## SKEWED\_TO\_LINEAR FUNCTION

- ➤ Requirements: straight line function that avoids division by 0, Helpful Votes column, number of pivots.
- ➤ Pivots: percentiles spread across the data using logspace.
- > Y-values: percentiles from the first pivot to the last.
- ➤ X-values: number of helpful votes associated with each percentile.
- ➤ Piecewise function: Adjacent (x,y) points are connected via a straight line.
- Results: All x-values receive percentile ranking from corresponding y-values on graph.
- ➤ Transformation: Helpful votes scaled between 0 and 1 with skewness intact.

See full function and all relevant jupyter notebooks at https://github.com/coreyjwade/Helpful\_Reviews.

## PIECEWISE LINEAR TRANSFORMATION: 50 PIVOTS

## y-values

```
percents= [ 1. 9.79891606
                          17.82362289
                                      25,1422425
                                                   31.81690291
 37.90426555 43.45600627
                          48.51925398
                                       53.13699077
                                                    57.34841678
61.18928294 64.69219452
                          67.88688785
                                      70.8004828
                                                   73.45771297
75.88113568
             78.09132347
                         80.10703869 81.94539282
                                                    83.62199171
85.15106808
             86.54560229
                         87.81743261 88.97735565
                                                    90.03521804
                         92.68236229
91.
             91.87989161
                                       93.41422425
                                                    94.08169029
94.69042656
                          95.7519254
                                       96.21369908
             95.24560063
                                                    96.63484168
                         97.68868879 97.98004828
97.01892829
             97.36921945
                                                   98.2457713
98.48811357
             98.70913235
                         98.91070387 99.09453928
                                                    99.26219917
             99.55456023
                         99.68174326 99.79773557
99.41510681
                                                    99,9035218
100.
```

## x-values

```
helpful_votes = [0.0, 0.0, 1.0, 1.0, 1.0, 1.0, 1.0, 2.0, 2.0, 2.0, 2.0, 2.0, 3.0, 3.0, 4.0, 4.0, 4.0, 5.0, 6.0, 6.0, 7.0, 8.0, 9.0, 9.0, 10.0, 11.0, 12.0, 14.0, 15.0, 16.0, 18.0, 19.0, 21.0, 23.0, 25.0, 28.0, 30.0, 33.0, 36.0, 40.0, 44.0, 48.0, 54.0, 60.0, 67.0, 77.0, 89.0, 104.0, 126.0, 163.0, 243.0, 23311.0]
```