

# Critical Thinking Group 4 - HW5 - Wine

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## Overview

The objective of this assignment is to predict the number of cases of wine that will be sold based on the properties of the wine. A count regression model will be used to predict wine sales.

### Dataset

Wine - Training data

Wine - Evaluation Data

## Data Exploration

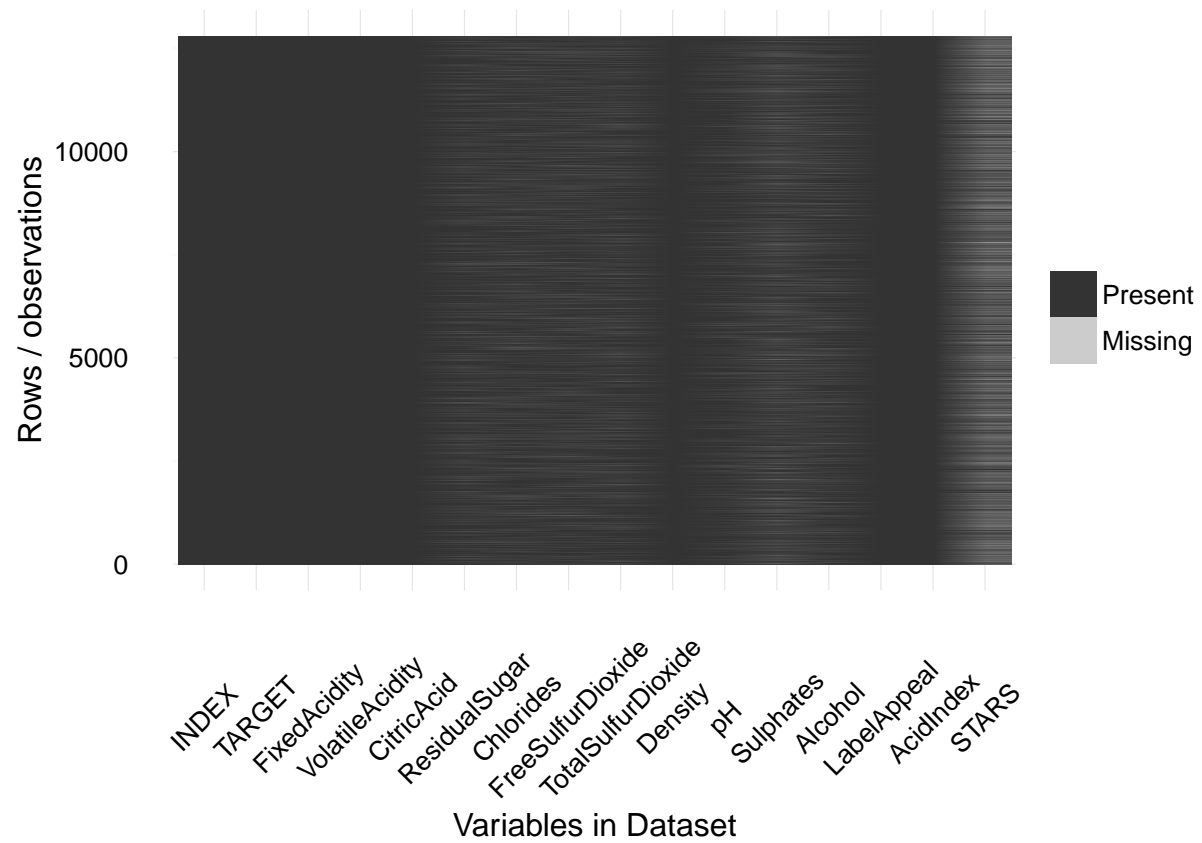
Looks like the INDEX column name need to be corrected.

### Missing Data

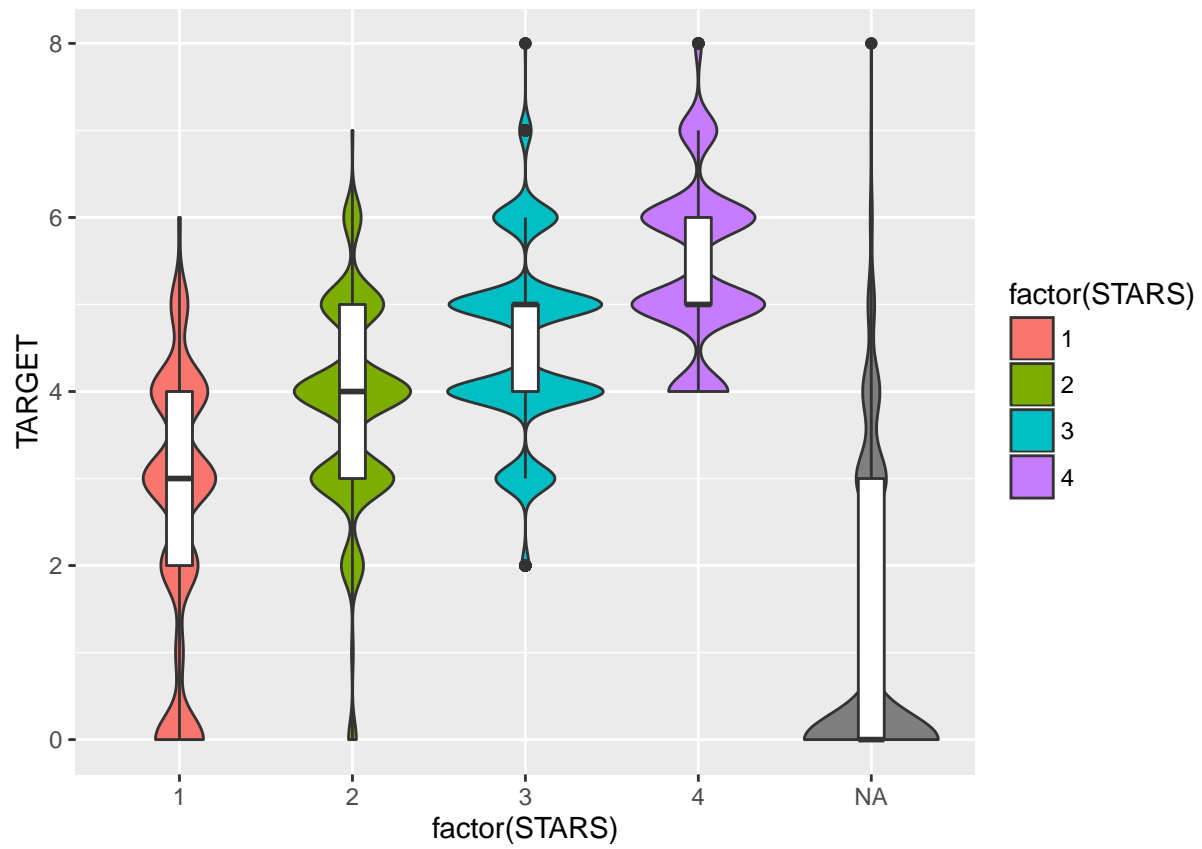
Eight of the variables have missing data.

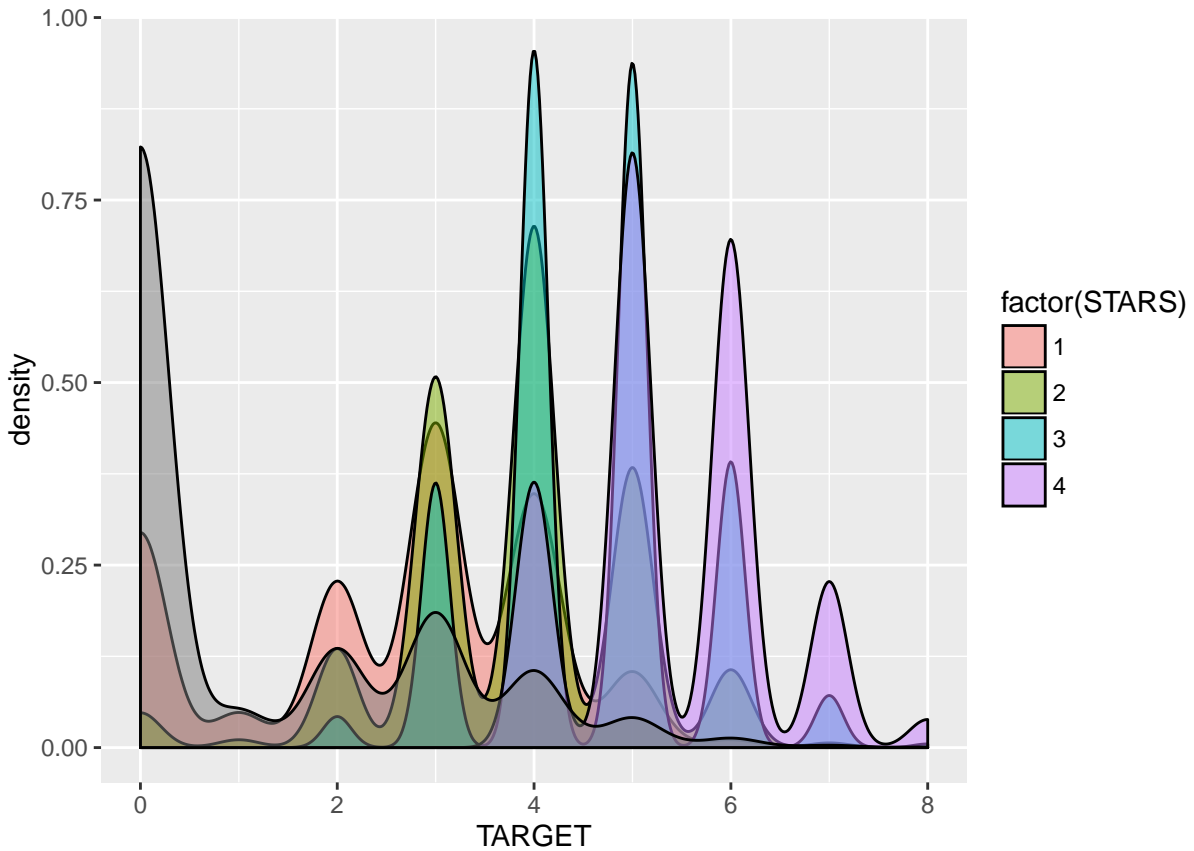
| ColName            | NA_Count | NA_Percent |
|--------------------|----------|------------|
| ResidualSugar      | 616      | 4.81       |
| Chlorides          | 638      | 4.99       |
| FreeSulfurDioxide  | 647      | 5.06       |
| TotalSulfurDioxide | 682      | 5.33       |
| pH                 | 395      | 3.09       |
| Sulphates          | 1210     | 9.46       |
| Alcohol            | 653      | 5.10       |
| STARS              | 3359     | 26.25      |

Lets explore more on the missing values here:



Though there are lot of missing values, we could not see a definite pattern here, but we difinitely notice that there are highest number of missing values for *STARS* variable.

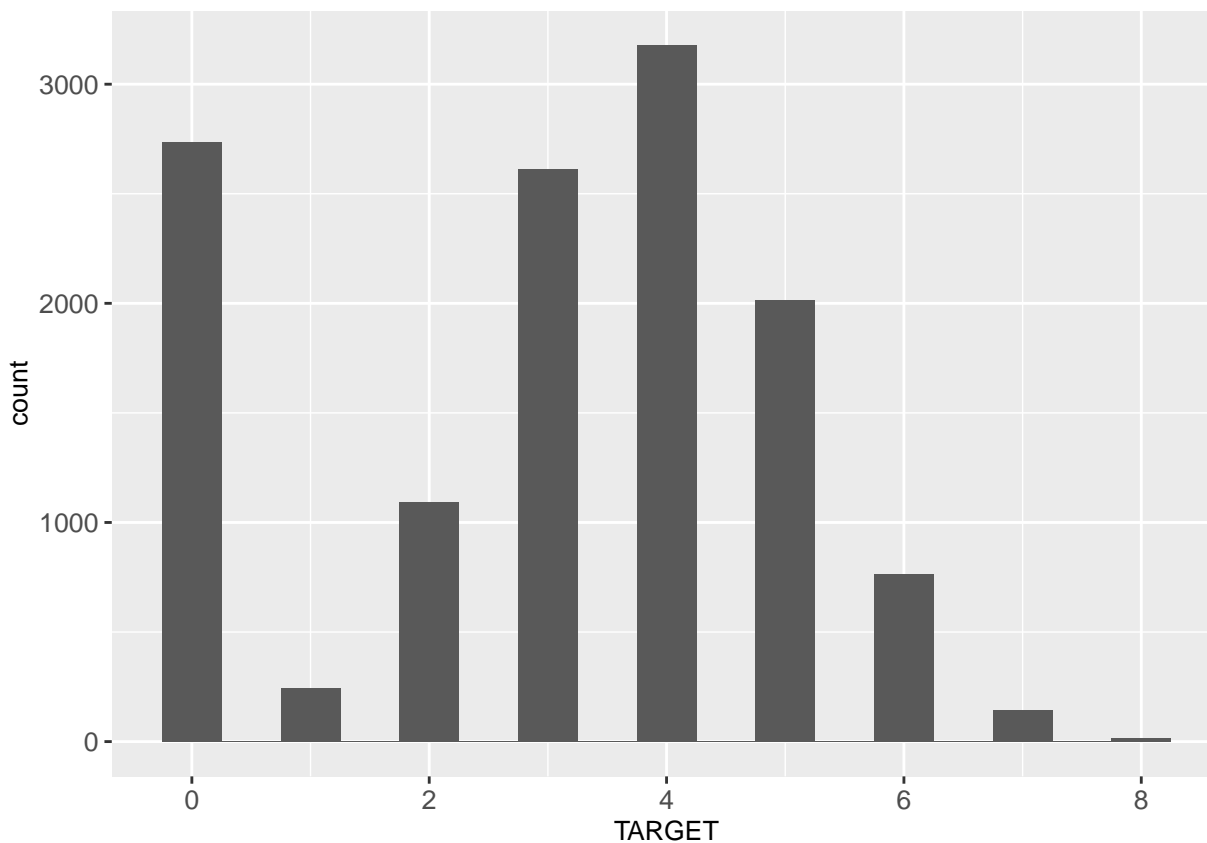




From the above diagrams, we notice that the NAs for STARS showing us a different distribution. So, we have to take care of this in the data preparation.

### Data Distributions

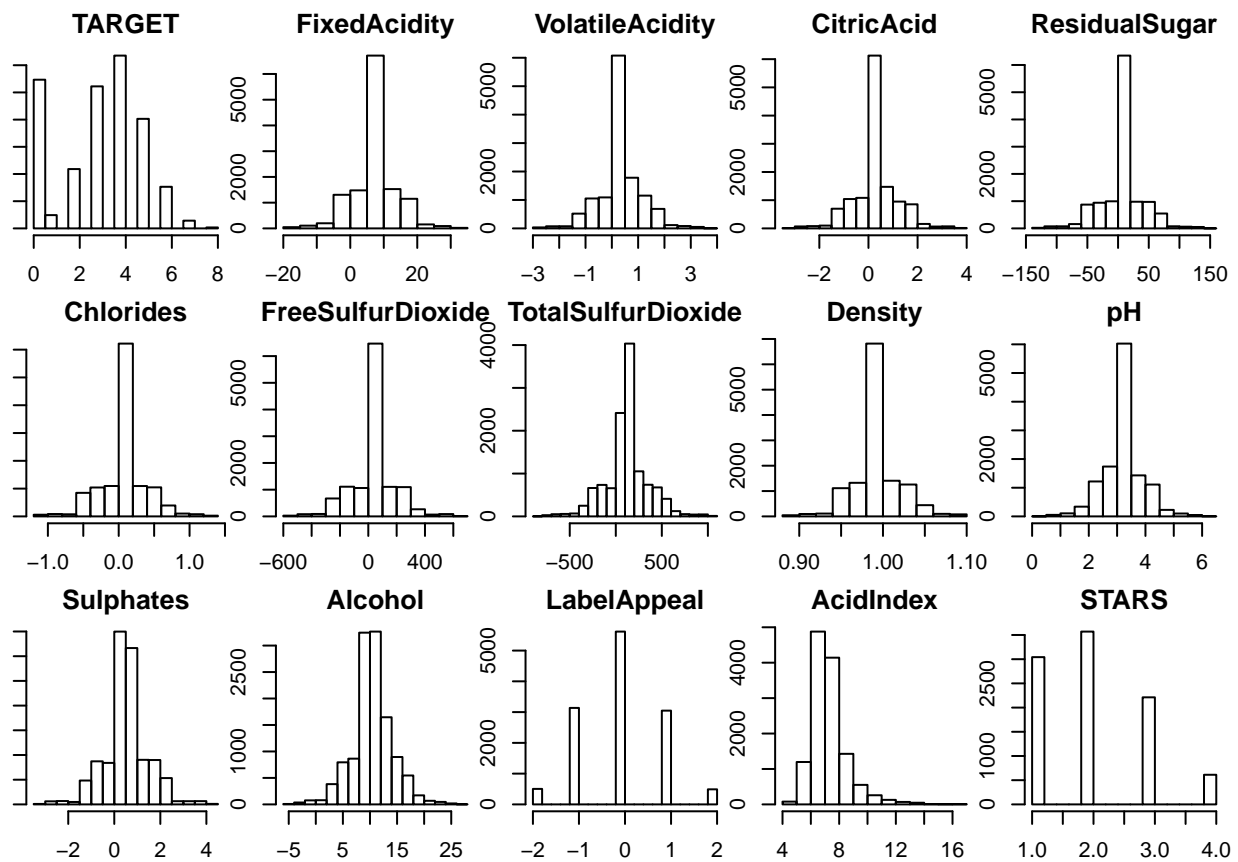
Lets check the overall distribution of the TAGET variable ( which is a *count variable* indicating the number of sample cases):

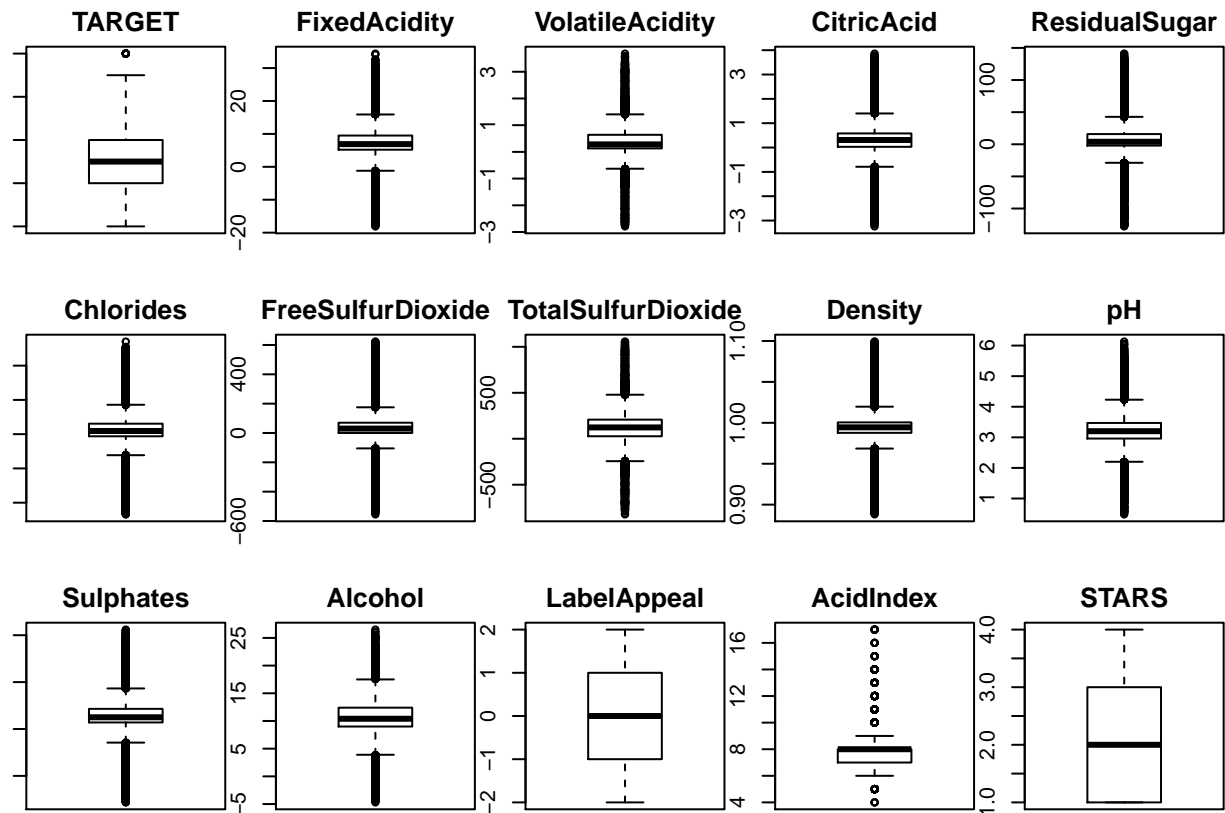


The above *TARGET* distribution has lot of *ZERO* values, which would indicate the *no sample cases purchased*, which could be due to NA values presence Or, some business reasons. But overall this appears close to *Poisson* distribution.

Lets check other variables distributions:

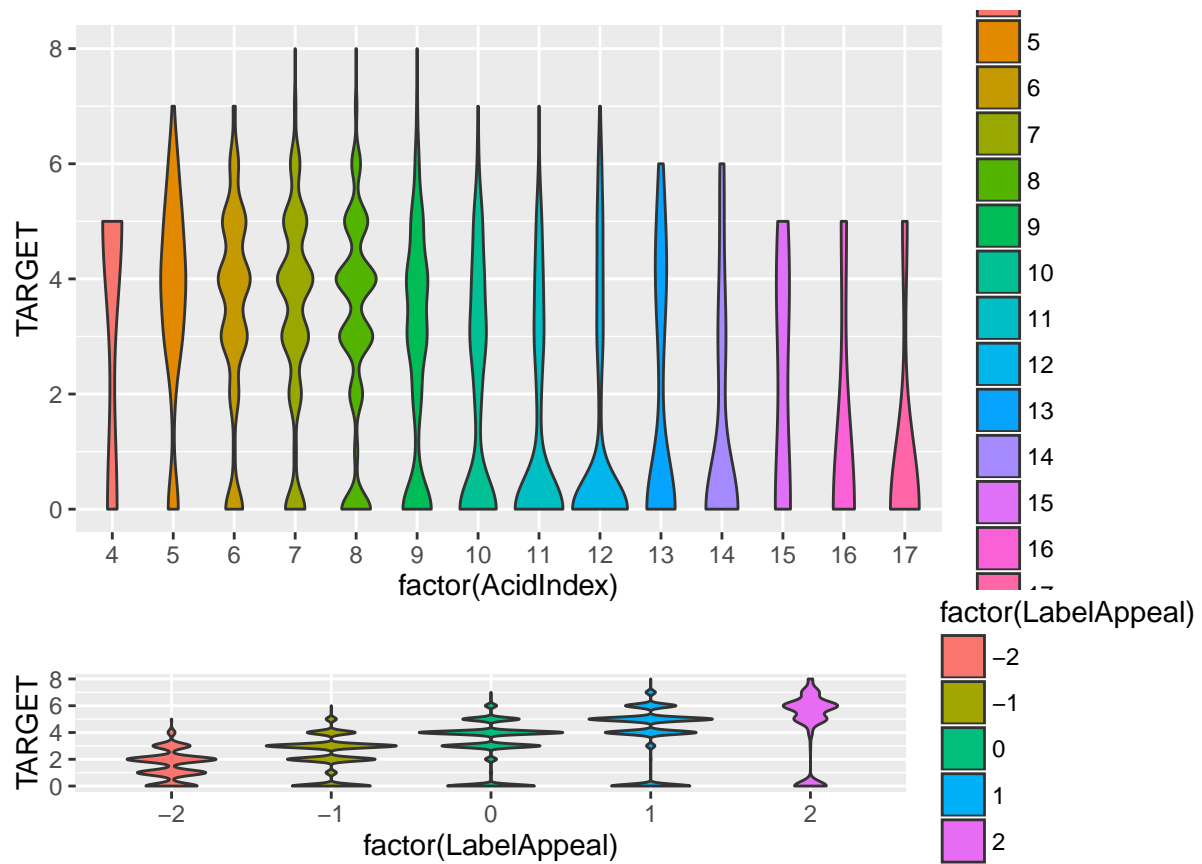
```
## [1] "INDEX"          "TARGET"          "FixedAcidity"
## [4] "VolatileAcidity" "CitricAcid"      "ResidualSugar"
## [7] "Chlorides"      "FreeSulfurDioxide" "TotalSulfurDioxide"
## [10] "Density"        "pH"              "Sulphates"
## [13] "Alcohol"        "LabelAppeal"     "AcidIndex"
## [16] "STARS"
```





Majority of the variables appears to be numerical and normally distributed. Lets review the Ordinal variables here:

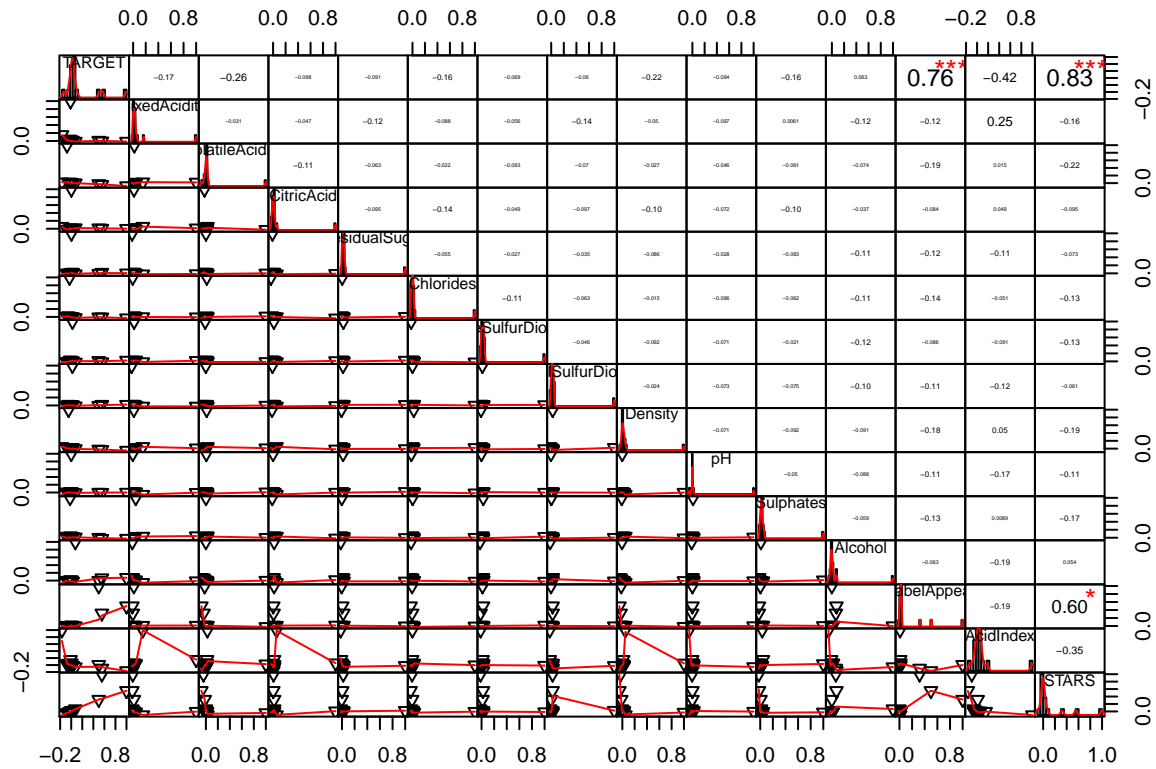
We have seen the *STARS* distribution previously in *Missing Data* section, lets now review the *Acid Index*, and *LabelAppeal*, which can be treated as categorical similar to *STARS*:



## Correlations

Lets visualize the correlation graph:





The above indicates the *STARS* and *LabelAppeal* are significant variables from correlation perspective. And *AcidIndex* and *VolatileAcidity* also got moderately correlated with the *TARGET* variable.

## Data Preparation

### Transform NAs

### Factorize

lets take complete cases only, as we have got sufficient number of observations after we took care of the NAs for *STARS* and *Alcohol* variables.

```
## Observations: 9,133
## Variables: 15
## $ TARGET          <int> 3, 5, 3, 0, 0, 6, 0, 3, 4, 0, 4, 5, 4, 3, 2...
## $ FixedAcidity     <dbl> 4.5, 7.1, 5.7, 11.3, 7.7, 5.5, -17.2, 6.0, ...
## $ VolatileAcidity  <dbl> 0.160, 2.640, 0.385, 0.320, 0.290, -0.220, ...
## $ CitricAcid       <dbl> -0.81, -0.88, 0.04, 0.59, -0.40, 0.39, 0.15...
## $ ResidualSugar    <dbl> 26.10, 14.80, 18.80, 2.20, 21.50, 1.80, -33...
## $ Chlorides        <dbl> -0.425, 0.037, -0.425, 0.556, 0.060, -0.277...
## $ FreeSulfurDioxide <dbl> 15, 214, 22, -37, 287, 62, 551, 5, -49, 15,...
## $ TotalSulfurDioxide <dbl> -327, 142, 115, 15, 156, 180, 65, 378, 45, ...
## $ Density          <dbl> 1.02792, 0.99518, 0.99640, 0.99940, 0.99572...
## $ pH              <dbl> 3.38, 3.12, 2.24, 3.20, 3.49, 3.09, 4.31, 3...
## $ Sulphates        <dbl> 0.70, 0.48, 1.83, 1.29, 1.21, 0.75, 0.56, -...
```

```
## $ Alcohol      <dbl> 0.0, 22.0, 6.2, 15.4, 10.3, 12.6, 13.1, 3.9...
## $ LabelAppeal  <fctr> -1, -1, -1, 0, 0, 0, 1, 1, 0, 1, 0, 1, -1,...
## $ AcidIndex    <fctr> 7, 8, 6, 11, 8, 8, 5, 7, 9, 9, 8, 11, 8, 6...
## $ STARS        <fctr> 3, 3, 1, 0, 0, 4, 1, 2, 0, 0, 3, 2, 2, 1, ...
```

## Multicollinearity

Lets check for Multicollinearity in the predictors:

|                    | Multicollinearity score |
|--------------------|-------------------------|
| AcidIndex7         | 216.4659703             |
| AcidIndex8         | 201.6610282             |
| AcidIndex9         | 92.2911942              |
| AcidIndex6         | 77.1844205              |
| AcidIndex10        | 39.3035671              |
| AcidIndex11        | 19.5030397              |
| AcidIndex12        | 10.5988711              |
| AcidIndex5         | 5.5846113               |
| AcidIndex13        | 5.2930521               |
| AcidIndex14        | 4.5463148               |
| LabelAppeal0       | 4.2704399               |
| LabelAppeal-1      | 3.3390954               |
| LabelAppeal1       | 3.2363811               |
| AcidIndex17        | 1.5074415               |
| AcidIndex16        | 1.2042507               |
| AcidIndex15        | 1.1046126               |
| STARS1             | 0.8934462               |
| STARS2             | 0.8645223               |
| LabelAppeal2       | 0.8417245               |
| STARS3             | 0.6851982               |
| FixedAcidity       | 0.3430885               |
| STARS4             | 0.3388301               |
| VolatileAcidity    | 0.3361709               |
| TotalSulfurDioxide | 0.3355376               |
| Alcohol            | 0.3353972               |
| ResidualSugar      | 0.3353051               |
| Chlorides          | 0.3347751               |
| pH                 | 0.3346397               |
| Sulphates          | 0.3338405               |
| Density            | 0.3331687               |
| FreeSulfurDioxide  | 0.3319512               |
| CitricAcid         | 0.3305677               |

Multicollinearity noticed for AcidIndex dummy variables AcidIndex values 6, 7, 8, 9, 10, 11, 12.

Lets try consolidating those rows and retry the vif again.

|              | Multicollinearity score |
|--------------|-------------------------|
| AcidIndex5   | 10.1576511              |
| AcidIndex13  | 5.2928877               |
| AcidIndex14  | 4.5462571               |
| LabelAppeal0 | 4.2669710               |

|                    | Multicollinearity score |
|--------------------|-------------------------|
| LabelAppeal-1      | 3.3370975               |
| LabelAppeal1       | 3.2315314               |
| AcidIndex17        | 1.5074156               |
| AcidIndex16        | 1.2042184               |
| AcidIndex15        | 1.1046116               |
| STARS1             | 0.8876861               |
| STARS2             | 0.8534218               |
| LabelAppeal2       | 0.8404632               |
| STARS3             | 0.6715474               |
| VolatileAcidity    | 0.3363584               |
| FixedAcidity       | 0.3359405               |
| Alcohol            | 0.3348208               |
| ResidualSugar      | 0.3344179               |
| TotalSulfurDioxide | 0.3342609               |
| STARS4             | 0.3340824               |
| Chlorides          | 0.3339860               |
| pH                 | 0.3332575               |
| Sulphates          | 0.3327584               |
| FreeSulfurDioxide  | 0.3318813               |
| Density            | 0.3317041               |
| CitricAcid         | 0.3299254               |

The above variables looks good enough to proceed with model building.

### Split the dataset into training and test:

We will randomly split our dataset into training (80%) and test (20%).

```
set.seed(3)
s = sample(1:nrow(wine.trn.omit.na), 0.8 * nrow(wine.trn.omit.na))
wine.training = wine.trn.omit.na[s, ]
wine.test = wine.trn.omit.na[-s, ]
```

Number of observations in *training* dataset is 7306

Number of observations in *test* dataset is 1827

## Build Models

### Poisson Model - Stepwise Backward

First, Include all variables and build the model. And then use the stepwise backward.

```
##              Estimate Std. Error z value Pr(>|z|)
## (Intercept)      1.54      0.52    2.97   0.00
## FixedAcidity      0.00      0.00   -1.78   0.08
## VolatileAcidity  -0.03      0.01   -3.61   0.00
## Chlorides        -0.04      0.02   -2.06   0.04
## FreeSulfurDioxide  0.00      0.00    2.46   0.01
## TotalSulfurDioxide  0.00      0.00    3.50   0.00
```

|                  |       |      |       |      |
|------------------|-------|------|-------|------|
| ## Density       | -0.49 | 0.25 | -1.91 | 0.06 |
| ## Sulphates     | -0.01 | 0.01 | -1.88 | 0.06 |
| ## LabelAppeal-1 | 0.25  | 0.05 | 5.00  | 0.00 |
| ## LabelAppeal0  | 0.45  | 0.05 | 9.12  | 0.00 |
| ## LabelAppeal1  | 0.57  | 0.05 | 11.31 | 0.00 |
| ## LabelAppeal2  | 0.70  | 0.06 | 12.29 | 0.00 |
| ## AcidIndex5    | -1.27 | 0.45 | -2.83 | 0.00 |
| ## AcidIndex13   | -1.74 | 0.46 | -3.75 | 0.00 |
| ## AcidIndex14   | -1.69 | 0.47 | -3.58 | 0.00 |
| ## AcidIndex15   | -1.36 | 0.53 | -2.55 | 0.01 |
| ## AcidIndex16   | -1.57 | 0.63 | -2.48 | 0.01 |
| ## AcidIndex17   | -1.97 | 0.63 | -3.11 | 0.00 |
| ## STARS1        | 0.80  | 0.03 | 30.87 | 0.00 |
| ## STARS2        | 1.12  | 0.02 | 46.27 | 0.00 |
| ## STARS3        | 1.25  | 0.03 | 49.51 | 0.00 |
| ## STARS4        | 1.38  | 0.03 | 42.39 | 0.00 |

```
## TARGET ~ FixedAcidity + VolatileAcidity + Chlorides + FreeSulfurDioxide +
##      TotalSulfurDioxide + Density + Sulphates + LabelAppeal +
##      AcidIndex + STARS
```

We can notice that *STARS*, *LabelAppeal*, *AcidIndex*, *VolatileAcidity* and *TotalSulfurDioxide* are the significant variables.

For example, for each one-unit increase in *VolatileAcidity*, the expected log count of the number of sample units sold is decreases by 0.03.

The factor variable shown as STARS4 is the expected difference in log count between group 4 and the reference group zero (/NA).

Lets check if there is overdispersion (c-hat, to check if mean exceeding the variance) here, (Residual Deviance)/(Residual df). (If c-hat is 1, then no overdispersion occur)

c-hat for overdispersion check is 1.079219

### Poisson Model - Stepwise Forward

| ##                    | Estimate | Std. Error | z value | Pr(> z ) |
|-----------------------|----------|------------|---------|----------|
| ## (Intercept)        | 1.54     | 0.52       | 2.97    | 0.00     |
| ## STARS1             | 0.80     | 0.03       | 30.87   | 0.00     |
| ## STARS2             | 1.12     | 0.02       | 46.27   | 0.00     |
| ## STARS3             | 1.25     | 0.03       | 49.51   | 0.00     |
| ## STARS4             | 1.38     | 0.03       | 42.39   | 0.00     |
| ## LabelAppeal-1      | 0.25     | 0.05       | 5.00    | 0.00     |
| ## LabelAppeal0       | 0.45     | 0.05       | 9.12    | 0.00     |
| ## LabelAppeal1       | 0.57     | 0.05       | 11.31   | 0.00     |
| ## LabelAppeal2       | 0.70     | 0.06       | 12.29   | 0.00     |
| ## AcidIndex5         | -1.27    | 0.45       | -2.83   | 0.00     |
| ## AcidIndex13        | -1.74    | 0.46       | -3.75   | 0.00     |
| ## AcidIndex14        | -1.69    | 0.47       | -3.58   | 0.00     |
| ## AcidIndex15        | -1.36    | 0.53       | -2.55   | 0.01     |
| ## AcidIndex16        | -1.57    | 0.63       | -2.48   | 0.01     |
| ## AcidIndex17        | -1.97    | 0.63       | -3.11   | 0.00     |
| ## VolatileAcidity    | -0.03    | 0.01       | -3.61   | 0.00     |
| ## TotalSulfurDioxide | 0.00     | 0.00       | 3.50    | 0.00     |

```
## FreeSulfurDioxide      0.00      0.00      2.46      0.01
## Chlorides              -0.04      0.02     -2.06      0.04
## Density                -0.49      0.25     -1.91      0.06
## Sulphates              -0.01      0.01     -1.88      0.06
## FixedAcidity           0.00      0.00     -1.78      0.08
```

```
## TARGET ~ STARS + LabelAppeal + AcidIndex + VolatileAcidity +
##      TotalSulfurDioxide + FreeSulfurDioxide + Chlorides + Density +
##      Sulphates + FixedAcidity
```

c-hat for overdispersion check is 1.079219

We notice the very similar results here. (Similar to Stepwise Backward), Hence the same interpretation applies here.

### Poisson Model - Manual

Lets include only significant predictors noticed from the data exploration section.

```
##      Estimate Std. Error z value Pr(>|z|)
## (Intercept)      1.02      0.45   2.28   0.02
## STARS1           0.81      0.03  31.08   0.00
## STARS2           1.12      0.02  46.54   0.00
## STARS3           1.26      0.03  49.89   0.00
## STARS4           1.38      0.03  42.59   0.00
## LabelAppeal-1     0.26      0.05   5.03   0.00
## LabelAppeal0      0.45      0.05   9.17   0.00
## LabelAppeal1      0.57      0.05  11.36   0.00
## LabelAppeal2      0.70      0.06  12.29   0.00
## AcidIndex5        -1.25      0.45  -2.79   0.01
## AcidIndex13        -1.74      0.46  -3.75   0.00
## AcidIndex14        -1.69      0.47  -3.58   0.00
## AcidIndex15        -1.34      0.53  -2.52   0.01
## AcidIndex16        -1.60      0.63  -2.53   0.01
## AcidIndex17        -2.02      0.63  -3.19   0.00
## VolatileAcidity   -0.03      0.01  -3.72   0.00
```

```
## TARGET ~ STARS + LabelAppeal + AcidIndex + VolatileAcidity
```

We only included the above significant variables we noticed from our correlation here, so this model has got few co-efficients compared with the above.

c-hat for overdispersion check is 1.0829459

### Negative Binomial Model - Stepwise Backward

Lets now try with Negative Binomial modeling, which fits greatly for over-dispersed count outcome variables.

First, Include all variables and build the model. And then use the stepwise backward.

```
##      Estimate Std. Error z value Pr(>|z|)
## (Intercept)      1.54      0.52   2.97   0.00
## FixedAcidity      0.00      0.00  -1.78   0.08
```

|                       |       |      |       |      |
|-----------------------|-------|------|-------|------|
| ## VolatileAcidity    | -0.03 | 0.01 | -3.61 | 0.00 |
| ## Chlorides          | -0.04 | 0.02 | -2.06 | 0.04 |
| ## FreeSulfurDioxide  | 0.00  | 0.00 | 2.46  | 0.01 |
| ## TotalSulfurDioxide | 0.00  | 0.00 | 3.50  | 0.00 |
| ## Density            | -0.49 | 0.25 | -1.91 | 0.06 |
| ## Sulphates          | -0.01 | 0.01 | -1.88 | 0.06 |
| ## LabelAppeal-1      | 0.25  | 0.05 | 5.00  | 0.00 |
| ## LabelAppeal0       | 0.45  | 0.05 | 9.12  | 0.00 |
| ## LabelAppeal1       | 0.57  | 0.05 | 11.31 | 0.00 |
| ## LabelAppeal2       | 0.70  | 0.06 | 12.29 | 0.00 |
| ## AcidIndex5         | -1.27 | 0.45 | -2.83 | 0.00 |
| ## AcidIndex13        | -1.74 | 0.46 | -3.75 | 0.00 |
| ## AcidIndex14        | -1.69 | 0.47 | -3.58 | 0.00 |
| ## AcidIndex15        | -1.36 | 0.53 | -2.55 | 0.01 |
| ## AcidIndex16        | -1.57 | 0.63 | -2.48 | 0.01 |
| ## AcidIndex17        | -1.97 | 0.63 | -3.11 | 0.00 |
| ## STARS1             | 0.80  | 0.03 | 30.87 | 0.00 |
| ## STARS2             | 1.12  | 0.02 | 46.27 | 0.00 |
| ## STARS3             | 1.25  | 0.03 | 49.50 | 0.00 |
| ## STARS4             | 1.38  | 0.03 | 42.38 | 0.00 |

```
## TARGET ~ FixedAcidity + VolatileAcidity + Chlorides + FreeSulfurDioxide +
##      TotalSulfurDioxide + Density + Sulphates + LabelAppeal +
##      AcidIndex + STARS
```

We noticed that our dataset do NOT has lot of overdispersion ( based on poisson model above), so the negative binomial results are very much close to the poisson.

For example, for each one-unit increase in VolatileAcidity, the expected log count of the number of sample units sold is decreases by 0.031.

The factor variable shown as STARS1 is the expected difference [0.80] in log count between group 1 and the reference group zero (/NA).

### Negative Binomial Model - Stepwise Forward

| ##                    | Estimate | Std. Error | z value | Pr(> z ) |
|-----------------------|----------|------------|---------|----------|
| ## (Intercept)        | 1.54     | 0.52       | 2.97    | 0.00     |
| ## STARS1             | 0.80     | 0.03       | 30.87   | 0.00     |
| ## STARS2             | 1.12     | 0.02       | 46.27   | 0.00     |
| ## STARS3             | 1.25     | 0.03       | 49.50   | 0.00     |
| ## STARS4             | 1.38     | 0.03       | 42.38   | 0.00     |
| ## LabelAppeal-1      | 0.25     | 0.05       | 5.00    | 0.00     |
| ## LabelAppeal0       | 0.45     | 0.05       | 9.12    | 0.00     |
| ## LabelAppeal1       | 0.57     | 0.05       | 11.31   | 0.00     |
| ## LabelAppeal2       | 0.70     | 0.06       | 12.29   | 0.00     |
| ## AcidIndex5         | -1.27    | 0.45       | -2.83   | 0.00     |
| ## AcidIndex13        | -1.74    | 0.46       | -3.75   | 0.00     |
| ## AcidIndex14        | -1.69    | 0.47       | -3.58   | 0.00     |
| ## AcidIndex15        | -1.36    | 0.53       | -2.55   | 0.01     |
| ## AcidIndex16        | -1.57    | 0.63       | -2.48   | 0.01     |
| ## AcidIndex17        | -1.97    | 0.63       | -3.11   | 0.00     |
| ## VolatileAcidity    | -0.03    | 0.01       | -3.61   | 0.00     |
| ## TotalSulfurDioxide | 0.00     | 0.00       | 3.50    | 0.00     |

```
## FreeSulfurDioxide      0.00      0.00      2.46      0.01
## Chlorides              -0.04      0.02     -2.06      0.04
## Density                -0.49      0.25     -1.91      0.06
## Sulphates              -0.01      0.01     -1.88      0.06
## FixedAcidity           0.00      0.00     -1.78      0.08

## TARGET ~ STARS + LabelAppeal + AcidIndex + VolatileAcidity +
##      TotalSulfurDioxide + FreeSulfurDioxide + Chlorides + Density +
##      Sulphates + FixedAcidity
```

This provides us with the similar results as Stepwise Backward.

## Negative Binomial Model - Manual

Lets include only significant predictors noticed from the data exploration section.

```
##              Estimate Std. Error z value Pr(>|z|)
## (Intercept)      1.02      0.45    2.27    0.02
## STARS1            0.81      0.03   31.08    0.00
## STARS2            1.12      0.02   46.54    0.00
## STARS3            1.26      0.03   49.89    0.00
## STARS4            1.38      0.03   42.59    0.00
## LabelAppeal-1     0.26      0.05    5.03    0.00
## LabelAppeal0      0.45      0.05    9.17    0.00
## LabelAppeal1      0.57      0.05   11.36    0.00
## LabelAppeal2      0.70      0.06   12.29    0.00
## AcidIndex5        -1.25      0.45   -2.79    0.01
## AcidIndex13        -1.74      0.46   -3.75    0.00
## AcidIndex14        -1.69      0.47   -3.58    0.00
## AcidIndex15        -1.34      0.53   -2.52    0.01
## AcidIndex16        -1.60      0.63   -2.53    0.01
## AcidIndex17        -2.02      0.63   -3.19    0.00
## VolatileAcidity    -0.03      0.01   -3.72    0.00
```

```
## TARGET ~ STARS + LabelAppeal + AcidIndex + VolatileAcidity
```

We only included the above significant variables we noticed from our correlation here, so this model has got few co-efficients compared with the above.

## Linear Model - Stepwise Backward

Lets now just try with multiple linear regression model, and see the outcome.

```
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      5.14      1.45    3.54    0.00
## FixedAcidity      -0.01      0.00   -2.24    0.02
## VolatileAcidity    -0.10      0.02   -4.96    0.00
## Chlorides          -0.14      0.05   -2.79    0.01
## FreeSulfurDioxide   0.00      0.00    3.18    0.00
## TotalSulfurDioxide   0.00      0.00    4.75    0.00
## Density            -1.49      0.59   -2.53    0.01
```

|                  |       |      |       |      |
|------------------|-------|------|-------|------|
| ## Sulphates     | -0.04 | 0.02 | -2.15 | 0.03 |
| ## Alcohol       | 0.01  | 0.00 | 1.57  | 0.12 |
| ## LabelAppeal-1 | 0.40  | 0.09 | 4.64  | 0.00 |
| ## LabelAppeal0  | 0.88  | 0.08 | 10.58 | 0.00 |
| ## LabelAppeal1  | 1.30  | 0.09 | 14.92 | 0.00 |
| ## LabelAppeal2  | 1.85  | 0.12 | 16.05 | 0.00 |
| ## AcidIndex5    | -3.25 | 1.33 | -2.45 | 0.01 |
| ## AcidIndex13   | -4.32 | 1.34 | -3.22 | 0.00 |
| ## AcidIndex14   | -3.87 | 1.34 | -2.88 | 0.00 |
| ## AcidIndex15   | -3.36 | 1.43 | -2.35 | 0.02 |
| ## AcidIndex16   | -3.99 | 1.53 | -2.61 | 0.01 |
| ## AcidIndex17   | -4.40 | 1.45 | -3.03 | 0.00 |
| ## STARS1        | 1.45  | 0.04 | 32.87 | 0.00 |
| ## STARS2        | 2.48  | 0.04 | 58.08 | 0.00 |
| ## STARS3        | 3.08  | 0.05 | 62.90 | 0.00 |
| ## STARS4        | 3.78  | 0.08 | 46.86 | 0.00 |

```
## TARGET ~ FixedAcidity + VolatileAcidity + Chlorides + FreeSulfurDioxide +
##      TotalSulfurDioxide + Density + Sulphates + Alcohol + LabelAppeal +
##      AcidIndex + STARS
```

#### Linear Model - Stepwise Forward

| ##                    | Estimate | Std. Error | t value | Pr(> t ) |
|-----------------------|----------|------------|---------|----------|
| ## (Intercept)        | 5.14     | 1.45       | 3.54    | 0.00     |
| ## STARS1             | 1.45     | 0.04       | 32.87   | 0.00     |
| ## STARS2             | 2.48     | 0.04       | 58.08   | 0.00     |
| ## STARS3             | 3.08     | 0.05       | 62.90   | 0.00     |
| ## STARS4             | 3.78     | 0.08       | 46.86   | 0.00     |
| ## LabelAppeal-1      | 0.40     | 0.09       | 4.64    | 0.00     |
| ## LabelAppeal0       | 0.88     | 0.08       | 10.58   | 0.00     |
| ## LabelAppeal1       | 1.30     | 0.09       | 14.92   | 0.00     |
| ## LabelAppeal2       | 1.85     | 0.12       | 16.05   | 0.00     |
| ## AcidIndex5         | -3.25    | 1.33       | -2.45   | 0.01     |
| ## AcidIndex13        | -4.32    | 1.34       | -3.22   | 0.00     |
| ## AcidIndex14        | -3.87    | 1.34       | -2.88   | 0.00     |
| ## AcidIndex15        | -3.36    | 1.43       | -2.35   | 0.02     |
| ## AcidIndex16        | -3.99    | 1.53       | -2.61   | 0.01     |
| ## AcidIndex17        | -4.40    | 1.45       | -3.03   | 0.00     |
| ## VolatileAcidity    | -0.10    | 0.02       | -4.96   | 0.00     |
| ## TotalSulfurDioxide | 0.00     | 0.00       | 4.75    | 0.00     |
| ## FreeSulfurDioxide  | 0.00     | 0.00       | 3.18    | 0.00     |
| ## Chlorides          | -0.14    | 0.05       | -2.79   | 0.01     |
| ## Density            | -1.49    | 0.59       | -2.53   | 0.01     |
| ## FixedAcidity       | -0.01    | 0.00       | -2.24   | 0.02     |
| ## Sulphates          | -0.04    | 0.02       | -2.15   | 0.03     |
| ## Alcohol            | 0.01     | 0.00       | 1.57    | 0.12     |

```
## TARGET ~ STARS + LabelAppeal + AcidIndex + VolatileAcidity +
##      TotalSulfurDioxide + FreeSulfurDioxide + Chlorides + Density +
##      FixedAcidity + Sulphates + Alcohol
```



## Linear Model - Manual

```
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)      3.66      1.33    2.75   0.01
## STARS1           1.47      0.04   33.11   0.00
## STARS2           2.50      0.04   58.42   0.00
## STARS3           3.11      0.05   63.43   0.00
## STARS4           3.81      0.08   47.03   0.00
## LabelAppeal-1     0.40      0.09    4.65   0.00
## LabelAppeal0      0.89      0.08   10.60   0.00
## LabelAppeal1      1.30      0.09   14.89   0.00
## LabelAppeal2      1.85      0.12   15.96   0.00
## AcidIndex5       -3.23      1.33   -2.43   0.02
## AcidIndex13      -4.36      1.35   -3.23   0.00
## AcidIndex14      -3.92      1.35   -2.91   0.00
## AcidIndex15      -3.35      1.44   -2.33   0.02
## AcidIndex16      -4.06      1.54   -2.65   0.01
## AcidIndex17      -4.48      1.46   -3.07   0.00
## VolatileAcidity  -0.10      0.02   -5.04   0.00

## TARGET ~ STARS + LabelAppeal + AcidIndex + VolatileAcidity
```

## Model Selection

Lets prepare a validation results data frame by deriving the validation metrics like, RMSE,  $R^2$  ( for linear model only) and AIC and number of coefficients etc., to help decide a better model out of the above 9 models.

| ModelType                    | RMSE   | Adj_R2 | AIC      | Coefs |
|------------------------------|--------|--------|----------|-------|
| Poisson - Stepwise Backward  | 2.5827 | NA     | 26200.19 | 21    |
| Poisson - Stepwise Forward   | 2.5827 | NA     | 26200.19 | 21    |
| Poisson - Manual             | 2.5833 | NA     | 26221.83 | 15    |
| Negative Binomial - Backward | 2.5827 | NA     | 26202.43 | 21    |
| Negative Binomial - Forward  | 2.5827 | NA     | 26202.43 | 21    |
| Negative Binomial - Manual   | 2.5833 | NA     | 26224.08 | 15    |
| Linear - Stepwise Backward   | 1.3576 | 0.52   | 24869.78 | 22    |
| Linear - Stepwise Forward    | 1.3576 | 0.52   | 24869.78 | 22    |
| Linear - Manual              | 1.3632 | 0.52   | 24916.90 | 15    |

Since we are comparing different types of models, its tricky to select a common metric for these.

For our evaluation, lets consider the model that had least RMSE, AIC - which in our case is the linear model ( both barkward and forward resluted in the same metrics)

## Evaluation

Lets do the data transformation first for our eval data frame, and then predict.

```
## Observations: 3,335
## Variables: 16
## $ IN          <int> 3, 9, 10, 18, 21, 30, 31, 37, 39, 47, 60, 6...
## $ TARGET      <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
```

```

## $ FixedAcidity      <dbl> 5.4, 12.4, 7.2, 6.2, 11.4, 17.6, 15.5, 15.9...
## $ VolatileAcidity   <dbl> -0.860, 0.385, 1.750, 0.100, 0.210, 0.040, ...
## $ CitricAcid        <dbl> 0.27, -0.76, 0.17, 1.80, 0.28, -1.15, -0.53...
## $ ResidualSugar     <dbl> -10.70, -19.70, -33.00, 1.00, 1.20, 1.40, 4...
## $ Chlorides         <dbl> 0.092, 1.169, 0.065, -0.179, 0.038, 0.535, ...
## $ FreeSulfurDioxide <dbl> 23, -37, 9, 104, 70, -250, 10, 115, 35, 40,...
## $ TotalSulfurDioxide <dbl> 398, 68, 76, 89, 53, 140, 17, 381, 83, 129,...
## $ Density           <dbl> 0.98527, 0.99048, 1.04641, 0.98877, 1.02899...
## $ pH                <dbl> 5.02, 3.37, 4.61, 3.20, 2.54, 3.06, 3.07, 2...
## $ Sulphates         <dbl> 0.64, 1.09, 0.68, 2.11, -0.07, -0.02, 0.75,...
## $ Alcohol           <dbl> 12.30, 16.00, 8.55, 12.30, 4.80, 11.40, 8.5...
## $ LabelAppeal       <int> -1, 0, 0, -1, 0, 1, 0, 1, 0, 0, 0, 1, 0, 0,...
## $ AcidIndex         <int> 6, 6, 8, 8, 10, 8, 12, 7, 12, 7, 8, 10, 9, ...
## $ STARS             <int> NA, 2, 1, 1, NA, 4, 3, NA, NA, NA, 1, NA, 2...

```

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 3     | 0     | -1          | 1      |
| 9     | 2     | 0           | 4      |
| 10    | 1     | 0           | 3      |
| 18    | 1     | -1          | 2      |
| 21    | 0     | 0           | 1      |
| 30    | 4     | 1           | 5      |
| 31    | 3     | 0           | 4      |
| 37    | 0     | 1           | 2      |
| 39    | 0     | 0           | 1      |
| 47    | 0     | 0           | 2      |
| 60    | 1     | 0           | NA     |
| 62    | 0     | 1           | 1      |
| 63    | 2     | 0           | 4      |
| 64    | 0     | 0           | NA     |
| 68    | 0     | -1          | 1      |
| 75    | 2     | -1          | 3      |
| 76    | 1     | -1          | 3      |
| 83    | 0     | 1           | 0      |
| 87    | 2     | 0           | 4      |
| 92    | 3     | 1           | 5      |
| 98    | 2     | -2          | 3      |
| 106   | 0     | 0           | 1      |
| 107   | 0     | 2           | 2      |
| 113   | 1     | -1          | 2      |
| 120   | 2     | 0           | 4      |
| 123   | 2     | 2           | 5      |
| 125   | 2     | -1          | 3      |
| 126   | 4     | 1           | 5      |
| 128   | 4     | 0           | 5      |
| 129   | 1     | -1          | 2      |
| 131   | 3     | 0           | NA     |
| 135   | 0     | 1           | 2      |
| 141   | 3     | 0           | 5      |
| 147   | 1     | 0           | 3      |
| 148   | 0     | -1          | 1      |
| 151   | 2     | 0           | 4      |
| 156   | 1     | 1           | 3      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 157   | 3     | -1          | 4      |
| 174   | 0     | -1          | 1      |
| 186   | 0     | 1           | 2      |
| 193   | 1     | -1          | 2      |
| 195   | 0     | 0           | NA     |
| 212   | 0     | 0           | 1      |
| 213   | 0     | 0           | 1      |
| 217   | 1     | 0           | NA     |
| 223   | 2     | 0           | 4      |
| 226   | 1     | 0           | 3      |
| 228   | 2     | 1           | 4      |
| 230   | 3     | 0           | 4      |
| 241   | 1     | 0           | 3      |
| 243   | 2     | 0           | 4      |
| 249   | 0     | 0           | 1      |
| 281   | 3     | 0           | 5      |
| 288   | 0     | 0           | 1      |
| 294   | 1     | -2          | 2      |
| 295   | 1     | -2          | 2      |
| 300   | 2     | 2           | NA     |
| 302   | 2     | 1           | 4      |
| 303   | 0     | 0           | 1      |
| 308   | 0     | -1          | 1      |
| 319   | 2     | 1           | NA     |
| 320   | 0     | 0           | NA     |
| 324   | 1     | 0           | NA     |
| 331   | 1     | -1          | 2      |
| 343   | 1     | 0           | 3      |
| 347   | 1     | -1          | 2      |
| 348   | 2     | 0           | 4      |
| 350   | 2     | 1           | 4      |
| 357   | 0     | -2          | 0      |
| 358   | 2     | 0           | 4      |
| 360   | 3     | 0           | NA     |
| 366   | 1     | 1           | 3      |
| 367   | 1     | -1          | 2      |
| 368   | 3     | 1           | 5      |
| 376   | 1     | -1          | 2      |
| 380   | 1     | 0           | 3      |
| 388   | 0     | -2          | 0      |
| 396   | 2     | 1           | NA     |
| 398   | 4     | 0           | 5      |
| 403   | 3     | 0           | NA     |
| 410   | 1     | 0           | 3      |
| 412   | 0     | 2           | 3      |
| 420   | 1     | -1          | 2      |
| 434   | 1     | -1          | 2      |
| 440   | 1     | 0           | 3      |
| 450   | 2     | 0           | 4      |
| 453   | 1     | 0           | 3      |
| 464   | 4     | 0           | 5      |
| 465   | 2     | 1           | NA     |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 466   | 4     | 0           | 5      |
| 473   | 1     | -1          | 2      |
| 476   | 0     | 0           | 1      |
| 478   | 0     | 0           | 1      |
| 479   | 2     | -1          | 4      |
| 493   | 1     | -1          | 2      |
| 497   | 3     | -1          | NA     |
| 503   | 2     | 0           | 4      |
| 504   | 2     | 0           | 3      |
| 505   | 2     | -2          | 3      |
| 507   | 0     | 1           | 2      |
| 513   | 1     | 0           | 2      |
| 519   | 1     | -1          | 2      |
| 521   | 2     | 0           | 4      |
| 522   | 2     | 0           | 4      |
| 545   | 1     | 0           | NA     |
| 549   | 0     | 0           | 2      |
| 551   | 0     | 0           | 1      |
| 556   | 3     | 2           | NA     |
| 557   | 4     | 1           | 6      |
| 559   | 0     | -1          | 1      |
| 560   | 1     | -1          | NA     |
| 566   | 2     | 0           | 4      |
| 569   | 2     | 1           | 4      |
| 573   | 1     | -1          | NA     |
| 578   | 0     | 0           | 1      |
| 579   | 3     | 1           | NA     |
| 582   | 3     | 1           | 5      |
| 596   | 3     | 0           | NA     |
| 598   | 1     | -1          | NA     |
| 599   | 0     | -1          | 1      |
| 602   | 1     | 0           | 3      |
| 605   | 0     | -1          | 1      |
| 617   | 1     | -1          | NA     |
| 619   | 4     | 1           | 5      |
| 630   | 1     | 1           | 3      |
| 634   | 2     | 0           | 4      |
| 643   | 1     | -1          | NA     |
| 645   | 0     | -1          | 1      |
| 647   | 2     | 1           | 4      |
| 649   | 1     | 1           | 3      |
| 656   | 2     | 0           | 4      |
| 657   | 3     | 1           | 5      |
| 658   | 1     | 0           | NA     |
| 667   | 3     | -1          | 4      |
| 692   | 1     | 0           | NA     |
| 693   | 3     | 0           | 4      |
| 698   | 0     | 1           | 1      |
| 699   | 2     | 0           | 4      |
| 700   | 4     | 2           | NA     |
| 704   | 2     | -1          | 3      |
| 707   | 1     | 1           | NA     |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 708   | 2     | 1           | 4      |
| 709   | 1     | 0           | 3      |
| 713   | 0     | -1          | 1      |
| 714   | 2     | -1          | 3      |
| 716   | 1     | -1          | 2      |
| 718   | 2     | 0           | 4      |
| 722   | 3     | 0           | 4      |
| 729   | 3     | 2           | NA     |
| 731   | 1     | 0           | 3      |
| 733   | 2     | 0           | 4      |
| 746   | 1     | 0           | 3      |
| 747   | 2     | 0           | 4      |
| 748   | 0     | -1          | NA     |
| 753   | 0     | -1          | NA     |
| 757   | 0     | -1          | 1      |
| 763   | 2     | -1          | 3      |
| 767   | 3     | 1           | 5      |
| 774   | 1     | 0           | 3      |
| 776   | 0     | 1           | 2      |
| 788   | 0     | 0           | 1      |
| 794   | 2     | 0           | 4      |
| 799   | 0     | 0           | 2      |
| 803   | 3     | 0           | 4      |
| 806   | 3     | 0           | 4      |
| 807   | 2     | 0           | 4      |
| 811   | 3     | 0           | 5      |
| 816   | 3     | 2           | NA     |
| 818   | 2     | 0           | 4      |
| 819   | 0     | -1          | 1      |
| 831   | 3     | 1           | 5      |
| 835   | 3     | 1           | 5      |
| 837   | 0     | -1          | 1      |
| 841   | 0     | 1           | NA     |
| 846   | 0     | -1          | 1      |
| 856   | 4     | 1           | NA     |
| 861   | 2     | 1           | 4      |
| 862   | 0     | 2           | NA     |
| 863   | 2     | -1          | 3      |
| 865   | 2     | 0           | NA     |
| 871   | 1     | -1          | 2      |
| 879   | 0     | 0           | 1      |
| 880   | 1     | -1          | 2      |
| 881   | 2     | 0           | 4      |
| 885   | 2     | 0           | 4      |
| 887   | 1     | 0           | NA     |
| 892   | 0     | 1           | NA     |
| 898   | 2     | 0           | 4      |
| 900   | 0     | -2          | 0      |
| 904   | 0     | 0           | NA     |
| 906   | 3     | 1           | 5      |
| 910   | 2     | 0           | 4      |
| 912   | 3     | 0           | 4      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 913   | 1     | -1          | 2      |
| 919   | 4     | 0           | 5      |
| 924   | 0     | -1          | NA     |
| 925   | 1     | 0           | 3      |
| 930   | 2     | -1          | 3      |
| 940   | 1     | -2          | NA     |
| 941   | 1     | 1           | 3      |
| 946   | 0     | 0           | 1      |
| 949   | 3     | 1           | 5      |
| 951   | 0     | -1          | 1      |
| 962   | 2     | 0           | 4      |
| 966   | 1     | -1          | 2      |
| 967   | 4     | 0           | 5      |
| 971   | 0     | 1           | 2      |
| 981   | 3     | -1          | 4      |
| 982   | 2     | -1          | NA     |
| 983   | 0     | 0           | 1      |
| 984   | 0     | 1           | 2      |
| 989   | 2     | -2          | 3      |
| 990   | 2     | 1           | 4      |
| 992   | 1     | 0           | 3      |
| 995   | 3     | 1           | 5      |
| 996   | 0     | -1          | 1      |
| 998   | 0     | -1          | 1      |
| 1001  | 4     | -1          | 5      |
| 1007  | 0     | 0           | 1      |
| 1008  | 1     | -1          | NA     |
| 1016  | 1     | -1          | 2      |
| 1022  | 1     | -1          | NA     |
| 1027  | 3     | 1           | 5      |
| 1032  | 0     | 1           | NA     |
| 1033  | 2     | 0           | 3      |
| 1041  | 3     | 1           | 5      |
| 1065  | 0     | -1          | NA     |
| 1074  | 0     | 0           | 2      |
| 1075  | 0     | 0           | 1      |
| 1081  | 0     | -1          | 1      |
| 1094  | 3     | 0           | 4      |
| 1099  | 2     | -1          | 3      |
| 1105  | 1     | 0           | 3      |
| 1123  | 0     | 1           | 2      |
| 1135  | 0     | 0           | NA     |
| 1142  | 1     | -1          | 2      |
| 1155  | 1     | -1          | 2      |
| 1169  | 1     | 0           | NA     |
| 1176  | 1     | 1           | NA     |
| 1178  | 2     | 0           | 4      |
| 1180  | 2     | 0           | 4      |
| 1184  | 0     | 0           | 1      |
| 1185  | 0     | -1          | 1      |
| 1193  | 0     | 0           | 1      |
| 1196  | 0     | -1          | 1      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 1199  | 0     | -2          | 1      |
| 1203  | 2     | -1          | 3      |
| 1205  | 1     | -1          | 2      |
| 1207  | 1     | -1          | 2      |
| 1208  | 0     | 0           | 1      |
| 1212  | 0     | -2          | NA     |
| 1213  | 0     | 0           | NA     |
| 1222  | 0     | -1          | 1      |
| 1223  | 0     | 0           | 1      |
| 1226  | 3     | 0           | 4      |
| 1227  | 3     | 2           | 5      |
| 1229  | 0     | -1          | 1      |
| 1230  | 3     | 0           | 4      |
| 1231  | 1     | 0           | 3      |
| 1241  | 0     | -1          | 1      |
| 1243  | 3     | 0           | 4      |
| 1244  | 4     | 1           | 6      |
| 1246  | 3     | 0           | 5      |
| 1248  | 1     | -1          | 2      |
| 1249  | 2     | 0           | 4      |
| 1252  | 2     | 0           | 4      |
| 1261  | 1     | 1           | 3      |
| 1275  | 3     | -1          | 4      |
| 1281  | 0     | 0           | 2      |
| 1285  | 3     | 0           | NA     |
| 1288  | 0     | 1           | 2      |
| 1290  | 2     | 0           | 4      |
| 1291  | 0     | 0           | 1      |
| 1304  | 2     | 1           | 4      |
| 1305  | 3     | -2          | 4      |
| 1323  | 2     | 1           | 4      |
| 1342  | 0     | 0           | NA     |
| 1348  | 1     | -1          | NA     |
| 1353  | 2     | 0           | 4      |
| 1363  | 2     | -1          | 3      |
| 1371  | 2     | 0           | 4      |
| 1372  | 0     | -1          | 1      |
| 1378  | 0     | 0           | 1      |
| 1381  | 3     | 0           | 4      |
| 1382  | 3     | 0           | 4      |
| 1393  | 2     | 1           | NA     |
| 1394  | 3     | 1           | 5      |
| 1398  | 3     | 2           | 5      |
| 1404  | 1     | 1           | NA     |
| 1405  | 2     | 0           | 4      |
| 1419  | 0     | 0           | 1      |
| 1421  | 2     | -2          | 3      |
| 1426  | 0     | -1          | 1      |
| 1431  | 0     | 0           | NA     |
| 1435  | 2     | -1          | NA     |
| 1437  | 0     | 0           | 1      |
| 1438  | 0     | 1           | NA     |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 1442  | 0     | -2          | NA     |
| 1464  | 0     | -1          | NA     |
| 1471  | 1     | 1           | NA     |
| 1473  | 2     | 1           | 4      |
| 1476  | 2     | -1          | 3      |
| 1478  | 1     | -1          | 2      |
| 1479  | 2     | 0           | 4      |
| 1487  | 3     | 1           | 5      |
| 1492  | 2     | 1           | 4      |
| 1496  | 2     | -1          | 3      |
| 1497  | 0     | 1           | 2      |
| 1515  | 1     | 0           | NA     |
| 1519  | 0     | 0           | 1      |
| 1522  | 2     | -1          | 3      |
| 1526  | 1     | 1           | 3      |
| 1537  | 1     | 0           | 3      |
| 1538  | 3     | 0           | 5      |
| 1540  | 1     | -1          | 2      |
| 1543  | 2     | 0           | NA     |
| 1548  | 0     | -1          | 1      |
| 1549  | 0     | 0           | 1      |
| 1556  | 2     | -1          | 3      |
| 1564  | 0     | 0           | 2      |
| 1570  | 3     | -1          | 4      |
| 1577  | 1     | -1          | 2      |
| 1585  | 3     | 0           | 4      |
| 1590  | 2     | 1           | 4      |
| 1592  | 0     | -1          | 1      |
| 1594  | 0     | -1          | 1      |
| 1596  | 4     | 2           | 6      |
| 1598  | 4     | 0           | 5      |
| 1603  | 0     | 0           | 2      |
| 1607  | 0     | -1          | 1      |
| 1612  | 4     | 1           | 6      |
| 1627  | 2     | 1           | 4      |
| 1629  | 1     | 1           | 3      |
| 1630  | 2     | -1          | 3      |
| 1640  | 4     | 1           | 5      |
| 1641  | 3     | 0           | 4      |
| 1646  | 2     | 0           | 4      |
| 1662  | 0     | 1           | 2      |
| 1668  | 0     | 0           | NA     |
| 1671  | 0     | 1           | 2      |
| 1672  | 3     | 0           | 5      |
| 1673  | 4     | 1           | NA     |
| 1686  | 2     | 0           | 4      |
| 1688  | 3     | 0           | 4      |
| 1696  | 3     | -1          | 4      |
| 1701  | 4     | 0           | 5      |
| 1707  | 2     | 0           | NA     |
| 1708  | 1     | 1           | 3      |
| 1713  | 2     | 0           | 4      |



| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 1715  | 3     | -1          | NA     |
| 1717  | 1     | 0           | 3      |
| 1721  | 2     | -1          | 3      |
| 1724  | 1     | 0           | NA     |
| 1725  | 2     | -1          | 3      |
| 1730  | 2     | 0           | 4      |
| 1731  | 3     | 0           | 4      |
| 1734  | 1     | 2           | 4      |
| 1740  | 1     | 1           | 3      |
| 1748  | 1     | 0           | 3      |
| 1749  | 2     | 1           | 4      |
| 1750  | 4     | 1           | 5      |
| 1763  | 1     | 0           | 3      |
| 1768  | 3     | 0           | 4      |
| 1773  | 1     | -1          | NA     |
| 1777  | 0     | 1           | 2      |
| 1778  | 0     | 0           | 1      |
| 1780  | 1     | 0           | 3      |
| 1782  | 0     | 0           | 1      |
| 1784  | 2     | 1           | 4      |
| 1786  | 2     | 0           | 4      |
| 1787  | 2     | 1           | NA     |
| 1792  | 0     | 0           | 1      |
| 1800  | 1     | -1          | NA     |
| 1801  | 2     | -1          | 3      |
| 1803  | 1     | 0           | 3      |
| 1804  | 3     | -1          | 4      |
| 1807  | 1     | -1          | 2      |
| 1818  | 3     | 2           | 5      |
| 1821  | 1     | 1           | 3      |
| 1822  | 3     | 0           | 5      |
| 1828  | 1     | 0           | 3      |
| 1833  | 2     | 0           | 4      |
| 1844  | 3     | 0           | 4      |
| 1847  | 1     | 0           | 3      |
| 1850  | 1     | -1          | 2      |
| 1854  | 2     | 0           | 4      |
| 1858  | 3     | 1           | 5      |
| 1864  | 3     | 0           | 4      |
| 1867  | 1     | 0           | NA     |
| 1876  | 1     | 0           | NA     |
| 1880  | 0     | 0           | NA     |
| 1881  | 1     | -1          | NA     |
| 1891  | 1     | 0           | 3      |
| 1894  | 2     | 0           | NA     |
| 1895  | 2     | 1           | 4      |
| 1901  | 0     | 1           | NA     |
| 1905  | 2     | 1           | 4      |
| 1912  | 3     | 2           | 5      |
| 1918  | 2     | -1          | 3      |
| 1921  | 2     | 0           | 4      |
| 1923  | 2     | -1          | 3      |

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|-------|-------|-------------|--------|
| 1924  | 0     | 1           | 2      |
| 1931  | 1     | -1          | NA     |
| 1941  | 3     | 0           | 4      |
| 1950  | 0     | -2          | 1      |
| 1951  | 3     | 0           | 5      |
| 1954  | 2     | 1           | 4      |
| 1961  | 2     | 0           | 4      |
| 1966  | 2     | 0           | NA     |
| 1979  | 2     | 0           | 4      |
| 1982  | 0     | 0           | NA     |
| 1987  | 1     | 0           | 3      |
| 1997  | 1     | 0           | NA     |
| 2004  | 3     | 0           | 4      |
| 2011  | 4     | 0           | 5      |
| 2015  | 1     | 1           | 3      |
| 2025  | 4     | 2           | 6      |
| 2033  | 0     | 0           | NA     |
| 2034  | 2     | 1           | 4      |
| 2035  | 0     | 0           | NA     |
| 2036  | 0     | -2          | 1      |
| 2053  | 1     | 0           | 3      |
| 2059  | 3     | -1          | NA     |
| 2060  | 0     | -1          | 1      |
| 2073  | 1     | 0           | NA     |
| 2084  | 1     | 0           | 3      |
| 2089  | 3     | -1          | 4      |
| 2092  | 0     | -1          | 1      |
| 2109  | 4     | 0           | 5      |
| 2129  | 3     | 1           | 5      |
| 2134  | 3     | 2           | 5      |
| 2135  | 2     | 1           | 4      |
| 2148  | 1     | 1           | NA     |
| 2149  | 0     | 1           | NA     |
| 2150  | 1     | -1          | 2      |
| 2165  | 1     | 0           | 3      |
| 2166  | 1     | 0           | NA     |
| 2168  | 4     | 0           | NA     |
| 2170  | 0     | -2          | 0      |
| 2171  | 1     | -1          | 2      |
| 2172  | 1     | 1           | 3      |
| 2176  | 3     | 1           | 5      |
| 2182  | 2     | -1          | 3      |
| 2189  | 1     | -1          | 2      |
| 2191  | 2     | 1           | NA     |
| 2197  | 1     | 0           | 3      |
| 2202  | 0     | 1           | 2      |
| 2203  | 2     | 0           | 4      |
| 2204  | 0     | -1          | 0      |
| 2206  | 2     | 1           | 4      |
| 2218  | 1     | 0           | 3      |
| 2219  | 2     | 0           | 4      |
| 2221  | 0     | 0           | 1      |

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|-------|-------|-------------|--------|
| 2226  | 0     | 0           | 1      |
| 2228  | 2     | -1          | NA     |
| 2232  | 2     | 0           | NA     |
| 2236  | 0     | 0           | 1      |
| 2241  | 1     | -1          | 2      |
| 2245  | 3     | 1           | 5      |
| 2251  | 3     | -1          | NA     |
| 2255  | 3     | 1           | 5      |
| 2256  | 2     | 0           | 4      |
| 2259  | 0     | 0           | 1      |
| 2263  | 2     | 0           | 4      |
| 2264  | 2     | 0           | NA     |
| 2267  | 0     | 0           | 1      |
| 2273  | 1     | -1          | 2      |
| 2277  | 2     | 1           | 4      |
| 2287  | 3     | 0           | 5      |
| 2289  | 2     | -1          | 3      |
| 2291  | 0     | -1          | 1      |
| 2296  | 1     | -1          | 2      |
| 2299  | 0     | -1          | NA     |
| 2306  | 2     | -1          | 3      |
| 2314  | 0     | 1           | 2      |
| 2317  | 1     | -1          | 2      |
| 2318  | 3     | 0           | 4      |
| 2321  | 3     | 0           | 4      |
| 2324  | 2     | 1           | NA     |
| 2340  | 2     | -1          | 3      |
| 2343  | 2     | -2          | NA     |
| 2349  | 0     | -1          | 1      |
| 2352  | 3     | 1           | 5      |
| 2353  | 0     | -1          | 1      |
| 2365  | 1     | 0           | 3      |
| 2370  | 0     | 0           | NA     |
| 2378  | 2     | -1          | NA     |
| 2390  | 0     | -1          | 1      |
| 2399  | 0     | 1           | 2      |
| 2402  | 0     | 0           | 1      |
| 2403  | 0     | 1           | 2      |
| 2404  | 0     | 0           | 1      |
| 2414  | 3     | 1           | 5      |
| 2422  | 2     | 0           | 4      |
| 2424  | 0     | 1           | 1      |
| 2430  | 2     | 0           | 4      |
| 2435  | 2     | -1          | 3      |
| 2439  | 0     | 0           | NA     |
| 2442  | 2     | 1           | 4      |
| 2445  | 2     | 0           | 4      |
| 2449  | 0     | 1           | 2      |
| 2451  | 0     | 0           | 1      |
| 2461  | 1     | 1           | 3      |
| 2464  | 2     | 0           | NA     |
| 2465  | 2     | 0           | 4      |

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|-------|-------|-------------|--------|
| 2472  | 2     | -1          | 3      |
| 2476  | 1     | -1          | 2      |
| 2482  | 1     | 0           | 3      |
| 2487  | 3     | 1           | 5      |
| 2498  | 2     | 1           | 4      |
| 2501  | 2     | 0           | NA     |
| 2504  | 1     | 0           | 3      |
| 2511  | 0     | 0           | 1      |
| 2518  | 3     | 1           | 5      |
| 2521  | 3     | 1           | NA     |
| 2530  | 2     | -1          | 3      |
| 2543  | 2     | 1           | 4      |
| 2545  | 2     | 1           | 4      |
| 2561  | 3     | -1          | NA     |
| 2566  | 2     | 0           | NA     |
| 2572  | 1     | 0           | 3      |
| 2577  | 1     | 1           | 3      |
| 2578  | 0     | 0           | 1      |
| 2580  | 1     | 1           | 3      |
| 2581  | 3     | 0           | 4      |
| 2582  | 2     | 1           | 4      |
| 2584  | 1     | 0           | NA     |
| 2590  | 3     | 0           | 4      |
| 2598  | 2     | -1          | 3      |
| 2602  | 0     | 0           | NA     |
| 2605  | 3     | 1           | 5      |
| 2616  | 2     | 0           | 4      |
| 2618  | 2     | 0           | 3      |
| 2619  | 0     | -1          | 1      |
| 2624  | 3     | 1           | 5      |
| 2632  | 0     | 0           | 1      |
| 2640  | 2     | 0           | 4      |
| 2646  | 3     | 0           | 4      |
| 2651  | 0     | 1           | NA     |
| 2660  | 0     | 0           | 1      |
| 2661  | 3     | -1          | 4      |
| 2668  | 0     | -2          | 0      |
| 2670  | 0     | 1           | 2      |
| 2680  | 1     | 1           | 3      |
| 2681  | 2     | -1          | 4      |
| 2689  | 0     | 0           | NA     |
| 2694  | 2     | 2           | 5      |
| 2695  | 0     | 0           | NA     |
| 2696  | 1     | 0           | NA     |
| 2702  | 1     | 0           | 3      |
| 2704  | 2     | 0           | 4      |
| 2708  | 4     | 1           | 5      |
| 2709  | 1     | 1           | 3      |
| 2714  | 3     | 0           | NA     |
| 2716  | 2     | 1           | NA     |
| 2723  | 0     | 0           | 1      |
| 2725  | 2     | -1          | NA     |

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|-------|-------|-------------|--------|
| 2738  | 0     | 2           | NA     |
| 2750  | 2     | 0           | 4      |
| 2756  | 0     | 0           | 1      |
| 2758  | 3     | 0           | 4      |
| 2766  | 1     | 0           | NA     |
| 2767  | 0     | 1           | 2      |
| 2771  | 2     | -2          | 3      |
| 2775  | 2     | 0           | 4      |
| 2776  | 2     | -1          | NA     |
| 2779  | 0     | 0           | 1      |
| 2780  | 1     | 0           | 3      |
| 2781  | 0     | 0           | 1      |
| 2782  | 3     | 0           | 4      |
| 2783  | 2     | 0           | 4      |
| 2796  | 2     | 0           | 4      |
| 2798  | 2     | 2           | 5      |
| 2800  | 1     | 1           | NA     |
| 2803  | 4     | 2           | 6      |
| 2806  | 3     | 1           | NA     |
| 2813  | 2     | -1          | 4      |
| 2818  | 0     | -1          | 1      |
| 2821  | 3     | 1           | 5      |
| 2825  | 3     | 0           | 4      |
| 2829  | 1     | -1          | 2      |
| 2830  | 1     | 0           | 3      |
| 2833  | 3     | 0           | 4      |
| 2839  | 0     | -1          | NA     |
| 2843  | 4     | 0           | 5      |
| 2846  | 2     | 1           | 4      |
| 2847  | 1     | 1           | 3      |
| 2848  | 4     | 1           | NA     |
| 2856  | 1     | 1           | NA     |
| 2863  | 0     | 1           | 1      |
| 2867  | 3     | 1           | 5      |
| 2869  | 2     | 0           | 4      |
| 2873  | 3     | 0           | 4      |
| 2874  | 2     | 0           | 4      |
| 2875  | 2     | -1          | 3      |
| 2880  | 0     | -1          | 1      |
| 2886  | 3     | -1          | 4      |
| 2887  | 2     | 0           | NA     |
| 2888  | 2     | 0           | 4      |
| 2889  | 1     | -1          | 2      |
| 2890  | 0     | 1           | 2      |
| 2892  | 0     | -1          | 1      |
| 2901  | 1     | 1           | NA     |
| 2902  | 1     | 0           | 3      |
| 2905  | 1     | -1          | 2      |
| 2917  | 1     | 0           | NA     |
| 2922  | 1     | 0           | 3      |
| 2924  | 1     | 2           | 4      |
| 2930  | 0     | 2           | 2      |

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|-------|-------|-------------|--------|
| 2931  | 3     | 1           | 5      |
| 2946  | 0     | -1          | 1      |
| 2955  | 2     | 0           | 4      |
| 2962  | 2     | -1          | NA     |
| 2964  | 0     | 0           | 1      |
| 2965  | 0     | 0           | 1      |
| 2967  | 2     | 2           | 5      |
| 2970  | 4     | 1           | 5      |
| 2973  | 3     | 2           | 6      |
| 2974  | 0     | -1          | 1      |
| 2976  | 0     | 0           | 1      |
| 2977  | 0     | 0           | 1      |
| 2978  | 0     | 0           | NA     |
| 2986  | 3     | 0           | 5      |
| 2988  | 3     | 1           | 5      |
| 2989  | 0     | 1           | NA     |
| 2995  | 2     | 0           | 4      |
| 3005  | 3     | 1           | 5      |
| 3011  | 3     | 1           | 5      |
| 3013  | 1     | 0           | 3      |
| 3019  | 2     | 0           | NA     |
| 3021  | 1     | -2          | 2      |
| 3022  | 3     | 1           | 5      |
| 3029  | 0     | -1          | 1      |
| 3037  | 2     | 0           | 4      |
| 3042  | 1     | -1          | 2      |
| 3043  | 2     | 0           | 4      |
| 3049  | 2     | 0           | 4      |
| 3050  | 4     | 1           | 5      |
| 3053  | 0     | -1          | 1      |
| 3058  | 0     | 0           | 1      |
| 3062  | 0     | 1           | 2      |
| 3063  | 3     | 0           | NA     |
| 3065  | 0     | 1           | NA     |
| 3080  | 1     | -1          | 3      |
| 3088  | 0     | 1           | NA     |
| 3093  | 0     | -1          | 1      |
| 3096  | 3     | 1           | NA     |
| 3101  | 4     | 1           | 6      |
| 3103  | 0     | -2          | 0      |
| 3107  | 3     | 2           | 5      |
| 3109  | 3     | 0           | 4      |
| 3111  | 4     | 1           | 6      |
| 3113  | 2     | 1           | 4      |
| 3116  | 3     | 1           | 5      |
| 3132  | 1     | 0           | NA     |
| 3141  | 3     | 1           | 5      |
| 3153  | 0     | 0           | NA     |
| 3154  | 0     | 0           | 1      |
| 3160  | 0     | 0           | 1      |
| 3167  | 0     | 1           | 2      |
| 3170  | 2     | -1          | 3      |

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|-------|-------|-------------|--------|
| 3173  | 1     | -1          | 2      |
| 3174  | 2     | 0           | 4      |
| 3177  | 3     | 1           | 5      |
| 3179  | 3     | 0           | NA     |
| 3184  | 0     | -1          | 1      |
| 3190  | 1     | 0           | NA     |
| 3193  | 3     | 0           | NA     |
| 3199  | 3     | 0           | 5      |
| 3201  | 0     | 0           | NA     |
| 3202  | 1     | -1          | 2      |
| 3203  | 1     | 1           | 3      |
| 3206  | 2     | -1          | NA     |
| 3209  | 2     | -1          | 3      |
| 3210  | 1     | 0           | 2      |
| 3217  | 3     | 0           | 5      |
| 3220  | 3     | 0           | NA     |
| 3228  | 1     | -1          | NA     |
| 3232  | 1     | 0           | 3      |
| 3239  | 0     | 0           | NA     |
| 3243  | 2     | 0           | 4      |
| 3245  | 1     | 0           | 3      |
| 3246  | 2     | 1           | NA     |
| 3251  | 4     | 0           | 5      |
| 3253  | 4     | 0           | 5      |
| 3257  | 3     | 0           | NA     |
| 3260  | 0     | 0           | 1      |
| 3261  | 1     | 1           | 3      |
| 3263  | 3     | 1           | 5      |
| 3278  | 2     | 0           | 4      |
| 3281  | 1     | 0           | 3      |
| 3283  | 3     | 1           | 5      |
| 3290  | 1     | -1          | 2      |
| 3297  | 2     | 0           | 4      |
| 3304  | 3     | 0           | 4      |
| 3305  | 2     | -1          | 3      |
| 3307  | 2     | 2           | 5      |
| 3308  | 1     | 1           | 3      |
| 3313  | 1     | 1           | 3      |
| 3314  | 1     | 0           | 3      |
| 3317  | 0     | 2           | 2      |
| 3348  | 0     | 1           | 2      |
| 3350  | 1     | -1          | 2      |
| 3359  | 2     | 0           | 4      |
| 3367  | 3     | 0           | 4      |
| 3376  | 1     | 0           | 3      |
| 3378  | 3     | -1          | 4      |
| 3384  | 0     | 0           | 1      |
| 3386  | 1     | 0           | 3      |
| 3387  | 2     | 0           | NA     |
| 3388  | 2     | -1          | 3      |
| 3390  | 2     | 1           | 4      |
| 3391  | 0     | 0           | 1      |

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|-------|-------|-------------|--------|
| 3396  | 0     | -1          | 0      |
| 3398  | 2     | 0           | 4      |
| 3404  | 4     | 0           | 5      |
| 3406  | 0     | 1           | 2      |
| 3407  | 1     | 1           | 3      |
| 3414  | 3     | 1           | 5      |
| 3419  | 2     | -1          | 3      |
| 3423  | 1     | -1          | NA     |
| 3427  | 1     | 0           | 3      |
| 3432  | 0     | 0           | 0      |
| 3434  | 1     | 0           | 3      |
| 3438  | 0     | 0           | 1      |
| 3442  | 0     | 0           | 1      |
| 3443  | 0     | 0           | 1      |
| 3448  | 0     | 0           | 1      |
| 3456  | 2     | -1          | 3      |
| 3464  | 4     | 1           | 5      |
| 3470  | 0     | 0           | 1      |
| 3475  | 2     | 0           | 4      |
| 3477  | 3     | -1          | NA     |
| 3490  | 1     | 0           | NA     |
| 3493  | 2     | 0           | 4      |
| 3502  | 2     | -1          | NA     |
| 3508  | 3     | 0           | NA     |
| 3516  | 0     | -1          | NA     |
| 3517  | 3     | 1           | NA     |
| 3525  | 1     | 0           | NA     |
| 3532  | 2     | 0           | 4      |
| 3535  | 2     | 0           | NA     |
| 3536  | 2     | 1           | 4      |
| 3540  | 2     | -1          | 3      |
| 3547  | 1     | 0           | 3      |
| 3550  | 3     | -1          | 4      |
| 3557  | 1     | -1          | NA     |
| 3562  | 0     | -1          | 1      |
| 3563  | 2     | -1          | 3      |
| 3564  | 0     | -1          | 1      |
| 3570  | 1     | 1           | 3      |
| 3573  | 1     | 1           | NA     |
| 3577  | 1     | 1           | 3      |
| 3579  | 3     | -1          | NA     |
| 3581  | 0     | -1          | 1      |
| 3587  | 2     | 0           | 4      |
| 3602  | 3     | -1          | 4      |
| 3609  | 2     | 0           | 4      |
| 3612  | 2     | 1           | 5      |
| 3621  | 1     | 1           | 3      |
| 3642  | 0     | 1           | NA     |
| 3647  | 0     | 0           | 1      |
| 3649  | 1     | 0           | NA     |
| 3654  | 1     | 0           | NA     |
| 3660  | 2     | 1           | 4      |



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|-------|-------|-------------|--------|
| 3665  | 3     | 0           | NA     |
| 3669  | 2     | 0           | 4      |
| 3673  | 2     | 0           | 4      |
| 3675  | 0     | 0           | 1      |
| 3678  | 2     | 0           | 4      |
| 3680  | 1     | 1           | 3      |
| 3686  | 3     | 2           | 5      |
| 3693  | 2     | 1           | 4      |
| 3710  | 1     | 0           | 3      |
| 3713  | 3     | 0           | 4      |
| 3718  | 3     | 1           | NA     |
| 3725  | 2     | -1          | 3      |
| 3726  | 1     | 1           | 3      |
| 3747  | 1     | 0           | 3      |
| 3753  | 0     | 0           | 2      |
| 3754  | 4     | 0           | 5      |
| 3760  | 4     | 0           | 5      |
| 3763  | 1     | -1          | 2      |
| 3765  | 3     | 0           | 4      |
| 3769  | 4     | 0           | 5      |
| 3771  | 2     | 0           | 4      |
| 3784  | 1     | 1           | 3      |
| 3787  | 2     | 1           | NA     |
| 3794  | 0     | 0           | 1      |
| 3796  | 2     | 0           | 4      |
| 3798  | 2     | 1           | 4      |
| 3809  | 2     | 0           | 4      |
| 3812  | 3     | 1           | 5      |
| 3819  | 0     | -2          | 0      |
| 3828  | 3     | 0           | NA     |
| 3831  | 3     | 1           | 5      |
| 3833  | 1     | 1           | 3      |
| 3837  | 3     | 1           | 5      |
| 3839  | 0     | -1          | 1      |
| 3843  | 0     | 0           | 1      |
| 3846  | 2     | 0           | NA     |
| 3854  | 3     | 1           | 5      |
| 3861  | 0     | 0           | 1      |
| 3864  | 2     | 0           | 4      |
| 3868  | 1     | 0           | 3      |
| 3869  | 3     | 1           | 5      |
| 3870  | 1     | 0           | 3      |
| 3883  | 1     | -1          | 2      |
| 3886  | 1     | 0           | 3      |
| 3889  | 2     | 0           | NA     |
| 3894  | 0     | -1          | 1      |
| 3907  | 1     | 0           | 3      |
| 3910  | 2     | 0           | 4      |
| 3913  | 0     | 0           | 1      |
| 3914  | 1     | 0           | 3      |
| 3921  | 2     | 2           | 5      |
| 3923  | 0     | 1           | 2      |

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|-------|-------|-------------|--------|
| 3929  | 2     | -2          | 3      |
| 3931  | 0     | -2          | 1      |
| 3932  | 3     | 1           | 5      |
| 3937  | 0     | 0           | NA     |
| 3943  | 1     | 1           | 3      |
| 3956  | 2     | 1           | 4      |
| 3957  | 1     | 0           | 3      |
| 3961  | 4     | 1           | 6      |
| 3971  | 1     | 1           | 3      |
| 4004  | 0     | -1          | 1      |
| 4005  | 1     | 1           | 3      |
| 4006  | 3     | 0           | 4      |
| 4011  | 1     | -1          | 2      |
| 4013  | 3     | 1           | 5      |
| 4014  | 3     | 2           | 5      |
| 4016  | 0     | -1          | 1      |
| 4017  | 3     | 1           | 5      |
| 4020  | 1     | 0           | NA     |
| 4022  | 2     | 0           | 4      |
| 4026  | 0     | 0           | 1      |
| 4032  | 0     | -1          | 1      |
| 4043  | 1     | -1          | 2      |
| 4045  | 1     | 1           | 3      |
| 4048  | 3     | 1           | 5      |
| 4051  | 3     | 1           | NA     |
| 4052  | 2     | 0           | 4      |
| 4056  | 2     | -1          | 3      |
| 4059  | 1     | 0           | 2      |
| 4069  | 3     | 1           | NA     |
| 4074  | 2     | 0           | 4      |
| 4076  | 1     | 0           | 3      |
| 4077  | 0     | -1          | NA     |
| 4079  | 1     | 0           | NA     |
| 4081  | 2     | 0           | NA     |
| 4088  | 0     | 0           | 1      |
| 4105  | 1     | 1           | NA     |
| 4125  | 2     | 0           | 4      |
| 4134  | 2     | -1          | 3      |
| 4139  | 1     | 0           | 3      |
| 4146  | 1     | -1          | 2      |
| 4149  | 3     | 0           | NA     |
| 4151  | 0     | 1           | 2      |
| 4155  | 1     | 0           | NA     |
| 4157  | 1     | 1           | 3      |
| 4168  | 3     | 1           | NA     |
| 4170  | 1     | -1          | 2      |
| 4174  | 1     | -1          | 2      |
| 4179  | 3     | 1           | 5      |
| 4185  | 3     | 0           | 4      |
| 4199  | 0     | -1          | 1      |
| 4205  | 0     | 0           | 1      |
| 4208  | 1     | 1           | NA     |

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|-------|-------|-------------|--------|
| 4211  | 2     | -2          | 3      |
| 4212  | 0     | -1          | 0      |
| 4215  | 1     | 0           | 3      |
| 4217  | 2     | -1          | NA     |
| 4219  | 0     | 0           | 1      |
| 4226  | 3     | 0           | 4      |
| 4227  | 2     | -1          | NA     |
| 4229  | 0     | -1          | 1      |
| 4231  | 1     | 0           | 3      |
| 4233  | 0     | -1          | 1      |
| 4237  | 1     | 0           | NA     |
| 4243  | 2     | 1           | 4      |
| 4248  | 3     | 0           | 5      |
| 4255  | 3     | 1           | 5      |
| 4262  | 1     | -1          | 2      |
| 4266  | 0     | -1          | 1      |
| 4268  | 0     | 1           | 2      |
| 4270  | 1     | -1          | NA     |
| 4273  | 0     | 1           | NA     |
| 4276  | 2     | 1           | 4      |
| 4277  | 2     | 0           | 4      |
| 4279  | 1     | -1          | NA     |
| 4299  | 2     | 0           | 3      |
| 4313  | 0     | 1           | 2      |
| 4322  | 3     | 0           | NA     |
| 4324  | 0     | 0           | 1      |
| 4328  | 2     | -1          | 3      |
| 4331  | 1     | 0           | 3      |
| 4335  | 1     | -1          | 2      |
| 4337  | 2     | 0           | 4      |
| 4338  | 0     | -1          | 1      |
| 4343  | 1     | -1          | 2      |
| 4347  | 1     | -2          | 2      |
| 4355  | 2     | 0           | 4      |
| 4357  | 1     | 0           | NA     |
| 4359  | 4     | 1           | 5      |
| 4362  | 1     | -2          | NA     |
| 4368  | 1     | -1          | 2      |
| 4374  | 3     | 1           | NA     |
| 4375  | 3     | 1           | 5      |
| 4378  | 2     | 0           | 4      |
| 4381  | 0     | 0           | 1      |
| 4387  | 2     | 1           | 4      |
| 4400  | 1     | -1          | 2      |
| 4423  | 2     | 1           | 4      |
| 4424  | 1     | 0           | NA     |
| 4428  | 3     | 0           | 5      |
| 4433  | 3     | 2           | 6      |
| 4436  | 0     | -1          | NA     |
| 4437  | 0     | 0           | 1      |
| 4439  | 4     | 1           | 6      |
| 4449  | 2     | 0           | 4      |

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|-------|-------|-------------|--------|
| 4456  | 2     | 0           | 4      |
| 4463  | 4     | 1           | 6      |
| 4467  | 1     | -1          | NA     |
| 4468  | 0     | 0           | 1      |
| 4469  | 1     | 0           | 3      |
| 4472  | 2     | 0           | 4      |
| 4473  | 3     | 0           | 4      |
| 4476  | 1     | 0           | 3      |
| 4500  | 1     | -1          | 3      |
| 4509  | 2     | 0           | 4      |
| 4513  | 1     | -1          | NA     |
| 4521  | 0     | 0           | 1      |
| 4527  | 1     | 0           | 3      |
| 4530  | 1     | -2          | 2      |
| 4532  | 1     | 1           | 3      |
| 4533  | 2     | -1          | 3      |
| 4535  | 1     | -1          | 2      |
| 4536  | 3     | 1           | 5      |
| 4542  | 2     | 0           | 4      |
| 4551  | 1     | 0           | 3      |
| 4554  | 2     | 0           | 4      |
| 4555  | 1     | -2          | 2      |
| 4564  | 0     | 0           | 1      |
| 4572  | 1     | -1          | NA     |
| 4573  | 4     | 2           | 6      |
| 4577  | 0     | -1          | 1      |
| 4579  | 3     | 1           | NA     |
| 4583  | 2     | 0           | NA     |
| 4584  | 4     | 1           | 5      |
| 4596  | 2     | -1          | 3      |
| 4599  | 2     | 0           | 4      |
| 4607  | 2     | 0           | 4      |
| 4609  | 0     | -1          | 1      |
| 4610  | 0     | 0           | 1      |
| 4616  | 1     | -2          | 2      |
| 4617  | 1     | 0           | 3      |
| 4633  | 3     | 0           | 5      |
| 4638  | 2     | 0           | NA     |
| 4641  | 1     | 0           | NA     |
| 4653  | 4     | 2           | 6      |
| 4655  | 3     | 0           | 4      |
| 4659  | 0     | 1           | 2      |
| 4669  | 0     | -1          | 1      |
| 4678  | 0     | 0           | 1      |
| 4685  | 2     | 1           | 4      |
| 4686  | 2     | 0           | NA     |
| 4691  | 0     | -1          | 1      |
| 4695  | 2     | 1           | 4      |
| 4698  | 2     | 0           | 4      |
| 4700  | 4     | 0           | 5      |
| 4711  | 2     | -1          | 3      |
| 4722  | 3     | 0           | NA     |

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|-------|-------|-------------|--------|
| 4727  | 3     | -1          | 4      |
| 4756  | 4     | 1           | 6      |
| 4762  | 0     | 0           | 1      |
| 4763  | 2     | -1          | NA     |
| 4766  | 4     | 0           | 5      |
| 4770  | 0     | 0           | 1      |
| 4784  | 3     | -1          | 4      |
| 4791  | 1     | 1           | 3      |
| 4795  | 3     | 1           | 5      |
| 4799  | 0     | -1          | 1      |
| 4802  | 3     | 0           | 4      |
| 4805  | 2     | 0           | 4      |
| 4814  | 2     | 1           | 4      |
| 4816  | 0     | 0           | 1      |
| 4817  | 2     | 0           | 4      |
| 4822  | 1     | 0           | 3      |
| 4827  | 1     | -1          | 2      |
| 4833  | 4     | 0           | 5      |
| 4836  | 0     | 1           | 1      |
| 4842  | 1     | 0           | NA     |
| 4844  | 1     | 0           | NA     |
| 4845  | 1     | -1          | 2      |
| 4849  | 3     | 0           | 4      |
| 4850  | 0     | 0           | 1      |
| 4860  | 3     | 0           | 4      |
| 4863  | 1     | 0           | 3      |
| 4871  | 2     | 0           | 4      |
| 4878  | 2     | 0           | 4      |
| 4881  | 1     | 0           | 3      |
| 4888  | 1     | 2           | NA     |
| 4900  | 4     | 2           | 6      |
| 4906  | 1     | 1           | 3      |
| 4909  | 0     | 1           | NA     |
| 4916  | 2     | 1           | 4      |
| 4918  | 4     | 1           | 5      |
| 4926  | 1     | 0           | NA     |
| 4928  | 1     | -1          | NA     |
| 4941  | 1     | 0           | 3      |
| 4946  | 3     | 0           | 5      |
| 4949  | 0     | 0           | 1      |
| 4956  | 1     | 0           | 3      |
| 4966  | 3     | 0           | 4      |
| 4969  | 1     | 0           | 3      |
| 4973  | 2     | 0           | 4      |
| 4978  | 3     | 1           | 5      |
| 4982  | 2     | 0           | 3      |
| 4985  | 2     | 1           | 4      |
| 4991  | 1     | 1           | 3      |
| 4998  | 2     | 0           | 4      |
| 5000  | 1     | -1          | 2      |
| 5004  | 2     | 0           | NA     |
| 5005  | 1     | -1          | 2      |

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|-------|-------|-------------|--------|
| 5011  | 2     | 1           | 4      |
| 5016  | 0     | 0           | 0      |
| 5018  | 3     | -1          | 4      |
| 5034  | 2     | 0           | 4      |
| 5038  | 0     | 0           | 1      |
| 5042  | 3     | 2           | NA     |
| 5046  | 1     | 0           | 3      |
| 5051  | 0     | 0           | NA     |
| 5054  | 0     | 0           | NA     |
| 5057  | 3     | 0           | 4      |
| 5062  | 2     | 0           | 4      |
| 5063  | 2     | 1           | NA     |
| 5065  | 1     | 0           | NA     |
| 5066  | 0     | -1          | 1      |
| 5076  | 1     | -1          | 2      |
| 5089  | 2     | -1          | 3      |
| 5092  | 2     | -2          | 3      |
| 5093  | 3     | 0           | 4      |
| 5094  | 3     | 0           | 4      |
| 5098  | 2     | 0           | 4      |
| 5102  | 3     | -2          | 4      |
| 5112  | 3     | 1           | 5      |
| 5117  | 1     | 0           | 3      |
| 5127  | 2     | 0           | NA     |
| 5130  | 1     | -1          | 2      |
| 5131  | 1     | -1          | 2      |
| 5132  | 2     | 0           | NA     |
| 5135  | 0     | 0           | 1      |
| 5136  | 1     | 0           | NA     |
| 5147  | 2     | 1           | 4      |
| 5157  | 2     | 0           | 4      |
| 5160  | 1     | -1          | 2      |
| 5165  | 0     | -1          | 1      |
| 5166  | 0     | 0           | 1      |
| 5172  | 1     | -1          | 2      |
| 5173  | 1     | -1          | 2      |
| 5179  | 0     | 0           | NA     |
| 5184  | 3     | 1           | 5      |
| 5187  | 1     | -1          | NA     |
| 5191  | 1     | 0           | 3      |
| 5193  | 0     | -1          | 1      |
| 5194  | 0     | 0           | 1      |
| 5199  | 1     | -1          | NA     |
| 5212  | 0     | 0           | 1      |
| 5213  | 1     | 0           | 3      |
| 5224  | 2     | 0           | 4      |
| 5226  | 3     | 0           | 4      |
| 5239  | 3     | 1           | 5      |
| 5252  | 2     | 1           | NA     |
| 5264  | 0     | 0           | 1      |
| 5266  | 1     | -2          | NA     |
| 5271  | 3     | 1           | 5      |

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|-------|-------|-------------|--------|
| 5273  | 2     | 0           | 4      |
| 5276  | 2     | -2          | 3      |
| 5278  | 3     | 0           | 4      |
| 5281  | 1     | -1          | 2      |
| 5283  | 3     | 0           | 4      |
| 5291  | 0     | 2           | 2      |
| 5294  | 3     | 2           | 5      |
| 5296  | 2     | 0           | 4      |
| 5297  | 0     | 0           | 1      |
| 5313  | 2     | 0           | 4      |
| 5314  | 1     | 0           | 3      |
| 5321  | 2     | -1          | NA     |
| 5325  | 2     | -1          | 3      |
| 5326  | 0     | 0           | 1      |
| 5328  | 3     | -1          | NA     |
| 5334  | 1     | 0           | 3      |
| 5338  | 2     | 1           | 4      |
| 5344  | 1     | -2          | 2      |
| 5348  | 0     | -1          | 1      |
| 5352  | 0     | 0           | 1      |
| 5353  | 2     | 0           | 4      |
| 5354  | 0     | 1           | 2      |
| 5361  | 0     | -1          | NA     |
| 5364  | 1     | 1           | 3      |
| 5365  | 2     | 0           | 4      |
| 5367  | 0     | -2          | 0      |
| 5379  | 3     | 1           | 5      |
| 5382  | 2     | -1          | 3      |
| 5386  | 3     | 1           | NA     |
| 5395  | 2     | 0           | 4      |
| 5410  | 2     | 1           | NA     |
| 5411  | 1     | 1           | 3      |
| 5416  | 3     | 1           | 5      |
| 5424  | 1     | 2           | 4      |
| 5426  | 1     | 0           | 3      |
| 5428  | 0     | 0           | 1      |
| 5430  | 4     | 0           | NA     |
| 5433  | 0     | 0           | 2      |
| 5437  | 2     | -1          | 3      |
| 5440  | 1     | 1           | NA     |
| 5442  | 3     | 1           | 5      |
| 5445  | 1     | 0           | 3      |
| 5449  | 2     | 0           | NA     |
| 5452  | 2     | 0           | 4      |
| 5460  | 0     | -1          | 1      |
| 5461  | 1     | -1          | 2      |
| 5465  | 0     | -1          | 1      |
| 5467  | 3     | 0           | NA     |
| 5471  | 2     | 1           | 4      |
| 5474  | 0     | 0           | 1      |
| 5475  | 2     | -1          | NA     |
| 5480  | 0     | -1          | NA     |

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|-------|-------|-------------|--------|
| 5481  | 2     | 0           | 4      |
| 5484  | 0     | 0           | 1      |
| 5494  | 2     | 2           | 5      |
| 5495  | 0     | -1          | 1      |
| 5497  | 0     | 0           | 2      |
| 5499  | 2     | -1          | 3      |
| 5507  | 0     | 0           | 1      |
| 5510  | 1     | 1           | 3      |
| 5515  | 0     | 0           | 1      |
| 5516  | 1     | -2          | 2      |
| 5517  | 0     | -1          | 1      |
| 5524  | 3     | 0           | 4      |
| 5530  | 3     | 2           | 5      |
| 5534  | 1     | -1          | 3      |
| 5543  | 0     | 0           | 1      |
| 5545  | 1     | 0           | 3      |
| 5558  | 2     | 0           | 4      |
| 5562  | 0     | 0           | 1      |
| 5573  | 4     | 2           | 6      |
| 5581  | 3     | 0           | 4      |
| 5583  | 3     | 1           | 5      |
| 5587  | 3     | -1          | 4      |
| 5589  | 1     | -1          | 2      |
| 5591  | 4     | 1           | 5      |
| 5596  | 1     | 0           | 3      |
| 5606  | 3     | 0           | 4      |
| 5608  | 2     | 1           | 4      |
| 5611  | 2     | -1          | 3      |
| 5612  | 2     | 1           | 4      |
| 5614  | 3     | 0           | NA     |
| 5620  | 2     | 0           | 4      |
| 5623  | 3     | 1           | 5      |
| 5624  | 1     | 2           | 4      |
| 5626  | 3     | 2           | 5      |
| 5633  | 0     | -2          | 0      |
| 5635  | 2     | -1          | 3      |
| 5640  | 2     | 1           | NA     |
| 5643  | 1     | 0           | NA     |
| 5644  | 4     | 1           | 6      |
| 5653  | 3     | 1           | 5      |
| 5663  | 3     | 0           | NA     |
| 5664  | 3     | 1           | 5      |
| 5667  | 1     | -1          | 2      |
| 5671  | 0     | 0           | 1      |
| 5673  | 2     | 0           | 4      |
| 5676  | 2     | -2          | 3      |
| 5678  | 1     | 0           | 3      |
| 5698  | 1     | -1          | 2      |
| 5700  | 4     | 1           | 5      |
| 5705  | 2     | 0           | 4      |
| 5706  | 2     | 2           | NA     |
| 5711  | 0     | 0           | NA     |



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|-------|-------|-------------|--------|
| 5712  | 3     | 1           | 5      |
| 5716  | 2     | -1          | 3      |
| 5719  | 1     | 1           | 3      |
| 5725  | 1     | -1          | NA     |
| 5728  | 4     | 2           | 6      |
| 5734  | 0     | -1          | 1      |
| 5735  | 3     | 0           | 5      |
| 5743  | 1     | -1          | 3      |
| 5754  | 0     | -1          | 1      |
| 5755  | 1     | 0           | NA     |
| 5756  | 2     | 1           | NA     |
| 5766  | 1     | 0           | 3      |
| 5770  | 2     | 0           | 4      |
| 5774  | 0     | 0           | 1      |
| 5775  | 1     | -1          | 2      |
| 5776  | 2     | 0           | 4      |
| 5778  | 4     | 1           | 5      |
| 5786  | 2     | -1          | 3      |
| 5787  | 2     | 0           | 4      |
| 5791  | 3     | 1           | 5      |
| 5794  | 2     | -1          | NA     |
| 5803  | 1     | 0           | 3      |
| 5804  | 1     | 1           | NA     |
| 5808  | 0     | 1           | 2      |
| 5810  | 2     | 0           | 4      |
| 5813  | 2     | 0           | 4      |
| 5828  | 2     | -1          | 3      |
| 5839  | 4     | 1           | 6      |
| 5842  | 3     | 0           | 4      |
| 5843  | 2     | -1          | 3      |
| 5844  | 2     | 0           | 3      |
| 5847  | 1     | 0           | 3      |
| 5851  | 1     | -1          | 2      |
| 5854  | 3     | -1          | NA     |
| 5857  | 0     | 0           | 1      |
| 5866  | 0     | -2          | 1      |
| 5874  | 0     | 0           | NA     |
| 5886  | 2     | 0           | NA     |
| 5895  | 1     | 0           | 2      |
| 5897  | 1     | -1          | 2      |
| 5898  | 1     | 0           | 3      |
| 5900  | 0     | 1           | 2      |
| 5902  | 0     | 1           | 2      |
| 5908  | 0     | 0           | 1      |
| 5909  | 1     | 0           | 3      |
| 5912  | 4     | 1           | 6      |
| 5913  | 0     | 0           | 1      |
| 5917  | 4     | 0           | 5      |
| 5918  | 1     | 0           | 3      |
| 5921  | 3     | -1          | NA     |
| 5931  | 0     | -2          | 1      |
| 5942  | 2     | 0           | 4      |

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|-------|-------|-------------|--------|
| 5943  | 2     | -1          | NA     |
| 5950  | 2     | 0           | NA     |
| 5954  | 0     | 0           | 1      |
| 5983  | 2     | -1          | NA     |
| 5995  | 1     | 0           | NA     |
| 6002  | 1     | 0           | 3      |
| 6005  | 2     | 0           | 4      |
| 6009  | 4     | 2           | 6      |
| 6011  | 1     | -1          | NA     |
| 6012  | 4     | 0           | 5      |
| 6019  | 0     | -1          | NA     |
| 6021  | 1     | 1           | 3      |
| 6029  | 3     | 1           | NA     |
| 6036  | 2     | 1           | NA     |
| 6037  | 1     | 0           | 3      |
| 6038  | 0     | -1          | 1      |
| 6043  | 1     | 1           | 2      |
| 6045  | 3     | 0           | 4      |
| 6047  | 0     | -1          | 1      |
| 6048  | 1     | 0           | 3      |
| 6061  | 2     | 0           | 4      |
| 6063  | 1     | 1           | 3      |
| 6064  | 3     | 1           | 4      |
| 6068  | 3     | 0           | 4      |
| 6069  | 0     | 0           | 1      |
| 6070  | 2     | 0           | 4      |
| 6071  | 3     | 1           | 5      |
| 6074  | 3     | 0           | NA     |
| 6079  | 2     | 0           | 4      |
| 6082  | 1     | 0           | NA     |
| 6088  | 3     | 0           | 4      |
| 6094  | 1     | 0           | 3      |
| 6095  | 0     | 0           | 1      |
| 6098  | 1     | 0           | 3      |
| 6102  | 2     | 0           | NA     |
| 6105  | 0     | 0           | 1      |
| 6113  | 4     | 1           | NA     |
| 6116  | 1     | 0           | 3      |
| 6120  | 0     | 0           | 1      |
| 6121  | 1     | -1          | 2      |
| 6126  | 2     | -2          | 3      |
| 6144  | 2     | 1           | 4      |
| 6145  | 2     | 1           | 4      |
| 6153  | 1     | -1          | 2      |
| 6156  | 2     | 0           | NA     |
| 6159  | 3     | 0           | 4      |
| 6162  | 0     | 1           | NA     |
| 6184  | 1     | -1          | 3      |
| 6188  | 1     | 0           | 3      |
| 6189  | 2     | -1          | 3      |
| 6191  | 1     | -1          | NA     |
| 6211  | 0     | 1           | 2      |

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|-------|-------|-------------|--------|
| 6216  | 2     | 0           | 4      |
| 6218  | 0     | -1          | 1      |
| 6222  | 0     | 0           | 1      |
| 6235  | 2     | -1          | 3      |
| 6245  | 0     | -1          | 1      |
| 6248  | 2     | 0           | 4      |
| 6253  | 2     | 0           | 4      |
| 6256  | 0     | 1           | 2      |
| 6257  | 2     | 1           | 4      |
| 6259  | 0     | -2          | NA     |
| 6266  | 2     | 1           | 4      |
| 6268  | 2     | 0           | NA     |
| 6275  | 0     | -2          | 0      |
| 6280  | 1     | 0           | 3      |
| 6283  | 1     | -1          | NA     |
| 6288  | 4     | 0           | NA     |
| 6289  | 1     | -1          | 2      |
| 6301  | 2     | 2           | 5      |
| 6308  | 2     | 1           | 4      |
| 6314  | 2     | 0           | 4      |
| 6315  | 0     | -1          | 1      |
| 6316  | 2     | 0           | 4      |
| 6317  | 1     | 0           | 3      |
| 6318  | 3     | -2          | 4      |
| 6323  | 3     | -1          | 4      |
| 6329  | 3     | -1          | 4      |
| 6336  | 0     | -1          | 1      |
| 6341  | 2     | 1           | 4      |
| 6348  | 3     | -1          | 4      |
| 6349  | 2     | 1           | NA     |
| 6365  | 0     | 0           | 1      |
| 6372  | 2     | 0           | 4      |
| 6376  | 1     | 0           | NA     |
| 6378  | 0     | 0           | 2      |
| 6379  | 2     | 1           | NA     |
| 6382  | 0     | -1          | 1      |
| 6383  | 2     | -1          | 3      |
| 6389  | 3     | 1           | 5      |
| 6390  | 1     | -2          | NA     |
| 6392  | 3     | 0           | 5      |
| 6394  | 0     | 1           | 2      |
| 6402  | 0     | 1           | 2      |
| 6404  | 1     | 2           | 4      |
| 6405  | 1     | -1          | 2      |
| 6406  | 0     | 0           | 1      |
| 6409  | 4     | 0           | NA     |
| 6410  | 3     | 1           | 5      |
| 6411  | 2     | 0           | 4      |
| 6421  | 3     | 1           | 5      |
| 6428  | 4     | 2           | 6      |
| 6429  | 1     | -1          | 2      |
| 6432  | 3     | 0           | 4      |

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|-------|-------|-------------|--------|
| 6436  | 0     | -1          | NA     |
| 6437  | 2     | 0           | 4      |
| 6438  | 0     | 2           | 2      |
| 6445  | 1     | 0           | 3      |
| 6447  | 3     | 0           | NA     |
| 6450  | 2     | 1           | 4      |
| 6462  | 2     | 1           | 4      |
| 6467  | 2     | 0           | 4      |
| 6478  | 2     | 0           | 4      |
| 6484  | 2     | 1           | 4      |
| 6492  | 2     | 1           | 4      |
| 6497  | 3     | 2           | NA     |
| 6504  | 2     | -1          | 3      |
| 6505  | 0     | -1          | 1      |
| 6513  | 2     | -1          | 3      |
| 6525  | 4     | 0           | 5      |
| 6526  | 2     | 1           | NA     |
| 6528  | 1     | -1          | 2      |
| 6540  | 0     | 1           | NA     |
| 6542  | 0     | 1           | NA     |
| 6544  | 3     | 1           | 5      |
| 6548  | 2     | 0           | 4      |
| 6552  | 2     | -1          | NA     |
| 6558  | 2     | 0           | 4      |
| 6567  | 2     | -2          | 3      |
| 6569  | 3     | 0           | 4      |
| 6572  | 4     | 1           | 5      |
| 6577  | 3     | 2           | 5      |
| 6581  | 2     | -1          | 3      |
| 6588  | 2     | -1          | 3      |
| 6591  | 0     | 1           | 2      |
| 6594  | 1     | -1          | 2      |
| 6600  | 2     | 2           | 5      |
| 6602  | 1     | 1           | NA     |
| 6604  | 1     | 0           | 2      |
| 6605  | 2     | 0           | 4      |
| 6614  | 1     | -1          | NA     |
| 6616  | 0     | -2          | NA     |
| 6621  | 0     | 0           | 2      |
| 6640  | 3     | 0           | 5      |
| 6641  | 2     | -1          | NA     |
| 6643  | 1     | 0           | 3      |
| 6644  | 0     | -1          | NA     |
| 6649  | 1     | -2          | 2      |
| 6650  | 2     | 0           | NA     |
| 6655  | 4     | 1           | 5      |
| 6661  | 1     | -1          | 2      |
| 6672  | 4     | 0           | 5      |
| 6677  | 0     | -1          | NA     |
| 6688  | 1     | 0           | 3      |
| 6689  | 3     | 1           | NA     |
| 6691  | 1     | -1          | NA     |

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|-------|-------|-------------|--------|
| 6692  | 2     | 1           | 4      |
| 6694  | 3     | -1          | 4      |
| 6702  | 1     | -1          | NA     |
| 6714  | 0     | 0           | NA     |
| 6716  | 3     | 1           | 5      |
| 6724  | 2     | 0           | 3      |
| 6725  | 0     | -1          | 1      |
| 6730  | 2     | 0           | 4      |
| 6735  | 1     | 0           | 3      |
| 6738  | 1     | 0           | 3      |
| 6739  | 1     | 0           | 3      |
| 6743  | 2     | 0           | 4      |
| 6747  | 1     | 0           | 3      |
| 6750  | 4     | 2           | 6      |
| 6751  | 2     | -1          | NA     |
| 6753  | 3     | 0           | 4      |
| 6754  | 1     | 1           | 3      |
| 6755  | 0     | -2          | 1      |
| 6762  | 2     | 0           | 4      |
| 6764  | 2     | 0           | 4      |
| 6772  | 0     | 1           | 2      |
| 6774  | 0     | -1          | 1      |
| 6787  | 2     | -2          | 3      |
| 6789  | 2     | 0           | 4      |
| 6793  | 3     | 0           | 4      |
| 6798  | 0     | 1           | 2      |
| 6799  | 0     | 1           | 2      |
| 6800  | 2     | 0           | 4      |
| 6802  | 0     | -1          | NA     |
| 6808  | 0     | -1          | 1      |
| 6809  | 2     | 0           | 4      |
| 6812  | 2     | 1           | NA     |
| 6814  | 1     | 0           | NA     |
| 6816  | 1     | -1          | 2      |
| 6822  | 0     | 0           | 1      |
| 6829  | 2     | 0           | NA     |
| 6834  | 1     | -1          | 2      |
| 6836  | 3     | 0           | 5      |
| 6839  | 3     | -1          | NA     |
| 6840  | 0     | -1          | NA     |
| 6843  | 0     | 1           | 2      |
| 6846  | 1     | -1          | 2      |
| 6848  | 0     | -1          | 1      |
| 6852  | 1     | -1          | NA     |
| 6856  | 4     | 1           | 5      |
| 6860  | 2     | 1           | 4      |
| 6866  | 3     | 0           | 5      |
| 6870  | 3     | 0           | 4      |
| 6878  | 0     | 1           | NA     |
| 6880  | 3     | 1           | 5      |
| 6885  | 2     | 2           | NA     |
| 6897  | 3     | 0           | 4      |

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|-------|-------|-------------|--------|
| 6902  | 3     | -1          | 4      |
| 6904  | 3     | 0           | 4      |
| 6907  | 3     | 0           | 4      |
| 6909  | 0     | 1           | 2      |
| 6914  | 1     | -2          | 2      |
| 6915  | 2     | 2           | 5      |
| 6922  | 0     | -1          | 1      |
| 6924  | 1     | -1          | 2      |
| 6933  | 2     | 0           | 4      |
| 6934  | 2     | 1           | 4      |
| 6941  | 2     | 0           | 4      |
| 6957  | 1     | 0           | NA     |
| 6960  | 1     | 2           | 4      |
| 6969  | 0     | 0           | NA     |
| 6975  | 1     | 0           | 3      |
| 6980  | 0     | -1          | 1      |
| 6983  | 0     | -1          | 1      |
| 6987  | 2     | -2          | 3      |
| 6994  | 1     | 1           | 3      |
| 6997  | 2     | 1           | 5      |
| 7002  | 1     | 1           | 3      |
| 7010  | 1     | -1          | 2      |
| 7015  | 1     | 1           | NA     |
| 7019  | 1     | 0           | 3      |
| 7022  | 2     | 1           | NA     |
| 7025  | 1     | -1          | 2      |
| 7029  | 1     | 2           | 4      |
| 7031  | 1     | -1          | 2      |
| 7037  | 1     | -1          | NA     |
| 7038  | 2     | 0           | 4      |
| 7043  | 0     | -2          | 1      |
| 7049  | 1     | 1           | 3      |
| 7052  | 1     | 1           | 3      |
| 7053  | 3     | 0           | 5      |
| 7056  | 2     | -1          | 3      |
| 7057  | 3     | 0           | 4      |
| 7080  | 0     | 0           | NA     |
| 7086  | 0     | -1          | 1      |
| 7087  | 2     | 0           | 4      |
| 7105  | 2     | 0           | NA     |
| 7108  | 2     | -2          | NA     |
| 7121  | 0     | -2          | 0      |
| 7122  | 1     | -1          | 2      |
| 7125  | 0     | 0           | 1      |
| 7132  | 1     | 1           | 3      |
| 7134  | 2     | 0           | 3      |
| 7151  | 1     | 0           | NA     |
| 7152  | 3     | -1          | 4      |
| 7157  | 1     | 0           | 3      |
| 7159  | 0     | 0           | 1      |
| 7166  | 0     | 1           | 1      |
| 7167  | 0     | 0           | 1      |

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|-------|-------|-------------|--------|
| 7177  | 1     | 0           | 3      |
| 7179  | 0     | -1          | 1      |
| 7181  | 0     | 2           | 2      |
| 7183  | 2     | 2           | 5      |
| 7186  | 2     | 0           | 4      |
| 7193  | 3     | 1           | 5      |
| 7205  | 2     | -1          | NA     |
| 7207  | 0     | 0           | 1      |
| 7209  | 3     | 0           | 4      |
| 7216  | 0     | 1           | NA     |
| 7232  | 1     | 0           | NA     |
| 7235  | 0     | -1          | NA     |
| 7238  | 1     | 0           | 3      |
| 7240  | 1     | -1          | 2      |
| 7243  | 0     | -1          | 0      |
| 7252  | 1     | -1          | 2      |
| 7269  | 1     | -1          | 2      |
| 7275  | 2     | 0           | NA     |
| 7281  | 1     | 0           | NA     |
| 7283  | 0     | -2          | 1      |
| 7287  | 3     | 2           | 5      |
| 7289  | 3     | 2           | 6      |
| 7291  | 3     | 0           | NA     |
| 7294  | 0     | 2           | NA     |
| 7304  | 3     | 1           | 5      |
| 7308  | 2     | 1           | 4      |
| 7313  | 2     | -1          | 3      |
| 7319  | 0     | 0           | 1      |
| 7325  | 0     | -1          | NA     |
| 7326  | 1     | 0           | 3      |
| 7330  | 3     | 1           | 5      |
| 7332  | 2     | 1           | 4      |
| 7337  | 0     | -1          | 1      |
| 7341  | 0     | 0           | 1      |
| 7346  | 3     | -1          | 4      |
| 7353  | 0     | -2          | 1      |
| 7354  | 3     | 0           | 5      |
| 7361  | 0     | 0           | NA     |
| 7366  | 0     | 1           | 2      |
| 7368  | 3     | 1           | 5      |
| 7372  | 3     | 0           | 4      |
| 7375  | 2     | -1          | 3      |
| 7377  | 3     | 2           | 5      |
| 7380  | 0     | 1           | 2      |
| 7382  | 3     | 0           | NA     |
| 7385  | 1     | 0           | 3      |
| 7392  | 1     | 0           | 3      |
| 7395  | 2     | 1           | 4      |
| 7397  | 3     | -1          | 4      |
| 7403  | 3     | -1          | 4      |
| 7406  | 3     | -1          | NA     |
| 7409  | 0     | 0           | 1      |

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|-------|-------|-------------|--------|
| 7410  | 2     | 0           | 4      |
| 7412  | 2     | 1           | 4      |
| 7419  | 2     | -1          | 3      |
| 7425  | 2     | -1          | 3      |
| 7435  | 4     | 2           | 6      |
| 7438  | 2     | 0           | 4      |
| 7440  | 2     | 1           | 4      |
| 7447  | 2     | -1          | NA     |
| 7449  | 2     | -2          | NA     |
| 7456  | 3     | -1          | 4      |
| 7464  | 2     | 0           | 4      |
| 7478  | 1     | -1          | NA     |
| 7480  | 2     | -1          | NA     |
| 7481  | 3     | 1           | 5      |
| 7483  | 2     | 0           | 4      |
| 7484  | 0     | -1          | 1      |
| 7491  | 3     | 0           | 4      |
| 7494  | 1     | -1          | 2      |
| 7501  | 1     | -1          | NA     |
| 7503  | 2     | 0           | NA     |
| 7509  | 1     | -1          | 2      |
| 7517  | 0     | 1           | 1      |
| 7518  | 4     | 1           | 6      |
| 7519  | 1     | -2          | 2      |
| 7521  | 3     | 1           | NA     |
| 7522  | 1     | -1          | NA     |
| 7536  | 2     | 0           | 4      |
| 7539  | 0     | -1          | 1      |
| 7547  | 3     | 2           | 5      |
| 7549  | 1     | 0           | 3      |
| 7552  | 1     | 0           | NA     |
| 7554  | 0     | -1          | NA     |
| 7556  | 2     | 0           | 4      |
| 7564  | 2     | 0           | NA     |
| 7566  | 0     | 0           | 1      |
| 7570  | 3     | 0           | 4      |
| 7571  | 1     | 1           | 3      |
| 7572  | 2     | 0           | 4      |
| 7575  | 1     | -1          | 2      |
| 7586  | 2     | 1           | 3      |
| 7589  | 3     | 1           | 5      |
| 7590  | 1     | 0           | 3      |
| 7597  | 2     | 0           | 4      |
| 7602  | 2     | 1           | 4      |
| 7604  | 3     | 0           | 4      |
| 7605  | 1     | 0           | 3      |
| 7612  | 1     | 0           | 3      |
| 7615  | 3     | 0           | 4      |
| 7617  | 1     | 0           | NA     |
| 7624  | 2     | 0           | 4      |
| 7632  | 3     | 0           | 4      |
| 7639  | 2     | 1           | 4      |



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|-------|-------|-------------|--------|
| 7642  | 1     | 1           | 3      |
| 7643  | 2     | 0           | 4      |
| 7649  | 2     | 0           | 4      |
| 7650  | 0     | -1          | NA     |
| 7653  | 2     | 0           | 4      |
| 7654  | 1     | 1           | NA     |
| 7657  | 3     | 1           | 5      |
| 7662  | 0     | -1          | 1      |
| 7669  | 2     | 0           | 4      |
| 7671  | 1     | 0           | 3      |
| 7675  | 0     | 0           | 1      |
| 7678  | 3     | 0           | 4      |
| 7682  | 3     | 0           | NA     |
| 7688  | 0     | -1          | 1      |
| 7689  | 0     | -1          | 1      |
| 7690  | 3     | 1           | 5      |
| 7692  | 1     | 0           | 3      |
| 7699  | 0     | 1           | 2      |
| 7705  | 2     | -1          | 3      |
| 7712  | 3     | -1          | NA     |
| 7726  | 2     | 1           | 4      |
| 7728  | 1     | -2          | NA     |
| 7735  | 2     | 1           | 4      |
| 7737  | 1     | -1          | 2      |
| 7739  | 2     | 0           | 3      |
| 7743  | 0     | 1           | 2      |
| 7744  | 2     | 2           | NA     |
| 7746  | 1     | -1          | 2      |
| 7749  | 0     | -1          | 1      |
| 7750  | 3     | 0           | 5      |
| 7752  | 2     | 0           | 4      |
| 7755  | 3     | 1           | 5      |
| 7756  | 2     | 0           | NA     |
| 7762  | 3     | 0           | NA     |
| 7764  | 0     | 1           | 1      |
| 7769  | 1     | -1          | 2      |
| 7770  | 1     | -1          | 2      |
| 7776  | 3     | 1           | 5      |
| 7778  | 3     | 1           | 5      |
| 7784  | 1     | -1          | 2      |
| 7786  | 2     | -1          | NA     |
| 7789  | 2     | -1          | 3      |
| 7793  | 2     | 1           | 4      |
| 7794  | 0     | -1          | 1      |
| 7804  | 2     | -1          | NA     |
| 7811  | 2     | 1           | NA     |
| 7813  | 1     | 0           | 3      |
| 7815  | 1     | 1           | 3      |
| 7817  | 0     | 0           | 1      |
| 7818  | 2     | 0           | NA     |
| 7821  | 4     | 1           | 6      |
| 7825  | 3     | -1          | 4      |

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|-------|-------|-------------|--------|
| 7830  | 3     | 1           | 5      |
| 7832  | 2     | 0           | NA     |
| 7835  | 0     | 0           | NA     |
| 7839  | 3     | 2           | 5      |
| 7842  | 3     | 1           | 5      |
| 7849  | 3     | 0           | 5      |
| 7856  | 1     | -1          | NA     |
| 7857  | 1     | -1          | 2      |
| 7863  | 2     | 1           | 4      |
| 7866  | 3     | 0           | 5      |
| 7871  | 2     | -1          | 3      |
| 7875  | 1     | -1          | NA     |
| 7882  | 1     | -1          | 2      |
| 7887  | 1     | 0           | 2      |
| 7888  | 3     | -1          | 4      |
| 7891  | 1     | -2          | 2      |
| 7895  | 2     | 1           | NA     |
| 7901  | 3     | 0           | 4      |
| 7906  | 1     | -1          | 2      |
| 7908  | 0     | 0           | 1      |
| 7917  | 1     | -2          | 2      |
| 7924  | 1     | 0           | 3      |
| 7948  | 2     | 0           | 4      |
| 7950  | 4     | 1           | 6      |
| 7955  | 1     | 0           | 3      |
| 7957  | 0     | 1           | 2      |
| 7959  | 1     | -1          | NA     |
| 7967  | 4     | 0           | 5      |
| 7969  | 1     | 0           | NA     |
| 7971  | 2     | 1           | 4      |
| 7974  | 2     | -1          | 3      |
| 7976  | 1     | 0           | NA     |
| 7986  | 4     | 1           | 6      |
| 7987  | 0     | -1          | 1      |
| 7993  | 3     | 0           | 4      |
| 7996  | 2     | 0           | 4      |
| 7998  | 1     | 1           | 3      |
| 8018  | 3     | -1          | 4      |
| 8019  | 1     | -1          | NA     |
| 8027  | 0     | -1          | NA     |
| 8036  | 0     | 0           | 1      |
| 8040  | 2     | 1           | 4      |
| 8044  | 1     | 2           | 4      |
| 8050  | 2     | -1          | 4      |
| 8052  | 0     | 0           | 1      |
| 8054  | 0     | 1           | 2      |
| 8057  | 2     | 0           | 4      |
| 8058  | 3     | 0           | 5      |
| 8059  | 1     | 0           | NA     |
| 8066  | 3     | -2          | 4      |
| 8070  | 3     | 2           | 6      |
| 8072  | 3     | 2           | 5      |

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|-------|-------|-------------|--------|
| 8078  | 1     | -1          | 2      |
| 8079  | 2     | -1          | 3      |
| 8080  | 3     | 0           | 4      |
| 8081  | 3     | 0           | 4      |
| 8088  | 0     | 0           | 1      |
| 8091  | 1     | 0           | 3      |
| 8094  | 1     | 0           | 3      |
| 8095  | 1     | -1          | NA     |
| 8099  | 3     | 0           | 4      |
| 8101  | 3     | 1           | 5      |
| 8102  | 3     | 1           | 5      |
| 8116  | 3     | 0           | 5      |
| 8125  | 3     | 0           | 5      |
| 8134  | 0     | 2           | 2      |
| 8139  | 0     | 1           | 2      |
| 8141  | 2     | 1           | 4      |
| 8147  | 1     | 0           | 3      |
| 8158  | 4     | 1           | NA     |
| 8160  | 1     | -1          | 2      |
| 8165  | 2     | -1          | NA     |
| 8187  | 1     | -1          | 2      |
| 8205  | 0     | 0           | NA     |
| 8209  | 1     | 1           | 3      |
| 8211  | 2     | 0           | NA     |
| 8232  | 2     | 0           | 4      |
| 8236  | 2     | 1           | 4      |
| 8237  | 3     | 1           | 5      |
| 8238  | 4     | 1           | 6      |
| 8245  | 3     | 0           | 4      |
| 8256  | 1     | 0           | NA     |
| 8268  | 3     | -1          | NA     |
| 8269  | 1     | -1          | 2      |
| 8270  | 2     | 1           | NA     |
| 8286  | 1     | 0           | 2      |
| 8289  | 2     | 0           | NA     |
| 8301  | 3     | -1          | 4      |
| 8305  | 0     | -1          | 1      |
| 8310  | 1     | 0           | 3      |
| 8312  | 0     | -2          | NA     |
| 8318  | 3     | 1           | 5      |
| 8321  | 3     | 0           | 4      |
| 8328  | 0     | 1           | NA     |
| 8331  | 2     | 1           | NA     |
| 8334  | 1     | 0           | NA     |
| 8344  | 2     | 0           | 4      |
| 8345  | 1     | -1          | 2      |
| 8352  | 3     | 0           | 5      |
| 8358  | 2     | 0           | NA     |
| 8359  | 1     | -1          | NA     |
| 8360  | 1     | -1          | 2      |
| 8365  | 2     | -1          | 3      |
| 8366  | 2     | -1          | 3      |

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|-------|-------|-------------|--------|
| 8369  | 3     | 1           | 5      |
| 8373  | 3     | 1           | 5      |
| 8378  | 2     | 0           | 4      |
| 8392  | 2     | -1          | 3      |
| 8397  | 2     | -1          | 3      |
| 8399  | 1     | -1          | 2      |
| 8400  | 1     | 1           | 3      |
| 8405  | 1     | 0           | 3      |
| 8406  | 2     | 1           | 4      |
| 8410  | 0     | 1           | 2      |
| 8413  | 3     | 0           | 4      |
| 8414  | 0     | -1          | 1      |
| 8416  | 4     | 1           | NA     |
| 8426  | 1     | -1          | 2      |
| 8434  | 2     | 1           | 4      |
| 8439  | 0     | 2           | NA     |
| 8440  | 0     | -2          | 1      |
| 8475  | 3     | 0           | 4      |
| 8480  | 3     | 1           | 5      |
| 8497  | 1     | -1          | 2      |
| 8499  | 0     | 1           | 1      |
| 8500  | 1     | 1           | 3      |
| 8501  | 2     | -1          | 4      |
| 8502  | 2     | -1          | NA     |
| 8518  | 2     | 2           | 5      |
| 8520  | 2     | 0           | 4      |
| 8523  | 2     | 1           | 4      |
| 8525  | 0     | -2          | 0      |
| 8532  | 1     | 0           | NA     |
| 8535  | 1     | 0           | 3      |
| 8543  | 0     | 0           | 1      |
| 8554  | 0     | 1           | 2      |
| 8560  | 4     | 0           | 5      |
| 8561  | 4     | -1          | 5      |
| 8563  | 0     | -1          | 1      |
| 8566  | 0     | 0           | 1      |
| 8570  | 2     | 0           | 4      |
| 8572  | 3     | -1          | 4      |
| 8582  | 1     | -1          | 1      |
| 8583  | 0     | -1          | 1      |
| 8587  | 0     | 0           | 1      |
| 8592  | 1     | -1          | 2      |
| 8593  | 0     | 1           | 2      |
| 8607  | 0     | -1          | 1      |
| 8609  | 2     | 1           | 4      |
| 8610  | 2     | 0           | NA     |
| 8614  | 2     | 0           | NA     |
| 8616  | 4     | 0           | 5      |
| 8622  | 4     | -1          | 5      |
| 8623  | 2     | 0           | 4      |
| 8624  | 0     | -1          | 1      |
| 8633  | 4     | 1           | 6      |

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|-------|-------|-------------|--------|
| 8641  | 3     | 2           | NA     |
| 8644  | 4     | 1           | 6      |
| 8649  | 2     | 1           | 4      |
| 8653  | 1     | 0           | 3      |
| 8657  | 3     | 2           | 5      |
| 8658  | 1     | 0           | 3      |
| 8663  | 2     | 0           | 4      |
| 8672  | 1     | -1          | 2      |
| 8680  | 0     | -1          | 1      |
| 8684  | 1     | 0           | 3      |
| 8687  | 0     | 0           | 1      |
| 8688  | 2     | 0           | 4      |
| 8690  | 2     | 0           | 4      |
| 8712  | 0     | 1           | 1      |
| 8717  | 1     | 1           | 3      |
| 8730  | 3     | 1           | 5      |
| 8739  | 2     | 0           | 4      |
| 8744  | 2     | 1           | 4      |
| 8747  | 3     | 1           | 5      |
| 8748  | 3     | 0           | 4      |
| 8751  | 2     | -1          | 3      |
| 8758  | 2     | 0           | 4      |
| 8761  | 0     | -1          | NA     |
| 8763  | 0     | 1           | 2      |
| 8764  | 2     | 0           | 4      |
| 8765  | 3     | 2           | 5      |
| 8773  | 4     | 0           | NA     |
| 8780  | 1     | 0           | 3      |
| 8781  | 2     | -1          | 3      |
| 8782  | 2     | 0           | NA     |
| 8785  | 0     | 0           | 0      |
| 8786  | 1     | 1           | NA     |
| 8797  | 0     | -1          | 1      |
| 8799  | 3     | 0           | 4      |
| 8807  | 0     | -1          | NA     |
| 8816  | 2     | 0           | NA     |
| 8817  | 3     | -1          | 4      |
| 8826  | 3     | 1           | NA     |
| 8833  | 1     | 0           | 3      |
| 8834  | 1     | 0           | NA     |
| 8835  | 1     | -1          | NA     |
| 8840  | 3     | 1           | 5      |
| 8843  | 1     | 1           | 3      |
| 8849  | 2     | -1          | 3      |
| 8855  | 1     | 1           | 3      |
| 8861  | 1     | 0           | 3      |
| 8862  | 3     | 0           | 4      |
| 8865  | 3     | -2          | NA     |
| 8868  | 4     | 0           | 5      |
| 8870  | 2     | 1           | 4      |
| 8880  | 2     | 1           | NA     |
| 8885  | 0     | 0           | 1      |

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|-------|-------|-------------|--------|
| 8894  | 0     | 0           | 2      |
| 8895  | 3     | 0           | 5      |
| 8899  | 3     | 0           | 5      |
| 8912  | 0     | 0           | 2      |
| 8922  | 1     | -1          | 2      |
| 8924  | 2     | -1          | NA     |
| 8928  | 2     | 0           | 4      |
| 8932  | 0     | 1           | 2      |
| 8943  | 3     | 1           | 5      |
| 8945  | 4     | 1           | NA     |
| 8946  | 2     | 1           | 4      |
| 8954  | 1     | 0           | 3      |
| 8958  | 2     | 0           | NA     |
| 8960  | 0     | -1          | 1      |
| 8965  | 1     | 0           | 2      |
| 8966  | 2     | 1           | 4      |
| 8967  | 1     | -1          | 2      |
| 8969  | 2     | -1          | 3      |
| 8980  | 3     | 0           | NA     |
| 8984  | 3     | 0           | NA     |
| 8985  | 1     | 0           | NA     |
| 8988  | 1     | 0           | NA     |
| 8989  | 2     | 1           | 4      |
| 8995  | 0     | 0           | 1      |
| 9004  | 1     | 1           | 3      |
| 9010  | 1     | 0           | NA     |
| 9012  | 0     | 0           | 1      |
| 9018  | 2     | 0           | 4      |
| 9036  | 0     | -2          | 0      |
| 9037  | 1     | -1          | 2      |
| 9040  | 0     | 1           | NA     |
| 9041  | 2     | 2           | 5      |
| 9044  | 4     | 1           | 5      |
| 9045  | 1     | 0           | NA     |
| 9047  | 1     | 0           | 3      |
| 9049  | 0     | 0           | NA     |
| 9061  | 0     | 0           | 2      |
| 9062  | 1     | 0           | 3      |
| 9076  | 2     | 0           | 4      |
| 9079  | 1     | -1          | 2      |
| 9081  | 2     | 0           | 4      |
| 9082  | 2     | 1           | 4      |
| 9089  | 0     | -1          | 1      |
| 9092  | 2     | -1          | 3      |
| 9094  | 0     | 1           | NA     |
| 9115  | 0     | 0           | 1      |
| 9117  | 3     | 0           | 4      |
| 9118  | 1     | 0           | 3      |
| 9120  | 0     | -1          | 1      |
| 9124  | 1     | 0           | NA     |
| 9128  | 0     | -2          | NA     |
| 9135  | 0     | 0           | 1      |

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|-------|-------|-------------|--------|
| 9136  | 1     | 0           | 3      |
| 9138  | 3     | 0           | 4      |
| 9157  | 3     | 0           | NA     |
| 9176  | 0     | 0           | 1      |
| 9183  | 0     | 0           | 1      |
| 9187  | 1     | 0           | 3      |
| 9188  | 0     | -1          | 1      |
| 9190  | 3     | 0           | 4      |
| 9197  | 2     | 0           | NA     |
| 9200  | 3     | -1          | 4      |
| 9201  | 0     | 0           | 1      |
| 9203  | 0     | 0           | 1      |
| 9212  | 2     | 0           | 4      |
| 9213  | 0     | -1          | 1      |
| 9214  | 3     | 0           | NA     |
| 9217  | 1     | 1           | 3      |
| 9219  | 1     | 1           | 3      |
| 9220  | 3     | 1           | 5      |
| 9221  | 4     | 1           | 5      |
| 9237  | 0     | 0           | 1      |
| 9240  | 2     | 1           | 4      |
| 9241  | 1     | -1          | 3      |
| 9248  | 2     | -1          | 4      |
| 9253  | 4     | 2           | 6      |
| 9259  | 2     | 1           | 4      |
| 9267  | 0     | 1           | 2      |
| 9271  | 1     | 0           | 3      |
| 9273  | 0     | -1          | 0      |
| 9285  | 4     | 1           | 5      |
| 9290  | 2     | 0           | NA     |
| 9291  | 2     | 0           | 4      |
| 9293  | 0     | 0           | 1      |
| 9294  | 2     | 0           | 4      |
| 9301  | 2     | -1          | 4      |
| 9302  | 3     | 0           | NA     |
| 9312  | 1     | 0           | 3      |
| 9316  | 2     | 0           | 4      |
| 9319  | 0     | 1           | 2      |
| 9328  | 3     | 1           | 5      |
| 9331  | 2     | 1           | 4      |
| 9338  | 0     | -1          | 1      |
| 9350  | 1     | 0           | 3      |
| 9356  | 2     | 0           | 4      |
| 9359  | 1     | -1          | 2      |
| 9362  | 1     | 1           | 3      |
| 9364  | 1     | 0           | 3      |
| 9370  | 1     | 1           | 3      |
| 9380  | 0     | -1          | 0      |
| 9386  | 2     | 1           | NA     |
| 9394  | 0     | 0           | 1      |
| 9407  | 2     | 0           | 4      |
| 9411  | 1     | 0           | 3      |

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|-------|-------|-------------|--------|
| 9422  | 2     | 0           | 4      |
| 9423  | 0     | 0           | 1      |
| 9429  | 0     | 0           | 1      |
| 9433  | 0     | -1          | 1      |
| 9439  | 0     | 0           | 1      |
| 9451  | 3     | 0           | 4      |
| 9452  | 1     | 1           | 3      |
| 9453  | 0     | -1          | NA     |
| 9460  | 3     | 1           | NA     |
| 9465  | 2     | 2           | 5      |
| 9470  | 3     | 0           | 4      |
| 9476  | 2     | 0           | NA     |
| 9485  | 2     | 0           | 4      |
| 9486  | 0     | -1          | 1      |
| 9488  | 1     | 0           | 3      |
| 9507  | 4     | 1           | 5      |
| 9508  | 0     | -1          | 1      |
| 9517  | 4     | 2           | 6      |
| 9521  | 2     | 2           | 5      |
| 9528  | 2     | -1          | 3      |
| 9532  | 1     | 0           | NA     |
| 9536  | 2     | -1          | 3      |
| 9540  | 3     | 1           | 5      |
| 9542  | 2     | 1           | 4      |
| 9546  | 3     | -1          | 4      |
| 9548  | 3     | 0           | 4      |
| 9549  | 4     | 1           | NA     |
| 9554  | 4     | 0           | 5      |
| 9555  | 2     | 1           | 4      |
| 9558  | 0     | -1          | 1      |
| 9573  | 0     | 0           | 1      |
| 9575  | 4     | 0           | 5      |
| 9584  | 2     | -1          | 3      |
| 9586  | 2     | 0           | 4      |
| 9588  | 3     | 1           | 5      |
| 9591  | 0     | 0           | 1      |
| 9592  | 3     | 0           | NA     |
| 9597  | 3     | 2           | NA     |
| 9600  | 3     | 0           | 4      |
| 9603  | 2     | 0           | NA     |
| 9605  | 1     | -1          | 2      |
| 9614  | 0     | 0           | NA     |
| 9616  | 3     | 1           | NA     |
| 9622  | 2     | 0           | 4      |
| 9624  | 3     | 0           | 4      |
| 9629  | 0     | 0           | 1      |
| 9633  | 2     | 0           | NA     |
| 9640  | 3     | 0           | 5      |
| 9644  | 1     | -1          | 2      |
| 9645  | 0     | 0           | 1      |
| 9646  | 1     | 0           | 3      |
| 9648  | 1     | 0           | 3      |



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|-------|-------|-------------|--------|
| 9649  | 0     | -1          | 1      |
| 9660  | 2     | 0           | 4      |
| 9664  | 2     | 1           | NA     |
| 9675  | 0     | 1           | NA     |
| 9679  | 1     | 0           | 3      |
| 9680  | 2     | -1          | 3      |
| 9682  | 0     | 0           | NA     |
| 9697  | 1     | 0           | 3      |
| 9701  | 3     | -1          | 4      |
| 9704  | 2     | -1          | 3      |
| 9705  | 0     | 1           | 2      |
| 9707  | 3     | 0           | 4      |
| 9714  | 0     | 1           | 2      |
| 9718  | 1     | 0           | 3      |
| 9722  | 3     | 1           | 5      |
| 9739  | 1     | 0           | 3      |
| 9747  | 4     | 1           | 5      |
| 9751  | 0     | -1          | 1      |
| 9757  | 1     | -1          | 2      |
| 9759  | 3     | -1          | 4      |
| 9760  | 3     | 0           | NA     |
| 9764  | 2     | -1          | 3      |
| 9776  | 0     | 0           | NA     |
| 9778  | 1     | 0           | 3      |
| 9786  | 0     | -1          | 1      |
| 9803  | 2     | 0           | 4      |
| 9804  | 2     | 1           | NA     |
| 9815  | 3     | 1           | 5      |
| 9824  | 1     | -2          | NA     |
| 9825  | 0     | 0           | 1      |
| 9826  | 1     | 0           | 3      |
| 9827  | 2     | 0           | 4      |
| 9833  | 2     | 0           | 4      |
| 9835  | 0     | -1          | 1      |
| 9860  | 2     | 0           | 4      |
| 9865  | 1     | 1           | 3      |
| 9871  | 3     | -1          | 4      |
| 9874  | 0     | -1          | 1      |
| 9880  | 1     | 1           | 3      |
| 9882  | 0     | -1          | NA     |
| 9885  | 1     | 0           | 3      |
| 9888  | 2     | 1           | 4      |
| 9892  | 1     | -2          | 2      |
| 9893  | 3     | 1           | 5      |
| 9896  | 0     | -1          | 1      |
| 9902  | 1     | 1           | 3      |
| 9906  | 2     | 0           | 4      |
| 9910  | 3     | 1           | 5      |
| 9914  | 0     | 1           | 2      |
| 9918  | 0     | 1           | 2      |
| 9920  | 0     | -1          | 1      |
| 9926  | 2     | 2           | 5      |

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|-------|-------|-------------|--------|
| 9931  | 3     | 2           | 5      |
| 9935  | 2     | 0           | 4      |
| 9945  | 2     | 1           | 4      |
| 9953  | 0     | 1           | 2      |
| 9957  | 1     | 0           | NA     |
| 9963  | 2     | 1           | NA     |
| 9972  | 2     | 1           | 4      |
| 9976  | 3     | 0           | NA     |
| 9979  | 1     | 0           | NA     |
| 9980  | 0     | 0           | 1      |
| 9982  | 0     | 1           | NA     |
| 9991  | 2     | 0           | NA     |
| 10000 | 2     | 2           | 5      |
| 10003 | 2     | 0           | 4      |
| 10005 | 1     | -1          | 2      |
| 10014 | 2     | 0           | 4      |
| 10032 | 1     | 1           | 3      |
| 10034 | 1     | 0           | NA     |
| 10041 | 1     | -1          | NA     |
| 10042 | 2     | 0           | 4      |
| 10044 | 3     | 1           | 5      |
| 10045 | 0     | -2          | 0      |
| 10054 | 2     | 0           | 4      |
| 10061 | 4     | 1           | NA     |
| 10062 | 0     | 1           | 2      |
| 10073 | 1     | 1           | NA     |
| 10081 | 0     | 1           | 2      |
| 10084 | 0     | 0           | NA     |
| 10086 | 0     | 1           | 1      |
| 10093 | 0     | -1          | NA     |
| 10101 | 3     | 1           | NA     |
| 10105 | 3     | 0           | 4      |
| 10110 | 2     | 0           | NA     |
| 10113 | 1     | 0           | 3      |
| 10115 | 1     | 0           | 3      |
| 10119 | 2     | 0           | 4      |
| 10121 | 3     | -1          | 4      |
| 10124 | 0     | 1           | 1      |
| 10126 | 4     | 1           | 5      |
| 10127 | 1     | 1           | 3      |
| 10145 | 1     | 0           | 3      |
| 10147 | 0     | -1          | 1      |
| 10148 | 1     | -1          | 2      |
| 10162 | 1     | -1          | NA     |
| 10163 | 1     | 0           | 3      |
| 10166 | 1     | -2          | 2      |
| 10172 | 2     | 0           | 4      |
| 10173 | 1     | 0           | 3      |
| 10175 | 1     | -1          | 2      |
| 10180 | 2     | -1          | NA     |
| 10186 | 0     | 1           | 2      |
| 10192 | 3     | -1          | 4      |

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|-------|-------|-------------|--------|
| 10199 | 2     | -1          | 3      |
| 10209 | 0     | 0           | 1      |
| 10210 | 4     | 2           | 6      |
| 10214 | 2     | 0           | NA     |
| 10215 | 0     | 1           | NA     |
| 10216 | 0     | 0           | NA     |
| 10232 | 1     | 1           | 3      |
| 10239 | 3     | 1           | 5      |
| 10249 | 2     | 1           | 4      |
| 10253 | 3     | 1           | 5      |
| 10255 | 0     | 0           | 1      |
| 10262 | 2     | -1          | NA     |
| 10264 | 1     | -1          | 2      |
| 10266 | 0     | 1           | 2      |
| 10268 | 0     | 0           | 1      |
| 10271 | 2     | -1          | 3      |
| 10272 | 3     | 1           | 5      |
| 10276 | 0     | 0           | 1      |
| 10277 | 1     | 0           | 3      |
| 10279 | 2     | -1          | 3      |
| 10281 | 1     | -1          | 2      |
| 10285 | 1     | -1          | NA     |
| 10294 | 0     | -1          | 1      |
| 10300 | 2     | -1          | 3      |
| 10304 | 1     | 0           | 3      |
| 10307 | 1     | 1           | NA     |
| 10309 | 3     | 1           | 5      |
| 10310 | 0     | 0           | 1      |
| 10312 | 0     | 0           | NA     |
| 10321 | 2     | -1          | 3      |
| 10332 | 0     | 1           | 2      |
| 10336 | 2     | 0           | 4      |
| 10368 | 1     | 0           | 3      |
| 10369 | 2     | 2           | 5      |
| 10375 | 0     | -2          | 0      |
| 10376 | 0     | -1          | 1      |
| 10379 | 2     | 0           | NA     |
| 10380 | 1     | 0           | 3      |
| 10383 | 1     | -1          | NA     |
| 10385 | 3     | 1           | 5      |
| 10387 | 2     | 0           | NA     |
| 10397 | 1     | 0           | 3      |
| 10412 | 1     | 1           | NA     |
| 10413 | 0     | 1           | NA     |
| 10418 | 1     | -1          | NA     |
| 10420 | 2     | -1          | 4      |
| 10426 | 2     | 0           | 4      |
| 10427 | 1     | 0           | 3      |
| 10428 | 2     | -1          | 3      |
| 10430 | 0     | 0           | 2      |
| 10435 | 0     | 0           | NA     |
| 10436 | 0     | -2          | NA     |

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|-------|-------|-------------|--------|
| 10446 | 4     | 1           | 6      |
| 10448 | 3     | -1          | 4      |
| 10449 | 2     | 1           | 4      |
| 10463 | 1     | -1          | 2      |
| 10469 | 1     | -1          | 2      |
| 10470 | 3     | 0           | NA     |
| 10471 | 2     | 0           | NA     |
| 10473 | 3     | 1           | NA     |
| 10476 | 2     | -1          | 3      |
| 10482 | 1     | 0           | 3      |
| 10500 | 2     | -1          | 3      |
| 10511 | 3     | 1           | 5      |
| 10512 | 2     | 1           | 4      |
| 10514 | 2     | 0           | 4      |
| 10515 | 3     | 0           | 5      |
| 10526 | 0     | 0           | NA     |
| 10546 | 0     | -1          | NA     |
| 10549 | 2     | 0           | 4      |
| 10553 | 0     | -1          | NA     |
| 10558 | 1     | -1          | 2      |
| 10575 | 0     | 0           | 1      |
| 10581 | 1     | 0           | 3      |
| 10583 | 1     | 1           | NA     |
| 10584 | 0     | -1          | 1      |
| 10585 | 0     | 1           | 1      |
| 10610 | 0     | 1           | 2      |
| 10611 | 0     | -1          | 1      |
| 10616 | 2     | 2           | 4      |
| 10618 | 1     | 0           | 3      |
| 10628 | 0     | -1          | 1      |
| 10632 | 0     | -1          | 1      |
| 10642 | 2     | 0           | 4      |
| 10648 | 1     | 1           | 3      |
| 10649 | 2     | 0           | 4      |
| 10650 | 2     | -1          | NA     |
| 10654 | 1     | -2          | 2      |
| 10656 | 3     | 1           | 5      |
| 10661 | 3     | 1           | 5      |
| 10663 | 0     | 2           | 2      |
| 10672 | 1     | 0           | 3      |
| 10678 | 3     | 1           | 5      |
| 10685 | 3     | 0           | NA     |
| 10690 | 3     | 1           | 5      |
| 10702 | 2     | 0           | 4      |
| 10706 | 1     | 1           | 3      |
| 10708 | 1     | -1          | 2      |
| 10716 | 2     | -1          | 4      |
| 10717 | 4     | 0           | NA     |
| 10720 | 3     | 1           | 5      |
| 10729 | 0     | 0           | 1      |
| 10730 | 3     | 1           | 5      |
| 10745 | 0     | 1           | 2      |

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|-------|-------|-------------|--------|
| 10753 | 1     | -1          | NA     |
| 10754 | 1     | -1          | 2      |
| 10762 | 1     | -1          | 2      |
| 10766 | 0     | -1          | NA     |
| 10776 | 0     | -2          | 0      |
| 10783 | 1     | 0           | 3      |
| 10789 | 2     | -1          | 3      |
| 10790 | 2     | 2           | 5      |
| 10797 | 0     | 1           | 2      |
| 10807 | 1     | 0           | 3      |
| 10810 | 0     | 0           | 1      |
| 10817 | 1     | 1           | 3      |
| 10820 | 1     | -1          | 2      |
| 10822 | 2     | 0           | 4      |
| 10828 | 2     | 1           | 4      |
| 10829 | 1     | -1          | NA     |
| 10830 | 2     | -2          | 3      |
| 10831 | 4     | 1           | 6      |
| 10841 | 3     | 2           | 5      |
| 10847 | 2     | -1          | NA     |
| 10856 | 0     | -1          | 1      |
| 10860 | 0     | 0           | NA     |
| 10861 | 3     | 1           | NA     |
| 10863 | 1     | 0           | 3      |
| 10875 | 1     | 0           | NA     |
| 10884 | 3     | 0           | 4      |
| 10895 | 0     | -1          | 1      |
| 10897 | 1     | 0           | 3      |
| 10898 | 1     | 0           | NA     |
| 10903 | 0     | 1           | 1      |
| 10908 | 0     | 1           | 2      |
| 10924 | 1     | 0           | 3      |
| 10926 | 1     | -1          | 2      |
| 10927 | 1     | 0           | 3      |
| 10928 | 1     | 0           | 3      |
| 10933 | 0     | 0           | 1      |
| 10939 | 4     | 1           | 6      |
| 10942 | 2     | 1           | 4      |
| 10945 | 2     | -1          | 3      |
| 10949 | 2     | 0           | 4      |
| 10950 | 1     | 0           | 3      |
| 10958 | 3     | 2           | 5      |
| 10963 | 2     | 0           | 4      |
| 10967 | 2     | -1          | 4      |
| 10971 | 0     | 0           | NA     |
| 10972 | 0     | 0           | 2      |
| 10974 | 2     | 0           | 4      |
| 10976 | 4     | 0           | 5      |
| 10980 | 1     | 0           | 3      |
| 10991 | 0     | 0           | 2      |
| 10995 | 3     | 0           | NA     |
| 11014 | 3     | 1           | 5      |

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| 11017 | 2     | 1           | NA     |
| 11019 | 2     | 1           | 4      |
| 11022 | 0     | 0           | NA     |
| 11030 | 3     | 0           | 4      |
| 11031 | 2     | -1          | 3      |
| 11041 | 0     | 0           | 1      |
| 11042 | 2     | 0           | 4      |
| 11044 | 3     | 0           | NA     |
| 11047 | 2     | 1           | NA     |
| 11048 | 1     | 0           | NA     |
| 11049 | 1     | 0           | 3      |
| 11052 | 1     | 0           | 3      |
| 11058 | 0     | 0           | 1      |
| 11069 | 2     | -1          | 4      |
| 11070 | 2     | -1          | NA     |
| 11073 | 3     | 1           | NA     |
| 11074 | 0     | -1          | 1      |
| 11078 | 0     | 0           | 2      |
| 11079 | 0     | 0           | 1      |
| 11085 | 0     | 0           | 1      |
| 11088 | 2     | 0           | 4      |
| 11106 | 0     | 0           | 1      |
| 11110 | 4     | 1           | NA     |
| 11114 | 3     | -1          | 4      |
| 11118 | 1     | -1          | 2      |
| 11129 | 2     | 1           | 4      |
| 11130 | 2     | 0           | 4      |
| 11131 | 2     | 0           | 4      |
| 11133 | 1     | -1          | NA     |
| 11138 | 3     | -1          | 4      |
| 11143 | 2     | 0           | 4      |
| 11146 | 4     | 0           | 5      |
| 11153 | 2     | 0           | 4      |
| 11162 | 1     | 2           | 4      |
| 11170 | 4     | 2           | 6      |
| 11171 | 0     | 0           | 1      |
| 11201 | 2     | -1          | 3      |
| 11216 | 3     | 1           | 5      |
| 11219 | 1     | 0           | 3      |
| 11222 | 2     | 1           | 5      |
| 11234 | 0     | 0           | 1      |
| 11238 | 2     | 0           | 4      |
| 11244 | 2     | -1          | 4      |
| 11246 | 0     | -2          | 0      |
| 11248 | 0     | 2           | 2      |
| 11250 | 0     | 0           | 1      |
| 11256 | 2     | 1           | 4      |
| 11259 | 1     | -1          | 2      |
| 11263 | 0     | 0           | 1      |
| 11264 | 1     | 0           | NA     |
| 11270 | 0     | -1          | 1      |
| 11274 | 0     | 0           | 1      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 11281 | 2     | -1          | NA     |
| 11285 | 0     | 0           | 1      |
| 11300 | 1     | -1          | 2      |
| 11305 | 2     | -1          | 3      |
| 11317 | 3     | -1          | 4      |
| 11319 | 1     | -1          | 2      |
| 11330 | 0     | 1           | NA     |
| 11334 | 3     | 1           | 5      |
| 11335 | 4     | 1           | NA     |
| 11336 | 1     | 0           | 3      |
| 11356 | 3     | 0           | 4      |
| 11358 | 2     | 0           | 4      |
| 11360 | 0     | 0           | 1      |
| 11364 | 0     | 0           | 1      |
| 11373 | 4     | 1           | 5      |
| 11379 | 3     | -1          | 4      |
| 11382 | 3     | 0           | NA     |
| 11383 | 0     | 0           | 1      |
| 11385 | 3     | 0           | 5      |
| 11387 | 2     | -1          | NA     |
| 11391 | 1     | 0           | 3      |
| 11397 | 1     | -1          | 2      |
| 11404 | 1     | -2          | 2      |
| 11405 | 0     | 1           | 2      |
| 11409 | 2     | 1           | 4      |
| 11419 | 2     | -1          | 3      |
| 11430 | 3     | 0           | 4      |
| 11434 | 4     | 1           | 5      |
| 11436 | 1     | -1          | 2      |
| 11440 | 1     | 1           | NA     |
| 11443 | 1     | -1          | NA     |
| 11449 | 2     | -2          | 3      |
| 11452 | 2     | 1           | NA     |
| 11453 | 0     | -1          | NA     |
| 11456 | 3     | 1           | 4      |
| 11457 | 0     | 0           | 1      |
| 11459 | 2     | 1           | 4      |
| 11471 | 0     | 0           | 1      |
| 11476 | 2     | -1          | 3      |
| 11479 | 0     | -1          | 1      |
| 11481 | 2     | 0           | 4      |
| 11485 | 1     | 1           | 3      |
| 11486 | 1     | 0           | NA     |
| 11487 | 1     | 0           | 3      |
| 11488 | 1     | -1          | 2      |
| 11498 | 0     | 1           | NA     |
| 11506 | 1     | -1          | 3      |
| 11511 | 3     | 1           | 5      |
| 11515 | 0     | -1          | NA     |
| 11518 | 0     | -1          | NA     |
| 11521 | 1     | -1          | NA     |
| 11523 | 1     | 0           | NA     |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 11524 | 0     | 1           | NA     |
| 11525 | 2     | 0           | 4      |
| 11528 | 0     | -1          | 1      |
| 11530 | 1     | 0           | 2      |
| 11531 | 2     | -1          | 3      |
| 11533 | 1     | 0           | 3      |
| 11535 | 2     | 0           | 4      |
| 11537 | 2     | 0           | 4      |
| 11538 | 2     | -2          | 3      |
| 11541 | 0     | -2          | NA     |
| 11548 | 3     | 0           | 4      |
| 11552 | 1     | -1          | 2      |
| 11558 | 0     | 1           | 2      |
| 11560 | 0     | 0           | 1      |
| 11566 | 0     | 0           | 1      |
| 11572 | 0     | 0           | 1      |
| 11573 | 3     | 0           | 4      |
| 11582 | 3     | 0           | 4      |
| 11586 | 1     | -1          | 3      |
| 11590 | 3     | 0           | 4      |
| 11591 | 1     | -1          | 2      |
| 11601 | 2     | 0           | 4      |
| 11611 | 2     | 0           | NA     |
| 11617 | 0     | -1          | NA     |
| 11619 | 2     | 1           | 4      |
| 11624 | 2     | 0           | 4      |
| 11626 | 4     | 1           | 6      |
| 11644 | 1     | 0           | 3      |
| 11652 | 0     | -2          | 0      |
| 11656 | 0     | -1          | 1      |
| 11658 | 3     | -2          | 4      |
| 11659 | 3     | 1           | 5      |
| 11663 | 2     | -1          | NA     |
| 11665 | 2     | 0           | 4      |
| 11683 | 3     | 0           | 4      |
| 11685 | 0     | -1          | 1      |
| 11691 | 1     | 0           | 3      |
| 11694 | 2     | 0           | 4      |
| 11698 | 0     | 0           | 1      |
| 11700 | 2     | 0           | 4      |
| 11703 | 1     | 0           | 2      |
| 11705 | 1     | -1          | 2      |
| 11710 | 3     | -1          | NA     |
| 11711 | 2     | -1          | 3      |
| 11714 | 0     | -1          | 1      |
| 11731 | 2     | 1           | NA     |
| 11732 | 0     | 0           | NA     |
| 11742 | 1     | 0           | 3      |
| 11744 | 2     | 0           | 4      |
| 11745 | 1     | 0           | 3      |
| 11749 | 0     | 1           | NA     |
| 11756 | 1     | 1           | 3      |



| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 11761 | 0     | -1          | 1      |
| 11762 | 3     | 0           | 4      |
| 11766 | 3     | 0           | 5      |
| 11767 | 4     | 2           | 6      |
| 11769 | 1     | 0           | 3      |
| 11770 | 2     | 0           | 4      |
| 11771 | 3     | 0           | 4      |
| 11777 | 2     | -1          | 4      |
| 11778 | 3     | 1           | 5      |
| 11779 | 0     | 0           | 1      |
| 11788 | 0     | 0           | 2      |
| 11790 | 2     | 1           | 4      |
| 11794 | 2     | 0           | 4      |
| 11801 | 2     | 0           | NA     |
| 11807 | 0     | 0           | 1      |
| 11812 | 3     | 0           | 4      |
| 11817 | 0     | 1           | 2      |
| 11818 | 1     | 0           | NA     |
| 11825 | 0     | 1           | 1      |
| 11828 | 3     | 0           | NA     |
| 11833 | 3     | 0           | 4      |
| 11837 | 3     | 1           | NA     |
| 11838 | 0     | 0           | 1      |
| 11842 | 0     | 0           | 1      |
| 11853 | 3     | 0           | 4      |
| 11857 | 3     | 0           | NA     |
| 11858 | 1     | 0           | 3      |
| 11860 | 3     | 1           | 5      |
| 11867 | 2     | 0           | NA     |
| 11868 | 4     | 0           | 5      |
| 11871 | 3     | 0           | NA     |
| 11875 | 1     | 2           | NA     |
| 11881 | 3     | 2           | 6      |
| 11890 | 0     | 1           | 2      |
| 11892 | 3     | 0           | NA     |
| 11894 | 2     | -1          | 3      |
| 11896 | 2     | 1           | NA     |
| 11903 | 2     | 1           | 4      |
| 11905 | 3     | -1          | 4      |
| 11907 | 1     | 0           | 3      |
| 11909 | 4     | 2           | 6      |
| 11911 | 1     | 0           | 3      |
| 11915 | 0     | -1          | 1      |
| 11918 | 2     | 0           | NA     |
| 11920 | 4     | 0           | 5      |
| 11923 | 3     | 0           | 4      |
| 11924 | 1     | 0           | 3      |
| 11926 | 1     | -2          | 2      |
| 11931 | 2     | 0           | NA     |
| 11933 | 3     | 0           | 4      |
| 11940 | 2     | 1           | 4      |
| 11951 | 1     | 1           | 3      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 11953 | 1     | 0           | 3      |
| 11973 | 0     | 0           | NA     |
| 11984 | 0     | -1          | NA     |
| 11985 | 0     | -1          | 1      |
| 11991 | 1     | -1          | 3      |
| 12002 | 1     | 0           | 3      |
| 12006 | 2     | -1          | NA     |
| 12008 | 3     | 0           | 4      |
| 12013 | 0     | -1          | 1      |
| 12015 | 3     | -1          | 4      |
| 12016 | 3     | 0           | 5      |
| 12023 | 0     | 0           | NA     |
| 12029 | 0     | 0           | 1      |
| 12036 | 0     | 0           | 1      |
| 12038 | 1     | 1           | 3      |
| 12041 | 0     | 1           | 2      |
| 12049 | 2     | 1           | NA     |
| 12050 | 0     | 1           | NA     |
| 12054 | 1     | 1           | 3      |
| 12060 | 2     | -1          | 3      |
| 12062 | 3     | 1           | 5      |
| 12065 | 1     | -1          | 2      |
| 12079 | 0     | -1          | 1      |
| 12083 | 4     | 1           | 6      |
| 12090 | 2     | 1           | 4      |
| 12091 | 2     | 1           | 4      |
| 12094 | 3     | 0           | 4      |
| 12099 | 2     | 0           | 4      |
| 12101 | 1     | 1           | 3      |
| 12110 | 1     | 0           | 3      |
| 12116 | 3     | 2           | NA     |
| 12122 | 3     | -1          | 4      |
| 12127 | 4     | 2           | 6      |
| 12133 | 2     | 0           | 4      |
| 12142 | 0     | 1           | 1      |
| 12147 | 3     | 0           | NA     |
| 12156 | 1     | -1          | 2      |
| 12157 | 3     | 1           | 5      |
| 12158 | 4     | 1           | NA     |
| 12161 | 3     | 0           | 4      |
| 12163 | 3     | 0           | 4      |
| 12166 | 1     | 0           | 3      |
| 12170 | 0     | 0           | NA     |
| 12174 | 3     | 1           | NA     |
| 12183 | 0     | 0           | NA     |
| 12188 | 0     | 0           | NA     |
| 12189 | 3     | 0           | 5      |
| 12192 | 2     | 0           | NA     |
| 12201 | 2     | -1          | 3      |
| 12204 | 0     | -1          | 1      |
| 12207 | 0     | -1          | 1      |
| 12208 | 1     | -1          | 2      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 12209 | 2     | 0           | NA     |
| 12210 | 4     | 2           | 6      |
| 12217 | 2     | -1          | 3      |
| 12227 | 0     | 0           | 1      |
| 12231 | 3     | -1          | NA     |
| 12232 | 2     | 0           | 4      |
| 12239 | 3     | 1           | 5      |
| 12240 | 1     | -1          | 2      |
| 12251 | 2     | -1          | 3      |
| 12256 | 2     | 1           | 4      |
| 12261 | 0     | 0           | NA     |
| 12263 | 2     | -2          | 3      |
| 12266 | 0     | -1          | 1      |
| 12267 | 1     | 0           | 3      |
| 12268 | 2     | 0           | 4      |
| 12279 | 3     | 1           | NA     |
| 12280 | 2     | 1           | NA     |
| 12283 | 1     | 0           | 3      |
| 12284 | 0     | 1           | 2      |
| 12285 | 4     | 1           | NA     |
| 12286 | 3     | 1           | 5      |
| 12292 | 2     | 1           | 4      |
| 12295 | 0     | 0           | 1      |
| 12301 | 2     | 0           | NA     |
| 12314 | 1     | -1          | 2      |
| 12315 | 0     | 0           | 1      |
| 12318 | 0     | 0           | NA     |
| 12332 | 3     | 1           | 5      |
| 12334 | 0     | 0           | 1      |
| 12337 | 2     | 0           | 4      |
| 12338 | 3     | 1           | 5      |
| 12349 | 3     | 0           | 4      |
| 12350 | 3     | -1          | 4      |
| 12359 | 4     | 1           | 5      |
| 12360 | 3     | 1           | 5      |
| 12373 | 2     | 1           | NA     |
| 12374 | 0     | -1          | 1      |
| 12380 | 2     | 1           | 4      |
| 12382 | 2     | -1          | 3      |
| 12383 | 2     | -1          | 3      |
| 12390 | 2     | 1           | 4      |
| 12398 | 2     | 1           | 4      |
| 12405 | 2     | 0           | 4      |
| 12407 | 1     | 0           | 3      |
| 12410 | 4     | 1           | 5      |
| 12418 | 3     | 2           | 5      |
| 12421 | 3     | 1           | NA     |
| 12422 | 1     | 1           | 3      |
| 12439 | 0     | 0           | NA     |
| 12444 | 2     | 0           | 4      |
| 12463 | 4     | 0           | 5      |
| 12465 | 0     | -1          | NA     |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 12470 | 3     | 0           | NA     |
| 12471 | 2     | 0           | 4      |
| 12480 | 3     | 0           | 4      |
| 12482 | 3     | 0           | 4      |
| 12484 | 2     | -1          | 3      |
| 12487 | 3     | 0           | 4      |
| 12491 | 2     | 0           | NA     |
| 12503 | 4     | 0           | NA     |
| 12507 | 0     | 0           | 1      |
| 12526 | 1     | -1          | 2      |
| 12533 | 1     | 0           | 3      |
| 12540 | 0     | 0           | 1      |
| 12543 | 1     | -1          | 2      |
| 12552 | 0     | 0           | NA     |
| 12555 | 3     | 2           | 5      |
| 12556 | 3     | 0           | 4      |
| 12570 | 3     | 0           | 4      |
| 12579 | 2     | 0           | 4      |
| 12588 | 1     | -1          | 2      |
| 12600 | 0     | 1           | NA     |
| 12615 | 3     | 1           | 5      |
| 12624 | 2     | 0           | 4      |
| 12629 | 0     | -1          | NA     |
| 12634 | 2     | -1          | 3      |
| 12638 | 0     | 0           | 1      |
| 12646 | 1     | 1           | 3      |
| 12650 | 0     | 0           | NA     |
| 12665 | 1     | 0           | NA     |
| 12674 | 2     | -1          | NA     |
| 12676 | 0     | 0           | NA     |
| 12678 | 1     | 0           | NA     |
| 12685 | 1     | 1           | 3      |
| 12690 | 1     | 0           | 3      |
| 12698 | 2     | 0           | 4      |
| 12702 | 2     | 1           | 4      |
| 12704 | 1     | 0           | 3      |
| 12705 | 1     | 0           | 3      |
| 12710 | 3     | -1          | 4      |
| 12715 | 3     | 1           | 5      |
| 12720 | 2     | 0           | 4      |
| 12734 | 1     | 0           | 2      |
| 12744 | 2     | 0           | 4      |
| 12747 | 0     | 0           | 1      |
| 12757 | 3     | 1           | 5      |
| 12758 | 1     | -2          | NA     |
| 12766 | 0     | -1          | 1      |
| 12782 | 2     | -1          | 3      |
| 12787 | 0     | 0           | NA     |
| 12799 | 1     | -1          | 2      |
| 12804 | 2     | 1           | 4      |
| 12809 | 2     | -1          | 3      |
| 12813 | 2     | -1          | 3      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 12816 | 3     | -1          | 4      |
| 12821 | 2     | 0           | NA     |
| 12826 | 2     | -2          | 3      |
| 12831 | 2     | 0           | 4      |
| 12832 | 1     | 1           | 3      |
| 12833 | 2     | -1          | 3      |
| 12835 | 2     | 0           | 4      |
| 12842 | 0     | -1          | 1      |
| 12844 | 2     | 0           | 4      |
| 12847 | 0     | -1          | 1      |
| 12852 | 1     | 0           | 3      |
| 12856 | 2     | 0           | 4      |
| 12857 | 2     | -1          | 3      |
| 12858 | 4     | 1           | NA     |
| 12861 | 1     | 0           | 3      |
| 12869 | 2     | 0           | 4      |
| 12876 | 1     | 2           | 4      |
| 12877 | 0     | 0           | NA     |
| 12879 | 1     | 1           | 3      |
| 12882 | 2     | 1           | 4      |
| 12883 | 4     | -1          | NA     |
| 12887 | 1     | -1          | 2      |
| 12889 | 2     | 0           | NA     |
| 12891 | 3     | 1           | 5      |
| 12894 | 3     | -1          | 4      |
| 12895 | 0     | 0           | NA     |
| 12899 | 0     | 1           | 2      |
| 12905 | 4     | 2           | 6      |
| 12913 | 0     | 0           | NA     |
| 12916 | 0     | 0           | 1      |
| 12917 | 1     | 0           | 3      |
| 12925 | 3     | -1          | 4      |
| 12934 | 3     | 1           | 5      |
| 12939 | 3     | 1           | 5      |
| 12943 | 0     | 1           | 2      |
| 12950 | 3     | 1           | 5      |
| 12961 | 0     | -1          | 0      |
| 12963 | 1     | 0           | 3      |
| 12973 | 0     | 1           | 2      |
| 12979 | 2     | 0           | 4      |
| 12980 | 0     | -1          | 1      |
| 12981 | 0     | -1          | NA     |
| 12982 | 1     | 1           | 3      |
| 12992 | 1     | 1           | 3      |
| 12994 | 0     | 0           | 1      |
| 12999 | 2     | -1          | 3      |
| 13002 | 2     | 0           | 4      |
| 13004 | 0     | 0           | 1      |
| 13010 | 1     | 1           | NA     |
| 13013 | 2     | 0           | 4      |
| 13015 | 2     | 1           | 4      |
| 13019 | 2     | 2           | 5      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 13030 | 1     | -2          | NA     |
| 13031 | 3     | 1           | NA     |
| 13036 | 1     | 1           | 3      |
| 13037 | 3     | 1           | 5      |
| 13042 | 0     | 2           | 2      |
| 13054 | 1     | -1          | 2      |
| 13060 | 0     | 1           | 2      |
| 13072 | 2     | 0           | NA     |
| 13073 | 1     | 0           | NA     |
| 13079 | 3     | 1           | 5      |
| 13081 | 0     | -1          | 1      |
| 13086 | 1     | 0           | NA     |
| 13087 | 2     | 0           | 4      |
| 13090 | 0     | 0           | 1      |
| 13098 | 1     | 0           | 3      |
| 13100 | 1     | 0           | 3      |
| 13105 | 0     | 0           | 1      |
| 13106 | 1     | 0           | 3      |
| 13107 | 2     | 0           | 4      |
| 13113 | 4     | 2           | 6      |
| 13115 | 3     | 0           | 5      |
| 13117 | 0     | -1          | 1      |
| 13118 | 2     | -1          | 3      |
| 13121 | 0     | -1          | NA     |
| 13137 | 1     | -2          | 2      |
| 13146 | 0     | 0           | NA     |
| 13150 | 3     | 1           | NA     |
| 13151 | 2     | 1           | 4      |
| 13152 | 1     | 1           | NA     |
| 13156 | 3     | -1          | NA     |
| 13165 | 4     | 1           | 5      |
| 13169 | 2     | 1           | 4      |
| 13178 | 2     | 0           | 4      |
| 13180 | 1     | 1           | 3      |
| 13183 | 3     | 0           | 4      |
| 13184 | 0     | 1           | 2      |
| 13188 | 2     | -1          | 4      |
| 13191 | 2     | 0           | 4      |
| 13196 | 0     | -1          | 1      |
| 13203 | 2     | 0           | NA     |
| 13206 | 1     | -1          | 2      |
| 13211 | 2     | 1           | NA     |
| 13219 | 0     | 1           | 2      |
| 13223 | 3     | 2           | 5      |
| 13226 | 2     | 0           | 4      |
| 13228 | 1     | -1          | 2      |
| 13230 | 2     | 1           | 4      |
| 13240 | 2     | 1           | 4      |
| 13249 | 3     | 1           | 5      |
| 13250 | 0     | -1          | 1      |
| 13256 | 2     | 0           | 4      |
| 13261 | 0     | 0           | 1      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 13263 | 1     | 0           | 3      |
| 13268 | 2     | 1           | 4      |
| 13275 | 0     | 1           | 2      |
| 13277 | 3     | 1           | NA     |
| 13283 | 2     | 0           | 4      |
| 13284 | 0     | 0           | 1      |
| 13285 | 1     | 0           | 3      |
| 13286 | 3     | 0           | NA     |
| 13287 | 0     | -1          | 1      |
| 13290 | 1     | 0           | 3      |
| 13291 | 0     | 1           | NA     |
| 13294 | 3     | 1           | 5      |
| 13295 | 2     | -1          | 3      |
| 13303 | 2     | -1          | 3      |
| 13306 | 0     | -2          | 1      |
| 13311 | 2     | 1           | 4      |
| 13322 | 0     | 0           | 1      |
| 13331 | 0     | 0           | 1      |
| 13337 | 2     | 1           | 4      |
| 13344 | 0     | 0           | 1      |
| 13362 | 2     | 1           | 4      |
| 13364 | 1     | -1          | 2      |
| 13366 | 0     | 0           | NA     |
| 13368 | 2     | -1          | 3      |
| 13370 | 1     | -1          | 2      |
| 13377 | 3     | 1           | 5      |
| 13378 | 1     | -1          | 2      |
| 13388 | 0     | 0           | 1      |
| 13392 | 2     | 1           | 4      |
| 13398 | 2     | 1           | 4      |
| 13403 | 2     | 1           | NA     |
| 13404 | 2     | 1           | 4      |
| 13409 | 2     | 0           | 4      |
| 13416 | 0     | 2           | 2      |
| 13422 | 0     | 0           | 1      |
| 13427 | 2     | 0           | 4      |
| 13433 | 3     | 1           | 5      |
| 13438 | 2     | -1          | 3      |
| 13441 | 4     | 1           | NA     |
| 13449 | 3     | 1           | 5      |
| 13450 | 1     | 1           | 3      |
| 13453 | 1     | -1          | 2      |
| 13460 | 1     | 1           | 3      |
| 13461 | 2     | 1           | 4      |
| 13465 | 2     | 0           | 4      |
| 13468 | 0     | 1           | 2      |
| 13481 | 2     | 0           | 4      |
| 13485 | 1     | -1          | 2      |
| 13487 | 3     | 1           | NA     |
| 13490 | 2     | 0           | NA     |
| 13493 | 1     | 0           | 3      |
| 13497 | 1     | -1          | 2      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 13508 | 0     | 1           | 2      |
| 13516 | 0     | 0           | NA     |
| 13525 | 2     | 0           | 4      |
| 13533 | 4     | 0           | NA     |
| 13535 | 0     | 0           | NA     |
| 13538 | 2     | 0           | 4      |
| 13545 | 1     | 1           | NA     |
| 13566 | 3     | -1          | 4      |
| 13581 | 1     | 0           | 3      |
| 13584 | 0     | -1          | 1      |
| 13588 | 1     | -1          | 2      |
| 13596 | 1     | 0           | 2      |
| 13600 | 3     | 2           | 5      |
| 13604 | 2     | 0           | 4      |
| 13608 | 1     | 1           | 3      |
| 13611 | 1     | 0           | 3      |
| 13612 | 0     | 0           | 1      |
| 13615 | 2     | 0           | 4      |
| 13616 | 3     | 0           | 4      |
| 13618 | 2     | 0           | 4      |
| 13625 | 0     | -1          | NA     |
| 13628 | 3     | -1          | 4      |
| 13629 | 0     | 0           | 1      |
| 13630 | 3     | 1           | 5      |
| 13633 | 2     | 0           | 4      |
| 13637 | 2     | 0           | 4      |
| 13640 | 0     | -1          | 1      |
| 13641 | 1     | 0           | 2      |
| 13651 | 2     | 1           | NA     |
| 13674 | 2     | 0           | 4      |
| 13684 | 2     | 0           | 4      |
| 13690 | 1     | -2          | NA     |
| 13707 | 2     | 0           | 4      |
| 13709 | 3     | 1           | 5      |
| 13710 | 3     | -1          | NA     |
| 13713 | 2     | 2           | 5      |
| 13724 | 0     | 2           | NA     |
| 13725 | 0     | 2           | 2      |
| 13731 | 1     | -1          | 2      |
| 13736 | 1     | -1          | 2      |
| 13740 | 0     | 1           | 2      |
| 13745 | 3     | 2           | NA     |
| 13748 | 0     | -1          | 1      |
| 13751 | 0     | 1           | 2      |
| 13758 | 0     | -1          | 1      |
| 13762 | 0     | 0           | 1      |
| 13764 | 3     | 0           | 5      |
| 13765 | 0     | 0           | 1      |
| 13769 | 1     | -1          | NA     |
| 13770 | 1     | 0           | 3      |
| 13774 | 3     | 1           | 5      |
| 13787 | 1     | 0           | 3      |



| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 13791 | 1     | 1           | 3      |
| 13802 | 1     | -1          | 2      |
| 13807 | 1     | 0           | 3      |
| 13808 | 1     | -2          | 2      |
| 13809 | 0     | 1           | 2      |
| 13810 | 2     | 0           | NA     |
| 13822 | 3     | 1           | NA     |
| 13823 | 2     | -1          | 3      |
| 13825 | 2     | 0           | 4      |
| 13826 | 0     | 1           | 2      |
| 13833 | 2     | 0           | 4      |
| 13837 | 2     | -1          | 3      |
| 13842 | 2     | 0           | 4      |
| 13846 | 2     | 0           | 3      |
| 13852 | 3     | 1           | 5      |
| 13853 | 0     | -2          | 1      |
| 13858 | 0     | -1          | 1      |
| 13860 | 0     | 0           | 1      |
| 13866 | 0     | 0           | 1      |
| 13886 | 0     | 0           | NA     |
| 13887 | 0     | 1           | 2      |
| 13890 | 1     | 2           | 4      |
| 13891 | 2     | -1          | 4      |
| 13893 | 1     | -1          | 2      |
| 13902 | 3     | 2           | 5      |
| 13903 | 0     | 0           | NA     |
| 13908 | 2     | 1           | 4      |
| 13912 | 1     | -2          | 2      |
| 13924 | 0     | 1           | 2      |
| 13928 | 1     | 0           | 3      |
| 13929 | 1     | 1           | 3      |
| 13938 | 2     | 1           | 4      |
| 13939 | 1     | -1          | NA     |
| 13941 | 3     | 1           | 5      |
| 13951 | 1     | 1           | 3      |
| 13962 | 0     | -2          | 0      |
| 13964 | 1     | -1          | 2      |
| 13967 | 2     | -1          | 3      |
| 13971 | 3     | -1          | 4      |
| 13972 | 3     | 0           | 4      |
| 13975 | 0     | 2           | 1      |
| 13977 | 1     | 0           | 3      |
| 13979 | 3     | 0           | 4      |
| 13983 | 0     | -1          | 1      |
| 13984 | 2     | 0           | 4      |
| 13987 | 0     | 0           | 1      |
| 13994 | 3     | 0           | NA     |
| 13999 | 1     | 0           | 3      |
| 14003 | 2     | 2           | 5      |
| 14008 | 2     | 1           | 4      |
| 14011 | 2     | 2           | NA     |
| 14012 | 1     | 0           | 3      |

| INDEX | STARS | LabelAppeal | TARGET |
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| 14016 | 2     | -1          | 3      |
| 14017 | 1     | 0           | NA     |
| 14020 | 0     | 0           | NA     |
| 14027 | 0     | 1           | 2      |
| 14038 | 2     | 0           | 3      |
| 14040 | 3     | 1           | 5      |
| 14042 | 1     | -1          | 2      |
| 14055 | 0     | 1           | NA     |
| 14057 | 2     | 1           | 4      |
| 14060 | 0     | 1           | 2      |
| 14081 | 0     | -1          | NA     |
| 14091 | 2     | 0           | 4      |
| 14111 | 2     | -1          | 3      |
| 14117 | 3     | 1           | 5      |
| 14121 | 2     | 0           | NA     |
| 14122 | 3     | 1           | NA     |
| 14125 | 0     | 0           | 1      |
| 14129 | 0     | 0           | 1      |
| 14135 | 0     | -1          | 1      |
| 14148 | 0     | 2           | NA     |
| 14157 | 2     | 0           | 4      |
| 14161 | 0     | 0           | 1      |
| 14163 | 0     | 0           | NA     |
| 14172 | 3     | -1          | NA     |
| 14180 | 0     | 1           | 2      |
| 14182 | 2     | 1           | NA     |
| 14188 | 0     | 1           | 2      |
| 14191 | 1     | 0           | 3      |
| 14201 | 4     | 2           | 6      |
| 14202 | 2     | 0           | 4      |
| 14213 | 2     | 0           | 4      |
| 14220 | 0     | 0           | 1      |
| 14224 | 1     | -1          | 2      |
| 14231 | 0     | -1          | NA     |
| 14241 | 3     | 1           | 5      |
| 14243 | 3     | 0           | NA     |
| 14245 | 1     | -1          | 2      |
| 14247 | 1     | -2          | NA     |
| 14248 | 1     | 0           | 3      |
| 14252 | 1     | 0           | 3      |
| 14254 | 3     | 0           | 4      |
| 14260 | 3     | -1          | 4      |
| 14269 | 2     | 1           | 4      |
| 14272 | 0     | 1           | 2      |
| 14274 | 2     | 0           | 4      |
| 14279 | 1     | 1           | 3      |
| 14280 | 3     | 1           | 5      |
| 14290 | 2     | -1          | 4      |
| 14298 | 4     | 2           | NA     |
| 14308 | 3     | 0           | 5      |
| 14313 | 2     | 0           | 4      |
| 14316 | 2     | 0           | 4      |

| INDEX | STARS | LabelAppeal | TARGET |
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| 14319 | 4     | 1           | NA     |
| 14322 | 0     | 1           | NA     |
| 14323 | 2     | -1          | NA     |
| 14325 | 3     | 2           | 5      |
| 14337 | 3     | 0           | 4      |
| 14339 | 3     | 0           | 4      |
| 14341 | 1     | 0           | 3      |
| 14342 | 3     | 1           | 5      |
| 14346 | 4     | 1           | 5      |
| 14351 | 2     | 0           | 4      |
| 14354 | 0     | 0           | 1      |
| 14355 | 0     | 0           | 1      |
| 14358 | 3     | 2           | 5      |
| 14359 | 0     | -1          | NA     |
| 14364 | 2     | 0           | 4      |
| 14374 | 0     | -2          | 0      |
| 14376 | 1     | -1          | NA     |
| 14382 | 1     | 0           | 3      |
| 14384 | 1     | 0           | 3      |
| 14393 | 0     | 0           | NA     |
| 14398 | 1     | 0           | 3      |
| 14403 | 3     | 0           | 4      |
| 14406 | 0     | 0           | NA     |
| 14408 | 2     | 0           | NA     |
| 14411 | 0     | 1           | 2      |
| 14414 | 2     | 0           | 4      |
| 14418 | 1     | -1          | NA     |
| 14423 | 2     | 0           | NA     |
| 14442 | 3     | 0           | 4      |
| 14443 | 2     | 0           | 4      |
| 14444 | 2     | -1          | 3      |
| 14446 | 3     | -1          | NA     |
| 14455 | 1     | 0           | 3      |
| 14456 | 3     | 0           | 5      |
| 14458 | 2     | 0           | 4      |
| 14464 | 2     | 1           | NA     |
| 14466 | 3     | 1           | 5      |
| 14467 | 1     | 0           | 3      |
| 14469 | 3     | -1          | 4      |
| 14483 | 0     | 1           | 2      |
| 14484 | 1     | 0           | 3      |
| 14490 | 1     | 0           | 3      |
| 14491 | 2     | -2          | 3      |
| 14494 | 1     | 0           | 3      |
| 14496 | 2     | 0           | 4      |
| 14503 | 0     | -1          | 1      |
| 14504 | 1     | 0           | 3      |
| 14505 | 2     | -1          | 3      |
| 14506 | 0     | 0           | 1      |
| 14507 | 0     | 0           | 1      |
| 14512 | 0     | -1          | NA     |
| 14520 | 2     | 1           | 4      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 14527 | 1     | -1          | 2      |
| 14531 | 3     | 1           | 5      |
| 14532 | 0     | 0           | NA     |
| 14535 | 1     | -1          | 2      |
| 14543 | 0     | 0           | 1      |
| 14554 | 2     | 0           | 4      |
| 14556 | 3     | 2           | 5      |
| 14557 | 2     | 0           | 4      |
| 14561 | 1     | -1          | 2      |
| 14562 | 3     | -1          | NA     |
| 14567 | 0     | -2          | 0      |
| 14568 | 0     | -2          | 0      |
| 14574 | 3     | -1          | 4      |
| 14575 | 1     | 0           | 3      |
| 14579 | 3     | -1          | 4      |
| 14581 | 2     | 0           | 4      |
| 14582 | 1     | -2          | NA     |
| 14586 | 0     | 0           | 1      |
| 14591 | 1     | 0           | 3      |
| 14598 | 1     | 0           | 3      |
| 14599 | 1     | 0           | NA     |
| 14600 | 0     | -1          | 1      |
| 14612 | 4     | 0           | 5      |
| 14613 | 0     | -1          | 1      |
| 14624 | 3     | 1           | 5      |
| 14626 | 1     | 0           | 3      |
| 14630 | 3     | 0           | 4      |
| 14633 | 1     | 1           | 3      |
| 14639 | 1     | 0           | NA     |
| 14642 | 2     | 0           | NA     |
| 14643 | 4     | 0           | 5      |
| 14649 | 1     | 1           | 3      |
| 14650 | 0     | 0           | 1      |
| 14653 | 1     | 0           | 3      |
| 14655 | 1     | -1          | 2      |
| 14656 | 1     | -1          | 2      |
| 14662 | 2     | 0           | 4      |
| 14663 | 0     | 1           | 2      |
| 14673 | 1     | 0           | 3      |
| 14674 | 1     | -1          | 2      |
| 14676 | 2     | 0           | 4      |
| 14682 | 0     | 0           | 1      |
| 14685 | 4     | 0           | 5      |
| 14689 | 1     | 0           | 3      |
| 14693 | 1     | 0           | 3      |
| 14697 | 1     | 0           | 3      |
| 14700 | 1     | 0           | 3      |
| 14704 | 0     | 1           | NA     |
| 14710 | 2     | -1          | 4      |
| 14719 | 2     | 0           | 3      |
| 14724 | 2     | 1           | 4      |
| 14728 | 3     | 0           | 4      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 14735 | 2     | 0           | 3      |
| 14736 | 1     | -1          | NA     |
| 14741 | 0     | 0           | NA     |
| 14744 | 1     | 1           | 2      |
| 14753 | 0     | 0           | 1      |
| 14756 | 3     | 0           | 4      |
| 14762 | 3     | 1           | 5      |
| 14765 | 4     | 0           | 5      |
| 14783 | 4     | 0           | 5      |
| 14784 | 1     | -1          | 2      |
| 14786 | 0     | 0           | 1      |
| 14790 | 1     | -1          | 2      |
| 14793 | 2     | -1          | 3      |
| 14796 | 4     | 1           | 6      |
| 14801 | 0     | 1           | 2      |
| 14807 | 0     | -1          | 1      |
| 14812 | 2     | 0           | 4      |
| 14815 | 3     | 1           | 5      |
| 14831 | 3     | 0           | 4      |
| 14833 | 4     | 1           | 5      |
| 14836 | 4     | 1           | 5      |
| 14856 | 3     | 0           | 4      |
| 14859 | 1     | 0           | NA     |
| 14861 | 1     | 1           | 3      |
| 14863 | 0     | -1          | 0      |
| 14865 | 0     | 0           | 1      |
| 14880 | 0     | 0           | 1      |
| 14881 | 2     | 0           | 4      |
| 14883 | 0     | -1          | 1      |
| 14884 | 3     | 1           | NA     |
| 14894 | 2     | 0           | 4      |
| 14896 | 3     | 0           | 4      |
| 14899 | 2     | -1          | 4      |
| 14900 | 2     | -1          | 4      |
| 14901 | 0     | 0           | NA     |
| 14906 | 2     | 0           | 4      |
| 14907 | 0     | 0           | 1      |
| 14915 | 3     | 1           | 5      |
| 14919 | 1     | -1          | NA     |
| 14926 | 4     | 1           | 5      |
| 14927 | 1     | -1          | 2      |
| 14933 | 2     | -1          | 3      |
| 14937 | 2     | -1          | 3      |
| 14939 | 2     | -1          | NA     |
| 14940 | 0     | 0           | 1      |
| 14943 | 0     | -1          | 1      |
| 14953 | 2     | 0           | 4      |
| 14954 | 1     | -1          | 2      |
| 14969 | 2     | 0           | 4      |
| 14999 | 4     | 2           | NA     |
| 15008 | 2     | 0           | 4      |
| 15009 | 2     | 0           | NA     |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 15018 | 2     | 1           | 4      |
| 15023 | 2     | 0           | 4      |
| 15025 | 0     | 0           | 1      |
| 15034 | 2     | 0           | NA     |
| 15036 | 3     | 0           | 4      |
| 15051 | 0     | 1           | 2      |
| 15052 | 2     | -1          | 3      |
| 15064 | 2     | 0           | 4      |
| 15070 | 2     | 0           | 3      |
| 15074 | 2     | 1           | 4      |
| 15077 | 2     | 1           | 4      |
| 15081 | 2     | 0           | 4      |
| 15086 | 4     | 1           | 5      |
| 15093 | 0     | -1          | 1      |
| 15094 | 0     | 2           | 2      |
| 15103 | 1     | -1          | 2      |
| 15104 | 0     | -2          | NA     |
| 15110 | 0     | 0           | 1      |
| 15112 | 1     | -2          | 2      |
| 15115 | 2     | 2           | NA     |
| 15131 | 0     | 0           | 1      |
| 15139 | 3     | -2          | 4      |
| 15141 | 2     | 0           | 4      |
| 15148 | 0     | -1          | 1      |
| 15154 | 4     | 1           | NA     |
| 15156 | 2     | -1          | 3      |
| 15161 | 1     | 0           | 3      |
| 15167 | 2     | -1          | 3      |
| 15178 | 3     | 0           | NA     |
| 15205 | 3     | 0           | 4      |
| 15207 | 0     | 1           | NA     |
| 15222 | 2     | 0           | 4      |
| 15223 | 3     | 0           | 4      |
| 15225 | 3     | 0           | 4      |
| 15228 | 2     | 1           | NA     |
| 15239 | 1     | -1          | NA     |
| 15241 | 0     | 0           | 1      |
| 15246 | 0     | 0           | 1      |
| 15247 | 0     | -1          | 1      |
| 15249 | 1     | 0           | 3      |
| 15255 | 3     | -1          | NA     |
| 15257 | 0     | 0           | 2      |
| 15267 | 0     | 0           | 1      |
| 15277 | 2     | -1          | 3      |
| 15280 | 3     | 1           | 5      |
| 15289 | 2     | 1           | NA     |
| 15297 | 0     | 0           | 1      |
| 15302 | 0     | 0           | 1      |
| 15304 | 0     | -1          | 1      |
| 15312 | 0     | -1          | 1      |
| 15321 | 0     | -1          | NA     |
| 15325 | 0     | 0           | 1      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 15326 | 2     | 1           | 4      |
| 15333 | 3     | 1           | NA     |
| 15337 | 0     | 0           | 1      |
| 15338 | 1     | 2           | 4      |
| 15340 | 2     | 2           | 5      |
| 15342 | 1     | -1          | NA     |
| 15344 | 2     | -1          | 4      |
| 15347 | 0     | 0           | 1      |
| 15349 | 3     | 1           | NA     |
| 15355 | 1     | 1           | 3      |
| 15359 | 0     | 0           | 1      |
| 15366 | 0     | -1          | 1      |
| 15367 | 0     | -1          | NA     |
| 15368 | 0     | -1          | 1      |
| 15369 | 2     | 1           | NA     |
| 15380 | 2     | 0           | 4      |
| 15381 | 2     | -1          | 3      |
| 15387 | 0     | 1           | 1      |
| 15388 | 1     | 0           | 3      |
| 15389 | 0     | 2           | 2      |
| 15392 | 0     | 0           | 2      |
| 15400 | 2     | -1          | 3      |
| 15405 | 1     | 1           | 3      |
| 15407 | 2     | 0           | 4      |
| 15408 | 4     | 2           | 6      |
| 15411 | 1     | 0           | 3      |
| 15413 | 3     | 0           | 4      |
| 15418 | 4     | 0           | 5      |
| 15419 | 3     | 1           | 5      |
| 15421 | 1     | 0           | 3      |
| 15425 | 1     | 0           | 3      |
| 15436 | 2     | 0           | 4      |
| 15438 | 3     | 0           | 4      |
| 15440 | 3     | 0           | 4      |
| 15443 | 2     | 0           | 4      |
| 15460 | 1     | 0           | 3      |
| 15464 | 0     | -1          | 1      |
| 15465 | 2     | -1          | 3      |
| 15473 | 0     | 0           | 1      |
| 15475 | 2     | -2          | 3      |
| 15483 | 0     | 0           | 1      |
| 15494 | 4     | 0           | 5      |
| 15495 | 4     | 2           | 6      |
| 15498 | 3     | -1          | 4      |
| 15499 | 1     | 0           | 3      |
| 15500 | 0     | 1           | 2      |
| 15501 | 0     | -1          | 1      |
| 15510 | 1     | -1          | 2      |
| 15512 | 1     | -1          | 2      |
| 15516 | 1     | -1          | 2      |
| 15518 | 3     | 1           | NA     |
| 15519 | 2     | 0           | 4      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 15524 | 2     | -1          | 3      |
| 15527 | 0     | 0           | 2      |
| 15529 | 0     | 0           | 2      |
| 15530 | 0     | 0           | 1      |
| 15538 | 0     | 0           | 1      |
| 15539 | 1     | 0           | 3      |
| 15541 | 0     | 0           | 1      |
| 15546 | 0     | -1          | 1      |
| 15547 | 1     | 0           | NA     |
| 15548 | 0     | 1           | NA     |
| 15552 | 1     | -1          | 2      |
| 15556 | 3     | 1           | 5      |
| 15567 | 2     | -1          | NA     |
| 15572 | 1     | -1          | 2      |
| 15573 | 3     | 1           | 4      |
| 15574 | 2     | 0           | 4      |
| 15577 | 0     | -1          | 1      |
| 15579 | 2     | 0           | 4      |
| 15581 | 1     | -1          | 2      |
| 15589 | 0     | -1          | 1      |
| 15596 | 1     | 0           | 3      |
| 15598 | 3     | 1           | 5      |
| 15599 | 3     | 0           | 4      |
| 15605 | 3     | 2           | 5      |
| 15606 | 3     | 0           | 5      |
| 15608 | 2     | 0           | 4      |
| 15616 | 2     | 1           | 4      |
| 15618 | 0     | 0           | 1      |
| 15621 | 0     | 0           | 1      |
| 15626 | 0     | 0           | 1      |
| 15638 | 1     | 0           | 3      |
| 15639 | 1     | -2          | NA     |
| 15642 | 1     | -2          | 2      |
| 15644 | 1     | 0           | NA     |
| 15646 | 4     | 1           | NA     |
| 15649 | 2     | 1           | 4      |
| 15656 | 0     | -1          | 1      |
| 15659 | 0     | 1           | NA     |
| 15680 | 0     | -1          | 1      |
| 15686 | 3     | 0           | 4      |
| 15693 | 0     | 1           | 2      |
| 15697 | 3     | 1           | 5      |
| 15699 | 4     | 0           | 5      |
| 15701 | 2     | 1           | 4      |
| 15705 | 0     | 0           | 1      |
| 15714 | 1     | 0           | 3      |
| 15722 | 3     | 0           | 4      |
| 15728 | 2     | 0           | NA     |
| 15734 | 2     | -1          | 3      |
| 15752 | 1     | -1          | 2      |
| 15756 | 2     | 0           | 4      |
| 15760 | 2     | 0           | 4      |



| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 15762 | 3     | 0           | 4      |
| 15767 | 3     | -1          | 4      |
| 15768 | 0     | 0           | NA     |
| 15773 | 3     | 1           | NA     |
| 15774 | 2     | 0           | NA     |
| 15781 | 1     | 1           | NA     |
| 15782 | 1     | 0           | 3      |
| 15784 | 4     | 2           | 6      |
| 15791 | 1     | 1           | NA     |
| 15796 | 2     | 1           | 4      |
| 15798 | 3     | 1           | 5      |
| 15806 | 0     | -1          | 1      |
| 15814 | 0     | 0           | 1      |
| 15819 | 1     | 1           | 3      |
| 15825 | 2     | 0           | 4      |
| 15826 | 2     | 1           | 4      |
| 15831 | 3     | 0           | NA     |
| 15835 | 4     | 1           | 6      |
| 15836 | 0     | -1          | 1      |
| 15839 | 4     | 0           | 5      |
| 15845 | 1     | 0           | 3      |
| 15858 | 0     | 0           | 1      |
| 15859 | 2     | 0           | 4      |
| 15876 | 2     | 1           | 4      |
| 15878 | 3     | 0           | NA     |
| 15880 | 0     | 1           | 2      |
| 15886 | 3     | 0           | NA     |
| 15888 | 1     | 1           | NA     |
| 15891 | 1     | 1           | 3      |
| 15900 | 1     | -2          | NA     |
| 15902 | 3     | 0           | 4      |
| 15904 | 1     | 0           | 3      |
| 15908 | 1     | -1          | 2      |
| 15910 | 0     | -1          | 1      |
| 15917 | 1     | 1           | 4      |
| 15919 | 3     | 1           | 5      |
| 15924 | 1     | 0           | 3      |
| 15927 | 1     | 0           | 3      |
| 15937 | 0     | 0           | NA     |
| 15946 | 2     | -1          | 3      |
| 15949 | 2     | -1          | 3      |
| 15957 | 2     | 1           | 4      |
| 15961 | 3     | 0           | 5      |
| 15964 | 1     | -1          | 2      |
| 15965 | 2     | -1          | 4      |
| 15966 | 0     | 1           | 2      |
| 15978 | 0     | 0           | 1      |
| 15983 | 0     | 1           | 2      |
| 15987 | 3     | -2          | NA     |
| 15988 | 1     | -1          | 2      |
| 15998 | 1     | -1          | 3      |
| 16004 | 1     | 1           | 3      |

| INDEX | STARS | LabelAppeal | TARGET |
|-------|-------|-------------|--------|
| 16008 | 3     | -1          | 4      |
| 16011 | 0     | 1           | NA     |
| 16023 | 1     | 0           | 3      |
| 16024 | 1     | -1          | NA     |
| 16025 | 1     | 0           | 3      |
| 16048 | 2     | 2           | NA     |
| 16050 | 1     | 1           | 3      |
| 16051 | 0     | 0           | 2      |
| 16057 | 0     | 1           | 2      |
| 16059 | 3     | 1           | 5      |
| 16060 | 2     | 0           | 4      |
| 16075 | 3     | 0           | 4      |
| 16094 | 3     | 2           | 5      |
| 16096 | 3     | 1           | 5      |
| 16116 | 0     | -1          | NA     |
| 16118 | 0     | 0           | 1      |
| 16121 | 2     | -2          | 3      |
| 16122 | 2     | 0           | 4      |
| 16124 | 4     | 1           | 6      |
| 16125 | 2     | 0           | 4      |
| 16126 | 1     | 0           | NA     |
| 16130 | 3     | 0           | 5      |

## Appendix