
                                               1170.2696011
                                                              4038.8465111
             464
                            466
                                          467
                                                         468
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                                                159.0880038
                                                              6303.8810917
##
            2057
                           2058
                                         2059
                                                        2060
                                                                      2061
   -1722.7617326 -5983.5026168
                                -133.8228329 -1301.2465058 -3116.4295628
##
            2062
                           2063
                                         2064
                                                        2065
                                                                      2066
##
    -877.0379801 70714.4674668
                                -639.9218604 -2847.8774837
                                                               501.1142216
##
            2067
                          2069
                                         2070
                                                        2071
                                                                      2073
##
    2669.6791834
                 -754.5681950 -3402.3880445
                                               -595.0916586
                                                             1017.4187753
##
            2074
                           2075
                                         2076
                                                        2077
                                                                      2078
                                               2185.0519706 -1225.0129522
##
    1482.3746331 -4722.5155902 -3405.7777563
##
            2079
                          2080
                                         2082
                                                       2084
                                1713.3011868
                                               1009.0854772
   -1186.6151823 -1125.4952287
##
                                                              -969.4864611
##
            2086
                          2088
                                         2089
                                                        2090
                                                                      2091
##
    9332.2555361
                     8.0376545 -1839.1249179 -1773.7779536 -1550.0784278
                                         2096
##
            2093
                           2095
                                                        2097
##
     -80.7632242 -2665.2542944 -4235.5825987 -3566.3003897
                                                             4222.2760121
##
                          2101
                                         2102
##
     518.3431263 -3944.4477315 -3972.9876470 17470.6501313 -4941.1803896
##
            2106
                          2107
                                         2108
                                                        2110
##
    2189.5956957 -1067.1845269 -3542.7966005 -6624.6704862
                                                             -645.8060666
##
            2112
                           2114
                                         2116
                                                        2117
                                                                      2118
##
                 -602.0948665
                                -617.5743673
                                                104.9874053
                                                               299.3815931
     346.5610491
##
            2119
                          2121
                                         2122
                                                        2126
                                                                      2127
                                                             -774.2129769
##
      87.3034322 -3196.1975937
                                 -169.8902267 -2340.0337460
##
            2128
                          2129
                                         2130
                                                        2132
                                                                      2134
##
    -621.4481375 -7311.5572933
                                -676.5020916 -1698.5737190 -2533.3684724
##
            2136
                          2137
                                         2138
                                                       2139
                                                                      2140
   -2082.7294472 -2714.8971954
                                  82.3034322
                                               -263.1988801 -2890.4690725
##
##
            2143
                          2144
                                         2146
                                                       2147
                                                                      2149
   -2901.7779462 -5044.9953850
                                  362.7900004 -3868.6193285 -4519.4892632
##
            2151
                          2152
                                         2153
   -2673.3771465 -1880.1939756 -2930.8773736
##
## $effects
                                      MVR PTS
##
     (Intercept)
                      BLUEBOOK
                                                    CAR AGE
##
  -2.339078e+05 3.928759e+04 1.224887e+04 1.137270e+04 -1.801735e+03
##
    1.769615e+03 -7.777312e+02 -4.045802e+02 3.408654e+03 -5.191397e+03
##
  -3.976906e+03 3.968344e+03 -1.290394e+03 -1.178964e+03 -4.268975e+03
##
  -3.665559e+03 1.314760e+01 8.068748e+03 2.004552e+03 1.877509e+02
##
  -2.627061e+03 -5.056892e+03 4.044519e+03 1.200982e+03 1.550534e+03
##
##
## -1.553579e+03 -4.036140e+02 1.652911e+03 2.377605e+02 -3.470429e+03
##
```

```
1.446068e+03 -8.823953e+02 -3.357234e+03 4.544472e+04 -1.049142e+03
##
##
   -1.209164e+03 -3.239617e+03 -1.316281e+03 -2.083467e+03 -8.792555e+02
##
##
   -3.382440e+03 2.245871e+03 -2.190753e+03 -4.077663e+03 -4.631703e+03
##
   3.253501e+02 -2.657165e+03 9.421157e+02 -1.253425e+03 -3.901636e+03
##
##
   -6.108517e+02 -4.309878e+03 -1.714977e+02 9.125685e+02 8.295674e+02
##
##
   -2.681176e+02 -3.681582e+03 -2.145318e+03 -1.908383e+03 -2.844004e+03
##
##
  -9.746949e+02 -4.111408e+03 -8.514158e+02 -7.175748e+01 -2.795673e+02
##
   3.243800e+04 -4.528006e+03 -2.603816e+03 -2.782673e+03 9.055733e+03
##
  -3.812375e+03 -1.775178e+03 1.662795e+02 -4.404404e+03 -1.165700e+03
##
##
  -3.467194e+03 -6.696940e+02 1.070778e+03 -1.818924e+03 -2.683607e+03
##
##
  -2.282430e+03 1.567582e+03 6.840001e+02 4.755249e+02 1.958485e+03
##
  -3.109417e+03 4.808703e+02 2.364911e+02 -4.222657e+02 -1.779719e+03
##
##
  -4.149298e+03 4.165209e+04 -4.349775e+03 -2.728831e+03 -3.585261e+03
##
   -6.416454e+03 -3.620482e+03 9.891548e+02 -8.415488e+02 3.966928e+02
##
##
   2.083045e+04 -1.313430e+03 -3.396908e+03 -1.536321e+03 -2.234304e+03
##
##
##
   -2.794032e+03 -2.655305e+03 -1.178500e+03 2.085476e+03 -4.161602e+03
##
   -4.695508e+02 1.619596e+04 5.347172e+04 1.147632e+04 -5.130554e+01
##
    2.014041e+03 -3.008232e+02 -7.220281e+02 1.898944e+04 4.518404e+01
##
##
  -1.227454e+03 -5.938570e+03 1.679939e+03 1.043124e+02 1.456765e+03
##
   -1.618254e+03 2.310699e+02 -4.023347e+03 -3.194216e+03 -2.301392e+02
##
##
   4.540721e+03 -7.699132e+02 -6.373240e+02 -1.501399e+03 -2.832522e+03
##
##
   -1.381402e+02 -5.709955e+03 -3.232887e+03 -1.434792e+03 -2.503531e+03
##
##
   -5.486119e+02 -5.191684e+03 8.264067e+02 -2.497294e+03 -9.094113e+02
##
##
##
   1.509994e+04 -4.296196e+03 -2.300651e+02 -2.774524e+03 -2.221740e+03
##
##
  -2.434681e+03 1.692439e+03 -3.248872e+03 -3.687178e+03 1.504501e+04
##
## -2.504994e+03 -4.404971e+03 -2.088854e+03 -1.076423e+03 4.233377e+03
## -3.429502e+03 -4.608140e+03 -3.433199e+02 -3.107247e+02 3.789710e+02
##
```

```
2.380379e+03 -1.121710e+03 -2.333024e+03 -1.574699e+02 2.390276e+04
##
   -3.020255e+02 -1.501642e+03 6.941762e+03 1.641100e+03 -2.467773e+02
##
##
##
  -1.941390e+03 -2.137708e+03 -3.136647e+03 -3.434598e+03 1.163951e+03
##
   8.316242e+03 1.809557e+03 -1.323073e+03 -5.616344e+02 -1.732815e+03
##
##
  -4.026123e+03 1.027954e+03 -2.137920e+03 -1.953262e+03 -1.934199e+03
##
  -1.564984e+03 -4.256311e+03 -1.553614e+03 6.764712e+02 -3.594254e+03
##
  -7.080316e+02 -2.935710e+03 1.815302e+02 4.858416e+04 -1.039995e+02
##
##
   1.825186e+02 -1.510550e+03 -6.944973e+03 1.271590e+03 4.304695e+01
##
  -1.407889e+03 6.096770e+02 -1.471077e+03 -8.811145e+02 -3.007370e+03
##
##
## -1.432427e+03 -3.755008e+03 -2.599605e+03 -3.138509e+03 1.979566e+03
##
  -2.406828e+03 -3.299710e+03 -9.069449e+02 1.534484e+04 2.802318e+04
##
## -1.062629e+03 -1.481013e+03 -2.844597e+03 -1.881684e+03 -4.925341e+03
## -2.571106e+03 -1.828189e+03 -8.106957e+02 -2.566774e+03 5.642766e+02
  -1.622562e+03 -5.911393e+03 1.079356e+03 2.293149e+03 2.035466e+03
##
##
  -1.401862e+03 -2.067503e+03 -1.651396e+03 1.024814e+03 2.212054e+04
##
##
##
    1.012346e+04 -3.196070e+03 -7.962904e+02 8.753076e+02 2.064360e+03
##
##
   3.918700e+03 -1.071877e+03 -6.562114e+02 9.938191e+02 1.653509e+03
##
   -6.043235e+02 -1.635821e+03 -4.223876e+03 -3.580157e+02 -3.272185e+03
##
##
  -2.216976e+03 -3.473664e+03 2.592605e+03 3.347095e+02 8.147077e+02
##
## -2.991476e+02 -3.298847e+03 4.796340e+03 -2.047268e+03 -2.212979e+03
##
  -1.400714e+03 -3.601597e+03 2.090925e+03 -1.797346e+03 -2.301944e+03
##
##
  -2.271978e+03 -2.795691e+03 -1.465673e+03 -7.926595e+02 -1.407195e+03
##
##
   4.437503e+02 4.219361e+02 7.850556e+03 -1.808494e+03 3.618961e+03
##
##
  -3.638226e+03 -3.821129e+03 1.030124e+04 2.175798e+03 4.810519e+02
##
##
## -1.051894e+03 -3.229240e+03 -4.654914e+03 -3.129150e+03 -3.422134e+03
##
## -2.745446e+03 -8.691039e+02 -2.305186e+03 1.846287e+04 1.183363e+03
## -5.570420e+02 -4.406549e+03 1.059017e+03 -1.287268e+03 5.017512e+02
##
```

```
## -4.140827e+03 -1.666253e+03 3.869603e+03 1.216606e+04 -9.797362e+02
##
  -8.359381e+02 1.168462e+00 -3.093280e+03 -2.301020e+03 -3.121114e+02
##
##
  -1.698496e+03 -8.864690e+03 -6.019071e+03 -5.024737e+03 -1.788355e+03
##
   -6.842336e+03 1.958555e+03 -1.693622e+02 -3.882464e+03 -4.950762e+03
##
## -1.245731e+03 6.076982e+02 1.418538e+03 -4.431627e+03 -9.892652e+02
##
  -1.004957e+03 -9.205840e+02 -1.561200e+03 -3.819539e+02 -3.287424e+03
##
  -3.680486e+03 3.614015e+03 -3.401040e+03 -1.872021e+03 -3.785562e+03
##
##
  -4.123990e+03 -1.514948e+03 -7.216408e+02 -3.690542e+03 7.318907e+02
  -3.879543e+03 -4.157595e+02 -2.097309e+03 -8.829985e+02 -2.959684e+03
##
##
  -3.695765e+03 -3.009201e+03 -4.125182e+03 8.334027e+03 -2.353360e+02
##
##
  -9.372996e+02 -1.376608e+03 2.951811e+03 -1.863239e+03 -4.427819e+03
##
  -6.601129e+02 -3.873716e+03 -3.588603e+03 8.379455e+03 3.506959e+04
##
##
  -4.751445e+02 1.952687e+03 2.722985e+04 1.792282e+03 1.659076e+03
##
##
  -2.839329e+03 -2.217024e+03 -1.745695e+03 -2.522864e+03 -1.761891e+03
##
##
   1.466362e+04 -2.329263e+03 -4.398096e+03 1.566421e+03 4.197187e+03
##
##
## -1.230915e+03 -5.624459e+02 1.448445e+03 -1.551627e+03 -1.590835e+03
##
  -2.636097e+03 -6.512907e+02 -3.756986e+03 1.117035e+04 -5.052604e+03
##
  -1.799926e+03 -3.312820e+03 -3.608837e+03 -4.512897e+03 6.769300e+02
##
  -2.949626e+03 -5.040315e+02 -5.082209e+02 1.635322e+03 -7.059839e+02
##
   -2.531059e+03 -1.432620e+03 -1.397930e+03 -1.495803e+03 -1.111573e+03
##
##
   4.071118e+02 -3.993904e+03 -4.882219e+03 1.414596e+03 1.324791e+04
##
##
   -2.599726e+03 -1.129554e+03 -2.401629e+03 2.590136e+02 1.928363e+03
##
##
   -5.467612e+03 -3.389884e+03 -2.062226e+03 -7.963800e+02 3.933482e+03
##
##
  -1.490926e+02 -1.878177e+02 5.495163e+02 -2.708815e+03 -3.692987e+03
##
##
   1.049304e+04 -1.393422e+03 -8.779452e+02 2.643365e+03 -2.287775e+03
##
   1.740015e+02 -5.198578e+02 -1.937136e+03 -3.035534e+03 -2.417494e+03
##
##
   1.011927e+03 -1.601081e+03 -1.108605e+03 -1.007099e+03 -8.838986e+01
##
##
```

```
2.035760e+03 -1.770976e+03 -4.327017e+03 -4.769688e+03 -4.022131e+03
##
##
   -2.515678e+03 1.594434e+03 -4.180351e+03 -1.224487e+03 -6.043763e+03
##
##
   -9.923696e+02 -2.947789e+03 -2.968635e+03 -1.569775e+03 -3.803475e+03
##
   -2.982948e+03 -9.869332e+02 -4.840429e+02 3.383376e+04 1.394776e+04
##
  -5.132212e+03 -1.052401e+03 -3.454734e+03 -4.162386e+03 -1.319489e+03
##
  -1.971013e+03 -1.981248e+03 1.915220e+02 -6.075356e+03 -2.637050e+03
##
  -3.587634e+03 -8.346994e+02 -1.649072e+03 5.185788e+03 -1.935007e+03
##
##
  -1.329807e+03 -2.560113e+02 -2.026185e+03 4.705172e+03 -2.575950e+03
  -2.552916e+03 -8.512459e+02 9.807857e+02 1.664209e+03 -1.146101e+03
  -5.491450e+03 1.692704e+04 -7.751782e+02 -1.464958e+03 -1.724673e+03
##
##
##
  -2.883068e+03 -3.726827e+03 -9.474727e+02 4.311841e+02 -3.375198e+03
##
   -4.654338e+03 -1.096850e+03 -7.063627e+03 8.811640e+02 3.767923e+03
##
##
##
   -2.775706e+03 1.097081e+04 -1.569895e+02 -1.533308e+03 1.714973e+02
##
    1.809390e+02 -6.889790e+03 -3.378161e+03 -4.303499e+03 -2.808518e+03
##
##
   4.459119e+03 -4.245183e+03 1.147769e+04 -3.827148e+03 2.014117e+03
##
##
##
    6.746066e+04 4.848603e+01 -2.999038e+03 -8.336698e+02 2.191562e+03
##
   -3.403660e+03 2.182268e+02 -4.570391e+03 3.356677e+03 -1.002104e+02
##
##
    4.463675e+04 -2.593581e+03 -4.512479e+02 -1.386296e+03 -2.400421e+01
##
##
##
   -3.178997e+03 1.640888e+04 -1.395163e+03 -3.108959e+03 1.392150e+03
##
    2.738794e+04 -2.793945e+03 -3.827919e+03 7.929448e+02 3.398676e+04
##
##
   -2.229374e+03 -2.497118e+03 -1.246519e+03 9.840558e+02 -1.034241e+03
##
##
   -4.257039e+02 1.220582e+02 1.726741e+03 -2.731991e+03 1.173447e+04
##
##
   -2.440723e+03 -9.675811e+02 2.754880e+03 -3.523019e+01 -3.859828e+03
##
  -1.806228e+03 -3.837685e+02 1.047491e+03 7.330358e+02 -3.035973e+03
##
##
##
   1.137463e+03 -1.600276e+03 7.411931e+02 -2.456524e+03 1.006534e+01
##
  -1.957386e+03 -3.584542e+03 -1.938814e+03 -3.147511e+03 -1.535708e+03
##
##
##
   1.894229e+02 -2.363314e+03 6.512019e+03 -3.434040e+03 -2.749003e+03
##
```

```
## -3.617294e+00 -1.972738e+03 2.064639e+03 -3.073595e+03 -3.208709e+01
##
##
   3.646559e+02 -1.837054e+03 -2.878680e+03 -3.213522e+03 -2.342514e+03
##
##
   -2.725956e+03 9.307491e+02 -3.195871e+02 3.667405e+02 3.922450e+03
##
   -3.726496e+03 -2.718192e+03 -3.814392e+03 -3.286236e+03 1.833081e+03
##
  -4.113929e+03 2.001059e+04 -3.319692e+03 1.541639e+03 1.716884e+03
##
   -4.382781e+03 -3.252953e+03 -6.386363e+01 -3.260036e+03 -1.492163e+03
##
  -2.607106e+03 -1.007389e+03 -1.468477e+03 2.453268e+04 -3.293006e+03
##
##
  -1.459487e+03 1.609617e+03 1.071795e+04 -2.130228e+03 -2.381522e+03
##
##
   1.036559e+03 -4.457559e+03 -1.897596e+03 2.026198e+03 -4.168431e+03
##
##
  -2.080284e+03 -2.473458e+03 -2.724385e+03 -3.569861e+03 -3.224070e+03
##
##
##
  -6.308939e+03 3.290577e+04 3.865883e+04 -2.801229e+03 -3.673859e+03
##
   8.473318e+02 -3.613578e+03 -1.812885e+03 -3.123246e+03 -4.500679e+02
##
##
##
  -3.114576e+03 -3.573416e+03 -4.329693e+03 -1.680662e+03 -1.831414e+02
##
  -2.612606e+03 -2.656967e+03 -1.153984e+03 1.236458e+03 -5.871747e+02
##
##
  -3.102268e+03 1.737780e+03 -5.037959e+03 -2.772913e+03 4.654654e+02
##
##
## -2.001799e+03 -1.948509e+03 4.125678e+04 -3.285392e+03 1.593583e+03
##
## -1.804824e+03 3.834280e+02 -4.324560e+03 -1.251023e+03 -3.722339e+03
##
  -7.120910e+03 -5.984445e+02 2.478224e+03 -2.486406e+03 3.795449e+01
##
  -3.679391e+03 -6.057097e+03 2.085083e+03 -2.452108e+03 -5.040726e+03
##
## -2.162466e+02 -4.660477e+03 -3.728289e+02 -1.573448e+03 -2.589617e+03
##
   -3.478237e+03 1.200377e+03 -2.613489e+03 -2.439985e+03 -3.933491e+03
##
  -1.904492e+03 -5.284739e+03 -3.249372e+03 -2.347201e+03 -3.662440e+03
##
##
  -3.863642e+03 -1.627679e+03 2.803243e+03 -1.654853e+03 -2.790875e+03
##
## -1.272042e+03 2.081191e+02 -2.692340e+03 -4.625515e+03 -1.134995e+02
##
## -1.784353e+03 -1.733819e+03 2.535401e+04 -3.804429e+03 -3.248782e+03
## -2.441031e+03 -1.100574e+03 3.072805e+03 -4.597325e+03 7.451577e+02
## -4.440336e+03 -4.905675e+03 -4.954265e+03 1.228028e+03 -1.280963e+03
##
```

```
9.934796e+02 -2.559602e+03 -5.951567e+03 -4.522772e+02 -2.867758e+03
##
##
   -4.884122e+02 1.023760e+03 -8.174357e+02 8.657114e+03 -5.582130e+03
##
##
   -5.388793e+03 6.112724e+02 -3.009548e+03 -1.937369e+03 -4.354055e+03
##
   -7.297801e+02 -2.820130e+03 1.927921e+03 8.076456e+02 2.996544e+03
##
  -1.752032e+03 -2.020237e+03 -9.779089e+02 1.268430e+02 2.665889e+03
##
   -1.679638e+03 -1.657944e+03 -3.576111e+02 -1.817083e+03 -1.482487e+03
##
##
   -3.943981e+03 -1.329669e+03 -4.830510e+02 -6.106916e+03 1.196863e+02
##
   -2.325067e+03 -2.597083e+02 1.283310e+04 -1.395691e+03 -1.999670e+02
##
##
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##
##
   4.787259e+02 -6.038727e+03 -8.093616e+03 -8.212575e+02 -5.466012e+03
##
##
##
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##
   -4.619042e+03 -1.542360e+03 2.116454e+03 6.779728e+01 -3.515210e+03
##
##
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##
##
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##
##
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##
##
##
   -1.007630e+03 -3.510991e+03 -1.246649e+03 -3.403174e+03 -3.529732e+02
##
##
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##
   -7.850087e+02 2.015186e+03 2.110621e+04 -2.326466e+03 -1.678498e+03
##
##
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##
   -4.896179e+03 -3.190493e+03 -2.453897e+03 1.726612e+02 -2.717869e+02
##
##
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##
##
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##
##
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##
##
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##
##
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##
  -1.133871e+03 -2.865217e+03 -1.947904e+03 1.391608e+04 2.763888e+03
##
##
##
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##
```

```
## -4.357229e+03 -4.641997e+03 -1.463813e+03 -5.340583e+02 -3.568597e+03
##
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##
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##
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##
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##
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##
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##
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  -2.463797e+02 -2.467326e+03 -2.642556e+03 -2.598919e+03 3.532537e+03
##
##
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##
  -1.902480e+03 -3.432709e+03 -2.586560e+03 -1.097188e+03 -4.231410e+02
##
##
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##
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##
##
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##
##
  -1.827992e+03 6.544298e+02 -2.186038e+03 1.954825e+03 -3.073142e+03
##
   -5.285537e+03 -5.437492e+02 -1.854387e+03 -3.563019e+03 -3.613407e+03
##
   9.282195e+02 -3.730833e+03 -2.658451e+03 -2.670496e+03 -2.342217e+03
##
##
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##
   -3.719041e+03 -2.681444e+03 2.423354e+02 -2.943673e+03 1.887694e+03
##
   -3.949431e+03 -6.223072e+03 -1.360827e+03 -2.881003e+03 -2.289920e+03
##
##
   -1.092525e+03 -2.817443e+03 -4.875744e+03 -3.351090e+03 -1.708621e+03
##
##
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##
##
##
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##
##
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##
   1.492256e+04 -3.525347e+03 2.007214e+03 2.328687e+02 -2.535987e+03
##
##
##
   3.264045e+01 -2.396422e+03 -7.085505e+02 -1.528079e+03 -2.657466e+02
##
```

```
## -6.647232e+02 -5.471994e+03 1.374598e+03 -1.344134e+03 -4.076037e+02
##
  -1.487042e+03 -1.783178e+03 7.020057e+02 -6.474439e+02 -2.398927e+03
##
##
  -1.560260e+03 -1.843207e+03 -2.305274e+03 -3.298650e+03 3.292047e+03
##
   -1.912251e+03 4.857533e+03 3.339368e+03 -2.542375e+03 -3.397345e+03
##
##
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##
##
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##
##
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##
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  -1.884555e+03 -2.275554e+03 2.285999e+03 -1.575157e+03 -2.740478e+02
##
##
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##
##
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##
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##
##
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##
  -2.284305e+03 -2.740827e+03 -4.547270e+02 -5.110494e+02 3.243210e+03
##
##
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##
##
  -5.077373e+03 -1.229819e+03 -3.302480e+02 -7.194830e+02 -3.328445e+03
##
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##
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##
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##
  -2.801421e+03 5.117209e+04 4.387770e+03 -7.417112e+03 -4.832067e+03
##
  -1.586590e+03 -1.033180e+03 -5.125527e+02 3.262998e+03 -2.429900e+02
##
  -6.419184e+03 1.063697e+03 -1.652924e+03 -5.922915e+01 -8.721344e+02
##
##
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##
## -2.233097e+03 -4.248424e+03 -4.550141e+03 3.656109e+02 -1.170205e+03
##
## -4.278788e+03 -2.782681e+03 3.538772e+04 -1.220922e+03 -1.093429e+03
##
## -2.088960e+02 3.318879e+03 -2.926281e+03 -2.892236e+02 -6.721679e+03
## -2.566805e+03 -3.300142e+03 -3.160345e+03 -9.003167e+02 -3.221949e+03
##
```

```
## -9.761488e+02 -9.956724e+02 -4.312342e+02 -2.545490e+03 -3.679998e+03
##
##
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##
##
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##
   -3.362178e+03 -3.236134e+03 -2.960961e+03 7.844707e+04 2.051310e+02
##
##
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##
##
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##
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##
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##
  -3.079904e+03 -3.140144e+03 -6.870508e+02 -2.982155e+03 3.209904e+04
##
##
  -4.132078e+03 -3.314392e+03 -8.500591e+02 -7.168421e+02 -2.448181e+03
##
##
  -7.221481e+02 -2.803333e+03 -1.977443e+03 -4.783944e+03 -3.351543e+03
##
  -4.626876e+03 -2.280395e+03 3.766704e+03 -3.572994e+03 1.893441e+03
##
##
   -2.184847e+03 -3.702548e+02 -1.243557e+03 -1.526713e+03 -4.445176e+03
##
   2.287817e+03 -4.241050e+03 6.511108e+03 -5.285906e+03 -2.743188e+02
##
##
   -3.077260e+03 -6.935114e+03 -1.838166e+03 -5.062258e+03 -1.986417e+03
##
##
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##
   -2.777840e+03 -3.603359e+03 1.857720e+04 1.086452e+03 1.381096e+04
##
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##
##
##
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##
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##
##
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##
##
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##
##
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##
##
##
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##
##
  -2.268907e+03 -1.104982e+03 -2.139925e+03 -7.104994e+03 2.237919e+03
##
## -1.380409e+03 -3.151396e+02 -4.339089e+03 -1.433409e+02 -1.212381e+03
## -2.414494e+03 -9.714745e+02 -1.334372e+03 -4.598599e+03 -2.005239e+03
##
```

```
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##
##
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##
##
   -2.159087e+03 8.180773e+03 -5.990255e+02 -5.994497e+03 -4.517844e+03
##
   -1.601313e+03 -4.313648e+03 1.290182e+04 -2.919787e+03 4.861145e+03
##
##
##
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##
##
   -1.143824e+03 -6.603919e+03 -2.708629e+03 -3.079836e+03 -1.546834e+03
##
  -1.485079e+03 -4.213623e+03 -2.975535e+03 -4.306091e+03 -2.190291e+03
##
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##
  -5.130969e+03 -2.607322e+03 -3.486119e+03 -9.286447e+02 -4.589522e+03
##
##
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##
##
##
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##
   -2.834495e+03 2.033278e+03 -2.088297e+02 -1.348080e+03 4.727269e+04
##
##
##
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##
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##
##
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##
##
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##
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##
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##
##
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##
  -4.356347e+02 -3.200435e+02 9.570988e+02 2.609299e+03 -5.914735e+03
##
   -4.092286e+03 -8.216033e+02 -8.596717e+02 -6.607052e+03 3.186310e+03
##
##
   -5.495085e+02 -4.073024e+03 -2.280259e+03 4.213453e+03 4.875696e+02
##
##
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##
##
##
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##
## -2.962704e+03 -1.502390e+03 6.525388e+02 2.834828e+03 3.299878e+03
##
## -3.550927e+03 -3.257163e+03 7.066570e+02 -4.193405e+03 -4.077011e+03
##
## -5.487041e+03 1.882023e+03 1.267452e+03 3.626266e+03 4.203177e+03
##
```

```
## -1.387303e+03 -3.894970e+03 -4.223706e+03 3.581027e+03 2.680484e+02
##
  -2.077101e+03 2.215975e+03 -2.640952e+03 -5.249803e+03 -2.811971e+03
##
##
  -1.052519e+03 -9.459325e+02 3.215406e+03 -2.115953e+03 -1.292680e+02
##
   -2.639770e+03 -4.322828e+03 1.011908e+03 -3.308211e+03 1.548763e+03
##
  -4.186790e+03 2.020185e+03 2.498466e+03 -4.113562e+03 -3.564900e+03
##
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##
   -1.710397e+03 6.420464e+02 -9.422282e+02 7.227579e+02 -5.235101e+03
##
##
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##
   -1.953836e+03 -1.685647e+03 -2.840150e+03 2.558491e+03 -7.396957e+02
##
##
   2.824023e+04 -2.975321e+03 5.468106e+02 -4.182464e+03 3.809880e+03
##
##
##
   5.389291e+03 -4.606230e+03 -8.430573e+02 -7.235552e+01 -1.610879e+03
##
   -5.725757e+02 1.166377e+04 -1.499947e+03 -1.058673e+03 -2.263030e+03
##
##
   -1.870237e+03 -2.205986e+03 -1.093530e+03 3.187752e+02 -1.468214e+03
##
##
   1.929741e+03 -3.338556e+03 -3.866237e+03 -3.690144e+03 -2.375721e+03
##
##
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##
##
##
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##
   -3.163403e+03 -1.652610e+03 -3.689570e+03 -1.880506e+03 -2.296749e+03
##
    2.442507e+03 -8.609912e+02 -1.542234e+03 2.394735e+03 1.909753e+03
##
##
##
  -7.023345e+01 1.751566e+03 -6.153870e+02 1.944575e+03 1.367075e+04
##
    3.469164e+04 1.727468e+03 -3.407834e+03 -2.293976e+03 7.200896e+04
##
##
   -4.529420e+03 -4.246422e+03 -3.219654e+03 1.091425e+03 -2.136150e+03
##
##
   -1.262771e+03 -4.393084e+03 -1.191152e+03 -4.028469e+03 2.571739e+03
##
##
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##
##
##
   9.337620e+02 -4.894463e+03 -3.967263e+03 3.340743e+02 -4.004190e+03
##
##
  -1.611705e+03 -2.984101e+03 -1.387011e+03 7.603962e+02 -2.246815e+03
##
## -3.263851e+03 -1.351051e+03 -4.082445e+03 -5.804631e+02 -6.804952e+02
##
## -6.248494e+02 -4.474684e+03 -2.033842e+03 -3.772201e+03 1.396856e+04
##
```

```
## -1.646709e+03 3.676967e+03 5.525195e+03 -5.079564e+03 1.146706e+03
##
  -8.519464e+03 -1.612807e+03 -4.810043e+03 -1.596534e+03 -4.164750e+03
##
##
   -3.038427e+03 2.195715e+03 4.440440e+02 -3.142658e+03 4.875230e+02
##
   -3.646535e+03 -2.916699e+03 -4.605486e+03 -2.444757e+03 2.316972e+03
##
  -2.697094e+03 -2.509565e+03 -2.407603e+03 1.045550e+03 9.015067e+03
##
   -3.416221e+03 8.010574e+03 1.124498e+03 4.956728e+01 -5.055721e+03
##
  -5.020039e+03 -2.208022e+03 -4.971418e+03 -2.871912e+03 1.046379e+02
##
##
  -4.902935e+02 -5.484284e+03 -3.622027e+03 4.654128e+04 -1.195093e+03
  -9.040396e+02 -1.363978e+03 -1.083816e+02 -2.231309e+03 7.283850e+00
##
##
   1.103269e+04 -2.741629e+02 6.905182e+02 -2.427154e+03 -5.768838e+03
##
##
  -3.110390e+03 -2.557828e+03 -3.913809e+03 -2.350332e+03 -4.137068e+03
##
## -2.524713e+03 1.247469e+04 -6.848664e+02 -3.014956e+03 1.290411e+03
##
  -4.438250e+03 5.355862e+02 2.085537e+03 1.496546e+03 -3.158182e+03
##
   -1.406549e+03 -7.780536e+02 -4.755566e+02 1.702661e+03 -1.833048e+02
##
##
   8.005868e+02 -3.938472e+03 -1.446044e+03 1.655081e+03 -1.757316e+03
##
##
##
   -5.652991e+03 -3.576037e+03 5.047777e+03 -4.644190e+03 8.708999e+01
##
##
   2.387481e+02 -2.941598e+03 -2.400085e+03 -3.321768e+03 -2.689591e+03
##
    6.980024e+02 -1.279456e+03  4.846321e+02 -1.429769e+03 -3.078001e+03
##
##
  -4.188651e+03 -1.200366e+03 3.147265e+04 -8.502192e+02 -2.529235e+03
##
   -6.195565e+02 9.132321e+02 -3.061196e+03 -2.264776e+03 -2.277118e+03
##
   -3.201649e+02 1.514555e+03 3.616528e+03 -3.722509e+03 -6.017074e+03
##
  -4.075648e+03 -8.178448e+02 -9.870790e+02 -3.298345e+03 -3.506961e+03
##
##
   -3.516383e+03 -2.699752e+03 1.586363e+02 4.286904e+02 6.489218e+03
##
## -1.727960e+03 -6.121737e+03 8.861354e+01 -1.119714e+03 -2.970562e+03
##
##
  -6.731320e+02 7.064221e+04 -3.580228e+02 -2.934016e+03 4.555337e+02
##
   2.623442e+03 -8.718081e+02 -3.298816e+03 -6.363977e+02 9.901444e+02
##
##
##
   1.828243e+03 -4.394825e+03 -3.433452e+03 2.157218e+03 -1.127557e+03
##
```

```
## -6.843027e+02 -8.857035e+02 1.739793e+03 1.330311e+03 -7.740245e+02
##
##
    9.627758e+03 2.218804e+01 -1.908725e+03 -1.330290e+03 -1.508171e+03
##
##
    1.914363e+01 -2.244491e+03 -4.237909e+03 -3.394183e+03 4.071464e+03
##
    5.190179e+02 -3.769002e+03 -4.038962e+03 1.722441e+04 -4.966708e+03
##
##
##
    2.189867e+03 -9.315448e+02 -3.556447e+03 -6.937212e+03 -5.746249e+02
##
##
    7.106265e+02 -3.567843e+02 -4.851573e+02 -4.044480e+01 1.283095e+02
##
    7.490008e+01 -3.159053e+03 2.534609e+02 -2.411099e+03 -6.516354e+02
##
##
   -5.488054e+02 -7.524424e+03 -7.163725e+02 -1.427979e+03 -2.501822e+03
##
##
  -1.969143e+03 -2.416592e+03 6.990008e+01 -2.740357e+02 -2.656604e+03
##
## -2.862690e+03 -5.133129e+03 2.378974e+02 -3.847065e+03 -4.451986e+03
##
## -2.457477e+03 -1.607073e+03 -2.980580e+03
##
## $rank
## [1] 4
##
   $fitted.values
##
                      3
                                4
                                           5
                                                                7
                                                                                     10
           1
                                                      6
                                                                           9
                                   7298.969
                                                         5033.143
##
    5791.480
              5336.907
                         5693.983
                                              4828.172
                                                                   5194.175
                                                                              6634.826
##
          11
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                                          15
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##
    5363.706
              7304.958
                         4809.895
                                    4088.138
                                              5637.964
                                                         3864.000
                                                                    5585.614
                                                                              6012.591
##
          21
                     22
                               24
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                                                                          29
##
    5622.292
              5165.052
                         5827.339
                                    5078.806
                                              4840.451
                                                         7312.625
                                                                    4612.265
                                                                              5047.742
##
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                                                                                     40
                         5740.439
                                                                    5307.607
##
    5044.123
              6332.215
                                    4761.490
                                              3848.122
                                                         5984.693
                                                                              5192.955
          41
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##
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                                                                          50
                                                         6066.393
                                                                   7254.842
    5242.509
              8194.157
                         5354.743
                                    5478.518
                                              6150.667
                                                                              4821.841
##
##
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                                                                          61
##
    7587.368
              5374.601
                         3869.405
                                    6486.902
                                              5869.383
                                                         4959.502
                                                                    5173.280
                                                                              5263.511
##
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                               66
                                          67
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                                                                          70
    6380.514
##
              7134.932
                         5031.803
                                    6810.051
                                              4980.624
                                                         6121.059
                                                                    4377.361
                                                                              5590.574
##
          74
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                                                                                     82
    6735.893
              5832.388
                         5185.435
                                              4901.813
                                                         4753.894
                                                                    7034.092
##
                                    5817.522
                                                                              4764.985
##
          83
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##
    4916.555
              7510.633
                         5870.834
                                    5513.335
                                              4482.832
                                                         5758.765
                                                                    5524.737
                                                                              6993.536
##
          93
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                                                                                    101
    5095.280
              6075.761
                         5265.078
                                              5760.532
                                                                    5036.634
##
                                    5779.464
                                                         5112.439
                                                                              4246.441
##
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##
    7161.611
              7039.724
                         5432.837
                                    4954.774
                                              5742.905
                                                         5513.295
                                                                    5069.238
                                                                              4863.167
##
         112
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                              116
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##
    4682.247
              5796.138
                         7320.523
                                    5173.356
                                              6228.778
                                                         4464.653
                                                                    4983.046
                                                                              7366.667
                    125
##
         123
                              126
                                         127
                                                    128
                                                              129
                                                                         130
                                                                                    131
##
    5423.402
              4833.929
                         4431.541
                                    6620.898
                                              5386.924
                                                         6936.221
                                                                    4067.631
                                                                              6601.166
##
         132
                    133
                                                                                    142
                              135
                                         136
                                                    137
                                                              139
                                                                         141
    5522.257 4346.146 6670.351 5888.764
                                              6849.627 7840.082
                                                                   6399.779 5841.880
```

##	143	145	146	148	151	152	153	154
##	7340.078	5348.946	4753.141	3902.245	5503.896	3662.056	8345.015	5699.228
##	155	156	157	158	159	160	162	163
	5187.915	7040.877	3279.366	5711.543	5041.745	4667.220	5301.974	6244.192
##		165		167				173
##	164		166		168	170	171	
##	4280.888	4793.996	4900.286	5803.862	5509.591	4160.524	5468.580	5968.514
##	174	175	176	179	181	182	183	184
##	7025.276	6663.191	4269.499	6462.410	6384.578	5988.233	6133.138	7908.786
##	185	186	187	188	190	192	193	194
##	7792.661	5371.025	5284.210	4892.846	5206.900	4763.497	4958.554	4179.153
##	195	196	197	200	201	202	203	204
##	6594.955	6923.581	5339.267	5314.748	6418.198	4822.718	5682.345	5528.437
##	205	206	207	209	211	213	214	215
##	5568.423	6420.304	6886.618	4756.178	4793.724	4847.655	4698.614	5990.749
##	216	218	219	221	222	223	224	225
##	4388.394	6220.373	4214.103	5943.661	5565.761	3969.653	5084.608	6716.441
##	226	228	229	230	231	232	233	234
##	5461.180	6711.521	5752.905	5031.923	4702.540	4124.256	6432.891	6104.474
##	235	236	237	238	239	240	241	242
##	4999.350	5498.998	5340.567	4939.048	6569.198	5718.347	5694.464	5308.849
##	243	244	245	246	247	248	251	252
##	4669.567	5451.737	7050.837	5519.857	4355.652	4917.249	6302.633	4263.324
##	253	254	255	256	258	260	261	262
##	4612.265	6152.902	7997.222	4447.801	4191.121	5514.898	6136.371	5574.795
##	263	264	265	266	267	268	269	270
##	4688.498	6531.238	5330.144	6702.301	5970.491	4592.586	5827.286	6323.635
##	272	273	274	275	276	277	278	279
##	5092.680	5556.104	6719.014	5692.795	5045.302	5418.937	4691.989	6101.607
##	280	281	282	283	284	285	286	287
##	6409.231	4592.746	4688.289	5918.318	6827.589	4243.827	5337.994	6805.127
##	288	289	290	291	292	293	294	296
##	6528.317	6056.629	6092.987	5439.141	6047.889	5217.581	5063.561	5318.902
##	297	298	299	300	301	303	304	305
##	5844.200	4682.844	5133.196	5853.542	5271.752	5675.849	3974.261	5406.675
##	306	307	308	309	310	311	312	313
##	5589.394	5200.582	4988.994	4920.874	5373.363	6323.502	6645.195	7135.952
##	314	315	316	317	318	319	320	321
##	5431.617	6683.676	5522.204	5206.294	5839.441	4983.531	6997.236	5345.834
##	322	323	324	326	327	328	329	330
##	6240.879	6980.722	4506.095	4827.268	5742.754	4889.111	4119.763	5769.771
##	331	334	335	336	338	339	340	341
##	4482.832	6682.033	5718.547	4814.775	4795.839	10075.561	7138.156	4640.458
##	342	344	347	348	350	352	353	354
##	5651.767	4921.354	6032.698	7514.132	4458.090	7528.059	6123.882	5141.517
##	355	356	358	359	360	361	362	363
##	5089.456	6839.788	5411.279	6204.918	6651.744	4862.312	7485.691	5277.424
##	366	367	368	369	370	371	372	373
##	6473.727	5829.396	4875.406	7338.978	5883.666	5839.401	4562.016	6950.878
##	376	377	378	380	381	382	383	384
##		6617.484		5915.157		5132.791		
##		387	388		390		394	
##		7085.503				5300.149		
##		399		401		405		
						4586.478		

##	408	412	414	415	416	417	418	419
##	5079.381	5398.527	6983.976	5865.487	5119.638		6918.790	4298.742
##	421	422	423	424	425	426	427	428
##	4853.537	4618.712	5136.798	5617.372	4562.052	4157.853	5926.653	4677.875
##	429	431	432	433	434	435	436	437
##	5480.659	5800.020	5386.711	4812.094	5022.921	5665.996	5596.536	5661.847
##	438	439	440	441	442	443	444	446
##	4941.648	6982.600	6690.970	6303.096	8009.546	5287.909	5184.393	4685.559
##	447	448	449	450	451	452	453	454
##	4254.130	5242.100	5796.334	5548.611	5087.996	4381.662	5824.641	5938.104
##	455	456	457	458	459	460	461	464
##	4464.422	6472.975	5847.597	5281.975	4984.889	3804.730	5501.153	4260.790
##	466	467	468	469	471	472	473	474
##	4099.429	4622.390	4647.483	5706.347	6642.862	5262.296	4645.729	5639.469
##	476	477	479	480	481	482	483	484
##	6304.414	4977.200	5390.584	4425.673	5430.068	5599.073	6443.776	4144.665
##	485	486	490	491	492	493	494	496
##	5902.900	4063.027	6488.206	5620.240	4772.923	6867.183	6479.680	4338.047
##	498	499	500	501	502	503	505	506
##	6430.175	5119.256	6662.977	4958.843	6083.045	7270.425	5461.799	5306.155
##	507	509	510	511	512	513	516	517
##	4278.858	4173.111	5891.613	5652.519	4803.795	4812.215	5495.178	4518.678
##	518	519	520	521	522	524	525	526
##	5234.432	6600.009	6577.658	6210.021	9120.948	4807.322	5136.637	5408.803
##	528	529	530	531	532	533	534	535
##	7684.598	5441.158	5500.258	5653.730	6357.019	6069.773	4421.955	5324.548
##	537	538	539	540	542	543	544	545
##	5662.047	5376.141	5623.432	3848.122	4873.291	5580.721	5298.894	5556.888
##	546	549	550	551	552	553	554	555
##	6966.421	5711.931	5301.369	5727.211	6450.708	5491.336	5371.747	5923.496
##	556	557	558	559	560	561	562	563
##	5588.045	6391.488	4313.808	4980.232	5179.500	6019.288	4791.031	7021.991
##	564	565	567	571	573	574	577	578
##	5390.037	5971.274	6240.519	4161.085	5447.761	5900.517	4744.054	6785.911
##	579	580	581	583	584	586	588	589
##	6433.376	6208.948	6569.524	4959.057	4191.833	7215.568	4763.751	5230.693
##	590	592	594	595	596	597	598	599
##	4804.490	5644.723	5853.537	5332.379	4113.312	4693.436	5272.188	5698.400
##		602	603		606			
##		6883.011		7658.405		5796.556		
##	612	613	614		616		618	
##		5896.836	6995.860	5400.308		4373.078		
##	622	623	624	626	627	628	629	630
##	5752.362	5340.491	4531.749	6729.753	4726.939	9022.699	6034.688	4775.737
##	631	632	634	637	638	639	640	641
##	6915.562	4884.347	7483.411	6771.899	4775.737	4897.557	6283.114	4399.806
##	642	644	645	646	647	648	649	650
##	4163.195	6199.478	4902.610	6153.178	4929.373	5501.598	5132.964	5104.919
##	651	652	653	654	655	657	658	659
##		5493.999		7164.371	6125.965	4463.296	5886.226	
##		661	662		664		666	
##		5664.340		5113.659	7266.685	5187.875		
##	668	669	671	672	673	675	676	677
##	5255.795	5860.278	5700.074	4992.093	6534.742	7266.200	3981.853	7208.249

##	679	680	682	684	685	686	687	689
##	8109.145	6427.494	5305.616	5813.902			4767.504	
##	690	692	693	694	695	696	697	698
##	4592.586	5637.239	5586.531	4467.578	5994.350		5738.244	5852.766
##	699	700	701	703	705	706	707	708
##	6305.496	6748.053	5169.656	6869.062	7489.413		6020.971	5738.182
##	709	711	712	713	714	715	716	717
##	8037.765	6809.464	6568.499	4766.904	5361.066		4837.277	
##	718	719	720	724	725	726	727	728
##	5001.265	4153.569	4392.793	5932.067	6748.008		4278.818	6810.269
##	729	730	731	732	734	735	738	740
##	5540.138	5289.984	9015.134	7090.578	5615.012		6278.329	4720.764
##	741	742	743	744	746	747	748	749
##	4415.081	7882.713	4328.176	6242.394	4862.312		5235.840	
##	751	752	754	755	756	757	758	760
##	4758.854	4724.499	5836.346	5272.616	4701.321		4070.151	8037.961
##	761	762	763	764	765	766	767	769
##	5388.452	6819.072	5150.854	5734.606	5422.388		6140.845	5622.101
##	770	771	773	775	777	778	782	783
##	5843.180	5649.175	5652.212	4163.195	7406.965	6693.155	6254.976	5865.429
##	784	785	786	787	788	789	790	791
##	4787.936	4441.109	6130.734	4545.463	7729.041		7218.111	
##	792	793	794	797	798	799	800	801
##	6938.367	6838.185	5498.714	4643.770	4991.465	5574.403	5366.311	
##	802	803	804	805	806	807	809	810
##	5907.637	6140.671	6572.662	5182.915	5607.689		5949.627	
##	811	812	813	814	815	816	817	818
##	4493.994	5977.173	5899.454	4778.934	5336.667			10901.658
##	820	822	823	824	825	826	827	830
##	5185.172	4837.081	5420.949	4616.780	5532.057	7876.573	4625.551	5596.869
##	831	832	833	835	836	839	840	841
##	7826.396	4032.760	7978.946	4319.174	6408.853		5832.081	
##	842	843	844	845	846	847	848	850
##	5111.896	5633.548	4772.077	4219.312	5818.782	6423.870	5653.232	4000 240
##	852							4829.312
##		853	855	856	857	859	860	4829.312 861
	5336.667	853 4951.287	855 5832.161	856 5461.025	857	859		
##		4951.287		5461.025		859	860	861
## ##	5336.667 862	4951.287 863	5832.161 864	5461.025 865	857 4572.355 866	859 6805.626 867	860 5884.658 868	861 7241.614 869
	5336.667 862 5103.899	4951.287 863 4941.844	5832.161	5461.025 865 4769.637	857 4572.355 866	859 6805.626 867 5111.317	860 5884.658 868	861 7241.614 869 7095.739
##	5336.667 862	4951.287 863 4941.844 871	5832.161 864 4309.588 873	5461.025 865 4769.637 874	857 4572.355 866 6721.334 875	859 6805.626 867 5111.317 877	860 5884.658 868 6332.851 878	861 7241.614 869 7095.739 881
## ##	5336.667 862 5103.899 870	4951.287 863 4941.844	5832.161 864 4309.588	5461.025 865 4769.637 874	857 4572.355 866 6721.334 875	859 6805.626 867 5111.317 877 5799.459	860 5884.658 868 6332.851 878 6124.906	861 7241.614 869 7095.739 881
## ## ##	5336.667 862 5103.899 870 4045.191	4951.287 863 4941.844 871 4789.156	5832.161 864 4309.588 873 6665.943	5461.025 865 4769.637 874 5510.161	857 4572.355 866 6721.334 875 6360.959 888	859 6805.626 867 5111.317 877 5799.459	860 5884.658 868 6332.851 878 6124.906 890	861 7241.614 869 7095.739 881 5714.914 891
## ## ## ##	5336.667 862 5103.899 870 4045.191 882	4951.287 863 4941.844 871 4789.156 884	5832.161 864 4309.588 873 6665.943 886	5461.025 865 4769.637 874 5510.161 887	857 4572.355 866 6721.334 875 6360.959 888	859 6805.626 867 5111.317 877 5799.459 889 6157.399	860 5884.658 868 6332.851 878 6124.906	861 7241.614 869 7095.739 881 5714.914 891 5094.140
## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751	4951.287 863 4941.844 871 4789.156 884 5515.543	5832.161 864 4309.588 873 6665.943 886 5776.476 895	5461.025 865 4769.637 874 5510.161 887 7596.193	857 4572.355 866 6721.334 875 6360.959 888 6749.312	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898	860 5884.658 868 6332.851 878 6124.906 890 5725.786	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900
## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893	4951.287 863 4941.844 871 4789.156 884 5515.543 894	5832.161 864 4309.588 873 6665.943 886 5776.476 895	5461.025 865 4769.637 874 5510.161 887 7596.193 896	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900
## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909
## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155
## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920
## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338 910	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433 911	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188 914	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248 919	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920 4617.243
## ## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338 910 5728.934 921	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433 911 5275.127	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491 912 5487.387	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913 6534.884 924	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188 914 4724.851 925	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918 4328.408	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248 919 4542.827	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920 4617.243 929
## ## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338 910 5728.934 921	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433 911 5275.127 922	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491 912 5487.387 923	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913 6534.884 924	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188 914 4724.851 925	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918 4328.408 926	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248 919 4542.827 928	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920 4617.243 929 5546.870
## ## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338 910 5728.934 921 5785.843 931	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433 911 5275.127 922 5218.533	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491 912 5487.387 923 8196.276 934	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913 6534.884 924 4643.289	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188 914 4724.851 925 6155.244 936	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918 4328.408 926 6733.533	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248 919 4542.827 928 6164.371	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920 4617.243 929 5546.870 939
## ## ## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338 910 5728.934 921 5785.843 931	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433 911 5275.127 922 5218.533 933	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491 912 5487.387 923 8196.276 934	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913 6534.884 924 4643.289 935	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188 914 4724.851 925 6155.244 936	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918 4328.408 926 6733.533 937 4340.220	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248 919 4542.827 928 6164.371 938	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920 4617.243 929 5546.870 939 6128.525
## ## ## ## ## ## ## ## ## ## ## ## ##	5336.667 862 5103.899 870 4045.191 882 5690.751 893 5010.490 902 4751.338 910 5728.934 921 5785.843 931 5303.969	4951.287 863 4941.844 871 4789.156 884 5515.543 894 4956.942 903 7616.433 911 5275.127 922 5218.533 933 5603.721 943	5832.161 864 4309.588 873 6665.943 886 5776.476 895 8173.258 904 4885.491 912 5487.387 923 8196.276 934 5409.886 944	5461.025 865 4769.637 874 5510.161 887 7596.193 896 6454.516 905 3389.952 913 6534.884 924 4643.289 935 5411.390 945	857 4572.355 866 6721.334 875 6360.959 888 6749.312 897 5588.361 906 4880.188 914 4724.851 925 6155.244 936 4863.532 946	859 6805.626 867 5111.317 877 5799.459 889 6157.399 898 5569.879 907 4967.093 918 4328.408 926 6733.533 937 4340.220 948	860 5884.658 868 6332.851 878 6124.906 890 5725.786 899 4937.855 908 4710.248 919 4542.827 928 6164.371 938 5193.342 949	861 7241.614 869 7095.739 881 5714.914 891 5094.140 900 6151.784 909 6188.155 920 4617.243 929 5546.870 939 6128.525 951

##	952	954	956	957	958	959	960	962
##	5306.249	5543.678	6605.516	5304.374	5908.479	3939.947	6569.042	5390.371
##	964	966	967	969	971	972	973	975
##	5463.660	6074.475	6991.198	6183.988	7337.486	5674.184	8098.762	3973.754
##	976	977	978	979	980	981	982	983
##	5605.480	4513.144	5276.877	5983.999	5667.194	6820.875	5153.717	6176.223
##	984	985	987	988	989	990	991	992
##	5772.424	5207.327	5236.583	6497.066	6159.144	5081.820	6099.367	5051.229
##	994	996	998	1000	1001	1002	1003	1005
##	5703.365	4604.946	5406.640	5864.556	5426.350	5281.636	4995.205	5688.249
##	1006	1008	1009	1010	1011	1012	1013	1014
##	6556.709	4958.687	5369.672	3465.686	7355.705	4555.685	3848.122	4709.878
##	1015	1016	1017	1018	1019	1021	1022	1023
##	5993.678	4016.723	6582.907	5614.060	6545.499	5092.800	6772.656	4280.928
##	1024	1026	1027	1028	1029	1031	1032	1033
##	6935.780	4792.549	5376.270	6616.656	4944.124	4602.622	4702.540	4876.528
##	1034	1035	1036	1037	1038	1039	1040	1041
##	6299.436	5482.939	4775.074	5185.132	4679.282	4549.853	6063.749	5542.916
##	1043	1044	1045	1046	1047	1051	1052	1053
##	4710.462	6273.043	4523.308	5163.748	3889.039	8052.979	5075.427	4512.756
##	1054	1056	1058	1060	1061	1062	1064	1065
##	5410.589	8015.606	6877.980	6992.151	4775.042	5001.425	5113.926	5506.576
##	1066	1067	1068	1069	1070	1071	1072	1073
##	5535.000	7398.034	6382.820	6392.205	4611.669	3939.814	4038.629	4882.842
##	1074	1075	1076	1077	1078	1079	1080	1081
##	4528.473	5318.671	5153.334	5031.763	6797.170	7132.088	6177.403	4411.363
##	1082	1083	1084	1085	1086	1087	1088	1089
##	6599.358	7277.745	4805.211	5745.586	5746.725	5291.805	5299.054	5861.133
##	1090	1092	1093	1094	1095	1096	1097	1098
##	5292.856	7481.354	9198.761	6926.680	4269.463	6700.430	7199.669	7560.583
##	1099	1102	1103	1104	1105	1106	1107	1108
##	5181.477	5701.900	6295.657	5085.774	5312.428	4962.734	6360.705	6607.404
##	1109	1110	1111	1113	1114	1115	1116	1117
##	5465.477	4752.322	4918.875	6216.628	5123.125	5133.138	8962.316	4902.695
##	1118	1119	1120	1121	1122	1123	1124	1125
##	5872.325	4648.863	5653.970	5369.614	4972.026	8402.606	5092.760	4893.047
##	1128	1130	1133	1136	1137	1139	1141	1142
##		6389.035	4530.005					
##	1144	1145		1147		1149		1151
## ##		4842.856 1153		1155			4469.533 1158	
##		4177.385		4451.991			5132.363	
##		1163		1166			1174	
##		6194.322		6051.709			6231.120	
##		1179		1181			1184	
##		5473.540		5426.684			6841.026	
##		1189		1191			1197	
##		6614.902		5797.162			5480.819	
##		1204		1206			1211	
##		7760.799		5713.747		4587.034		
##		1214		1216			1220	
##		5015.151		5292.869			5231.913	
##		1224					1230	
##							4580.547	

##	1232	1233	1234	1235	1236	1237	1238	1239
##	8385.028	5108.646	4916.029	5600.413	5028.263	4962.814	4975.263	5904.044
##	1242	1243	1245	1246	1247	1248	1249	1250
##	4585.792	5195.778	6244.174	6098.107	6612.680	4293.960	5592.813	4227.327
##	1251	1253	1255	1257	1258	1259	1260	1261
##	5047.818	6884.267	4920.326	5540.343	5811.222	5854.084	4978.211	5019.644
##	1262	1263	1264	1265	1266	1268	1269	1270
##	5519.617	4067.631	4678.142	5505.005	4600.240	5244.157	4303.217	4277.210
##	1271	1272	1273	1275	1276	1277	1278	1279
##	4890.763	5235.167	5525.837	5009.519	4942.601	4123.401	5541.233	4248.591
##	1280	1282	1283	1286	1288	1289	1290	1291
##	6840.260	4961.492	6260.278	5153.757	6561.362	5156.143	5184.335	4617.145
##	1293	1294	1295	1296	1297	1298	1299	1300
##	4858.808	5041.020	6176.900	7722.425	5102.639	5009.831	3981.390	5635.351
##	1301	1304	1305	1307	1308	1309	1311	1313
##	5541.661	3877.828	4573.633	4964.230	5261.289	7213.168	5365.643	5952.334
##	1314	1315	1317	1318	1319	1320	1321	1322
##	5201.432	5621.268	5078.437	5031.923	4994.203	4648.356	7254.566	5153.174
##	1323	1324	1325	1327	1328	1330	1332	1333
##	4813.822	5771.921	7210.925	4800.095	6330.656	5450.281	4781.293	5806.582
##	1335	1336	1337	1338	1339	1340	1341	1343
##	3957.645	5867.166	4785.002	6222.447	7489.992	6465.188	4153.569	5585.957
##	1344	1345	1346	1350	1352	1353	1354	1357
##	8758.694	6053.072	4891.827	5776.610	5076.789	6739.602	6971.341	5161.236
##	1359	1360	1361	1362	1363	1364	1365	1366
##	6243.747	8175.894	6528.664	6835.705	5928.296	5163.311	5420.789	4046.719
##	1368	1370	1371	1372	1373	1375	1376	1378
##	9737.750	4684.241	6029.368	6184.545	5703.084	6645.213	5651.384	6401.039
##	1379	1380	1381	1384	1385	1386	1387	1390
##	5014.742	5734.914	4929.623	5743.413	5607.809	5658.014	5550.129	6847.353
##	1391	1392	1393	1394	1396	1399	1400	1401
##	6410.250	5458.901	5870.790	6616.313	6156.010	4514.586	5093.446	5449.569
##	1402	1403	1404	1405	1406	1407	1409	1410
##	9793.172	6345.465	5514.301	5737.839	5156.357	5712.973	4332.860	5477.200
##	1411	1412	1414	1415	1416	1417	1418	1419
##	4398.661	4063.161	6203.587	6622.586	5469.845	5540.370	4785.203	4756.218
##	1421	1422	1423	1424	1426	1427	1428	1429
##	5614.411	3952.441	4858.074	6386.444	6030.098	6923.581	5546.015	5526.416
##	1430	1431	1433	1434	1435	1436	1437	1438
##	6865.447	4770.893	7448.416	4531.287	4238.831	5534.902	5273.818	8929.306
##	1439	1440	1441	1442	1443	1444	1445	1446
##	6839.454	4333.773	5333.733	4413.843	5433.265	4970.962	5827.304	4812.255
##	1447	1449	1451	1453	1455	1456	1457	1458
##	6247.541	4183.373	4988.121	5141.597	6141.340	7020.664	6459.075	6844.165
##	1459	1460	1461	1462	1463	1464	1466	1467
##	5760.550	5575.271	6321.952	8520.859	4839.445	3991.399	5307.046	5589.394
##	1468	1469	1470	1471	1472	1473	1474	1476
##	6009.092	5441.661	4784.700	5542.150	4201.574	5995.944	6040.926	4897.650
##	1478	1479	1480	1481	1482	1483	1484	1485
##	7268.965	6627.359	7219.794	7298.364	5799.646	6184.629	7261.766	5094.140
##	1486	1487	1488	1490	1491	1492	1493	1494
##	6222.853	7050.837	7168.708	4820.661			5096.776	
##	1495	1496	1497	1499	1500	1501	1502	1503
##	4947.432	5718.747	4851.467	5161.294	5587.827	5517.378	5957.734	5505.953

##	1504	1505	1506	1507	1508	1509	1510	1513
##	4749.424	4807.451	5650.190	4384.894	4652.577	5453.300	5878.871	4301.609
##	1514	1515	1516	1517	1518	1519	1520	1521
##	5293.666	5342.798	7695.943	6227.247	7806.057	6369.846	4372.561	4549.025
##	1522	1524	1526	1527	1528	1529	1531	1533
##	7970.691	5799.263	4375.660	5899.297	5894.418	4852.530	5044.002	5479.479
##	1535	1536	1537	1539	1540	1542	1543	1544
##	5028.223	6179.643	7200.889	6919.779	4867.637	5940.771	4490.348	6356.110
##	1545	1547	1548	1550	1551	1552	1553	1555
##	6059.929	4511.109	6123.543	7635.013	5655.604	6769.807	8450.099	4582.587
##	1556	1557	1558	1559	1560	1561	1562	1563
##	5155.061	7581.469	5530.152	8301.151	4763.537	6062.667	4668.320	4751.298
##	1564	1565	1566	1567	1568	1569	1570	1571
##	3951.083	5710.653	6389.351	8509.765	6713.654	5400.344	6025.891	5111.936
##	1572	1573	1574	1576	1577	1578	1579	1580
##	6092.880	5246.089	5306.716	5349.303	7851.195	5047.778	5760.069	6135.965
##	1582	1584	1585	1586	1587	1588	1589	1591
##	4852.415	5479.907	7708.899	5736.268	5380.571	7684.469	6756.752	7010.254
##	1592	1594	1595	1596	1597	1601	1602	1603
##	5082.088	7087.181	4382.686	4753.742	4884.369	5049.969	4104.795	8230.595
##	1604	1605	1606	1608	1609	1610	1611	1612
##	6727.394	7728.748	5101.905	4979.466	6632.359	5504.849	5827.321	4989.225
##	1613	1614	1616	1617	1618	1619	1620	1621
##	5758.885	6610.320	5539.915	6838.448	4313.808	6107.466	5184.843	6771.552
##	1622	1624	1625	1626	1627	1628	1629	1630
##	4244.237	5635.791	4946.626	5401.524	5234.392	4680.876	4294.290	6881.186
##	1631	1632	1633	1634	1635	1636	1637	1638
##	4313.773	5986.670	5420.851	4823.662	5895.344	5655.310	5178.610	6230.497
##	1639	1640	1641	1643	1644	1645	1647	1648
##	6360.393	4896.466	4365.046	4690.827	6117.083	4989.225	4775.465	5933.572
##	1649	1651	1652	1654	1655	1656	1657	1658
##	5190.711	5809.450	4939.168	5677.225	9096.376	4240.612	7075.018	5752.585
##	1659	1660	1661	1662	1663	1665	1666	1667
##	6556.643	5014.150	4884.908	4927.374	4447.921	7237.434	6551.986	5358.243
##	1668	1669	1670	1671	1672	1673	1674	1675
##	4509.675	4667.879	6703.409	5551.402	7009.359	5953.438	4333.425	5596.949
##	1676	1677	1678	1679	1680	1681	1682	1683
##			7536.171					
##	1684	1685		1688	1690			
##		4857.900		7164.104			4242.220	
##		1697		1699			1702	
##		4327.985		7548.567			4854.681	
##		1705		1707			1711	
##		5425.709		4280.078			4481.813	
##		1714		1716			1719	
##		4971.777	6992.360				6069.626	
##		1722		1725			1729	
##		4492.458		5189.411			8253.613	
##		1733		1737			1741	
##		5884.293		6435.704			5434.262	
##	5462.757 1744	1745		1748			1752	
##		6689.781		5752.322			5417.423	
##		1755					1760	
##	0120.003	4130.953	5691.708	0010.34/	0212.405	0024.791	0430.082	J905.45U

##	1768	1769	1771	1772	1773	1774	1775	1776
	9045.392	4893.937		4886.938	4468.099	4671.268	7941.350	5768.644
##			5239.718					
##	1777	1778	1781	1782	1783	1785	1786	1787
##	5950.535	5423.442	6872.806	5254.179	4539.185	5163.672	7857.063	5557.110
##	1788	1789	1790	1791	1792	1793	1794	1795
##	4681.339	6434.484	4939.805	7886.035	7023.958	5189.046	4444.538	6061.389
##	1796	1797	1799	1800	1801	1804	1805	1806
##	4543.735	5364.672	6379.912	4656.183	4371.804	6565.142	4482.832	5641.691
##	1810	1811	1813	1814	1815	1816	1817	1818
##	4653.454	7608.267	5668.806	3985.490	3949.938	4506.648	6651.816	6453.028
##	1819	1821	1823	1824	1825	1826	1827	1828
##	4889.948	3989.034	8744.362	5299.009	6186.508	6161.446	6486.492	6988.237
##	1830	1831	1832	1833	1834	1835	1836	1839
##	6877.686	5570.935	6212.781	5206.294	5196.614	5882.975	4839.133	4870.771
##	1840	1842	1844	1845	1846	1847	1848	1849
##	6444.106	5081.237	5291.529	5893.915	3912.414	4916.105	4592.711	5858.599
##	1850	1851	1852	1853	1854	1855	1857	1858
##	5033.860	5051.442	5143.944	7780.434	5007.444	7135.052	7515.922	5875.326
##	1859	1860	1863	1864	1865	1866	1867	1868
##	5401.217	6617.568	6192.158	6362.873	6473.687	5075.116	6071.188	5328.662
##	1869	1870	1872	1873	1876	1877	1878	1880
##	6484.092	4430.860	4721.325	3685.408	6042.440	4506.888	4655.350	4664.919
##	1882	1883	1886	1889	1891	1892	1893	1894
##	7397.379	5550.921	5411.470	5309.236	5569.060	5727.224	5464.266	5414.520
##	1895	1897	1898	1899	1900	1901	1902	1903
##	7715.996	6087.088	6521.345	7850.794	5290.216	6238.306	5415.179	6072.782
##	1904	1905	1906	1907	1909	1911	1912	1914
##	5949.413	4884.191	4580.004	4718.400	4939.124	6932.343	5778.680	4240.612
##	1916	1917	1918	1919	1920	1921	1923	1924
##	9098.237	4883.813	6521.808	6092.987	6107.693	5988.099	5099.795	5784.099
##	1925	1926	1927	1928	1929	1930	1932	1933
##	6204.379	4758.925	5434.894	7675.769	6947.410	6830.225	4556.148	6051.656
##	1935	1936	1937	1938	1939	1940	1942	1943
##	5829.641	5009.924	5751.552	4580.547	5014.804	5795.950	5273.142	5260.706
##	1944	1945	1946	1947	1948	1949	1950	1951
##	7362.000	7199.749	5950.535	6186.837	4853.969	4481.269	4931.515	6149.866
##	1953	1954	1955	1959	1960	1961	1963	1966
##		6049.755	5963.687				5670.805	6428.750
##	1967	1968	1969	1970	1973	1974		1978
##	5703.988	4153.569	4741.365	7170.084	6596.959		6045.650	
##	1979	1980	1981	1982		1985		
##	4851.172	4994.631	6095.066					
##	1992	1993	1994	1995	1996			
##	4297.486	4981.772	6597.814	7421.777				
##	2000	2001	2002	2003	2004	2005		
##	5854.472	5772.019	6227.327		4628.178			
##	2008	2009	2010	2011	2012	2013		
	6004.639	5894.810		7203.129	5409.943			
##								
##	2016	2017	2021	2022		2024	2025	
##	5230.639	5682.114	5650.177		5640.867			
##	2030	2031	2032	2033	2034	2035		
##		6338.007		4522.552		5287.006		
##	2040	2042	2044	2046		2048		
##	0109./36	5073.401	8133.294	1183.130	5214.633	4/44.326	5244.900	7015.552

```
##
        2051
                  2052
                            2053
                                      2054
                                                 2055
                                                           2056
                                                                     2057
                                                                               2058
                        3989.693
##
              6526.888
                                  6297.723
                                            5836.912
                                                       6232.434
                                                                 6701.762
                                                                           7085.503
   5646.477
##
        2059
                  2060
                            2061
                                      2062
                                                 2063
                                                           2064
                                                                     2065
                                                                               2066
##
   5140.823
              5468.247
                        5609.430
                                  4657.038
                                            8159.723
                                                       4201.922
                                                                 7706.877
                                                                           5540.886
##
        2067
                  2069
                            2070
                                      2071
                                                 2073
                                                           2074
                                                                     2075
                                                                               2076
##
                                  5627.092
                                                       4099.625
   4948.967
              5695.568
                        5244.388
                                            6152.581
                                                                 6195.516
                                                                           4753.778
##
        2077
                  2078
                            2079
                                      2080
                                                 2082
                                                           2084
                                                                     2085
                                                                               2086
##
    4937.948
              6090.013
                        3857.615
                                  4724.495
                                             4731.699
                                                       4124.915
                                                                 4694.486
                                                                           5176.709
##
        2088
                  2089
                            2090
                                      2091
                                                 2093
                                                           2095
                                                                     2096
                                                                               2097
##
                                  5117.078
                                             5516.763
                                                                           4991.300
    5043.962
              5377.125
                        5519.778
                                                       5211.254
                                                                 6306.583
##
        2099
                  2100
                            2101
                                      2102
                                                 2103
                                                           2104
                                                                     2106
                                                                               2107
##
    6231.080
              6069.657
                                  5703.988
                                             8717.287
                        5971.448
                                                       5461.180
                                                                 5007.404
                                                                           4388.185
##
        2108
                  2110
                            2111
                                      2112
                                                 2114
                                                           2116
                                                                     2117
                                                                               2118
##
    5153.797
              7931.670
                        5299.806
                                  4039.439
                                             6229.095
                                                       5123.574
                                                                 5992.013
                                                                           6261.618
##
        2119
                  2121
                            2122
                                      2126
                                                 2127
                                                           2128
                                                                     2129
                                                                               2130
##
    4775.697
              5840.198
                        4168.890
                                  5210.034
                                             5512.213
                                                       5803.448
                                                                 7796.057
                                                                           5429.502
##
        2132
                  2134
                            2136
                                      2137
                                                 2138
                                                           2139
                                                                     2140
                                                                               2143
##
    5130.574
              5534.074
                        6336.729
                                  5016.087
                                             4775.697
                                                       5489.199
                                                                 6503.469
                                                                           5454.778
##
        2144
                  2146
                            2147
                                      2149
                                                 2151
                                                           2152
                                                                     2153
##
    5936.995
              6945.210
                        6186.619
                                  7625.489
                                            5808.377
                                                       3695.399
                                                                 5897.877
##
## $assign
  [1] 0 1 2 3
##
##
## $qr
##
  $qr
##
                          BLUEBOOK
                                         MVR_PTS
                                                        CAR_AGE
         (Intercept)
        -41.26742056 -5.889350e+05 -1.039076e+02 -3.005276e+02
##
  1
## 3
          0.02423219 3.454136e+05 -6.554131e+00 4.186612e+01
## 4
          0.02423219 -1.144738e-02 1.072579e+02 -9.367318e+00
## 5
          0.02423219 -4.051398e-02 -6.583206e-03 -2.233979e+02
## 6
          1.631644e-02 2.353734e-02 -2.590059e-02
## 7
          0.02423219
## 9
          0.02423219 1.249493e-02 2.339272e-02 -2.670874e-02
## 10
          0.02423219
                      6.125757e-03 -9.805154e-02 9.826857e-04
## 11
          0.02423219 1.107634e-02 1.401572e-02 -2.649668e-02
## 12
          0.02423219 -5.209429e-02 2.094855e-02 1.334806e-02
## 14
          0.02423219 2.161443e-02
                                    2.373782e-02 -2.478020e-02
## 15
          0.02423219 3.307895e-02
                                    5.525006e-03 1.895524e-02
## 16
          0.02423219 -1.495042e-02 2.235414e-02 3.015569e-02
## 17
          0.02423219 3.718996e-02 5.680574e-03 2.430093e-02
## 19
          0.02423219 1.362401e-02 -1.385786e-02 -2.442174e-02
## 20
          0.02423219 3.491235e-03 -1.424130e-02 -2.656457e-02
## 21
          0.02423219 7.544346e-03
                                   4.558732e-03 -2.673155e-02
## 22
          0.02423219 6.125757e-03
                                    1.382838e-02 8.266933e-03
## 24
          0.02423219 -2.154170e-03
                                    4.191723e-03 -1.087728e-02
## 26
          0.02423219 4.359759e-03
                                    2.308488e-02 1.185773e-02
## 27
          0.02423219 1.866145e-02
                                    1.430275e-02 -6.987351e-03
## 28
          0.02423219 -5.310757e-02
                                    2.263557e-03 3.653948e-02
## 29
          0.02423219 2.630446e-02
                                    2.391530e-02 -2.378837e-02
## 30
          0.02423219 1.857460e-02
                                   1.429946e-02 -2.491099e-02
## 33
          0.02423219 3.520186e-03 -1.424020e-02 5.849159e-02
## 34
          0.02423219 -4.093874e-03 -1.452833e-02 -2.816863e-02
          0.02423219 -1.738229e-02 2.226212e-02 2.964142e-02
## 35
```

```
## 36
        0.02423219 3.433333e-03 2.304982e-02 4.299604e-02
        0.02423219 3.718996e-02 2.432723e-02 5.371543e-03
## 37
## 38
        0.02423219 -6.265184e-03 2.268281e-02 -3.067604e-02
## 39
        0.02423219 1.278444e-02 -4.566300e-03 -7.206074e-03
## 40
        0.02423219 1.252388e-02
                               2.339382e-02 -2.670262e-02
        0.02423219 4.099202e-03 2.307502e-02 -1.626327e-03
## 41
## 43
        0.02423219 -8.165306e-02 1.983000e-02 3.843134e-02
        0.02423219 1.435728e-03
## 44
                               2.297422e-02 -2.189585e-03
## 45
        0.02423219 9.146140e-04
                               2.295450e-02 -1.125242e-02
## 47
        0.02423219 -2.832569e-02 2.184800e-02 3.180348e-02
## 49
        0.02423219 -2.149330e-02 2.210655e-02 1.534309e-02
        0.02423219 -4.607253e-02 2.117643e-02 -3.283759e-03
## 50
## 51
        ## 52
        0.02423219 -2.346196e-02 -5.255456e-02 -3.021626e-02
        0.02423219 1.938522e-02 -5.093315e-02 1.465539e-02
## 54
## 55
        0.02423219 2.618866e-02 5.264266e-03
                                            6.226129e-02
        0.02423219 -2.765982e-02 1.254987e-02 1.007476e-02
## 56
## 58
        0.02423219 -1.662957e-02 1.296728e-02 2.583634e-02
        0.02423219 1.119215e-02 4.696771e-03 1.880304e-02
## 59
## 61
        0.02423219 7.515396e-03 -4.765690e-03 2.301388e-02
## 62
        0.02423219 -2.577802e-02 -1.534890e-02 4.334312e-02
## 63
        0.02423219 -2.314350e-02 -1.524920e-02 -3.219715e-02
## 65
        ## 66
## 67
        0.02423219 -4.378542e-02 1.193965e-02 3.799883e-02
## 68
        0.02423219 2.314883e-02 -1.349742e-02 -4.502207e-03
        0.02423219 -2.641494e-02 2.192031e-02 2.773124e-02
## 69
## 70
        0.02423219 2.138283e-02 5.082405e-03 3.438707e-02
        0.02423219 8.297067e-03 4.587216e-03 -2.657237e-02
## 72
## 74
        0.02423219 -5.859872e-03 -4.256514e-02 -2.700592e-02
## 75
        0.02423219 6.936380e-03 -3.275758e-02 -2.430299e-03
## 77
        ## 78
        0.02423219 3.066473e-04 1.360817e-02 -2.877420e-02
        0.02423219 1.675070e-02 -2.306286e-02 3.494367e-02
## 79
## 80
        0.02423219    1.848775e-02    4.972850e-03    1.139324e-02
        0.02423219 -4.306165e-02 1.196704e-02 1.577030e-02
## 81
## 82
        ## 83
        0.02423219 8.210215e-03 2.323058e-02 1.267200e-02
        0.02423219 -2.945477e-02 -2.481136e-02 -3.301977e-02
## 85
        0.02423219 -1.303967e-02 1.310312e-02 1.316656e-02
## 86
        0.02423219 -2.327875e-03 2.283180e-02 -2.985493e-03
## 87
        ## 88
## 89
        0.02423219 1.472414e-02 -3.246288e-02 -2.316497e-02
        0.02423219 7.254838e-03 1.387110e-02 -2.730484e-02
## 90
        0.02423219 -2.424363e-02 -3.393749e-02 4.404861e-03
## 92
        ## 93
## 94
        0.02423219 -1.492147e-02 -1.493807e-02 3.221005e-02
        0.02423219 2.300407e-02 -4.147288e-02 1.479675e-03
## 96
## 97
        0.02423219 1.683755e-02 -4.170623e-02 -2.220598e-02
## 98
        0.02423219 8.277616e-04 -5.018762e-03 -5.258296e-03
        0.02423219 1.443464e-02 2.346613e-02 -2.629855e-02
## 99
## 100
        0.02423219 -5.512463e-03 2.271129e-02 5.005686e-02
## 101
        0.02423219 2.792571e-02 1.465333e-02 1.287708e-02
## 102
        0.02423219 -1.335813e-02 -5.217221e-02 -2.807955e-02
```

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## 103
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         0.02423219 -4.076228e-05 4.271698e-03 1.642756e-02
## 104
         0.02423219 2.013794e-02 -1.361136e-02 8.290019e-03
## 105
## 107
         0.02423219 1.510050e-02 -3.244864e-02 -2.308538e-02
## 109
         0.02423219
                     2.776965e-04 1.360708e-02 -1.922421e-03
         0.02423219 1.081579e-02 1.400586e-02 3.061221e-04
## 110
## 111
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         0.02423219 1.897991e-02 4.991474e-03 1.597364e-02
## 112
## 115
         0.02423219 6.965330e-03 -5.140314e-02 2.098153e-02
## 116
         0.02423219 -3.796631e-02
                                 2.148318e-02 -3.738004e-02
## 117
         0.02423219 1.819824e-02
                                 4.961894e-03 -2.447852e-02
                                  2.228074e-02 -1.501768e-02
## 118
         0.02423219 -1.689013e-02
## 119
         0.02423219 2.980751e-02
                                  2.404786e-02 -2.304757e-02
         0.02423219 2.271456e-02 5.132800e-03 -2.352343e-02
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## 121
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                                 2.325907e-02 1.730750e-02
## 125
         0.02423219 8.962935e-03
## 126
         0.02423219 2.474112e-02
                                  1.453281e-02 7.727300e-03
## 127
         0.02423219 -2.117484e-02
                                  1.279527e-02 -2.436437e-02
## 128
         0.02423219 7.920707e-03
                                  2.321963e-02 -2.767608e-02
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         0.02423219 -2.586487e-02 -6.028858e-03 -1.537944e-02
         0.02423219 3.718996e-02 5.680574e-03 6.395660e-03
## 130
         0.02423219 -2.395412e-02 -5.956552e-03 7.406226e-03
## 131
         0.02423219 9.918312e-03 4.648567e-03 -2.622952e-02
## 132
## 133
         ## 135
         0.02423219 -2.140645e-02 -3.383012e-02 2.291012e-02
         0.02423219 -9.652427e-03 3.907976e-03 9.918618e-03
## 136
## 137
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         0.02423219 -5.875298e-02 2.069658e-02 -1.044167e-02
## 139
## 141
         0.02423219 -1.434246e-02 -5.592829e-03 -8.466418e-03
## 142
         0.02423219 2.333203e-03 4.361533e-03 -2.783358e-02
## 143
         0.02423219 -3.767680e-02 -1.579917e-02 5.399634e-04
## 145
         0.02423219 1.924047e-02 -1.364532e-02 -2.323400e-02
         0.02423219    9.860410e-03    1.396970e-02    3.143831e-02
## 146
## 148
         0.02423219 3.024177e-02 5.417643e-03 4.521315e-02
         0.02423219 1.594008e-02 -3.241687e-02 -5.002560e-03
## 151
## 152
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## 153
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         0.02423219 5.093029e-04 2.293917e-02 -2.924341e-02
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         ## 155
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         0.02423219 3.377377e-02 2.419795e-02 6.731755e-02
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         0.02423219 -2.009416e-03
                                  2.284385e-02 3.736871e-02
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         0.02423219 4.272906e-03
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         0.02423219 2.459637e-02
                                  1.452734e-02 -2.363754e-02
## 166
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         0.02423219 1.625854e-02 -4.172814e-02 -2.232843e-02
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## 170
         0.02423219 2.494378e-02 2.386381e-02 2.068705e-02
## 171
         0.02423219 1.119215e-02 4.696771e-03 -2.596013e-02
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        0.02423219 -3.165503e-02 3.075359e-03 1.869457e-02
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## 176
        0.02423219 3.519236e-02 -1.304167e-02 1.594997e-02
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        0.02423219 -3.814001e-02 2.147661e-02 3.868063e-02
        0.02423219 -1.639796e-02 -5.670613e-03 5.152920e-05
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        0.02423219 -1.888773e-02 -5.764831e-03 3.085923e-02
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        0.02423219 -6.468789e-02 1.114866e-02 2.462584e-02
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        0.02423219 1.090264e-02 1.400914e-02 -2.653342e-02
        ## 187
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        ## 190
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        0.02423219 2.532014e-02 1.455473e-02 -2.348448e-02
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                              1.405954e-02 5.082436e-03
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## 207
        0.02423219 -4.699895e-02 2.114137e-02 3.233087e-02
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        0.02423219 3.478705e-02 -1.305701e-02 6.911621e-03
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                  2.705718e-02 2.394379e-02
                                          3.008662e-02
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        0.02423219 -7.645322e-04 2.289096e-02 -2.951279e-02
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        ## 231
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        ## 233
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        0.02423219 -2.125220e-03 -2.377716e-02 -4.858660e-03
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        0.02423219 9.020837e-03 2.326126e-02 -2.744343e-02
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## 239
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         0.02423219 2.589915e-02 -1.339334e-02 4.084259e-02
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         ## 254
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## 255
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         0.02423219 3.462284e-03 2.305091e-02 -2.861892e-02
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         0.02423219 1.069998e-02 -1.396851e-02 -1.161114e-02
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         0.02423219 5.228283e-03 -2.349889e-02 5.649057e-03
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         0.02423219 6.251060e-04 2.294355e-02 2.115307e-03
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         0.02423219 2.080381e-02 5.060494e-03 -2.392751e-02
         0.02423219 -4.962398e-03 2.273211e-02 2.331528e-02
## 296
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## 298
         0.02423219 2.213555e-02 -3.218242e-02 4.554712e-02
         0.02423219 1.431883e-02 4.815091e-03 -7.393648e-03
## 299
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         0.02423219 -9.884033e-03 2.254586e-02 4.465606e-02
## 301
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         0.02423219 5.720446e-03 1.381304e-02 -2.762932e-02
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         0.02423219 -1.356078e-02 -3.353323e-02 -2.288620e-03
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         0.02423219 -1.234485e-02 2.245274e-02 -3.196174e-02
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         0.02423219 -4.412333e-03 4.106270e-03 2.074132e-03
## 330
## 331
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         0.02423219 -3.006274e-02 2.178227e-02 -8.850723e-03
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         0.02423219 8.847132e-03 1.393136e-02 3.122402e-02
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         0.02423219 -4.934397e-02 2.105263e-02 1.840600e-02
## 340
## 341
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## 342
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## 344
         0.02423219 -1.344498e-02 2.241111e-02 -9.812801e-03
## 347
         0.02423219 -1.911934e-02 -6.171355e-02 -2.878584e-02
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## 350
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         0.02423219 -1.402400e-02 3.742548e-03 4.517822e-03
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## 356
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## 358
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## 359
         0.02423219 -1.092626e-02 -5.463555e-03 -3.267660e-03
## 360
         0.02423219 -2.273819e-02 -5.910539e-03 -1.289270e-03
         ## 361
## 362
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## 363
         0.02423219 -3.978071e-03 2.276936e-02 2.352344e-02
## 366
         0.02423219 -7.452166e-03 -1.465542e-02 -2.887882e-02
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## 367
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         0.02423219 7.978608e-03 2.322182e-02 1.709934e-02
## 368
         0.02423219 -4.546456e-02 1.187611e-02 -2.643130e-03
## 369
## 370
         0.02423219 3.114875e-03 -2.357887e-02 -3.750511e-03
## 371
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         ## 372
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         0.02423219 9.744607e-03 2.328865e-02 4.043853e-03
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## 377
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## 378
         0.02423219 -3.834267e-02 2.146894e-02 2.073250e-02
## 380
         0.02423219 -4.614988e-03 2.274525e-02 -3.032707e-02
         0.02423219 -2.236183e-02 3.427030e-03 1.170722e-02
## 381
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         0.02423219 -1.437141e-02 2.237605e-02 -3.239030e-02
## 383
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         0.02423219 -6.266134e-02 2.054868e-02 2.901866e-02
## 386
         0.02423219 -3.842952e-02 2.146565e-02 -1.509641e-02
## 387
## 388
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## 389
         0.02423219 -2.705186e-02 -5.269041e-02 -3.097543e-02
## 390
         0.02423219 -2.617383e-03 -1.447246e-02 -2.785639e-02
## 391
         0.02423219 1.860355e-02 -6.028605e-02 1.052583e-02
## 394
         0.02423219 -8.262789e-03 -1.468609e-02 -2.905025e-02
## 396
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         0.02423219
## 399
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## 400
         0.02423219  4.417660e-03  2.308707e-02 -2.841689e-02
         0.02423219 -4.643939e-03 1.342083e-02 5.989412e-03
## 401
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         0.02423219 5.170381e-03 2.311555e-02 5.231601e-02
## 405
## 406
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## 407
         0.02423219 2.699928e-02 -5.064502e-02 1.178926e-02
## 408
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         0.02423219 -3.703988e-02 1.219491e-02 -8.615207e-04
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## 416
         ## 417
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                   3.374482e-02 2.419686e-02 -2.221493e-02
## 419
         0.02423219
         ## 421
## 422
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## 423
         0.02423219 1.646119e-02 1.421949e-02 -2.535792e-02
## 424
         0.02423219 1.026572e-02 -4.661613e-03 -2.564399e-02
## 425
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                   3.491235e-03 -3.288795e-02 1.317456e-03
## 427
         0.02423219
## 428
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## 429
         0.02423219 1.871935e-02 -2.298837e-02 -2.283214e-02
## 431
         0.02423219 -9.131312e-03 2.257435e-02 -4.424250e-03
## 432
         0.02423219 4.678218e-03 4.450273e-03 3.996556e-03
## 433
         0.02423219 3.718996e-02 -3.161273e-02 -1.841401e-02
## 434
         0.02423219 9.310345e-03 2.327221e-02 -5.242999e-04
## 435
         0.02423219 3.259629e-03 -1.425006e-02 4.720677e-03
## 436
         0.02423219 3.056973e-03 -4.222771e-02 4.202454e-02
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## 437
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        0.02423219 1.848775e-02 2.361950e-02 -2.544141e-02
## 438
        0.02423219 -2.994694e-02 2.178665e-02 -3.568414e-02
## 439
        0.02423219 -1.408190e-02 -6.152293e-02 2.599526e-02
## 440
## 441
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        0.02423219 -3.869008e-02 -3.448417e-02 -3.446074e-02
## 442
        0.02423219 2.329358e-02 -2.281527e-02 -2.186481e-02
## 443
        0.02423219 1.570847e-02 -4.455650e-03 -6.587715e-03
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## 446
        0.02423219
                  1.973263e-02 2.366661e-02 -7.272882e-03
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        ## 448
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        0.02423219 -2.704236e-03 -5.176905e-02 5.474720e-02
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        0.02423219 -8.783903e-03 2.258750e-02 -1.777973e-02
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        0.02423219
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## 708
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        ## 765
## 766
        0.02423219 -9.970885e-03 2.254258e-02 -3.145970e-02
## 767
## 769
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## 770
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        0.02423219 -1.159213e-02 2.248123e-02 1.743694e-02
## 771
## 773
        0.02423219 -8.494395e-03 -1.469486e-02 4.699817e-02
## 775
        ## 777
        0.02423219 -4.586987e-02 1.186077e-02 -7.205161e-03
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0.02423219 -2.241023e-03 -5.175152e-02 -2.572856e-02
         0.02423219 -1.471882e-02 3.716255e-03 -4.581750e-03
## 782
         0.02423219 -2.038367e-03 1.351943e-02 -2.479380e-02
## 783
## 784
         ## 785
         0.02423219 1.828509e-02 2.361183e-02 1.927891e-02
## 786
         0.02423219 -5.541414e-03 -5.259783e-03 -1.555785e-02
         0.02423219 1.339241e-02 2.342669e-02 2.719686e-02
## 787
## 788
         0.02423219 -3.724254e-02 -1.578274e-02 -3.517874e-02
## 789
         0.02423219 -3.208929e-02 2.170558e-02 -4.802972e-03
## 790
         0.02423219 -5.365764e-02 2.088939e-02 2.644640e-02
## 791
         0.02423219 4.533464e-03 -2.352518e-02 1.445476e-02
## 792
         0.02423219 -2.395412e-02 -4.324986e-02 1.840710e-02
## 793
         0.02423219 -3.376844e-02 2.164204e-02 -9.634387e-03
## 794
         0.02423219 -1.604105e-03 4.212539e-03 1.609695e-02
## 797
         0.02423219 2.230925e-02 5.117462e-03 7.725080e-03
## 798
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## 799
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## 800
         0.02423219 2.358309e-02 -6.942095e-02 2.104357e-02
         0.02423219 -3.283251e-03 -2.382098e-02 3.070699e-02
## 801
## 802
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## 803
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         0.02423219 -1.761390e-02 1.293003e-02 -3.256395e-02
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## 805
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## 806
## 807
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## 809
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         0.02423219 1.391352e-02 2.344641e-02 4.491570e-04
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## 811
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         0.02423219 6.936380e-03 -2.343425e-02 -2.532395e-02
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## 813
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         0.02423219 1.510050e-02 2.349132e-02 7.001742e-04
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## 815
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## 816
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         0.02423219 4.041300e-03 -4.897156e-03 -2.696030e-02
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## 818
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## 822
         0.02423219 2.013794e-02 5.035296e-03 -1.686733e-03
## 823
         0.02423219 -1.343548e-03
                                 2.286905e-02 1.698985e-03
## 824
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         0.02423219 7.081134e-03
## 825
                                 1.386453e-02 -2.734157e-02
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         0.02423219 1.753237e-02 2.358335e-02 5.690771e-03
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## 830
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         0.02423219 -2.392517e-02 -7.121874e-02 -2.929010e-02
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## 832
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## 835
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## 836
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## 839
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## 840
         0.02423219 5.170381e-03 -4.854429e-03 -2.672153e-02
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## 842
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         0.02423219 -7.596920e-03 2.263241e-02 4.852871e-03
## 843
## 844
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## 845
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         0.02423219 -2.327875e-03 2.283180e-02 -2.984340e-02
## 846
## 847
         0.02423219 -1.668747e-02 2.228841e-02 -3.288009e-02
## 848
         0.02423219 4.504513e-03 -6.081959e-02 5.230741e-02
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         ## 852
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## 856
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## 857
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         0.02423219 -3.891218e-03 2.277264e-02 -3.017401e-02
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         0.02423219 1.463729e-02 2.347379e-02 -2.625569e-02
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         ## 866
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         0.02423219 9.628804e-03 2.328426e-02 -9.409589e-03
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         0.02423219 2.210660e-02 2.375645e-02 -2.467612e-02
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                                            3.892524e-03
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## 884
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                                            9.665919e-03
## 886
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                                            3.790222e-02
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         0.02423219 1.811139e-02 -4.165803e-02 -2.193659e-02
## 890
## 891
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## 893
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         0.02423219 1.906676e-02 -2.297522e-02 2.200450e-02
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## 895
         0.02423219 -5.222955e-03 -4.254104e-02 -4.489636e-03
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## 897
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         ## 902
## 903
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## 905
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## 906
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                                1.405187e-02 5.039579e-03
## 907
         0.02423219 1.203172e-02
## 908
         0.02423219 2.054325e-02
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## 909
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## 910
         0.02423219 -6.236233e-03 2.268390e-02 -8.288330e-03
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## 914
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                                1.471687e-02 -1.967772e-04
## 919
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## 920
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## 921
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## 922
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## 923
         0.02423219 -4.833069e-02 -1.620233e-02 -3.752361e-02
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## 925
         0.02423219 5.315135e-03 -3.281893e-02 -2.515474e-02
## 926
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## 928
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         ## 935
## 936
         ## 937
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         0.02423219 -1.864662e-03 -5.120648e-03 -2.820926e-02
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## 943
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## 944
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         ## 952
         ## 954
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## 956
## 957
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         0.02423219 -1.978521e-02 3.524534e-03 4.358633e-02
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## 959
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         0.02423219 -2.013262e-02 2.215804e-02 -3.360866e-02
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## 962
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## 964
## 966
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         0.02423219 -3.237880e-02 1.237130e-02 -1.778109e-02
## 967
## 969
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         0.02423219 -4.644889e-02 2.515533e-03 1.108972e-02
## 971
## 972
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## 973
## 975
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## 976
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## 979
## 980
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## 981
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## 982
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## 985
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         0.02423219 -8.986558e-03 2.257983e-02 -3.125154e-02
## 991
## 992
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## 994
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## 996
         ## 998
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## 1000
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         0.02423219 1.759027e-02 -3.235442e-02 8.775368e-03
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## 1003
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## 1005
## 1006
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## 1008
         ## 1009
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## 1010
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## 1012
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## 1013
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## 1019
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## 1022
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## 1036
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## 1039
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## 1040
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## 1041
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## 1043
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## 1044
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## 1047
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## 1109
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## 1111
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## 1120
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## 1128
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## 1130
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## 1184
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         0.02423219 -9.671878e-04 1.355997e-02 4.705381e-02
## 1186
## 1187
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## 1192
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## 1193
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         ## 1328
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## 1353
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## 1354
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## 1357
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## 1359
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## 1360
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         0.02423219 -1.136052e-02 -5.479988e-03 -3.021740e-02
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## 1371
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         ## 1379
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## 1384
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         0.02423219 8.277616e-04 -5.018762e-03 8.170657e-03
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## 1386
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         0.02423219 -7.075806e-03 -4.261115e-02 5.331066e-02
## 1393
## 1394
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## 1402
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## 1403
         0.02423219 -2.615438e-02 -1.536314e-02 4.773984e-02
## 1404
         0.02423219 -2.993744e-03 -5.163374e-03 2.974409e-02
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        ## 1406
## 1407
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## 1409
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        0.02423219 2.329358e-02 5.154711e-03 2.583851e-02
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## 1412
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## 1418
        ## 1419
        ## 1421
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## 1422
        ## 1423
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        0.02423219 -3.512913e-02 2.159055e-02 3.484104e-02
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## 1426
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## 1429
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## 1438
        0.02423219 -7.456011e-02 1.451755e-03 -3.066564e-02
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        0.02423219 -1.677432e-02 -4.297816e-02 2.020173e-03
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        ## 1447
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## 1456
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## 1457
        0.02423219 -2.337510e-02 1.271201e-02 -2.448080e-03
## 1458
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        0.02423219 1.204122e-03 -2.365117e-02 1.375068e-02
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## 1460
        0.02423219 1.443464e-02 -4.179716e-02 4.143771e-03
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        0.02423219 - 8.494395e - 03 - 2.401818e - 02 - 1.729264e - 03
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        0.02423219 2.329358e-02 5.154711e-03 6.164905e-02
## 1464
## 1466
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## 1467
        0.02423219 5.720446e-03 1.381304e-02 -2.762932e-02
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## 1471
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         0.02423219 -1.205534e-02 3.817045e-03 4.934144e-03
## 1474
## 1476
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## 1478
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## 1483
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## 1491
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## 1492
         0.02423219 -6.578802e-02
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## 1493
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         ## 1531
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## 1544
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         ## 1548
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         0.02423219 -1.295282e-02 2.242974e-02 2.162550e-02
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## 1558
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## 1568
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## 1569
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## 1572
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         0.02423219 1.159746e-02 -4.611218e-03 -2.980774e-03
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## 1582
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## 1586
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         0.02423219 7.428543e-03 -4.768977e-03 5.090240e-03
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## 1588
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## 1589
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         0.02423219 -2.786248e-02 -2.475110e-02 -1.348812e-03
## 1594
## 1595
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## 1597
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## 1603
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## 1604
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## 1609
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## 1617
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         0.02423219 1.947207e-02 -7.889984e-02 -1.960061e-02
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## 1625
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## 1626
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                                  1.413184e-02 -2.584771e-02
## 1627
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                    1.414513e-02
## 1628
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## 1629
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## 1630
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## 1633
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## 1634
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## 1635
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## 1638
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         0.02423219 -1.257646e-02 1.312065e-02 -3.149866e-02
## 1639
## 1640
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## 1641
         ## 1643
         0.02423219 1.617168e-02 1.420853e-02 1.486771e-02
         0.02423219 -8.841804e-03 -5.384675e-03 -2.826850e-03
## 1644
## 1645
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## 1647
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## 1648
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## 1649
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## 1652
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## 1654
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## 1655
         0.02423219 -7.293887e-02 -3.578020e-02 -1.036928e-02
## 1656
         ## 1657
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## 1658
         ## 1659
         0.02423219 -6.815249e-03 -2.395464e-02 -2.823207e-02
## 1660
         0.02423219 5.894151e-03 2.314294e-02 1.218221e-02
## 1661
         0.02423219 2.300407e-02 -1.350290e-02 4.419816e-03
```

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## 1662
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         ## 1663
## 1665
         0.02423219 -4.445128e-02 2.123778e-02 -7.417224e-03
## 1666
         0.02423219 -3.524493e-02 1.226284e-02 3.085229e-02
## 1667
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## 1668
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## 1669
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## 1670
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         0.02423219 -3.000484e-02 -6.185522e-03
## 1671
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## 1672
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## 1673
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## 1674
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## 1675
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## 1676
         0.02423219 -2.540166e-02 1.263532e-02 -1.182928e-02
## 1677
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## 1678
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         0.02423219 -5.975676e-03 2.269376e-02 -3.061482e-02
## 1679
## 1680
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## 1683
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## 1684
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## 1687
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## 1688
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## 1690
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## 1691
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## 1693
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## 1697
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## 1698
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## 1699
         0.02423219 -3.481067e-02 -4.366069e-02 2.682254e-03
## 1700
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## 1701
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         0.02423219 2.474112e-02 -4.113838e-03 -9.153853e-03
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## 1703
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## 1704
         0.02423219 1.307395e-02 2.341464e-02 -2.658630e-02
## 1705
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         0.02423219 -2.847044e-02 2.184252e-02 4.914960e-03
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## 1707
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## 1708
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## 1710
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## 1711
         0.02423219 1.165536e-02 4.714300e-03 5.918786e-02
## 1712
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## 1713
         ## 1714
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         0.02423219 -3.017854e-02 2.177789e-02 -3.573312e-02
## 1715
## 1716
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## 1717
         0.02423219 -1.488302e-03 -1.442973e-02 -2.761761e-02
## 1718
         0.02423219 -3.475277e-02 -1.568852e-02 -1.674695e-02
         0.02423219 -1.552944e-02 2.233223e-02 -5.777294e-03
## 1719
         0.02423219 -2.213022e-02 -5.887532e-03 -3.249492e-02
## 1720
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## 1721
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## 1722
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## 1723
         ## 1725
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## 1727
         0.02423219 -2.247763e-02 -5.900679e-03 4.800533e-02
## 1728
         0.02423219 -5.559734e-02 2.081599e-02 -1.425065e-02
## 1729
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         0.02423219 1.449254e-02 -1.382499e-02 2.619839e-03
## 1731
         0.02423219 -3.543809e-03 2.278579e-02 5.710003e-03
## 1732
## 1733
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                                              1.203614e-02
## 1735
         ## 1737
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## 1738
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## 1740
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## 1741
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         0.02423219 -1.813501e-02 3.586980e-03 -8.278718e-04
## 1742
## 1744
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         0.02423219 -3.628716e-02 2.154672e-02 1.221455e-02
## 1745
## 1747
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## 1748
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         0.02423219 2.039850e-02 2.369181e-02 6.296886e-03
## 1749
## 1750
         0.02423219 7.196937e-03 2.319224e-02 -2.782914e-02
## 1752
         0.02423219 -9.565574e-03 -5.412064e-03 -2.983781e-02
## 1753
         0.02423219 -7.249511e-03 1.332223e-02 5.438398e-03
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## 1755
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## 1756
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## 1757
         0.02423219 -2.696500e-02 1.257616e-02 -3.207253e-03
## 1758
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## 1759
         ## 1760
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         0.02423219 2.511748e-02 5.223730e-03 5.755844e-02
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## 1768
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## 1769
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## 1771
         0.02423219 8.354969e-03 -4.733919e-03 1.423879e-02
## 1772
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         0.02423219 2.647817e-02 5.275221e-03 8.606701e-03
## 1773
## 1774
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## 1775
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         0.02423219 6.675823e-03 -4.797461e-03 -2.640316e-02
## 1776
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## 1777
         0.02423219 1.226333e-02 4.737307e-03 -2.573361e-02
## 1778
## 1781
         0.02423219 -2.734136e-02 2.188525e-02 -3.513313e-02
## 1782
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## 1783
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## 1785
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         0.02423219 -5.432351e-02 2.086420e-02 -2.741022e-02
## 1786
## 1787
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## 1788
         0.02423219 \quad 1.741657e-02 \quad 2.357897e-02 \quad 1.189964e-03
## 1789
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## 1790
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## 1791
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## 1792
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         0.02423219 -3.920169e-03 4.124895e-03 5.141771e-02
## 1793
## 1794
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```

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## 1795
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         0.02423219 2.468322e-02 5.207297e-03 8.227114e-03
## 1796
## 1797
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## 1799
         0.02423219 -1.303967e-02 1.310312e-02 -3.159662e-02
## 1800
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                    2.526223e-02
                                2.387586e-02 -2.400878e-02
         0.02423219 2.355414e-02 2.381122e-02 6.964224e-03
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## 1804
         0.02423219 -4.412333e-03 -3.318704e-02 -2.721186e-02
## 1805
         0.02423219 3.718996e-02 -3.642752e-03 -1.995019e-02
## 1806
         0.02423219 1.489785e-02 -2.313298e-02 -2.364029e-02
## 1810
         0.02423219 1.139480e-02 -4.618886e-03 5.516850e-02
## 1811
         0.02423219 -3.437641e-02 -1.567428e-02 -3.457263e-02
         0.02423219 -6.197782e-04 -5.073539e-03 7.864539e-03
## 1813
## 1814
         ## 1815
         0.02423219 3.718996e-02 2.432723e-02 -3.581093e-03
## 1816
         0.02423219 3.718996e-02 -3.161273e-02 8.443895e-03
## 1817
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         0.02423219 -9.565574e-03 -5.412064e-03 -2.983781e-02
## 1818
## 1819
         0.02423219 1.246598e-02 2.339163e-02 1.430385e-04
## 1821
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## 1823
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## 1824
         0.02423219 1.521631e-02 4.849053e-03 -2.510912e-02
## 1825
         0.02423219 -2.192756e-02 2.209012e-02 6.298615e-03
         0.02423219 -3.022694e-03 1.348218e-02 -4.738355e-02
## 1826
         0.02423219 -2.123275e-02 -5.853570e-03 7.981729e-03
## 1827
## 1828
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## 1830
         0.02423219 -2.745717e-02 2.188087e-02 -3.515762e-02
## 1831
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## 1832
         0.02423219 -9.073411e-03 1.325321e-02 -3.075785e-02
## 1833
         0.02423219 1.741657e-02 4.932314e-03 -2.464382e-02
## 1834
         0.02423219 1.243703e-02 2.339053e-02 -2.672099e-02
## 1835
         0.02423219 -1.109997e-02
                                2.249985e-02 -4.840571e-03
## 1836
         ## 1839
         0.02423219 2.798361e-02 -3.991137e-03 -2.189710e-02
## 1840
         0.02423219 -2.181176e-02 1.277117e-02 -6.593789e-03
## 1842
                    2.355414e-02 -3.212874e-02 5.560259e-03
         0.02423219
         ## 1844
## 1845
         0.02423219 -8.754952e-03 1.326526e-02 -3.832600e-03
## 1846
         0.02423219 2.358309e-02 2.381232e-02 4.725720e-02
                    1.724286e-02 -4.397586e-03 1.164204e-02
## 1847
         0.02423219
         ## 1848
## 1849
         0.02423219 2.537804e-02 -7.867635e-02 -1.835164e-02
         0.02423219 1.165536e-02 1.403763e-02 4.836709e-04
## 1850
## 1851
         0.02423219 1.588218e-02 2.352090e-02 -2.599243e-02
         0.02423219 1.043943e-02 4.668287e-03 5.214908e-03
## 1852
## 1853
         0.02423219 -4.552246e-02 -2.541939e-02 -6.071402e-04
         ## 1854
## 1855
         0.02423219 -3.096021e-02 1.242498e-02 -3.538636e-02
## 1857
         0.02423219 -3.599765e-02 -6.412300e-03 -3.095122e-02
## 1858
         0.02423219 -9.710328e-03 2.255244e-02 -9.023015e-03
## 1859
         0.02423219 -4.122825e-03 4.117226e-03 3.346958e-02
## 1860
         0.02423219 -2.230392e-02 1.275255e-02 -2.012682e-02
## 1863
         0.02423219 -1.303967e-02 -5.543530e-03 5.238042e-03
         0.02423219 -1.523993e-02 2.234319e-02 -3.257398e-02
## 1864
## 1865
         0.02423219 -4.846595e-03 -2.388014e-02 -2.781575e-02
```

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## 1866
         0.02423219 -5.039750e-04 -5.069157e-03 -2.792151e-02
## 1867
## 1868
         0.02423219 -5.194004e-03 2.272334e-02 2.326630e-02
## 1869
         0.02423219 -2.378042e-02 3.373348e-03
                                              6.930901e-03
## 1870
         0.02423219
                    3.015492e-02 -1.323230e-02
                                              1.936099e-02
         0.02423219 1.544791e-02 1.418114e-02
## 1872
                                              1.471465e-02
## 1873
         0.02423219 3.380272e-02
                                 2.419905e-02
                                              3.151313e-02
## 1876
                                              5.557653e-02
         0.02423219 -2.658864e-02
                                 3.267080e-03
## 1877
         0.02423219
                    2.155653e-02
                                 2.373563e-02 2.065463e-03
## 1878
         0.02423219 2.184604e-02
                                 1.442326e-02 -1.837572e-03
## 1880
         0.02423219 1.539001e-02
                                 2.350228e-02 9.714033e-03
## 1882
         0.02423219 -3.979021e-02
                                 2.141416e-02 -3.776575e-02
## 1883
         0.02423219 -6.844199e-03 2.266090e-02 9.488370e-03
         0.02423219 1.952998e-02 -4.160434e-02 7.449905e-04
## 1886
## 1889
         0.02423219 6.328413e-03 1.383605e-02 -5.119163e-03
## 1891
         0.02423219
                    3.143825e-03 -1.425444e-02 1.364882e-02
## 1892
         0.02423219 5.430938e-03 -1.416790e-02 -8.249098e-03
## 1893
         0.02423219 -2.183121e-03 1.351395e-02 1.098613e-02
## 1894
         0.02423219 1.713931e-05 2.292054e-02 -2.489581e-03
## 1895
         0.02423219 -5.663957e-02 2.129900e-03 1.341096e-02
## 1897
         0.02423219 -3.485907e-03 4.141328e-03 -2.906418e-02
## 1898
         0.02423219 -1.118682e-02 -5.473415e-03 -3.018067e-02
         0.02423219 -2.450419e-02 -7.124065e-02 -2.941255e-02
## 1899
         0.02423219 1.478205e-02 -2.313736e-02 7.669440e-03
## 1900
## 1901
         0.02423219 -2.074058e-02 2.213503e-02 -2.403003e-03
## 1902
         0.02423219 -2.414728e-03 2.282852e-02 5.948775e-03
## 1903
         0.02423219 -2.024842e-02 1.283033e-02 2.059472e-02
## 1904
         0.02423219 -1.026039e-02 2.253162e-02 -1.361566e-02
## 1905
         0.02423219 2.766515e-02 -4.003188e-03 -2.196445e-02
## 1906
         0.02423219 2.503063e-02 5.220444e-03 3.824265e-03
## 1907
         ## 1909
         0.02423219 2.711508e-02 -4.131731e-02 1.577800e-02
## 1911
         0.02423219 -1.312652e-02 -3.351680e-02 -2.905469e-02
## 1912
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## 1914
         0.02423219 -7.577605e-02 -1.724091e-02 -2.094603e-02
## 1916
## 1917
         0.02423219 -6.776798e-04 2.289425e-02 4.660298e-02
## 1918
         0.02423219 -1.648481e-02 -4.296721e-02 2.893930e-02
## 1919
         0.02423219    9.397197e-03    -4.198779e-02    -2.377943e-02
## 1920
         0.02423219 -1.243170e-02 3.802803e-03 3.782352e-04
## 1921
         0.02423219 -6.988953e-03 -5.314560e-03
                                              2.041300e-03
## 1923
         0.02423219 7.862805e-03 4.570783e-03
                                             1.809897e-02
## 1924
         0.02423219 -3.167448e-03 -1.449327e-02
                                             1.679046e-02
## 1925
         0.02423219 -1.631111e-02 2.230265e-02 -1.489523e-02
## 1926
         0.02423219 2.720194e-02 -1.334404e-02 8.312424e-04
         0.02423219 -1.254751e-02 2.244507e-02 3.961649e-02
## 1927
## 1928
         0.02423219 -3.903749e-02 -4.382064e-02 6.264706e-03
## 1929
         0.02423219 - 1.952465e - 02 - 3.375891e - 02 - 8.026146e - 03
## 1930
         0.02423219 -3.078651e-02 3.108225e-03 9.729700e-04
## 1932
         0.02423219 2.763620e-02 2.396570e-02 -2.350675e-02
## 1933
         0.02423219 -1.631111e-02 2.230265e-02 -1.466280e-03
## 1935
         0.02423219    5.228283e-03    -4.852238e-03    -2.670928e-02
         ## 1936
## 1937
         0.02423219 -9.189214e-03 2.257216e-02 3.982312e-05
```

```
## 1938
         0.02423219 2.705718e-02 2.394379e-02 -2.362919e-02
## 1939
         0.02423219 1.935627e-02 1.432904e-02 -2.474568e-02
## 1940
         0.02423219 -2.617383e-03 4.174194e-03 -6.498917e-03
## 1942
         0.02423219 -7.066306e-04 -1.440015e-02 5.312141e-02
## 1943
         0.02423219 1.185802e-02 -2.324801e-02
                                               2.048003e-02
         0.02423219 -3.895063e-02 2.144593e-02 -3.758820e-02
## 1944
## 1945
         0.02423219 -3.510018e-02 2.159164e-02 -3.677392e-02
## 1946
         0.02423219 -5.454561e-03
                                 2.271348e-02 -3.050461e-02
## 1947
         0.02423219 -2.314350e-02
                                 2.204410e-02
                                              1.051779e-02
## 1948
         0.02423219 1.350821e-02
                                 1.410774e-02 9.828138e-03
## 1949
         0.02423219 2.216450e-02 2.375864e-02 2.194033e-03
## 1950
         0.02423219 2.589915e-02 -3.204000e-02
                                               1.053249e-02
## 1951
         0.02423219 -1.509518e-02 -3.359129e-02 4.662639e-02
         0.02423219 -6.992799e-02 1.095037e-02 -4.362707e-02
## 1953
## 1954
         0.02423219 -1.086836e-02 -5.461364e-03 1.017354e-02
## 1955
         0.02423219 -2.268029e-02 2.206163e-02
                                               2.852102e-02
         ## 1959
## 1960
         0.02423219 6.965330e-03 1.386015e-02 5.768398e-02
## 1961
         0.02423219 8.991886e-03 2.326016e-02 -2.744955e-02
## 1963
         0.02423219 -1.089731e-02
                                 2.250752e-02 1.310756e-02
## 1966
         0.02423219 -1.680327e-02 2.228403e-02 -3.290458e-02
## 1967
         0.02423219 8.210215e-03 -4.739397e-03 -2.607868e-02
         0.02423219 3.718996e-02 2.432723e-02 -2.148636e-02
## 1968
## 1969
         0.02423219 1.999319e-02 5.029818e-03 7.235290e-03
## 1970
         0.02423219 -4.349591e-02 -6.696047e-03 2.565521e-02
## 1973
         0.02423219 -9.999836e-03 -3.339848e-02 -1.048820e-02
## 1974
         0.02423219 -1.422665e-02 -5.588447e-03 -8.441928e-03
## 1975
         0.02423219 -5.107152e-03 1.340330e-02 -2.991909e-02
## 1978
         0.02423219 -2.392517e-02 -1.527878e-02 3.448089e-03
## 1979
         0.02423219 3.365796e-02 -2.242306e-02 -1.967300e-02
## 1980
         0.02423219 6.357364e-03 2.316047e-02 1.228017e-02
## 1981
         0.02423219 -6.091479e-03 4.042729e-03 -2.066255e-02
## 1982
         0.02423219 -3.302702e-04 2.290740e-02 1.086590e-02
## 1983
         0.02423219 -3.659612e-03 4.134755e-03 -2.910091e-02
## 1985
         0.02423219 -7.828527e-03 -6.128629e-02 -2.639812e-02
## 1986
         ## 1991
         0.02423219 -5.750809e-02 -2.587295e-02 -3.895234e-02
## 1992
         ## 1993
         0.02423219 9.078739e-03
                                 2.326345e-02
                                               3.903039e-03
         0.02423219 -2.210127e-02 -3.385642e-02 3.171582e-02
## 1994
## 1995
         0.02423219 -4.036922e-02
                                 2.139225e-02 -3.788819e-02
                                 1.356764e-02 1.128613e-02
## 1996
         0.02423219 -7.645322e-04
## 1997
         0.02423219 2.130547e-03
                                  2.300052e-02 -1.099528e-02
## 1998
         0.02423219 3.375432e-03
                                  2.304763e-02 -2.863729e-02
## 1999
         0.02423219 1.689545e-02
                                  4.912595e-03 -2.475403e-02
                                  3.618751e-03 3.963654e-02
## 2000
         0.02423219 -1.729544e-02
## 2001
         0.02423219 -1.069466e-02
                                 1.319186e-02 1.366247e-02
## 2002
         0.02423219 -2.048002e-02
                                 2.214489e-02 -2.347901e-03
## 2003
         0.02423219 8.181264e-03 2.322949e-02 6.190537e-02
## 2004
         0.02423219 2.705718e-02 -3.199617e-02 3.315897e-02
## 2005
         0.02423219 -2.485159e-02 2.197947e-02 3.701448e-02
## 2006
         0.02423219 -1.796131e-02 1.291688e-02 -3.263742e-02
## 2007
         0.02423219 -5.548154e-02 -1.647293e-02 1.020366e-02
## 2008
         0.02423219 -1.277911e-02 2.243631e-02 -9.671986e-03
```

```
## 2009
         0.02423219 -2.346196e-02 2.203205e-02 3.730835e-02
         0.02423219 -4.922817e-02 1.173369e-02 -7.915356e-03
## 2010
## 2011
         0.02423219 -1.694803e-02 -4.298474e-02 -2.935078e-02
## 2012
         0.02423219 1.779293e-02 -1.370010e-02 -2.354012e-02
## 2013
         0.02423219
                    1.046838e-02 1.399271e-02 -2.662525e-02
         0.02423219 3.718996e-02 -2.228941e-02 1.688447e-02
## 2014
## 2015
         0.02423219 -2.519900e-02 -1.532699e-02 3.178705e-03
         0.02423219 3.172776e-03 2.303996e-02 2.654075e-03
## 2016
## 2017
         0.02423219 -1.237380e-02 2.245165e-02
                                               1.727163e-02
## 2021
         0.02423219 1.030417e-03 -5.011093e-03
                                               3.737196e-03
## 2022
         0.02423219 -2.731241e-02 2.188634e-02 6.835369e-04
## 2023
                                  2.262584e-02 4.816137e-03
         0.02423219 -7.770625e-03
## 2024
         0.02423219 1.706916e-02 2.356582e-02 -2.574141e-02
         0.02423219 2.106437e-02 2.371701e-02 1.961382e-03
## 2025
## 2029
         0.02423219 -4.028237e-02 -2.522109e-02 1.840628e-02
## 2030
         0.02423219 -2.236183e-02 2.207368e-02 -3.408008e-02
## 2031
         0.02423219 -1.854032e-02 -2.439834e-02 3.195681e-02
## 2032
         0.02423219 -1.390819e-02 -1.489972e-02 1.090112e-03
## 2033
         0.02423219 1.831404e-02 -1.368038e-02 5.266749e-02
## 2034
         0.02423219 9.310345e-03 -4.697766e-03 -2.584603e-02
## 2035
         0.02423219 5.836249e-03 4.494095e-03 8.717768e-03
## 2037
         0.02423219 2.734669e-02 -4.015239e-03 -2.203179e-02
## 2039
         0.02423219 3.475810e-02 -5.035141e-02 1.343005e-02
## 2040
         0.02423219 -1.975625e-02 -5.797697e-03 3.067556e-02
## 2042
         0.02423219 1.536106e-02 2.350118e-02 -2.610263e-02
## 2044
         0.02423219 -7.175189e-02 2.020468e-02 9.190969e-03
## 2046
         0.02423219 -2.430153e-02 -1.529302e-02 -3.244204e-02
## 2047
         0.02423219 3.024177e-02 -4.119899e-02 -1.937132e-02
## 2048
         ## 2049
         0.02423219 2.589915e-02 -4.136332e-02 -6.860723e-03
## 2050
         0.02423219 - 4.783853e - 02 - 1.618371e - 02 1.181996e - 02
## 2051
         0.02423219 3.722841e-03 -1.423253e-02 4.818635e-03
## 2052
         0.02423219 -2.962848e-02 3.152047e-03 2.359945e-02
## 2053
         0.02423219 3.160246e-02 1.479246e-02
                                               2.260725e-02
## 2054
                    1.290974e-03 -6.094119e-02
         0.02423219
                                               6.864650e-03
## 2055
         0.02423219 -2.450419e-02 2.199261e-02 4.604058e-02
## 2056
         0.02423219 -1.361869e-02 -2.421209e-02 2.404498e-02
## 2057
         0.02423219 -2.392517e-02 -5.955456e-03 -1.540287e-03
## 2058
         0.02423219 -3.842952e-02 2.146565e-02 -1.509641e-02
## 2059
         0.02423219 1.591113e-02 -2.309463e-02 1.686085e-02
## 2060
         0.02423219 1.576637e-02 -4.174676e-02 8.901718e-03
## 2061
         0.02423219 1.362401e-02 -4.182784e-02 3.972345e-03
## 2062
         0.02423219 1.316080e-02 2.341792e-02 1.819525e-02
## 2063
         0.02423219 -6.596173e-02
                                 1.777133e-03 6.963243e-03
## 2064
         ## 2065
                                  2.067905e-02 2.889320e-03
         0.02423219 -5.921619e-02
## 2066
         0.02423219
                    8.268116e-03
                                  4.586121e-03 -2.210218e-02
## 2067
         0.02423219
                    1.831404e-02
                                  2.361293e-02 -2.547815e-02
## 2069
         0.02423219 5.961552e-04
                                  2.294245e-02 -2.922504e-02
## 2070
         0.02423219
                    1.638384e-03
                                  2.298189e-02 6.805907e-03
## 2071
         0.02423219 1.263969e-02 -1.389510e-02 -2.462990e-02
## 2073
         0.02423219 -1.749809e-02 2.225774e-02 -6.193615e-03
         ## 2074
## 2075
         0.02423219 8.094412e-03 -9.797705e-02 3.273323e-02
```

```
## 2076
         0.02423219 2.294617e-02 2.378822e-02 -2.449857e-02
## 2077
         0.02423219 2.118017e-02 1.439806e-02 -2.435997e-02
## 2078
         0.02423219 -1.182374e-02 -5.497517e-03 9.971499e-03
## 2079
         0.02423219
                    2.005109e-02 2.367866e-02 6.441555e-02
## 2080
         0.02423219
                    2.699928e-02 -2.267504e-02 1.472940e-02
## 2082
         0.02423219 3.128400e-02 -3.866244e-03 -2.119915e-02
## 2084
         0.02423219 2.216450e-02 2.375864e-02 3.352826e-02
                   1.608483e-02 1.420525e-02 1.484935e-02
## 2085
         0.02423219
## 2086
         0.02423219
                    3.809694e-03 -4.905920e-03 3.565917e-02
## 2088
         0.02423219
                    2.647817e-02 -1.337143e-02 -2.170340e-02
## 2089
         0.02423219 1.075788e-02 1.400366e-02 -2.656403e-02
## 2090
                   4.609011e-05 -4.234165e-02 5.929308e-02
         0.02423219
## 2091
         0.02423219 2.995226e-02 -3.188662e-02 -1.994460e-02
## 2093
         0.02423219 -6.033577e-03 2.269157e-02 9.659797e-03
## 2095
         0.02423219 -4.460734e-04 -1.439029e-02 5.765283e-02
## 2096
         0.02423219 -1.975625e-02 1.284896e-02 -1.682783e-03
         0.02423219 5.228283e-03 2.311774e-02 1.651772e-02
## 2097
## 2099
         0.02423219 -9.507673e-03 1.323678e-02 -3.084969e-02
## 2100
         0.02423219 1.117270e-03 -2.365446e-02 -1.312559e-02
## 2101
         0.02423219 -1.263436e-02 -5.528192e-03 2.322903e-02
## 2102
         0.02423219 8.210215e-03 -4.739397e-03 -2.607868e-02
## 2103
         0.02423219 -6.552746e-02 -1.685309e-02 -2.325503e-02
         0.02423219 1.657699e-02 -1.374611e-02 -2.379726e-02
## 2104
                    2.474112e-02 -4.113838e-03 -2.258281e-02
## 2106
         0.02423219
## 2107
         ## 2108
         0.02423219 2.126702e-02 -4.245304e-03 -2.331749e-02
## 2110
         0.02423219 -4.986508e-02 1.170959e-02 -3.938427e-02
## 2111
         0.02423219 5.344086e-03 1.379880e-02 -8.510058e-04
         ## 2112
## 2114
         0.02423219 4.504513e-03 -7.946624e-02 2.199730e-02
## 2116
         0.02423219 7.110084e-03 1.386563e-02 8.475094e-03
## 2117
         0.02423219 -6.438888e-03
                                 2.267624e-02 -3.071278e-02
## 2118
         0.02423219 -1.283701e-02
                                 2.243412e-02 -3.206582e-02
## 2119
         0.02423219 2.503063e-02
                                 1.454377e-02 -2.354570e-02
## 2121
         0.02423219 -4.875545e-03
                                 4.088742e-03 -2.500144e-03
                                 1.431151e-02 5.125376e-02
## 2122
         0.02423219 1.889306e-02
## 2126
         0.02423219 1.211857e-02
                                 2.337848e-02 -2.678834e-02
## 2127
         0.02423219 -7.133707e-03 2.264994e-02 1.390346e-02
## 2128
         0.02423219 -1.283701e-02 2.243412e-02 8.221040e-03
## 2129
         0.02423219 -3.362369e-02 -3.429244e-02 -3.338933e-02
## 2130
         0.02423219 1.472414e-02 -4.492898e-03 -2.470115e-02
         0.02423219 2.778095e-02 -5.993877e-02 1.694294e-02
## 2132
## 2134
         0.02423219 -2.820039e-03 2.281318e-02 -3.089573e-03
## 2136
         0.02423219 -1.628216e-02 -1.498956e-02 1.401703e-02
## 2137
         0.02423219 1.204122e-03 1.364213e-02 3.856035e-02
         ## 2138
## 2139
         0.02423219    1.851670e-02    -2.299603e-02    -2.287500e-02
## 2140
         0.02423219 - 1.344498e - 02 - 5.217550e - 02 3.009421e - 02
## 2143
         0.02423219 -9.382370e-04 2.288439e-02 -2.691619e-03
## 2144
         ## 2146
         0.02423219 -3.510018e-02 2.159164e-02 -1.439233e-02
## 2147
         0.02423219 -1.049200e-02 -5.447121e-03 -3.175825e-03
         0.02423219 -5.811606e-02 2.074027e-03 2.652768e-02
## 2149
## 2151
         0.02423219 4.070251e-03 -4.218937e-02 1.985723e-02
```

```
## 2152  0.02423219  3.718996e-02  2.432723e-02  1.880050e-02
## 2153 0.02423219 8.818181e-03 -2.336304e-02 -2.492599e-02
## attr(,"assign")
## [1] 0 1 2 3
## $qraux
## [1] 1.024232 1.009108 1.022487 1.003904
## $pivot
## [1] 1 2 3 4
## $tol
## [1] 1e-07
##
## $rank
## [1] 4
##
## attr(,"class")
## [1] "qr"
## $df.residual
## [1] 1699
##
## $xlevels
## named list()
## $call
## lm(formula = TARGET_AMT ~ BLUEBOOK + MVR_PTS + CAR_AGE, data = df)
## $terms
## TARGET_AMT ~ BLUEBOOK + MVR_PTS + CAR_AGE
## attr(,"variables")
## list(TARGET_AMT, BLUEBOOK, MVR_PTS, CAR_AGE)
## attr(,"factors")
              BLUEBOOK MVR_PTS CAR_AGE
## TARGET AMT
                     0
                             0
                                     0
## BLUEBOOK
                     1
                             0
                                     0
## MVR_PTS
                     0
                             1
                                     0
## CAR_AGE
## attr(,"term.labels")
## [1] "BLUEBOOK" "MVR PTS" "CAR AGE"
## attr(,"order")
## [1] 1 1 1
## attr(,"intercept")
## [1] 1
## attr(,"response")
## [1] 1
## attr(,".Environment")
## <environment: 0x0000000427e7510>
## attr(,"predvars")
## list(TARGET_AMT, BLUEBOOK, MVR_PTS, CAR_AGE)
## attr(,"dataClasses")
## TARGET_AMT BLUEBOOK
                            MVR_PTS
                                       CAR_AGE
## "numeric" "numeric" "numeric" "numeric"
```

##	\$mode	el			
##		TARGET_AMT	BLUEBOOK	MVR_PTS	CAR_AGE
##	1	2946.00000	17430	- 0	7
##	3	2501.00000	11200	0	1
##	4	6077.00000	18300	0	11
##	5	1267.00000	28340	3	10
##	6	2920.16732	6000	3	5
##	7	6857.00000	8710	0	1
##	9	4486.00000	10030	0	1
##	10	6100.00000	12230	13	6
##	11	8840.68357	10520	1	1
##	12	2117.00000	32340	0	13
##	14	866.00000	6880	0	1
##	15	7786.00000	2920	2	10
##	16	4148.00000	19510	0	15
##	17	2371.00000	1500	2	11
##	19	1354.00000	9640	4	1
##	20	2425.00000	13140	4	1
##	21	5711.00000	11740	2	1
##	22	13105.32763	12230	1	9
##	24	7838.00000	15090	2	5
##	26	5125.00000	12840	0	10
##	27	2143.00000	7900	1	5
##	28	2114.00000	32690	2	18
##	29	8671.00000	5260	0	1
##	30	6287.00000	7930	1	1
##	33	6158.00000	13130	4	20
##	34	4887.00000	15760	4	1
##	35	5147.00000	20350	0	15
##	36	6087.00000	13160	0	17
##	37	3894.00000	1500	0	7
##	38 39	2659.00000 6693.00000	16510	0	1
##	40	4380.00000	9930 10020	0	5 1
##	41	1826.00000	12930	0	7
##	43	53571.21408	42550	0	20
##	44	4257.00000	13850	0	7
##	45	4277.00000	14030	0	5
##	47	2738.00000	24130	0	16
##	49	4658.00000	21770	0	12
##	50	5259.00000	30260	0	9
##	51	3769.00000	7200	3	8
##	52	4363.23758	22450	8	1
##	54	7390.43996	7650	8	9
##	55	1164.98807	5300	2	20
##	56	2362.00000	23900	1	11
##	58	1065.00000	20090	1	14
##	59	5075.00000	10480	2	11
##	61	2287.00000	11750	3	12
##	62	6195.00000	6100	5	1
##	63	4862.00000	23250	4	18
##	65	3418.00000	22340	4	1
##	66	4423.00000	6000	3	1

##

	07	0000 0000	00470		40
##	67	2328.00000	29470	1	18
##	68	4700.00000	6350	4	5
##	69	6880.00000	23470	0	15
##	70	4875.00000	6960	2	14
##	72	5395.00000	11480	2	1
##	74	3149.00000	16370	7	1
##	75	3602.00000	11950	6	6
##	77	3259.00000	5460	5	1
##	78	3085.00000	14240	1	1
##	79	3593.00000	8560	5	14
##	80	457.55636	7960	2	9
##	81	6143.00000	29220	1	13
##	82	4524.00000	4100	5	6
##	83	4480.00000	11510	0	10
##	85	40151.70697	24520	5	1
##	86	1237.00000	18850	1	11
##	87	2876.00000	15150	0	7
##	88	1650.00000	1500	3	1
##	89	14833.61490	9260	6	1
##	90	1796.00000	11840	1	1
##	92	5177.00000	22720	6	9
##	93	5287.00000	7420	2	1
##	94	1444.00000	19500	4	15
##	9 <del>4</del> 96	3943.00000	6400	7	6
##	90 97	2316.00000	8530	7	1
##	98	5051.00000	14060	3	6
##	99	6245.00000	9360	0	1
##	100	2872.00000			
			16250	0	19
##	101	1347.00000	4700	1	9
##	102	4997.00000	18960	8	1
##	103	8662.00000	26280	2	8
##	104	5952.00000	14360	2	11
##	105	5252.00000	7390	4	8
##	107	7719.00000	9130	6	1
##	109	2353.00000	14250	1	7
##	110	5457.00000	10610	1	7
##	111	4898.00000	10590	1	11
##	112	4046.00000	7790	2	10
##	115	3782.00000	11940	8	11
##	116	3443.00000	27460	0	1
##	117	46858.30690	8060	2	1
##	118	1958.00000	20180	0	5
##	119	1736.00000	4050	0	1
##	120	1412.55161	6500	2	1
##	121	1036.00000	28960	2	8
##	123	1842.21089	9210	3	1
##	125	5636.00000	11250	0	11
##	126	3414.00000	5800	1	8
##	127	7161.00000	21660	1	3
##	128	26305.26053	11610	0	1
##	129	5717.00000	23280	3	5
##	130	465.00468	1500	2	7
##	131	5016.00000	22620	3	10
##	132	3354.00000	10920	2	1

##	133	1368.00000	5100	1	8
##	135	3854.00000	21740	6	13
##	136	4611.02393	17680	2	10
##	137	9162.09636	23600	0	1
##	139	3844.00000	34640	0	8
##	141	5951.18282	19300	3	6
##	142	22134.28420	13540	2	1
##	143	60838.10394	27360	4	9
##	145	16840.12083	7700	4	1
##	146	4423.00000	10940	1	14
##	148	5494.69770	3900	2	16
##	151	5109.00000	8840	6	5
##	152	2424.00000	4500	1	20
##	153	27495.93045	36080	3	8
##	154	5862.00000	14170	0	1
##	155	3960.00000	6380	4	1
##	156	1226.00000	18870	7	1
##	157	4402.00000	2680	0	21
##	158	5722.00000	15810	2	9
##	159	6220.00000	15040	0	16
##	160	2962.10177	6480	1	5
##	162	5378.00000	12870	2	10
##	163	2044.21690	22680	2	15
##	164	834.52069	4500	2	10
##	165	4578.00000	5850	1	1
##	166	9270.00000	9160	2	9
##	167	5040.00000	8730	7	1
##	168	4539.00000	12160	7	15
##	170	2408.00000	5730	0	11
##	171	2697.00000	10480	2	1
##	173	5834.72756	9180	8	1
##	174	1418.00000	24010	3	5
##	175	3338.00000	25280	2	13
##	176	2569.00000	2190	4	9
##	179	3771.00000	27520	0	18
##	181	5811.00000	20010	3	8
##	182	889.55567	13840	3	1
##	183	6755.00000	20870	3	15
##	184	5455.00000	36390	1	13
##	185	6849.00000	36690	1	16
##	186	20539.98130	10580	1	1
##	187	962.00000	5370	6	1
##	188	4439.00000	6400	5	9
##	190	2303.00000	13890	0	10
##	192	2553.00000	5600	1	1
##	193	2398.00000	10120	1	8
##	194	5600.00000	6300	0	12
##	195	3282.00000	26520	0	13
##	196	3337.00000	26710	0	7
##	197	20432.92333	9420	2	1
##	200	2804.00000	6520	5	1
##	201	2088.00000	22150	0	6
##	202	2479.00000	12410	0	14
##	203	4544.00000	17370	0	9
				•	•

##	204	9863.15915	12770	0	1
##	205	2160.00000	13450	1	4
##	206	1644.69454	20590	5	13
##	207	6418.00000	30580	0	17
##	209	4456.00000	5540	1	1
##	211	5102.74347	6200	2	4
##	213	6879.00000	10750	3	16
##	214	3288.00000	11810	0	15
##	215	3521.00000	14500	6	9
##	216	4021.00000	2330	4	7
##	218	29865.05188	21520	4	17
##	219	3755.00000	4500	0	7
##	221	4348.00000	18130	2	10
##	222	12300.55369	7900	9	8
##	223	5297.00000	5000	0	13
##	224	4699.00000	6720	5	6
##	225	4799.00000	23630	2	8
##	226	3349.00000	8620	4	1
##	228	3581.00000	22690	3	8
##	229	2441.00000	14610	0	1
##	230	6250.00000	8700	0	1
##	231	13041.58430	6000	0	1
##	232	5657.00000	5850	0	12
##	233	4815.00000	21880	6	18
##	234	5501.00000	15080	5	6
##	235	3048.00000	8590	4	10
##	236	1502.00000	8930	4	1
##	237	6452.00000	11230	0	1
##	238	2777.00000	4340	4	1
##	239	4621.00000	23740	1	9
##	240	3730.00000	5330	10	1
##	241	4034.00000	15670	2	9
##	242	1133.00000	10970	0	1
##	243	2891.00000	10320	0	12
##	244	6027.00000	14580	1	9
##	245	3668.00000	23450	2	1
##	246	4895.00000	11800	1	1
##	247	1029.00000	5400	4	15
##	248	5142.00000	7760	0	1
##	251	54928.33897	21620	0	7
##	252	4123.00000	1500	1	1
##	253	4809.00000	5260	0	1
##	254	4610.00000	14160	6	5
##	255	1166.00000	37180	0	11
##	256	5520.00000	1500	5	6
##	258	3897.00000	7650	0	15
##	260	4155.00000	9960	3	1
##	261	6653.00000	18810	3	10
##	262	4209.47163	13150	0	1
##	263	3626.00000	4790	4	7
##	264	3332.23785	19700	7	13
##	265	3760.00000	9150	5	7
##	266	2856.00000	20750	6	10
##	267	3242.00000	11700	8	7

##	268	1397.00000	1500	4	1
##	269	7692.00000	19810	0	12
##	270	4007.00000	14790	5	1
##	272	1748.74163	3800	6	1
##	273	4617.00000	10650	4	4
##	274	22243.71485	20730	2	1
##	275	33590.50857	12540	5	8
##	276	4020.71638	7910	1	1
##	277	3762.00000	16880	0	13
##	278	1758.00000	8000	0	6
##	279	4289.00000	12970	5	1
##	280	1669.00000	19990	0	1
##	281	2034.00000	5100	0	1
##	282	2753.00000	7070	1	6
##	283	4868.00000	23060	0	18
##	284	4451.00000	21620	2	1
##	285	4419.00000	6700	2	16
##	286	3643.00000	14130	0	8
##	287	931.00000	23040	3	7
##	288	7406.00000	22310	5	15
##	289	8484.00000	16200	1	1
##	290	8162.00000	11100	7	1
##	291	4026.00000	6640	6	1
##	292	4027.00000	11630	6	1
##	293	3440.00000	7810	5	6
##	294	6110.79990	7160	2	1
##	296	27254.00086	16060	0	13
##	297	16012.26191	10860	5	1
##	298	1070.00000	6700	6	16
##	299	4277.00000	9400	2	5
##	300	6431.00000	19830	3	18
##	301	7035.00000	17760	0	18
##	303	9623.13642	9480	5	1
##	304	2505.00000	5390	1	16
##	305	4415.00000	14850	4	17
##	306	6673.00000	12370	1	1
##	307	6761.00000	9470	3	6
##	308	4368.00000	9600	0	4
##	309	3084.00000	12380	0	12
##	310	1043.00000	7770	6	5
##	311	5900.00000	17710	5	8
##	312	3343.00000	19030	6	7
##	313	5017.00000	17850	9	1
##	314	1793.00000	14350	2	11
##	315	9470.13599	21340	1	1
##	316	5802.00000	15640	0	8
##	317	6057.00000	8330	2	1
##	318	5636.50454	13520	2	1
##	319	1482.00000	9360	3	10
##	320	11769.92441	23650	5	9
##	321	3254.00000	12460	1	6
##	322	4197.00000	18610	0	1
##	323	5372.00000	28170	4	18
##	324	664.00000	8980	0	12
ir <del>iT</del>	<b>52</b> 4	554.50000	0300	J	12

##	326	6686.00000	12030	0	13
##	327	3931.00000	12180	4	4
##	328	2593.00000	5730	2	1
##	329	1442.00000	7000	1	17
##	330	2908.00000	15870	2	8
##	331	2967.00000	1500	3	1
##	334	5967.00000	24730	0	7
##	335	4344.00000	9830	5	1
##	336	5292.00000	6920	0	1
##	338	4943.00000	11290	1	14
##	339	18084.02979	50970	5	14
##	340	5295.00000	31390	0	14
##	341	7940.03830	6900	4	13
##	342	1914.00000	15320	2	9
##	344	908.98339	9750	2	10
##	347	16372.04530	18990	0	6
##	348	9823.91913	20950	9	1
##	350	4805.26812	6500	0	7
##	352	6535.00000	24950	7	6
##	353	2840.00000	19190	2	9
##	354	464.37523	5100	5	1
##	355	1842.00000	12510	0	9
##	356	3609.00000	21720	2	1
##	358	2474.00000	9750	6	9
##	359	5316.00000	18120	3	7
##	360	4347.00000	22200	3	8
##	361	23345.82636	6410	1	1
##	362	8701.62117	25020	7	7
##	363	4531.00000	15720	0	13
##	366	2189.00000	16920	4	1
##	367	6796.00000	19410	0	11
##	368	3405.00000	11590	0	11
##	369	7919.00000	30050	1	9
##	370	1680.00000	13270	5	6
##	371	4252.00000	12620	3	1
##	372	8374.34244	6100	0	4
##	373	19088.87878	23270	5	9
##	376	3865.00000	10980	0	8
##	377	5603.00000	19090	8	12
##	378	6597.00000	27590	0	14
##	380	2960.00000	15940	0	1
##	381	3997.00000	22070	2	11
##	382	4521.00000	12670	3	15
##	383	4805.00000	19310	0	1
##	384	315.83419	33960	7	1
##	386	1465.00000	35990	0	17
##	387	2199.00000	27620	0	6
##	388	4206.00000	21760	4	17
##	389	1069.00000	23690	8	1
##	390	8331.00000	15250	4	1
##	391	5141.00000	7300	4	1
##	394	1479.00000	7920	9	8
##	396	1682.19453	17200	4	1
##	397	2664.00000	6900	0	13

##	399	6990.00000	13810	9	5
##	400	7055.00000	12820	0	1
##	401	1101.92771	15950	1	9
##	402	3440.00000	2270	5	5
##	405	3193.00000	12560	0	19
##	406	3764.00000	12700	0	13
##	407	3310.00000	5020	8	8
##	408	4704.00000	6390	3	1
##	412	1911.00000	17130	0	14
##	414	3348.00000	27140	1	9
##	415	9467.00000	15820	2	6
##	416	1729.00000	6720	3	1
##	417	2912.00000	8800	3	9
##	418	3107.00000	21690	6	8
##	419	159.15092	2690	0	1
##	421	3027.00000	6430	6	12
##	422	3766.00000	5600	2	6
##	423	1493.00000	8660	1	1
##	424	6407.00000	10800	3	1
##	425	377.91092	5840	4	12
##	426	3424.00000	6960	0	14
##	427	3731.00000	13140	6	7
##	428	3504.00000	11640	0	15
##	429	2531.00000	7880	5	1
##	431	2098.00000	17500	0	7
##	432	2275.00000	12730	2	8
##	433	616.00000	1500	6	1
##	434	13276.78963	11130	0	7
##	435	5320.00000	13220	4	8
##	436	4312.00000	13290	7	16
##	437	4127.00000	9170	8	7
##	438	7939.00000	7960	0	1
##	439	5359.00000	24690	0	1
##	440	2052.00000	19210	9	13
##	441	5818.00000	19120	0	1
##	442	4369.00000	27710	6	1
##	443	1691.00000	6300	5	1
##	444	13491.45602	8920	3	5
##	446	39687.38342	7530	0	5
##	447	3559.00000	6080	0	10
##	448	7123.00000	10710	2	6
##	449	32613.88277	15280	8	19
##	450	7135.00000	12610	5	11
##	451	6524.49467	7100	6	9
##	452	1290.00000	7960	0	12
##	453	3633.00000	9800	6	1
##	454	4266.00000	17380	0	4
##	455	1875.00000	5300	0	4
##	456	4739.00000	19900	3	6
##	457	20509.48481	17890	0	7
##	458	2786.00000	15340	0	12
##	459	312.64149	11940	2	14
##	460	4975.00000	4900	0	16
##	461	9540.00000	14920	2	11
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##	464	2855.00000	5300	0	8
##	466	3369.00000	3560	0	7
##	467	5816.45015	5500	4	10
##	468	3044.00000	1950	4	1
##	469	4147.00000	9730	5	1
##	471	3925.00000	27330	0	14
##	472	4373.00000	11580	4	12
##	473	706.00000	9290	0	10
##	474	16798.06260	13550	2	5
##	476	1338.00000	20800	0	5
##	477	2907.27364	10560	3	13
##	479	2166.00000	11640	0	1
##	480	707.00000	4500	1	5
##	481	774.30777	13920	2	10
##	482	6332.00000	10650	3	1
##	483	3554.00000	21460	1	6
##	484	3388.00000	5600	0	11
##	485	5146.00000	19400	3	16
##	486	5349.00000	6600	0	15
##	490	5836.00000	13440	8	1
##	491	3036.00000	12910	3	6
##	492	3110.00000	4100	6	8
##	493	5443.00000	19950	7	7
##	494	4847.00000	25510	1	15
##	496	3034.00000	1500	4	6
##	498	6685.40341	16720	8	10
##	499	1037.00000	11020	1	7
##	500	1990.00000	22070	0	1
##	501	6208.00000	9640	2	9
##	502	19351.62123	19820	0	7
##	503	4903.00000	25250	2	1
##	505	4296.00000	8560	5	3
##	506	2777.00000	11170	3	8
##	507	4298.00000	6700	0	11
##	509	5723.00000	7020	1	16
##	510	337.50470	19920	0	11
##	511	2257.00000	12340	3	4
##	512	2774.00000	6830	0	1
##	513	3997.00000	4200	3	1
##	516	9388.00000	5300	8	1
##	517	4229.00000	4780	2	6
##	518	5120.00000	10360	0	1
##	519	6767.00000	28870	3	25
##	520	3840.00000	22010	3	9
##	521	2527.00000	10260	9	1
##	522	19970.20510	37720	5	1
##	524	3291.00000	9780	0	8
##	525	4236.00000	5060	5	1
##	526	8107.42599	9990	2	1
##	528	5342.00000	27420	8	11
##	529	5488.00000	10060	5	7
##	530	5027.00000	9840	3	1
##	531	3673.65686	5700	9	1
##	532	3180.00000	17020	7	10

##	533	3439.00000	15500	7	12
##	534	5430.00000	3700	0	1
##	535	3736.00000	7500	4	1
##	537	4482.00000	13670	3	7
##	538	4278.00000	14860	0	9
##	539	5576.00000	9950	4	1
##	540	5692.00000	1500	0	7
##	542	3124.00000	6500	1	1
##	543	1187.00000	15220	1	8
##	544	294.68102	11880	4	12
##	545	1283.00000	19680	0	17
##	546	4550.00000	17360	8	1
##	549	7084.00000	17000	3	14
##	550	1131.34744	7310	4	1
##	551	4361.00000	18090	1	12
##	552	596.00000	20330	0	1
##	553	4446.00000	14070	1	7
##	554	2115.00000	17680	1	18
##	555	3007.00000	11510	5	1
##	556	3725.00000	20770	0	19
##	557	2551.23145	17850	5	7
##	558	1205.50322	4900	0	6
##	559	3748.00000	4000	8	8
##	560	4519.00000	14500	0	12
##	561	39728.79909	12100	8	7
##	562	18460.84596	6400	5	11
##	563	1760.00000	30790	1	17
##	564	3993.00000	11180	7	15
##	565	2660.00000	16400	0	1
##	567	2091.00000	10510	9	1
##	571	2635.00000	4900	0	9
##	573	3501.00000	8510	4	1
##	574	4056.00000	15820	0	1
##	577	4715.00000	6080	4	9
##	578	810.00000	16780	7	1
##	579	3776.00000	20410	3	8
##	580	2597.00000	19470	2	8
##	581	5453.00000	23000	6	18
##	583	2843.00000	12850	4	21
##	584	9117.00000	3770	2	10
##	586	5525.00000	25700	1	1
##	588	3161.00000	9710	2	13
##	589	5013.00000	8530	2	13
##	590	2519.00000	7410	4	11
##	592	10106.49119	20400	0	17
##				4	7
##	594 595	3207.00000 2489.00000	14340	1	
##			16940	4	17
	596 507	2736.88728	5500 5600	5	20
##	597	5387.00000	5600		11
##	598	6855.00000	8740	4	5 17
##	599	4314.00000	20840	0	17
##	601	531.00000	18070	3	9
##	602	23805.36724	25830	2	10
##	603	2360.00000	1500	1	15

##	604	6480.00000	29330	1	1
##	606	3857.00000	21750	0	17
##	607	2729.00000	20810	0	15
##	608	1076.00000	6580	0	1
##	610	6995.00000	37670	0	14
##	612	4896.00000	13390	0	17
##	613	2517.00000	14760	3	5
##	614	2513.00000	21200	4	1
##	615	4148.00000	16310	0	12
##	616	1441.00000	31210	4	1
##	617	5211.00000	1500	2	1
##	618	7801.00000	5700	2	12
##	621	3667.00000	21190	0	5
##	622	16677.67731	15310	2	7
##	623	5005.00000	14920	1	12
##	624	3005.00000	4600	0	1
##	626	6978.00000	15420	8	1
##	627	4933.00000	6200	0	1
##	628	2297.00000	41570	4	10
##	629	2665.00000	15890	3	5
##	630	502.00000	6600	0	1
##	631	4234.00000	24910	1	5
##	632	9136.23122	7230	4	9
##	634	3340.00000	28600	3	7
##	637	18323.28375	23250	2	6
##	638	978.35138	6600	0	1
##	639	6780.00000	9620	1	8
##	640	73783.46592	21460	0	7
##	641	3901.00000	10000	3	23
##	642	980.00000	4500	0	8
##	644	5301.00000	18910	3	9
##	645	7136.00000	7640	0	1
##	646	2574.00000	19300	4	13
##	647	4930.00000	11550	1	12
##	648	1030.00000	12550	0	1
##	649	8363.00000	10650	2	8
##	650	4979.00000	4800	5	1
##	651	50817.95900	9200	10	1
##	652	2877.00000	6190	7	1
##	653	5853.00000	13200	6	1
##	654	6035.00000	26180	0	1
##	655	6156.00000	12270	6	1
##	657	864.00000	5800	5	16
##	658	22284.57261	15990	2	6
##	659	2729.00000	1500	0	1
##	660	1254.00000	6790	0	7
##	661	6726.00000	22230	0	21
##	662	32058.98986	14350	0	16
##	663	2381.61365	9370	0	1
##	664	3636.00000	23420	4	1
##	665	5963.00000	5480	5	1
##	666	41076.86967	24920	6	11
##	667	4552.00000	21390	0	1
##	668	2545.00000	15960	0	14

## 669	4623.00000	15360	2	5
## 671	6542.00000	11700	6	8
## 672	3897.00000	10460	0	6
## 673	6113.00000	17290	6	5
## 675	7311.00000	24890	7	11
## 676	5396.00000	5100	0	13
## 677	4720.00000	25640	1	1
## 679	19866.58589	37550	2	14
## 680	3929.00000	24730	0	12
## 682	4307.00000	13030	0	6
## 684	8697.27518	15110	0	1
## 685	5143.00000	9390	0	1
## 686	2899.00000	23210	5	11
## 687	2827.00000	5920	3	6
## 689	4729.00000	8900	0	1
## 690	5583.00000	1500	4	1
## 692	6284.00000	11250	5	6
## 693	2524.00000	15750	0	7
## 694	5388.00000	6930	1	10
## 695	4364.00000	13760	5	5
## 696	5089.00000	1500	9	10
## 697	3262.00000	13460	3	5
## 698	5822.00000	17450	1	8
## 699	4506.00000	18240	1	1
## 700	3242.00000	15570	8	1
## 701	3246.00000	7130	3	1
## 703	3651.00000	20800	7	9
## 705	6145.00000	26980	3	3
## 706	6571.00000	26570	0	15
## 707	3667.00000	9610	8	1
## 708	12072.10156	11530	7	9
## 709	4909.00000	31540	2	1
## 711	3930.00000	23780	5	13
## 712	6597.00000	22000	2	7
## 713	2598.00000	5850	4	8
## 714	7407.00000	6000	6	1
## 715	2723.00000	24180	5	25
## 716	4517.00000	10730	2	14
## 717	4805.00000	8800	8	20
## 718	3146.00000	4850	4	1
## 719	1245.48315	1500	0	1
## 720	960.00000	5000	2	9
## 724	3329.00000	23590	0	19
## 725	4017.00000	26940	0	11
## 726	5982.00000	6900	2	1
## 727	3702.00000	5800	1	11
## 728	7261.41610	16080	8	1
## 729	9187.00000	19960	0	18
## 730	1333.00000	10490	5	11
## 731	6290.00000	48380	1	20
## 732	3237.00000	31000	0	14
## 734	2421.00000	12580	1	1
## 735	6857.00000	14310	5	18
## 738	1850.00000	21930	5	19

##	740	24493.91551	9840	1	12
##	741	856.00000	5600	2	10
##	742	9662.81552	27570	5	1
##	743	5837.00000	5370	1	9
##	744	1762.00000	23630	0	13
##	746	1630.00000	6410	1	1
##	747	5567.00000	6620	8	1
##	748	1834.00000	7060	6	6
##	749	2940.00000	6750	3	10
##	751	2002.00000	9800	0	9
##	752	3742.00000	6180	0	1
##	754	4281.00000	18150	1	10
##	755	29612.75086	10830	4	10
##	756	1431.00000	5990	0	1
##	757	2721.61227	7180	0	10
##	758	5509.00000	3320	0	7
##	760	18883.29619	34880	2	9
##	761	3183.00000	11010	3	6
##	762	4276.00000	26910	3	16
##	763	6050.00000	8580	4	7
##	764	1398.00000	14460	0	1
##	765	3225.00000	5760	11	10
##	766	6188.00000	4380	8	16
##	767	2132.00000	17790	0	1
##	769	3568.00000	13890	1	4
##	770	3501.00000	15350	0	1
##	771	2793.00000	18350	0	12
##	773	1748.00000	17280	4	18
##	775	754.96816	4500	0	8
##	777	1205.00000	30190	1	8
##	778	39672.19573	15120	8	1
##	782	44916.10740	19430	2	7
##	783	3158.00000	15050	1	2
##	784	1145.00000	6700	0	1
##	785	5064.00000	8030	0	11
##	786	2557.00000	16260	3	4
##	787	2473.58513	9720	0	13
##	788	4847.00000	27210	4	1
##	789	6325.12103	25430	0	8
##	790	4032.00000	32880	0	16
##	791	1870.00000	12780	5	10
##	792	2478.00000	22620	7	12
##	793	5250.00000	26010	0	7
##	794	5157.00000	14900	2	11
##	797	1858.00000	6640	2	8
##	798	2298.00000	3870	5	1
##	799	4390.00000	10800	4	4
##	800	6315.00000	6200	10	10
##	801	4905.00000	15480	5	14
##	802	2856.00000	11380	5	1
##	803	7865.00000	19810	1	8
##	804	1718.00000	20430	1	1
##	805	2357.00000	3640	7	1
##	806	5900.00000	11360	6	9

##	807	3642.00000	19880	0	13
##	809	3752.00000	21100	2	17
##	810	45987.12316	9540	0	7
##	811	878.00000	10550	0	16
##	812	7628.00000	11950	5	1
##	813	4036.00000	18250	1	9
##	814	5059.00000	9130	0	7
##	815	991.08188	5800	6	1
##	816	4080.00000	14620	0	8
##	817	2240.00000	12950	3	1
##	818	4104.00000	62240	0	14
##	820	4522.00000	12460	0	7
##	822	7205.00000	7390	2	6
##	823	2870.00000	14810	0	8
##	824	4447.00000	9470	0	11
##	825	1937.00000	11900	1	1
##	826	2040.00000	26620	6	1
##	827	6570.44729	8290	0	8
##	830	3040.00000	14870	2	9
##	831	2932.00000	22610	10	1
##	832	3531.00000	5100	0	12
##	833	3373.00000	24630	11	5
##	835	3604.00000	7800	1	15
##	836	4496.00000	16350	11	16
##	839	2956.00000	12140	0	1
##	840	2432.00000	12560	3	1
##	841	5899.00000	5800	0	1
##	842	2392.00000	10060	2	7
##	843	3127.00000	16970	0	9
##	844	868.00000	6570	0	1
##	845	2136.00000	4960	0	8
##	846	663.00000	15150	0	1
##	847	3361.00000	20110	0	1
##	848	2885.00000	12790	9	18
##	850	1026.00000	4210	5	5
##	852	1452.00000	5800	6	1
##	853	3318.00000	5340	3	1
##	855	8748.27882	14360	1	1
##	856	3535.00000	10510	7	12
##	857	1646.00000	5220	2	6
##	859	5457.00000	20280	7	9
##	860	6228.00000	15690	0	1
##	861	4685.00000	28000	1	6
##	862	539.35584	9290	0	1
##	863	4696.00000	11300	0	9
##	864	2355.00000	5700	0	8
##	865	3065.00000	6550	0	1
##	866	32203.36227	18050	5	1
##	867	1279.61288	11020	0	5
##	868	3007.00000	15570	7	7
##	869	4539.00000	23910	7	12
##	870	2727.00000	3950	0	9
##	871	7893.00000	6710	0	1
##	873	2078.00000	25850	0	10

##	874	6004.00000	17980	1	16
##	875	1901.00000	23350	0	10
##	877	843.00000	18330	0	9
##	878	1294.00000	15860	2	1
##	881	6889.00000	16320	1	8
##	882	4193.00000	20360	0	16
##	884	6409.00000	16420	0	10
##	886	2986.00000	21480	0	17
##	887	1698.00000	34310	0	12
##	888	6393.00000	16480	7	1
##	889	3159.00000	18500	4	11
##	890	5236.00000	8090	7	1
##	891	5686.00000	13540	4	20
##	893	4045.00000	12280	0	10
##	894	13351.89444	7760	5	11
##	895	2944.00000	34450	0	1
##	896	1022.46120	16150	7	6
##	897	6074.00000	9050	7	6
##	898	2421.00000	17700	0	12
##	899	2890.00000	10850	0	8
##	900	1941.00000	16980	1	1
##	902	4049.00000	6400	0	1
##	903	4767.00000	23810	10	8
##	904	6836.25699	6600	1	1
##	905	3762.00000	1500	0	16
##	906	7783.00000	9960	0	7
##	907	3090.00000	10190	1	8
##	908	2585.00000	7250	1	6
##	909	5063.00000	24020	0	15
##	910	5865.00000	16500	0	6
##	911	7746.00000	6000	8	7
##	912	3794.00000	14520	0	6
##	913	5074.00000	21020	0	1
##	914	4019.00000	11960	1	17
##	918	2370.00000	4120	1	6
##	919	2979.00000	6360	0	5
##	920	599.00000	6970	0	5
##	921	4582.00000	14880	0	1
##	922	4790.00000	9330	1	1
##	923	2375.00000	31040	4	1
##	924	4580.00000	9270	0	10
##	925	3887.00000	12510	6	1
##	926	6603.00000	18150	5	1
##	928	19013.39803	18270	2	6
##	929	3918.00000	14330	4	13
##	931	5184.00000	10930	0	1
##	933	6651.00000	11940	3	4
##	934	3968.00000	11760	7	16
##	935	8927.00000	5800	9	6
##	936	4579.00000	6420	1	1
##	937	2091.00000	3030	0	1
##	938	5613.00000	11210	1	6
##	939	196.14682	14990	3	1
##	942	3231.00000	57970	5	12
##	J42	0201.00000	51310	S	12

##	943	3428.48499	2440	0	1
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##	945	4078.00000	10440	0	8
##	946	4308.00000	8260	2	1
##	948	1222.00000	8450	0	5
##	949	6767.00000	11060	1	1
##	951	2493.00000	4300	0	13
##	952	698.00000	7350	4	1
##	954	3674.00000	17290	3	18
##	956	8609.00000	17740	8	9
##	957	5200.00000	11990	3	10
##	958	2118.00000	21180	2	18
##	959	5722.00000	2670	0	8
##	960	2419.00000	21300	0	1
##	962	2703.00000	12760	2	8
##	964	4452.00000	9540	3	1
##	966	4171.00000	12070	9	8
##	967	1204.00000	25530	1	5
##	969	3278.00000	20100	2	10
##	971	4995.00000	30390	2	12
##	972	6435.00000	11840	7	11
##	973	3279.00000	32040	2	1
##	975	7803.00000	1500	3	11
##	976	5336.00000	10090	6	6
##	977	2251.00000	9390	1	15
##	978	3819.00000	10930	3	8
##	979	3705.00000	20260	0	10
##	980	4408.00000	12200	7	12
##	981	3334.00000	27120	0	10
##	982	3886.00000	5200	5	1
##	983	2936.00000	18080	0	1
##	984	5544.00000	14770	0	1
##	985	32363.24175	15980	0	15
##	987	5704.00000	15190	3	19
##	988	5759.66825	20710	0	1
##	989	2096.00000	17940	0	1
##	990	2550.00000	6410	3	1
##	991	5470.00000	17450	0	1
##	992	6932.00000	9980	2	8
##	994	26672.64503	10410	7	7
##	996	2292.00000	5200	0	1
##	998	3640.00000	15110	0	9
##	1000	4037.00000	15330	3	7
##	1001	3236.00000	13120	1	6
##	1002	2998.00000	8270	6	8
##	1003	5126.00000	5700	3	1
##	1005	6031.00000	14080	0	1
##	1006	1704.00000	24120	0	8
##	1008	1798.00000	7200	1	1
##	1009	2829.00000	13490	1 0	8
## ##	1010	3121.00000 7045.00000	3790 28740	4	20 12
##	1011 1012	8116.00000	28740 7300	0	7
##	1012	5075.00000	1500	0	7
##	1013	3073.00000	1300	U	'

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##	1014	4822.00000	5930	2	5
##	1015	4855.41333	18540	2	10
##	1016	3011.00000	1500	2	8
##	1017	3118.00000	23370	2	10
##	1018	1298.86852	11060	5	6
##	1019	6409.00000	25280	0	11
##	1021	5295.00000	6500	3	1
##	1022	4704.00000	25760	2	12
##	1023	5190.00000	5400	1	10
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##	1026	943.00000	12580	0	15
##	1027	2575.00000	10780	5	10
##	1028	2646.00000	21430	4	9
##	1029	2194.00000	7720	4	9
##	1031	6005.00000	6720	2	9
##	1032	5108.00000	6000	0	1
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##	1034	1326.00000	19090	0	1
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##	1036	6804.00000	4600	5	7
##	1037	4984.00000	11560	1	7
##	1038	956.00000	4010	2	1
##	1039	6279.73577	5740	4	12
##	1040	4978.00000	11760	6	1
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##	1043	2356.00000	10460	3	18
##	1044	20126.42713	20830	2	10
##	1045	7204.00000	6200	0	5
##	1046	5728.00000	9260	8	17
##	1047	2199.00000	2670	0	9
##	1051	966.00000	29540	9	11
##	1052	4666.00000	5680	7	8
##	1053	1402.00000	8200	0	10
##	1054	926.00000	14660	1	10
##	1056	3590.00000	26860	7	1
##	1058	5377.00000	28840	0	13
##	1060	6281.00000	31380	1	19
##	1061	1036.00000	10350	0	10
##	1062	1833.00000	8450	0	1
##	1064	7799.64589	7860	4	6
##	1065	4388.00000	14260	0	5
##	1066	7961.00000	14650	4	14
##	1067	4298.00000	27770	5	11
##	1068	41063.38679	21860	0	6
##	1069	12338.37662	19460	6	13
##	1070	6296.00000	10680	0	14
##	1071	4898.26307	5590	0	15
##	1072	5454.00000	6400	0	15
##	1073	2649.00000	13190	2	19
##	1073	1668.00000	4600	6	14
##					
	1075	6595.00000	17310	0	16
##	1076	5685.00000	9500	3	7
##	1077	2546.00000	5100	4	1
##	1078	1148.00000	23170	0	1

	4070	1017 00000	05500	-	
##	1079	1947.00000	25590	5	11
##	1080	2490.00000	17190	1	1
##	1081	4181.00000	4800	1	6
##	1082	1444.00000	16920	7	5
##	1083	5453.00000	25310	2	1
##	1084	3270.00000	10180	0	9
##	1085	3613.00000	14550	0	1
##	1086	1414.00000	12760	2	1
##	1087	4400.00000	10570	4	9
##	1088	5782.00000	15480	0	12
##	1089	3989.00000	19540	2	15
##	1090	1428.00000	13760	0	8
##	1092	45985.40992	24280	5	1
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##	1093	1401.00000	45360	0	
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##	1097	1746.00000	24670	2	1
##	1098	17424.77210	35270	0	15
##	1099	3367.00000	17020	0	18
##	1102	3776.00000	17270	4	17
##	1103	3763.00000	16360	3	1
##	1104	5413.00000	11450	3	13
##	1105	3246.00000	9200	2	1
##	1106	4618.00000	8420	2	6
##	1107	3666.00000	23570	3	17
##	1108	3845.00000	25240	2	14
##	1109	2707.00000	8460	7	7
##	1110	7981.00000	6500	5	12
##	1111	2190.00000	8830	3	10
##	1113	4286.00000	14200	7	
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##	1114	5499.00000	8770	4	8
##	1115	4433.00000	8630	1	1
##	1116	5160.00000	35520	6	1
##	1117	2651.00000	1500	11	10
##	1118	2418.00000	18510	0	8
##	1119	2080.00000	5560	0	1
##	1120	4618.00000	11100	3	1
##	1121	4966.00000	12720	0	4
##	1122	4120.00000	5510	3	1
##	1123	3213.00000	36330	0	1
##	1124	3896.00000	5600	4	1
##	1125	1834.00000	10900	0	9
##	1128	3975.00000	17570	6	16
##	1130	6761.23855	23450	2	14
##	1133	5201.05495	5160	4	11
##	1136	23910.11630	15990	4	17
##	1137	60846.53042	32430	9	9
##	1139	6799.00000	9200	4	1
##	1141	3068.91466	9370	0	1
##	1141	26243.50780	36330	1	1
##	1144	6471.00000	17840	1	1
##	1145	830.00000	12510	1	16
##	1146	4907.00000	24870	3	13

##	1147	5165.00000	22230	4	5
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##	1149	3542.00000	16450	3	
##	1150	6425.00000	4090	0	1
##	1151	1896.00000	14830	0	13
##	1152	980.00000	13680	5	1
##	1153	3421.00000	1500	3	7
##	1154	1639.00000	1500	6	17
##	1155	754.51718	6450	0	7
##	1156	1550.00000	6200	4	1
##	1157	6050.00000	12470	0	7
##	1158	1213.00000	10580	3	10
##	1160	2851.00000	9560	3	1
##	1161	2389.00000	10490	5	11
##	1163	3930.00000	13730	5	1
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##	1166	6519.00000	15260	2	1
##	1167	6835.00000	5570	3	9
##	1170	5863.00000	8980	0	6
##	1174	4904.00000	18530	0	1
##	1176	2901.00000	30690	0	19
##	1178	4435.00000	17740	8	1
##	1179	5812.00000	12320	0	1
##	1180	3561.00000	15470	5	1
##	1181	7028.00000	19030	0	18
##	1182	4155.00000	34610	1	8
##	1183	744.00000	22780	0	1
##	1184	5548.00000	21600	4	5
##	1186	1781.00000	14680	1	18
##	1187	3556.00000	7460	9	1
##	1189	5349.00000	28770	0	18
##	1190	1710.00000	10940	0	12
##	1191	865.00000	8610	8	3
##	1192	1942.00000	9480	1	1
##	1193	4538.00000	20120	1	7
##	1197	5089.00000	11480	1	1
##	1199	5871.00000	5450	0	1
##	1203	1361.23722	26290	0	12
##	1204	16652.05905	28370	3	1
##	1205	1050.00000	14050	4	1
##	1206	27521.49698	11590	3	1
##	1208	8446.00000	4580	1	9
##	1200	1803.93931	6240	1	6
##	1211	2986.00000	1500	0	1
##	1212	5791.00000	18150	0	17
##	1213	6022.00000	9040	0	11
##	1213	9058.56809	7950	3	6
##				0	
##	1215	3591.00000	17350	3	16
	1216	13720.42520	8140		1
##	1217	2667.00000	27530	0	14
##	1218	20263.71504	9070	2	1
##	1220	1745.00000	8540	2	1
##	1221	6639.00000	9200	1	9
##	1222	5984.00000	8290	7	1

##	1224	1906.59540	7200	1	8
##	1225	4259.00000	4600	0	5
##	1227	2288.00000	9780	0	8
##	1228	4018.00000	2930	4	1
##	1229	4746.00000	18600	4	8
##	1230	4326.00000	5000	0	1
##	1231	6346.00000	24300	3	7
##	1232	2908.00000	43280	0	18
##	1233	6389.00000	12250	0	8
##	1234	3615.00000	7750	0	1
##	1235	5301.00000	13360	0	1
##	1236	3595.00000	8670	0	1
##	1237	3116.00000	10220	0	6
##	1238	5557.86777	8940	2	7
##	1239	5238.00000	18770	0	8
##	1242	1929.00000	5200	4	10
##	1243	3312.00000	10070	6	14
##	1245	4348.00000	22810	0	11
##	1246	3931.00000	16540	1	1
##	1247	3397.00000	15360	7	1
##	1248	7481.00000	4320	0	5
##	1249	3666.54195	7000	7	1
##	1250	8615.00000	5600	4	18
##	1251	8195.49836	8570	4	9
##	1253	4090.00000	25580	6	18
##	1255	1381.00000	7590	3	7
##	1257	10957.50430	12190	4	8
##	1258	2007.00000	9690	6	1
##	1259	2487.00000	19130	1	12
##	1260	12023.80239	12850	0	12
##	1261	5212.00000	6800	2	1
##	1262	1869.00000	6400	7	1
##	1263	731.30384	1500	2	7
##	1264	4042.00000	5800	0	1
##	1265	5441.00000	12800	3	8
##	1266	6415.00000	7470	3	13
##	1268	8351.00000	15030	0	12
##	1269	1221.00000	6000	1	11
##	1270	3419.00000	4600	0	6
##	1271	3547.91929	13320	1	17
##	1272	3393.00000	11840	3	11
##	1273	1791.39446	9150	4	1
##	1275	2763.00000	10890	2	11
##	1276	6162.00000	13810	0	15
##	1277	7531.00000	6000	4	21
##	1278	7563.00000	11780	4	7
##	1279	2188.00000	5200	0	8
##	1280	4435.00000	30200	0	17
##	1282	7008.00000	7380	5	10
##	1283	4804.00000	16070	3	1
##	1286	4876.00000	6100	4	1
##	1288	3172.00000	13140	9	1
##	1289	15018.70253	10840	2	8
##	1290	6059.00000	8150	2	1

##	1291	1519.08385	5300	0	1
##	1293	1911.00000	8820	2	9
##	1294	1756.00000	6780	5	7
##	1295	3128.00000	18790	2	7
##	1296	5761.00000	34380	2	14
##	1297	5386.00000	8380	1	1
##	1298	2051.00000	11440	0	8
##	1299	6612.00000	7600	0	19
##	1300	5724.00000	3750	11	1
##	1301	9945.00000	13870	4	12
##	1304	6914.00000	3830	0	12
##	1305	2559.00000	6000	3	10
##	1307	4037.00000	13570	0	14
##	1308	5216.14418	10450	2	5
##	1309	3737.00000	26580	0	1
##	1311	3351.00000	12140	2	7
##	1313	4420.00000	15280	2	3
##	1314	2829.00000	8160	4	5
##	1315	2778.00000	15070	2	9
##	1317	4487.00000	11520	1	9
##	1318	4575.00000	8700	0	1
##	1319	8199.00000	10060	0	5
##	1320	7108.00000	6000	6	15
##	1321	4274.00000	25120	2	1
##	1322	2953.00000	5900	7	7
##	1323	5499.00000	5400	4	6
##	1324	5626.00000	16370	1	7
##	1325	2217.00000	29900	0	9
##	1327	3585.00000	5900	1	1
##	1328	5800.00000	26440	0	18
##	1330	4790.00000	10330	2	1
##	1332	1315.00000	7350	2	7
##	1333	2365.00000	15050	0	1
##	1335	2149.00000	2750	1	10
##	1336	3527.00000	12170	7	8
##	1337	3620.00000	1500	9	8
##	1338	5563.00000	21380	0	8
##	1339	4212.00000	26020	5	5
##	1340	6405.00000	16850	4	1
##	1341	2663.00000	1500	0	1
##	1343	2546.00000	8770	11	14
##	1344	1125.00000	42170	0	8
##	1345	5423.00000	23330	0	16
##	1346	2394.00000	10890	0	9
##	1350	7369.00000	18560	0	10
##	1352	11212.86862	9420	1	4
##	1353	6880.00000	23950	0	4
##	1354	4287.00000	18300	7	1
##	1357	56399.75387	9760	0	1
##	1359	10689.69917	20720	0	6
##	1360	934.00000	37810	0	9
##	1361	1841.00000	18270	3	1
##	1362	5324.00000	25090	1	7
##	1363	4913.00000	9750	7	1
ir <del>iT</del>	1000	1010.0000	5100	'	1

##	1364	4495.00000	13950	0	11
##	1365	8549.80774	11210	4	8
##	1366	3423.00000	3350	3	14
##	1368	3459.00000	44250	8	11
##	1370	5769.00000	5850	0	1
##	1371	4392.00000	19380	0	7
##	1372	5834.00000	18110	7	16
##	1373	4771.00000	17540	0	9
##	1375	5374.00000	18900	8	11
##	1376	1151.00000	19620	0	15
##	1378	10215.07225	20210	2	6
##	1379	470.51606	5730	5	5
##	1380	2059.00000	13850	3	6
##	1381	2422.00000	10170	3	13
##	1384	1436.16761	13020	4	6
##	1385	936.59089	14060	3	9
##	1386	5692.00000	11160	9	14
##	1387	4172.00000	18790	0	15
##	1390	2439.00000	19240	9	10
##	1391	3726.00000	15500	5	1
##	1392	40941.34905	12200	0	1
##	1393	4262.00000	16790	7	19
##	1394	5399.00000	26630	1	15
##	1396	5908.00000	21670	0	10
##	1399	7539.00000	1500	7	9
##	1400	2027.00000	12960	0	10
##	1401	5143.00000	14210	0	6
##	1402	3509.00000	44130	4	1
##	1403	3488.00000	23380	4	19
##	1404	1973.00000	15380	3	14
##	1405	2318.00000	16730	4	15
##	1406	4322.00000	9720	0	1
##	1407	2323.00000	13540	5	10
##	1409	3327.00000	2070	1	1
##	1410	4578.00000	12350	0	1
##	1411	3682.00000	6300	2	12
##	1412	1324.00000	3680	0	8
##	1414	2489.00000	22060	0	10
##	1415	5901.00000	24660	0	8
##	1416	2437.00000	16880	0	12
##	1417	1475.00000	18710	0	15
##	1418	1379.00000	6000	4	8
##	1419	2590.00000	6440	0	1
##	1421	6481.00000	12510	2	3
##	1422	5431.00000	7780	0	20
##	1423	7476.00000	11670	3	18
##	1424	3467.00000	26480	0	17
##	1426	2988.00000	15370	4	6
##	1427	3662.00000	26710	0	7
##	1428	2299.00000	10150	4	3
##	1429	2518.00000	8190	6	3
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##	1431	4758.00000	6300	4	9
##	1433	16852.81492	24010	5	1

##	1434	5428.00000	7100	0	7
##	1435		5120	0	8
##	1436	2391.00000	12980	4	10
##	1437	4538.00000	10970	2	6
##	1438	5725.00000	40100	2	4
##	1439	2483.00000	20140	7	8
##	1440	807.00000	7020	2	15
##	1441	5400.00000	14030	1	10
##	1442	3125.00000	5720	0	6
##	1443	5689.00000	16450	2	16
##	1444	2927.00000	7940	4	9
##	1445	4506.00000	19680	2	16
##	1446	3317.00000	5100	2	1
##	1447	5322.00000	22160	4	18
##	1449	3321.00000	5500	0	10
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##	1453	4367.00000	6900	3	1
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##	1456	2964.00000	22460	7	10
##	1457	3396.00000	22420	1	8
##	1458	3745.00000	23360	3	7
##	1459	4910.00000	13930	5	10
##	1460	2444.00000	9360	7	7
##	1461	38377.59329	17280	5	7
##	1462	4740.00000	35500	2	1
##	1463	1153.00000	11100	3	17
##	1464	2639.27718	6300	2	20
##	1466	4485.00000	10760	3	7
##	1467	3231.00000	12370	1	1
##	1468	5434.00000	16710	0	1
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##	1470	2462.00000	7600	5	14
##	1471	594.00000	17890	0	13
##	1472	714.00000	3980	0	6
##	1473	1107.00000	20580	3	17
##	1474	3698.00000	18510	2	9
##	1476	8671.00000	5800	2	1
	1478	3824.00000	19840	8	1
##	1479	8622.52238	16380	6	1
##	1480	5097.00000	30390	0	10
##	1481	7111.00000	22780	5	1
##	1482	4290.00000	15020	6	14
##	1483	4666.00000	21070	0	8
##	1484	2996.00000	22480	5	1
##	1485	7442.00000	9210	0	1
##	1486	1741.31306	22440	3	17
				2	1
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##	1488	1972.00000		2	
##	1490	4390.00000	8090		8
##	1491	3642.59730	19390	2	1
##	1492	1264.00000	37070	1	11
##	1493	3141.00000	12570	0	9
##	1494	1511.00000	24900	1	11
##	1495	2641.00000	6300	7	12

##	1496	4448.00000	14330	0	1
##	1497	4906.00000	7730	5	13
##	1499	5072.00000	10530	1	5
##	1500	6978.00000	16400	3	15
##	1501	6663.00000	10880	2	1
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##	1502	1710.00000	13160	4	11
##	1503	23153.74321	10140	0	10
##	1504	5662.00000	5700	5	
##	1505	19469.93920	8370	6	9
##	1507	8861.00000		0	7
	1507		5900		
##		5300.00000	5200	6	13
##	1509	5063.00000	9390	4	3
##	1510	1643.00000	20520	2	17
##	1513	6961.00000	4800	0	6
##	1514	2745.52746	11550	2	7
##	1515	5065.00000	17860	1	19
##	1516	3350.00000	23340	8	1
##	1517	3089.00000	19620	2	8
##	1518	4691.00000	31440	0	1
##	1519	11802.32721	23710	2	15
##	1520	18773.59794	8720	0	14
##	1521	3238.00000	8080	0	9
##	1522	2106.00000	36350	3	16
##	1524	2668.00000	14990	0	1
##	1526	5453.00000	9580	0	16
##	1527	5951.00000	15810	0	1
##	1528	677.00000	15770	0	1
##	1529	1897.00000	5300	4	5
##	1531	1737.00000	6100	3	1
##	1533	2144.00000	8770	4	1
##	1535	6491.03417	7770	1	1
##	1536	49179.54942	12710	6	1
##	1537	6607.00000	24680	2	1
##	1539	4363.00000	22950	6	11
##	1540	3281.00000	8410	3	10
##	1542	2746.00000	14990	5	9
##	1543	959.71469	4900	3	9
##	1544	2468.00000	17560	5	7
##	1545	1856.00000	8130	10	1
##	1547	7145.00000	6100	0	5
##	1548	5126.00000	12120	8	5
##	1550	1696.00000	30260	3	8
##	1551	5102.00000	18820	0	13
##	1552	58851.06776	23520	4	11
##	1553	6261.00000	33760	7	9
##	1555	3022.00000	13780	0	22
##	1556	2819.00000	13400	1	12
##	1557	721.00000	26900	3	1
##	1558	7491.00000	8860	9	11
##	1559	7199.00000	31000	5	1
##	1560	4477.00000	6500	0	1
##	1561	1700.00000	14320	5	5
##	1562	4386.15265	3790	4	5
пт	1002	1000.10200	5150	-	J

##	1563	3549.00000	5500	1	1
##	1564	1137.00000	5200	1	16
##	1565	4623.00000	16220	2	10
##	1566	5082.00000	11730	9	1
##	1567	3982.00000	38200	4	12
##	1568	4878.00000	23320	0	3
##	1569	2121.00000	16050	4	20
##	1570	3857.00000	10550	7	1
##	1571	6850.00000	10960	1	7
##	1572	2285.00000	20540	3	15
##	1573	779.00000	11160	2	7
##	1574	9605.00000	10340	3	6
##	1576	3667.00000	14640	0	9
##	1577	8138.00000	31810	0	1
##	1578	5759.00000	7670	5	9
##	1579	5831.00000	16560	3	12
##	1580	4136.00000	17750	0	1
##	1582	12632.53983	8090	6	16
##	1584	4797.00000	10860	4	6
##	1585	1750.84161	25950	8	7
##	1586	840.00000	15270	7	18
##	1587	3658.80927	11780	3	8
##	1588	3425.00000	31500	3	10
##	1589	19807.30657	19240	4	1
##	1591	4093.00000	28190	1	11
##	1592	9769.45179	4900	7	6
##	1594	31857.74367	23970	5	8
##	1595	1875.00000	4630	0	4
##	1596	3226.00000	11010	0	12
##	1597	1139.00000	8260	1	5
##	1601	5337.95374	9070	3	8
##	1602	2576.00000	6460	1	16
##	1603	1985.00000	34920	0	1
##	1604	4130.00000	17200	6	1
##	1605	4665.00000	26530	8	8
##	1606	3381.00000	11230	2	10
##	1608	3543.52461	8270	0	1
##	1609	2573.00000	19120	3	1
##	1610	2124.00000	14690	6	19
##	1611	1651.00000	15220	0	1
##	1612	2849.00000	8350	0	1
##	1613	3335.00000	11960	3	1
##	1614	5323.00000	17140	5	1
##	1616	4857.00000	10100	4	3
##	1617	7843.00000	19010	5	1
##	1618	3883.00000	4900	0	6
##	1619	942.00000	7620	11	1
##	1620	2535.00000	12040	0	6
##	1621	3505.00000	22960	0	1
##	1622	2939.00000	8920	0	17
##	1624	1157.82422	13650	0	1
##	1625	4614.00000	9670	0	5
##	1626	3392.00000	10830	1	1
##	1627	7345.00000	9460	1	1

##	1628	14811.09801	10830	0	13
##	1629	5005.00000	4740	0	6
##	1630	3833.40491	20260	4	1
##	1631	4081.00000	9490	0	17
##	1632	4783.00000	19030	0	7
##	1633	5273.00000	13140	0	4
##	1634	3012.00000	7280	2	6
##	1635	2972.00000	15100	4	8
##	1636	7802.00000	13810	0	1
##	1637	4771.00000	14910	0	13
##	1638	4847.67931	17430	4	7
##	1639	53796.19548	18690	1	1
##	1640	4927.00000	5530	6	9
##	1641	3758.00000	5320	0	6
##	1643	3455.00000	8760	1	10
##	1644	4536.00000	17400	3	7
##	1645	5282.00000	8350	0	1
##	1647	6503.00000	6950	1	4
##	1648	3161.00000	17630	2	9
##	1649	1592.00000	13340	0	9
##	1651	4340.00000	17160	0	6
##	1652	5618.00000	7040	1	1
##	1654	1538.00000	11930	6	9
##	1655	6693.00000	39540	6	8
##	1656	3490.00000	4300	0	6
##	1657	4363.00000	23610	9	16
##	1658	2922.00000	7410	8	1
##	1659	3970.00000	16700	5	1
##	1660	4953.00000	12310	0	10
##	1661	4735.00000	6400	4	7
##	1662	7640.00000	8000	4	10
##	1663	1453.00000	4200	2	6
##	1665	2313.00000	29700	0	8
##	1666	3969.00000	26520	1	16
##	1667	829.69939	10280	4	7
##	1668	5109.00000	7210	2	12
##	1669	6023.00000	7320	1	7
##	1670	4249.00000	24710	3	13
##	1671	27711.37341	14080	2	8
##	1672	4993.00000	23110	2	1
##	1673	4004.00000	18080	4	14
##	1674	6907.00000	6730	0	10
##	1675	3966.00000	16670	0	9
##	1676	7765.00000	23120	1	6
##	1677	4308.00000	9530	4	3
##	1678	31356.85205	22930	7	1
##	1679	4681.00000	16410	0	1
##	1680	6001.00000	17270	2	1
##	1681	4953.00000	14000	1	9
##	1682	6190.00000	12160	3	9
##	1683	7776.00000	13390	0	8
##	1684	1322.13553	23260	2	1
##	1685	692.00000	9360	0	6
##	1687	4903.00000	12710	1	1

##	1688	6250.00000	32020	0	15
##	1690	706.00000	24600	1	1
##	1691	7840.84683	5470	0	1
##	1693	3432.00000	5500	1	11
##	1695	1853.00000	18490	0	7
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##	1697	8284.00000	7520	0	12
##	1698	6221.58373	18060	4	14
##	1699	4753.00000	26370	7	9
##	1700	2327.00000	1500	4	5
##	1701	6001.00000	20520	6	12
##	1702	7505.11955	5800	3	4
##	1703	4301.00000	8310	0	6
##	1704	6088.22121	9830	0	1
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##	1706	3822.00000	24180	0	10
##	1707	8067.00000	6710	0	11
##	1708	1232.00000	23020	2	1
##	1710	3331.00000	26310	1	17
##	1711	2524.00000	10320	2	20
##	1712	5610.00000	10310	5	12
##	1713	7862.00000	5950	3	1
##	1714	7833.00000	11220	5	19
##	1715	3682.00000	24770	0	1
##	1716	867.00000	1500	0	1
##	1717	7027.00000	14860	4	1
##	1718	3350.00000	26350	4	5
##	1719	2012.00000	19710	0	7
##	1720	1683.00000	21990	3	1
##	1721	6424.00000	8130	0	7
##	1722	5555.00000	4500	3	8
##	1723	8584.00000	6200	2	1
##	1725	9249.07661	11530	2	9
##	1727	4395.00000	22110	3	19
##	1728	4043.00000	33550	0	7
##	1729	4321.00000	31510	4	1
##	1731	8696.00000	9340	4	7
##	1732	5648.00000	15570	0	9
##	1733	3720.00000	19860	0	11
##	1735	6611.00000	6100	5	12
##	1737	3760.00000	24380	0	11
##	1738	2075.00000	28800	4	12
##	1740	4220.00000	21380	7	7
##	1741	4370.00000	6600	6	1
##	1742	5391.00000	20610	2	8
##	1744	9235.00000	8760	9	1
##	1745	4541.00000	26880	0	12
##	1747	4743.00000	5400	6	6
##	1748	3049.69507	14410	3	7
##	1749	30.27728	7300	0	8
##	1750	6049.00000	6050	6	5
##	1752	2200.00000	11860	0	1
##	1753	8139.00000	17650	3	1
##	1754	1467.00000	16850	1	9

##	1755	6499.00000	10390	1	13
##	1756	8220.27012	9610	5	1
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##	1758	1483.00000	13880	2	13
##	1759	686.00000	13240	4	1
##	1760	5429.00000	10230	2	1
##	1763	38223.48385	5670	2	19
##	1768	3498.00000	38900	3	1
##	1769	5358.00000	10490	0	8
##	1771	3351.00000	11460	3	10
##	1772	5354.00000	4200	6	6
##	1773	3336.00000	5200	2	8
##	1774	5179.00000	7700	2	10
##	1775	2985.00000	29850	3	1
##	1776	18139.39344	12040	3	1
##	1777	4284.00000	16230	0	1
##	1778	4066.00000	10110	2	1
##	1781	2611.00000	23790	0	1
##	1782	2277.00000	8110	5	6
##	1783	2380.00000	6200	2	9
##	1785	3280.00000	8620	5	9
##	1786	5273.00000	33110	0	4
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##	1788	3829.00000	8330	0	7
##	1789	34639.84670	24370	0	11
##	1790	1807.00000	6850	4	7
##	1791	8363.00000	38290	1	18
##	1792	3033.00000	22330	3	1
##	1793	8633.00000	15700	2	19
##	1794	9543.00000	9310	0	14
##	1795	1537.76698	13540	4	1
##	1796	3518.00000	5820	2	8
##	1797	5153.00000	10750	4	8
##	1799	4934.00000	18850	1	1
##	1800	4102.00000	5620	0	1
##	1801	15871.25278	6210	0	8
##	1804	5161.00000	15870	6	1
##	1805	3374.00000	1500	3	1
##	1806	3404.00000	9200	5	1
##	1810	2349.00000	10410	3	19
##	1811	5632.00000	26220	4	1
##	1813	4460.00000	14560	3	9
##	1814	3851.00000	4100	3	17
##	1815	2344.00000	1500	0	5
##	1816	6203.00000	1500	6	7
##	1817	3311.00000	17350	7	5
##	1818	2724.00000	17650	3	1
##	1819	1107.00000	10040	0	7
##	1821	1373.00000	2590	1	9
##				3	
##	1823	4117.00000	41440	2	13
##	1824	2582.00000	9090	0	1
##	1825	3853.00000	21920		10 -3
	1826	1469.00000	15390	1	
##	1827	5329.00000	21680	3	10

## 1828 3979.00000 27240 0 7 ## 1830 5159.00000 23830 0 1 ## 1831 726.00000 8620 5 1 ## 1833 6293.00000 8330 2 1 ## 1834 2103.00000 10050 0 1 ## 1835 4232.00000 18180 0 7 ## 1840 4185.00000 6220 1 1 ## 1840 4185.00000 6220 1 1 ## 1844 4405.22080 5430 6 1 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 8390 3 9 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 1 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 88 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 62700 1 1 ## 1855 3964.00000 25040 1 1 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 15770 2 15 ## 1861 3492.00000 15770 2 15 ## 1862 4442.00000 15770 2 15 ## 1863 2907.00000 8390 3 2 ## 1864 7635.00000 6700 2 1 ## 1859 615.00000 6700 2 1 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 15850 3 9 ## 1861 2492.00000 16020 5 1 ## 1862 2492.00000 16020 5 1 ## 1863 2907.00000 16020 5 1 ## 1864 7635.00000 15770 2 15 ## 1865 3442.00000 16020 5 1 ## 1867 57900000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1869 2413.00000 22050 1 4 ## 1869 2413.00000 22050 1 1 ## 1869 2413.00000 26700 2 1 ## 1869 2413.00000 26700 0 1 ## 1870 6730.00000 3930 4 10 ## 1870 6730.00000 3930 4 10 ## 1871 554.00000 6900 7 ## 1871 554.00000 6900 7 ## 1871 554.00000 6900 7 ## 1871 554.00000 6900 7 ## 1871 6730.00000 16140 0 13 ## 1872 4515.00000 16020 5 1 ## 1872 4515.00000 16020 5 1 ## 1873 554.00000 2670 0 1 ## 1874 1875 554.00000 2670 0 1 ## 1875 554.00000 16020 5 1 ## 1871 554.00000 16020 5 1 ## 1872 4515.00000 16020 670 0 1 ## 1872 4515.00000 16020 5 1 ## 1873 5100.00000 3930 4 10 ## 1874 5755.00000 16020 7 6 ## 1875 554.00000 16020 7 6 ## 1878 5140.00000 16020 7 6 ## 1879 5540.0000 16020 7 6 ## 1879 5750.00000 16020 7 6 ## 1870 5750.00000 16020 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 1872 4515.00000 16020 7 7 6 ## 1871 187						
## 1831	##	1828	3979.00000	27240	0	7
## 1832 64181.71033 17480 1 1 1	##	1830	5159.00000	23830	0	1
## 1833 6293.00000 8330 2 1 ## 1834 2103.00000 10050 0 1 ## 1835 4232.00000 18180 0 7 ## 1839 2977.00000 4680 3 1 ## 1840 4185.00000 21880 1 7 ## 1841 4405.22080 5430 6 1 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 6200 0 17 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 25040 1 1 ## 1855 3964.00000 25040 1 1 ## 1858 77907.43028 17700 0 6 ## 1868 2492.00000 18550 3 9 ## 1868 3492.00000 18550 3 9 ## 1868 3492.00000 15100 1 1 ## 1868 3492.00000 1530 9 11 ## 1869 2413.00000 22560 1 1 ## 1869 2413.00000 25600 1 1 ## 1870 6730.00000 16020 5 1 ## 1871 1779.00000 16020 5 1 ## 1885 3964.0000 22050 1 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 22560 1 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 25040 1 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1868 3492.00000 16020 5 1 ## 1888 5440.00000 25600 2 10 ## 1871 1779.00000 16020 5 1 ## 1888 5440.0000 25600 2 10 ## 1871 1779.00000 16020 5 1 ## 1889 3917.00000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.0000 16000 7 6 ## 1889 5440.	##	1831	726.00000	8620	5	1
## 1834 2103.00000 10050 0 1 ## 1835 4232.00000 18180 0 7 ## 1836 1168.00000 6220 1 1 ## 1839 2977.00000 4680 3 1 ## 1840 4185.00000 21880 1 7 ## 1842 7345.00000 6210 6 7 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 6200 0 17 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 88 ## 1853 42522.90761 30070 5 99 ## 1854 6752.00000 6700 2 1 ## 1857 5438.00000 25040 1 1 ## 1858 77907.43028 17700 0 6 ## 1860 2492.00000 15770 2 15 ## 1860 3492.00000 15770 2 15 ## 1861 7652.00000 15770 2 15 ## 1862 165.00000 15770 2 15 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 15000 1 1 ## 1865 4442.00000 15000 1 1 ## 1866 3492.00000 15300 9 11 ## 1867 1779.00000 16020 5 11 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 654.00000 25040 1 10 ## 1889 2413.00000 25040 1 10 ## 1889 1257.00000 16020 5 11 ## 1889 1257.00000 16020 5 11 ## 1889 1257.00000 16020 5 10 ## 1889 1257.00000 16020 5 10 ## 1889 1257.00000 16020 5 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1880 5440.00000 16020 10 ## 1880 54	##	1832	64181.71033	17480	1	1
## 1834 2103.00000 10050 0 1 ## 1835 4232.00000 18180 0 7 ## 1836 1168.00000 6220 1 1 ## 1839 2977.00000 4680 3 1 ## 1840 4185.00000 21880 1 7 ## 1842 7345.00000 6210 6 7 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 6200 0 17 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 88 ## 1853 42522.90761 30070 5 99 ## 1854 6752.00000 6700 2 1 ## 1857 5438.00000 25040 1 1 ## 1858 77907.43028 17700 0 6 ## 1860 2492.00000 15770 2 15 ## 1860 3492.00000 15770 2 15 ## 1861 7652.00000 15770 2 15 ## 1862 165.00000 15770 2 15 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 15000 1 1 ## 1865 4442.00000 15000 1 1 ## 1866 3492.00000 15300 9 11 ## 1867 1779.00000 16020 5 11 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 654.00000 25040 1 10 ## 1889 2413.00000 25040 1 10 ## 1889 1257.00000 16020 5 11 ## 1889 1257.00000 16020 5 11 ## 1889 1257.00000 16020 5 10 ## 1889 1257.00000 16020 5 10 ## 1889 1257.00000 16020 5 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1889 1257.00000 16020 10 ## 1880 5440.00000 16020 10 ## 1880 54	##	1833	6293.00000	8330	2	1
## 1835 4232.00000 18180 0 7 ## 1836 1168.00000 6220 1 1 ## 1839 2977.00000 4680 3 1 ## 1840 4185.00000 21880 1 7 ## 1842 7345.00000 6210 6 7 ## 1844 4405.22080 5430 6 1 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 6200 0 17 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 25040 1 1 ## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1864 7635.00000 15770 2 15 ## 1865 4442.00000 15600 3 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 16140 0 1 ## 1867 1779.00000 16140 0 13 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 655.00000 6800 1 6600 7 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 26700 0 7 ## 1878 8131.00000 26700 0 10 ## 1879 675.00000 26700 0 10 ## 1880 5440.00000 26700 0 10 ## 1870 6730.00000 3930 4 10 ## 1871 872 4515.00000 3930 0 9 ## 1872 4515.00000 2670 0 13 ## 1873 5100.00000 2670 0 13 ## 1878 8131.00000 2670 0 13 ## 1879 675.00000 16000 1 6000 0 7 ## 1879 8131.00000 2670 0 13 ## 1870 6730.00000 3930 0 9 ## 1871 873 5100.00000 3930 0 9 ## 1871 873 5100.00000 3930 0 9 ## 1872 4515.00000 3930 0 9 ## 1873 8131.00000 3930 0 9 ## 1874 875 554.00000 3930 0 9 ## 1875 554.00000 3930 0 9 ## 1878 8131.00000 3930 0 9 ## 1879 554.00000 3930 0 9 ## 1880 5440.00000 3930	##	1834		10050	0	1
## 1836 1168.00000 6220 1 1 1						
## 1839 2977.0000 4680 3 1 ## 1840 4185.0000 21880 1 7 ## 1842 7345.0000 6210 6 7 ## 1844 4405.22080 5430 6 1 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 6200 0 17 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1860 2492.00000 15770 2 15 ## 1860 2492.00000 18850 3 9 ## 1864 7635.00000 15770 2 15 ## 1860 2492.00000 16020 5 1 ## 1863 3953.0000 16020 5 1 ## 1864 7635.00000 16020 5 1 ## 1867 1779.00000 14520 3 1 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 6730.00000 26780 3 1 ## 1872 4515.00000 25000 2 21 ## 1873 5100.00000 25000 1 10 ## 1874 88131.00000 25000 1 10 ## 1875 8440.00000 20000 1 10 ## 1876 5603.08860 7600 7 ## 1877 554.00000 16020 5 10 ## 1878 8131.00000 22560 2 10 ## 1879 6730.0000 16020 5 10 ## 1870 6730.0000 3930 4 10 ## 1871 873 5100.0000 2000 10 1 10 ## 1873 5100.0000 2000 2000 1 10 ## 1873 5100.0000 10000 10000 10000 100000 10000 1000000						
## 1840 4185.00000 21880 1 7 ## 1842 7345.00000 6210 6 7 ## 1844 4405.22080 5430 6 1 ## 1845 4337.00000 17370 1 7 ## 1846 5899.00000 6200 0 17 ## 1848 4290.21581 9690 0 12 ## 1849 7552.00000 5580 11 1 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 88 ## 1853 42522.90761 30070 5 99 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1860 2492.00000 15770 2 15 ## 1860 2492.00000 15770 2 15 ## 1861 7635.00000 1500 1 1 ## 1862 4442.00000 1500 1 1 ## 1863 492.00000 1000 1000 1 1 ## 1864 7635.00000 1500 1 1 ## 1865 4442.00000 1500 1 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1870 6730.00000 22560 2 10 ## 1870 6730.00000 2500 1 10 ## 1871 869 2413.00000 2500 1 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1874 8131.00000 2670 0 13 ## 1875 8440.00000 16000 1 10 ## 1878 8131.00000 2670 0 13 ## 1878 8131.00000 2670 0 13 ## 1879 8440.00000 16710 0 10 ## 1878 8131.00000 2670 0 13 ## 1879 154.00000 16710 0 10 ## 1879 154.00000 16710 0 10 ## 1879 154.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5440.00000 16710 0 10 ## 1880 5447.00000 16710 0 10 ## 1880 5447.00000 16710 0 10 ## 1880 5447.00000 16710 0 10 ## 1880 5477.00000 16710 0 10 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1880 5477.00000 15000 1 100 ## 1890 3917.00000 15000 10000 10000 1000000000000						
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## 1845 4337.0000 17370 1 7 ## 1846 5899.0000 6200 0 17 ## 1847 6639.0000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1855 3964.0000 25040 1 1 ## 1855 3964.0000 26780 3 2 ## 1857 5438.0000 26780 3 2 ## 1860 2492.0000 15770 2 15 ## 1861 47635.0000 15770 2 15 ## 1862 4442.0000 15000 1 10 ## 1865 3492.0000 16020 5 1 ## 1866 3492.0000 5130 9 11 ## 1867 1779.0000 14520 3 1 ## 1868 3953.0000 22560 2 10 ## 1869 2413.00000 25060 2 10 ## 1869 2458.0000 25060 2 10 ## 1869 2458.0000 25060 2 10 ## 1869 2458.0000 16020 5 11 ## 1860 2492.0000 16020 5 12 ## 1861 160000 16020 5 12 ## 1862 160000 16020 5 10 ## 1863 3953.0000 16020 5 10 ## 1864 7635.0000 16020 5 10 ## 1865 3953.0000 16020 5 10 ## 1866 3492.0000 2500 1 10 ## 1869 2413.0000 2500 1 10 ## 1869 2413.0000 2500 1 10 ## 1870 6730.0000 2500 1 10 ## 1871 6730.0000 2670 0 13 ## 1872 4515.0000 9010 1 10 ## 1873 5100.0000 2670 0 13 ## 1874 8131.0000 6800 1 6800						
## 1846 5899.00000 6200 0 17 ## 1847 6639.00000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1849 7552.00000 5580 11 1 1 ## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 15770 2 15 ## 1861 7635.00000 15770 2 15 ## 1862 4442.00000 15770 2 15 ## 1863 3907.00000 18850 3 9 ## 1864 7635.00000 16020 5 1 ## 1865 3953.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 6730.00000 2670 0 13 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1874 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 16710 0 10 ## 1881 5603.08860 7600 7 6 ## 1881 1393 3955.00000 12470 4 5 ## 1881 1393 3955.00000 12470 4 5 ## 1881 1393 3955.00000 12470 4 5 ## 1881 1893 3955.00000 12470 4 5 ## 1889 5514.00000 12470 4 5 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 12470 4 5 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 14550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1						
## 1847 6639.0000 8390 3 9 ## 1848 4290.21581 9690 0 12 ## 1849 7552.0000 5580 11 1 ## 1850 4322.0000 10320 1 7 ## 1851 7052.0000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1855 3964.0000 25040 1 1 ## 1857 5438.0000 26780 3 2 ## 1860 2492.00000 15770 2 15 ## 1861 7052.00000 15770 2 15 ## 1863 2907.00000 15770 2 15 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 4575 554.00000 23530 2 21 ## 1872 4515.00000 23530 2 21 ## 1873 5100.00000 23530 2 21 ## 1874 2758.00000 6800 1 68 ## 1885 5440.0000 6800 1 68 ## 1886 5603.0860 7600 7 6 ## 1889 1257.00000 12470 4 5 ## 1889 3917.00000 14540 0 7 ## 1889 55477.00000 12470 4 5 ## 1889 55477.00000 15550 2 1 ## 1899 3917.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1						
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## 1849 7552.00000 5580 11 1 1	##		6639.00000	8390	3	9
## 1850 4322.00000 10320 1 7 ## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 16420 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 3930 4 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 12160 1 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 14340 0 7 ## 1894 6132.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1848	4290.21581	9690	0	12
## 1851 7052.00000 8860 0 1 ## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 16420 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 3930 4 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 6800 1 6 ## 1880 5440.00000 16710 0 10 ## 1883 1487.00000 12600 1 6 ## 1889 1257.00000 12160 1 6 ## 1889 1257.00000 12470 4 5 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 12470 4 5 ## 1893 3955.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1849	7552.00000	5580	11	1
## 1852 18689.09699 10740 2 8 ## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1860 2492.00000 15770 2 15 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1868 3953.00000 16020 5 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1871 24515.00000 2670 0 13 ## 1871 554.00000 2670 0 13 ## 1872 4515.00000 6900 0 7 ## 1873 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1881 1882 2782.00000 28090 0 1 ## 1881 1881 100000 16710 0 10 ## 1882 1782.00000 16710 0 10 ## 1883 1487.00000 16710 0 10 ## 1884 5603.08860 7600 7 6 ## 1889 1257.00000 12470 4 5 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 14340 0 7 ## 1894 6132.00000 15550 2 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1850	4322.00000	10320	1	7
## 1853 42522.90761 30070 5 9 ## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1868 3953.00000 14520 3 1 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 2670 0 13 ## 1878 8131.00000 6900 0 7 ## 1878 8131.00000 6900 0 7 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1884 5603.08860 7600 7 6 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 12470 4 5 ## 1894 6132.00000 12550 2 1 ## 1894 6132.00000 12550 2 1 ## 1895 5477.00000 13210 3 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1851	7052.00000	8860	0	1
## 1854 6752.00000 6700 2 1 ## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 3930 4 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 6900 0 7 ## 1881 8183 1487.00000 16710 0 10 ## 1882 2782.00000 16710 0 10 ## 1883 1487.00000 16710 0 10 ## 1884 155.00000 16710 10 ## 1885 5603.08860 7600 7 6 ## 1889 1257.00000 12470 4 5 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 14340 0 7 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1852	18689.09699	10740	2	8
## 1855 3964.00000 25040 1 1 1	##	1853	42522.90761	30070	5	9
## 1855 3964.00000 25040 1 1 ## 1857 5438.00000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 3930 4 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1878 8131.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 16710 0 10 ## 1883 1487.00000 16710 0 10 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 15550 2 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1854	6752.00000	6700	2	1
## 1857 5438.0000 26780 3 2 ## 1858 77907.43028 17700 0 6 ## 1859 615.0000 15770 2 15 ## 1860 2492.0000 22050 1 4 ## 1863 2907.0000 18850 3 9 ## 1864 7635.0000 19610 0 1 ## 1865 4442.0000 16020 5 1 ## 1866 3492.0000 5130 9 11 ## 1867 1779.0000 14520 3 1 ## 1868 3953.0000 16140 0 13 ## 1870 6730.0000 22560 2 10 ## 1870 6730.0000 3930 4 10 ## 1872 4515.0000 9010 1 10 ## 1873 5100.0000 2670 0 13 ## 1876 2758.0000 23530 2 21 ## 1878 8131.0000 6900 0 7 ## 1888 5440.0000 9030 0 9 ## 1889 1257.0000 16710 0 10 ## 1889 1257.0000 12160 1 6 ## 1891 3793.0000 12470 4 5 ## 1893 3955.0000 14340 0 7 ## 1894 6132.0000 14340 0 7 ## 1895 5477.0000 33910 2 13 ## 1897 2943.0000 18210 3 1 ## 1898 5314.0000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1855	3964.00000	25040		1
## 1858 77907.43028 17700 0 6 ## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 16140 0 13 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1878 8131.00000 6900 0 7 ## 1888 5440.00000 6900 0 7 ## 1889 140.00000 16710 0 10 ## 1889 1257.00000 12160 1 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 12470 4 5 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 15550 2 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 12810 3 1	##					
## 1859 615.00000 15770 2 15 ## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 23530 2 21 ## 1876 2758.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 16710 0 10 ## 1883 1487.00000 12160 1 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 12810 10 1						
## 1860 2492.00000 22050 1 4 ## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 16140 0 13 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1878 8131.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 15550 2 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 12810 3 1						
## 1863 2907.00000 18850 3 9 ## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10						
## 1864 7635.00000 19610 0 1 ## 1865 4442.00000 16020 5 1 ## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 15550 2 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10						
## 1865						
## 1866 3492.00000 5130 9 11 ## 1867 1779.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1888 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10						
## 1867 1779.00000 14520 3 1 ## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10						
## 1868 3953.00000 16140 0 13 ## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 15550 2 1 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10						
## 1869 2413.00000 22560 2 10 ## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10						
## 1870 6730.00000 3930 4 10 ## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1868	3953.00000	16140	0	13
## 1872 4515.00000 9010 1 10 ## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1891 3793.00000 12160 1 6 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1869	2413.00000	22560	2	10
## 1873 5100.00000 2670 0 13 ## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1	##	1870	6730.00000	3930	4	10
## 1876 2758.00000 23530 2 21 ## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 18210 3 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1872	4515.00000	9010	1	10
## 1877 554.00000 6900 0 7 ## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1873	5100.00000	2670	0	13
## 1878 8131.00000 6800 1 6 ## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1876	2758.00000	23530	2	21
## 1880 5440.00000 9030 0 9 ## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1877	554.00000	6900	0	7
## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1878	8131.00000	6800	1	6
## 1882 2782.00000 28090 0 1 ## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##	1880	5440.00000	9030	0	9
## 1883 1487.00000 16710 0 10 ## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##		2782.00000		0	
## 1886 5603.08860 7600 7 6 ## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10	##		1487.00000		0	10
## 1889 1257.00000 12160 1 6 ## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1891 3793.00000 13260 4 10 ## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1892 2705.00000 12470 4 5 ## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1893 3955.00000 15100 1 10 ## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1894 6132.00000 14340 0 7 ## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1895 5477.00000 33910 2 13 ## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1897 2943.00000 15550 2 1 ## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
## 1898 5314.00000 18210 3 1 ## 1899 3917.00000 22810 10 1						
<b>##</b> 1899 3917.00000 22810 10 1						
<b>##</b> 1900 4546.00000 9240 5 8						
	##	1900	4546.00000	9240	5	8

##	1901	5571.00000	21510	0	8
##	1902	4703.00000	15180	0	9
##	1903	1467.00000	21340	1	13
##	1904	3968.00000	17890	0	5
##	1905	1100.00000	4790	3	1
##	1906	18391.57454	5700	2	7
##	1907	3096.00000	6130	0	1
##	1909	8362.00000	4980	7	9
##	1911	12588.26453	18880	6	1
##	1912	629.00000	17260	1	9
##	1914	5255.00000	4300	0	6
##	1916	839.00000	40520	4	6
##	1917	2933.00000	14580	0	18
##	1918	1497.00000	20040	7	14
##	1919	4530.00000	11100	7	1
##	1920	1909.00000	18640	2	8
##	1921	2887.00000	16760	3	8
##	1923	7099.00000	11630	2	11
##	1924	6062.00000	15440	4	11
##	1925	3138.39809	19980	0	5
##	1926	5094.00000	4950	4	6
##	1927	1525.00000	18680	0	17
##	1928	4743.00000	27830	7	10
##	1929	2362.89303	21090	6	6
##	1930	4398.00000	24980	2	9
##	1932	6882.00000	4800	0	1
##	1933	3350.00000	19980	0	8
##	1935	3398.00000	12540	3	1
##	1936	2637.00000	7620	1	1
##	1937	6764.00000	17520	0	8
##	1938	13606.81395	5000	0	1
##	1939	1633.72581	7660	1	1
##	1940	13787.40978	15250	2	6
##	1942	6005.00000	14590	4	19
##	1943	5077.00000	10250	5	11
##	1944	2582.00000	27800	0	1
##	1945	2440.00000	26470	0	1
##	1946	3884.00000	16230	0	1
##	1947	1157.00000	22340	0	11
##	1948	1824.00000	9680	1	9
##	1949	4454.23722	6690	0	7
##	1950	4226.00000	5400	6	8
##	1951	343.84783	19560	6	18
##	1953	5548.00000	38500	1	1
##	1954	52489.75143	18100	3	10
##	1955	4600.00000	22180	0	15
##	1959	3921.00000	6400	5	7
##	1960	2776.00000	11940	1	20
##	1961	5317.00000	11240	0	1
##	1963	3332.00000	18110	0	11
##	1966	6623.00000	20150	0	1
##	1967	16802.65120	11510	3	1
##	1968	3850.00000	1500	0	1
##	1969	5268.00000	7440	2	8

##	1970	4637.00000	29370	3	15
##	1973	838.00000	17800	6	5
##	1974	3305.00000	19260	3	6
##	1975	3621.00000	16110	1	1
##	1978	2818.00000	22610	4	9
##	1979	2451.00000	2720	5	1
##	1980	708.00000	12150	0	10
##	1981	3646.39913	16450	2	3
##	1982	17628.36589	14460	0	10
##	1983	5530.00000	15610	2	1
##	1985	4112.14343	17050	9	1
##	1986	6124.00000	6650	4	6
##	1991	4570.00000	34210	5	1
##	1992	4572.73466	7270	0	12
##	1993	6961.00000	11210	0	8
##	1994	7881.94007	21980	6	15
##	1995	4545.00000	28290	0	1
##	1996	3870.00000	14610	1	10
##	1997	4652.00000	13610	0	5
##	1998	5209.00000	13180	0	1
##	1999	6969.00000	8510	2	1
##	2000	5413.00000	20320	2	17
##	2001	6457.38105	18040	1	11
##	2002	2301.00000	21420	0	8
##	2003	2457.00000	11520	0	21
##	2004	5928.00000	5000	6	13
##	2005	3982.00000	22930	0	17
##	2006	1119.00000	20550	1	1
##	2007	4378.00000	33510	4	12
##	2008	11087.85906	18760	0	6
##	2009	1031.00000	22450	0	17
##	2010	7756.00000	31350	1	8
##	2011	7581.00000	20200	7	1
##	2012	2489.00000	8200	4	1
##	2013	3060.00000	10730	1	1
##	2014	692.67997	1500	5	9
##	2015	4101.00000	23050	4	9
##	2016	5846.00000	13250	0	8
##	2017	4274.00000	18620	0	12
##	2021	6040.00000	13990	3	8
##	2022	5047.00000	23780	0	9
##	2023	2497.00000	17030	0	9
##	2024	864.00000	8450	0	1
##	2025	3200.00000	7070	0	7
##	2029	38750.15738	28260	5	13
##	2030	6022.00000	22070	0	1
##	2031	3589.00000	20750	5	15
##	2031	5728.00000	19150	4	8
##	2032	4994.00000	8020	4	18
##	2033	2658.00000	11130	3	10
##	2034			2	
		2888.00000	12330	3	9
##	2037	2609.77857	4900	8	8
##	2039	4193.00000	2340		
##	2040	7483.22669	21170	3	15

##	2042	8748.00000	9040	0	1
##	2044	4493.00000	39130	0	13
##	2046	1356.00000	22740	4	1
##	2047	1089.00000	3900	7	1
##	2048	3790.00000	5730	3	6
##	2049	4144.00000	5400	7	4
##	2050	4303.00000	30870	4	12
##	2051	2027.00000	13060	4	8
##	2052	2883.00000	24580	2	14
##	2053	1005.21438	3430	1	11
##	2054	6319.00000	13900	9	8
##	2055	5996.00000	22810	0	19
##	2056	12536.31502	19050	5	13
##	2057	4979.00000	22610	3	8
##	2058	1102.00000	27620	0	6
##	2059	5007.00000	8850	5	10
##	2060	4167.00000	8900	7	8
##	2061	2493.00000	9640	7	7
##	2062	3780.00000	9800	0	11
##	2063	78874.19056	37130	2	12
##	2064	3562.00000	4270	2	11
##	2065	4859.00000	34800	0	11
##	2066	6042.00000	11490	2	2
##	2067	7618.64667	8020	0	1
##	2069	4941.00000	14140	0	1
##	2070	1842.00000	13780	0	9
##	2071	5032.00000	9980	4	1
##	2073	7170.00000	20390	0	7
##	2074	5582.00000	6900	0	15
##	2075	1473.00000	11550	13	13
##	2076	1348.00000	6420	0	1
##	2077	7123.00000	7030	1	1
##	2078	4865.00000	18430	3	10
##	2079	2671.00000	7420	0	21
##	2080	3599.00000	5020	5	9
##	2082	6445.00000	3540	3	1
##	2084	5134.00000	6690	0	14
##	2085	3725.00000	8790	1	10
##	2086	14508.96412	13030	3	15
##	2088	5052.00000	5200	4	1
##	2089	3538.00000	10630	1	1
##	2090	3746.00000	14330	7	20
##	2091	3567.00000	4000	6	1
##	2093	5436.00000	16430	0	10
##	2095	2546.00000	14500	4	20
##	2096	2071.00000	21170	1	8
##	2097	1425.00000	12540	0	11
##	2099	10453.35599	17630	1	1
##	2100	6588.00000	13960	5	4
##	2101	2027.00000	18710	3	13
##	2102	1731.00000	11510	3	1
##	2103	26187.93722	36980	4	5
##	2104	520.00000	8620	4	1
##	2106	7197.00000	5800	3	1

```
## 2107 3321.00000
                         4610
                                    1
                                            6
## 2108 1611.00000
                                    3
                        7000
                                             1
## 2110
        1307.00000
                        31570
                                    1
                                            1
                                            7
## 2111
         4654.00000
                        12500
                                    1
## 2112
         4386.00000
                        4190
                                    2
                                            14
## 2114 5627.00000
                        12790
                                   11
                                            11
## 2116
        4506.00000
                        11890
                                    1
                                            9
## 2117
         6097.00000
                        16570
                                    0
                                            1
## 2118
         6561.00000
                        18780
                                    0
                                            1
## 2119
         4863.00000
                        5700
                                    1
                                            1
## 2121
         2644.00000
                        16030
                                    2
                                            7
## 2122
         3999.00000
                        7820
                                    1
                                            18
## 2126
         2870.00000
                        10160
                                    0
                                            1
## 2127
         4738.00000
                        16810
                                    0
                                            11
## 2128
                                    0
        5182.00000
                        18780
                                            10
## 2129
          484.50015
                        25960
                                    6
                                            1
## 2130
        4753.00000
                         9260
                                    3
                                            1
## 2132
        3432.00000
                         4750
                                            9
## 2134
                        15320
                                            7
        3000.70530
                                    0
## 2136
        4254.00000
                        19970
                                    4
                                            11
## 2137
         2301.18942
                        13930
                                    1
                                            16
## 2138
         4858.00000
                         5700
                                            1
                                    1
## 2139
         5226.00000
                        7950
                                    5
                                            1
## 2140
         3613.00000
                        18990
                                    8
                                            14
## 2143 2553.00000
                        14670
                                    0
                                            7
## 2144
         892.00000
                        13420
                                    3
                                            1
## 2146 7308.00000
                        26470
                                    0
                                            6
                                            7
## 2147
         2318.00000
                        17970
                                    3
## 2149
                                    2
                                            16
        3106.00000
                        34420
## 2151
         3135.00000
                        12940
                                    7
                                            11
## 2152
         1815.20510
                         1500
                                    0
                                            10
## 2153 2967.00000
                        11300
                                    5
                                            1
##
## $anova
## Stepwise Model Path
## Analysis of Deviance Table
##
## Initial Model:
## TARGET_AMT ~ KIDSDRIV + AGE + HOMEKIDS + YOJ + INCOME + HOME_VAL +
##
       TRAVTIME + BLUEBOOK + TIF + OLDCLAIM + CLM_FREQ + MVR_PTS +
##
       CAR AGE
##
## Final Model:
## TARGET_AMT ~ BLUEBOOK + MVR_PTS + CAR_AGE
##
##
            Step Df
                      Deviance Resid. Df Resid. Dev
## 1
                                     1689 98183446242 30460.54
## 2
           - TIF
                 1
                      194926.7
                                     1690 98183641169 30458.54
## 3
           - YOJ
                  1
                     2635063.2
                                     1691 98186276232 30456.59
## 4
        - INCOME
                  1
                     6226324.5
                                     1692 98192502557 30454.69
     HOME_VAL
                  1
                     4501998.4
                                     1693 98197004555 30452.77
                                     1694 98203760805 30450.89
## 6
     - TRAVTIME
                  1
                     6756249.9
## 7
           - AGE 1 9546411.8
                                     1695 98213307217 30449.05
```

```
## 8 - KIDSDRIV
                  1 15007244.2
                                    1696 98228314461 30447.31
## 9 - HOMEKIDS
                  1 8271826.6
                                    1697 98236586288 30445.46
                  1 22557351.9
## 10 - CLM FREQ
                                    1698 98259143639 30443.85
## 11 - OLDCLAIM
                  1 11972819.3
                                    1699 98271116459 30442.06
## [[14]]
## [1] 0
##
## [[15]]
## [1] 0
## [[16]]
## [1] 0
```

The base model shows a number of issues with the residuals including heteroskedasticty and particularly non-normal residuals. We cannot use this model without some transformation.

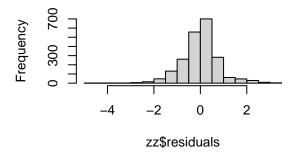
Create Model 2 - a model with missing values addressed and all of the transformed and added variables included. We also take the log of TARGET\_AMT. We find the model with the highest AIC using stepAIC from the MASS package in R.

```
##
## Call:
  lm(formula = TARGET_AMT ~ KIDSDRIV + INCOME + BLUEBOOK + OLDCLAIM +
##
##
       CLM FREQ + CAR AGE + MSTATUS Yes + EDUCATION . High. School +
       EDUCATION Bachelors + EDUCATION Masters + EDUCATION z High.School +
##
       CAR_TYPE_Panel.Truck + REVOKED_Yes + homeval_log + bluebook_log +
##
##
       carage_log + mvr_pts_log + inter, data = df)
##
## Residuals:
##
       Min
                10 Median
                                 3Q
                                        Max
##
  -4.6176 -0.4021 0.0342 0.3988
##
## Coefficients:
##
                             Estimate Std. Error t value Pr(>|t|)
                                        9.932e-01
                                                    4.696 2.82e-06 ***
## (Intercept)
                            4.665e+00
## KIDSDRIV
                                        1.693e-01
                                                   -1.995
                           -3.378e-01
                                                           0.04616 *
## INCOME
                           -1.943e-06
                                        9.973e-07
                                                   -1.949
                                                           0.05148
## BLUEBOOK
                           -1.227e-05
                                        6.129e-06
                                                   -2.002
                                                           0.04539
## OLDCLAIM
                            4.793e-06
                                        2.344e-06
                                                    2.045
                                                           0.04101 *
## CLM FREQ
                           -3.893e-02
                                        1.630e-02
                                                   -2.388
                                                           0.01704 *
## CAR AGE
                           -2.693e-02
                                        1.255e-02
                                                   -2.146
                                                           0.03197 *
## MSTATUS Yes
                           -8.359e-02
                                        3.493e-02
                                                   -2.393
                                                           0.01681 *
## EDUCATION_.High.School
                           -2.633e-01
                                        1.118e-01
                                                   -2.356
                                                           0.01855 *
                           -2.908e-01
## EDUCATION_Bachelors
                                        9.546e-02
                                                   -3.047
                                                           0.00234 **
## EDUCATION_Masters
                           -1.310e-01
                                        9.008e-02
                                                   -1.455
                                                           0.14586
## EDUCATION_z_High.School -2.579e-01
                                        1.034e-01
                                                   -2.493
                                                           0.01273 *
## CAR_TYPE_Panel.Truck
                            1.635e-01
                                        7.864e-02
                                                    2.079
                                                           0.03777 *
## REVOKED_Yes
                                        5.343e-02
                           -9.493e-02
                                                   -1.777
                                                           0.07578 .
## homeval_log
                            1.223e-01
                                        8.066e-02
                                                    1.516
                                                           0.12962
## bluebook_log
                            2.757e-01 6.974e-02
                                                    3.953 7.96e-05 ***
## carage_log
                            1.483e-01 7.448e-02
                                                    1.991
                                                           0.04664 *
## mvr_pts_log
                            5.922e-02 2.315e-02
                                                    2.559 0.01058 *
```

```
## inter
                               7.489e-03 3.852e-03
                                                         1.944 0.05199 .
##
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8011 on 2133 degrees of freedom
  Multiple R-squared: 0.03496,
                                        Adjusted R-squared: 0.02681
## F-statistic: 4.292 on 18 and 2133 DF, p-value: 3.959e-09
##
##
   [1] "VIF Analysis"
##
                                                 INCOME
                                                                          BLUEBOOK
                    KIDSDRIV
##
                   37.786241
                                               5.589714
                                                                          8.678143
                    OLDCLAIM
                                               CLM_FREQ
                                                                           CAR_AGE
##
                    1.862833
                                               1.388044
                                                                         15.925940
##
##
                MSTATUS_Yes
                               EDUCATION_.High.School
                                                              EDUCATION_Bachelors
##
                    1.022736
                                               6.152726
                                                                          5.614654
##
          EDUCATION_Masters EDUCATION_z_High.School
                                                             CAR_TYPE_Panel.Truck
##
                    3.506406
                                               8.351117
                                                                          1.573691
                REVOKED_Yes
##
                                           homeval_log
                                                                      bluebook_log
                                                                          7.136432
##
                    1.562762
                                               4.746742
##
                  carage_log
                                           mvr_pts_log
                                                                             inter
##
                   12.705195
                                               1.108395
                                                                         37.848324
                                                  Standardized residuals
                Residuals vs Fitted
                                                                     Scale-Location
      4
Residuals
     0
     4
                                                        0.0
                                                                7.8
             7.8
                   8.0
                        8.2
                              8.4
                                   8.6
                                         8.8
                                                                     8.0
                                                                           8.2
                                                                                8.4
                                                                                      8.6
                                                                                           8.8
                     Fitted values
                                                                        Fitted values
Standardized residuals
                                                   Standardized residuals
                    Normal Q-Q
                                                                 Residuals vs Leverage
      4
                                                                                            0
                                                        0
     0
                                                                       ok's distance
            -3
                  -2
                           0
                                1
                                    2
                                        3
                                                            0.00
                                                                   0.02
                                                                          0.04
                                                                                  0.06
                                                                                         0.08
                 Theoretical Quantiles
                                                                         Leverage
```

## NULL

## Histogram of zz\$residuals



The adjusted-R-Squared is very low, despite the number of significant variables and significance overall. The distribution of the residuals improves but the tails are still an issue. There still appear to be a large number of outliers.

Create Model 3 - a model using robust regression. If we remove a large number of outliers form the data our results improve dramatically. However, this must be true by definition as the variance will decrease when outliers are removed. A better way to discover the underlying pattern beneath the outliers (and to check that pattern against our second model) is robust regression.

**4. Select model** The following table summarizes the RSE and RSME when using robust regression on the base and refined models:

	Base Model	Refined Model
Standard - Sigma	7605.000	0.800
Standard - Adj-R^2	0.016 $2334.000$	0.026 $0.573$
Robust - Sigma	2554.000	0.575

It should be noted that the refined model sigma is not comparable to the base model because we have taken the log of the dependent variable. The refined model clearly outperforms the base model. In addition, the robust model clearly outperforms the standard model. We therefore choose the robust refined model.

## 5. Conclusion

We examined 466 records of town statistics to create a predictive model of whether crime rates were above the median or not. We used a logistic regression to do this, testing our models on an 80/20 split 100 times and taking the average accuracy and AIC.

Several enhancements to the model increased accuracy and lowered AIC. First, some predictors were transformed with the log or square to improve fit. Second, dummy variables were introduced to capture the fact that highly industrial areas appeared to operate by a different logic than mixed use areas. interaction terms to model this phenomenon did not improve the model. The final model 93% accurate.