

In [1]:

```
pip install scikit-multilearn
```

Collecting scikit-multilearn

Downloading

https://files.pythonhosted.org/packages/bb/1f/e6ff649c72a1cdf2c7a1d31eb21705110ce1c5d3e7e26b2cc300e272/scikit_multilearn-0.2.0-py3-none-any.whl (89kB)

|██| 92kB 2.4MB/s

Installing collected packages: scikit-multilearn

Successfully installed scikit-multilearn-0.2.0

In [0]:

```
import warnings
warnings.filterwarnings("ignore")
import pandas as pd
import sqlite3
import csv
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np
from wordcloud import WordCloud
import re
import os
from sqlalchemy import create_engine # database connection
import datetime as dt
from nltk.corpus import stopwords
from nltk.tokenize import word_tokenize
from nltk.stem.snowball import SnowballStemmer
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.feature_extraction.text import TfidfVectorizer
from sklearn.multiclass import OneVsRestClassifier
from sklearn.linear_model import SGDClassifier
from sklearn import metrics
from sklearn.metrics import f1_score, precision_score, recall_score
from sklearn import svm
from sklearn.linear_model import LogisticRegression
from skmultilearn.adapt import mlknn
from skmultilearn.problem_transform import ClassifierChain
from skmultilearn.problem_transform import BinaryRelevance
from skmultilearn.problem_transform import LabelPowerset
from sklearn.naive_bayes import GaussianNB
from datetime import datetime
```

Stack Overflow: Tag Prediction

1. Business Problem

1.1 Description

Description

Stack Overflow is the largest, most trusted online community for developers to learn, share their programming knowledge, and build their careers.

Stack Overflow is something which every programmer use one way or another. Each month, over 50 million developers come to Stack Overflow to learn, share their knowledge, and build their careers. It features questions and answers on a wide range of topics in computer programming. The website serves as a platform for users to ask and answer questions, and, through membership and active participation, to vote questions and answers up or down and edit questions and answers in a fashion similar to a wiki or Digg. As of April 2014 Stack Overflow has over 4,000,000 registered users, and it exceeded 10,000,000 questions in late August 2015. Based on the type of tags assigned to questions, the top eight most discussed topics on the site are: Java, JavaScript, C#, PHP, Python, JavaScript, C++, and HTML.

Problem Statement

Suggest the tags based on the content that was there in the question posted on Stackoverflow.

Source: <https://www.kaggle.com/c/facebook-recruiting-iii-keyword-extraction/>

1.2 Source / useful links

Data Source : <https://www.kaggle.com/c/facebook-recruiting-iii-keyword-extraction/data>

Youtube : <https://youtu.be/nNDqbUhtIRg>

Research paper : <https://www.microsoft.com/en-us/research/wp-content/uploads/2016/02/tagging-1.pdf>

Research paper : <https://dl.acm.org/citation.cfm?id=2660970&dl=ACM&coll=DL>

1.3 Real World / Business Objectives and Constraints

1. Predict as many tags as possible with high precision and recall.
2. Incorrect tags could impact customer experience on StackOverflow.
3. No strict latency constraints.

2. Machine Learning problem

2.1 Data

2.1.1 Data Overview

Refer: <https://www.kaggle.com/c/facebook-recruiting-iii-keyword-extraction/data>

All of the data is in 2 files: Train and Test.

Train.csv contains 4 columns: Id, Title, Body, Tags.

Test.csv contains the same columns but without the Tags, which you are to predict.

Size of Train.csv - 6.75GB

Size of Test.csv - 2GB

Number of rows in Train.csv = 6034195

The questions are randomized and contains a mix of verbose text sites as well as sites related to math and programming. The number of questions from each site may vary, and no filtering has been performed on the questions (such as closed questions).

Data Field Explanation

Dataset contains 6,034,195 rows. The columns in the table are:

Id - Unique identifier for each question

Title - The question's title

Body - The body of the question

Tags - The tags associated with the question in a space-separated format (all lowercase, should not contain tabs '\t' or ampersands '&')

2.1.2 Example Data point

Title: Implementing Boundary Value Analysis of Software Testing in a C++ program?

Body :

```
#include<
iostream>\n
#include<
stdlib.h>\n\n
using namespace std;\n\n
int main()\n
{\n
    int n,a[n],x,c,u[n],m[n],e[n][4];\n
    cout<<"Enter the number of variables";\n          cin>>n;\n\n
    cout<<"Enter the Lower, and Upper Limits of the variables";\n

    for(int y=1; y<n+1; y++)\n
    {\n
        cin>>m[y];\n
        cin>>u[y];\n
    }\n
    for(x=1; x<n+1; x++)\n
    {\n
        a[x] = (m[x] + u[x])/2;\n
    }\n
    c=(n*4)-4;\n
    for(int al=1; al<n+1; al++)\n
    {\n\n
        e[al][0] = m[al];\n
        e[al][1] = m[al]+1;\n
        e[al][2] = u[al]-1;\n
        e[al][3] = u[al];\n
    }\n
    for(int i=1; i<n+1; i++)\n
    {\n
        for(int l=1; l<=i; l++)\n
        {\n
            if(l!=1)\n
            {\n
                cout<<a[l]<<"\\t";\n
            }\n
        }\n
        for(int j=0; j<4; j++)\n
        {\n
            cout<<e[i][j];\n
            for(int k=0; k<n-(i+1); k++)\n
            {\n
                cout<<a[k]<<"\\t";\n
            }\n
            cout<<"\\n";\n
        }\n
    }\n\n
    system("PAUSE");\n
    return 0;    \n
}\n
```

\n\n

The answer should come in the form of a table like
\n\n

| | | |
|-----|-----|-------|
| 1 | 50 | 50\n |
| 2 | 50 | 50\n |
| 99 | 50 | 50\n |
| 100 | 50 | 50\n |
| 50 | 1 | 50\n |
| 50 | 2 | 50\n |
| 50 | 99 | 50\n |
| 50 | 100 | 50\n |
| 50 | 50 | 1\n |
| 50 | 50 | 2\n |
| 50 | 50 | 99\n |
| 50 | 50 | 100\n |

\n\n

if the no of inputs is 3 and their ranges are\n1,100\n1,100\n1,100\n(could be varied too)\n\n

The output is not coming,can anyone correct the code or tell me what's wrong?
\n'
Tags : 'c++ c'

2.2 Mapping the real-world problem to a Machine Learning Problem

2.2.1 Type of Machine Learning Problem

It is a multi-label classification problem

Multi-label Classification: Multilabel classification assigns to each sample a set of target labels. This can be thought as predicting properties of a data-point that are not mutually exclusive, such as topics that are relevant for a document. A question on Stackoverflow might be about any of C, Pointers, FileIO and/or memory-management at the same time or none of these.

___Credit___: <http://scikit-learn.org/stable/modules/multiclass.html>

2.2.2 Performance metric

Micro-Averaged F1-Score (Mean F Score) : The F1 score can be interpreted as a weighted average of the precision and recall, where an F1 score reaches its best value at 1 and worst score at 0. The relative contribution of precision and recall to the F1 score are equal. The formula for the F1 score is:

$$F1 = 2 * (precision * recall) / (precision + recall)$$

In the multi-class and multi-label case, this is the weighted average of the F1 score of each class.

'Micro f1 score':

Calculate metrics globally by counting the total true positives, false negatives and false positives. This is a better metric when we have class imbalance.

'Macro f1 score':

Calculate metrics for each label, and find their unweighted mean. This does not take label imbalance into account.

<https://www.kaggle.com/wiki/MeanFScore>

http://scikit-learn.org/stable/modules/generated/sklearn.metrics.f1_score.html

Hamming loss : The Hamming loss is the fraction of labels that are incorrectly predicted.
<https://www.kaggle.com/wiki/HammingLoss>

3. Exploratory Data Analysis

3.1 Data Loading and Cleaning

3.1.1 Using Pandas with SQLite to Load the data

In [0]:

```
#Creating db file from csv
#Learn SQL: https://www.w3schools.com/sql/default.asp
if not os.path.isfile('train.db'):
    start = datetime.now()
    disk_engine = create_engine('sqlite:///train.db')
    start = dt.datetime.now()
    chunksize = 180000
    j = 0
    index_start = 1
    for df in pd.read_csv('Train.csv', names=['Id', 'Title', 'Body', 'Tags'], chunksize=chunksize,
iterator=True, encoding='utf-8', ):
        df.index += index_start
        j+=1
        print('{} rows'.format(j*chunksize))
        df.to_sql('data', disk_engine, if_exists='append')
        index_start = df.index[-1] + 1
    print("Time taken to run this cell :", datetime.now() - start)
```

3.1.2 Counting the number of rows

In [0]:

```
if os.path.isfile('train.db'):
    start = datetime.now()
    con = sqlite3.connect('train.db')
    num_rows = pd.read_sql_query("""SELECT count(*) FROM data""", con)
    #Always remember to close the database
    print("Number of rows in the database :", "\n", num_rows['count(*)'].values[0])
    con.close()
    print("Time taken to count the number of rows :", datetime.now() - start)
else:
    print("Please download the train.db file from drive or run the above cell to generate train.db file")
```

Number of rows in the database :
6034196
Time taken to count the number of rows : 0:01:15.750352

3.1.3 Checking for duplicates

In [0]:

```
#Learn SQL: https://www.w3schools.com/sql/default.asp
if os.path.isfile('train.db'):
    start = datetime.now()
    con = sqlite3.connect('train.db')
    df_no_dup = pd.read_sql_query('SELECT Title, Body, Tags, COUNT(*) as cnt_dup FROM data GROUP
BY Title, Body, Tags', con)
    con.close()
    print("Time taken to run this cell :", datetime.now() - start)
else:
    print("Please download the train.db file from drive or run the first to generate train.db file
")
```

Time taken to run this cell : 0:04:33.560122

In [0]:

```
df_no_dup.head()
# we can observe that there are duplicates
```

Out[0]:

| | Title | Body | Tags | cnt_dup |
|---|---|---|-------------------------------------|---------|
| 0 | Implementing Boundary Value Analysis of S... | <pre><code>#include<iosstream>\n#include<...</pre> | c++ c | 1 |
| 1 | Dynamic Datagrid Binding in Silverlight? | <p>I should do binding for datagrid dynamical... | c# silverlight data-binding | 1 |
| 2 | Dynamic Datagrid Binding in Silverlight? | <p>I should do binding for datagrid dynamical... | c# silverlight data-binding columns | 1 |
| 3 | java.lang.NoClassDefFoundError: javax/serv... | <p>I followed the guide in <a href="http://sta... | jsp jstl | 1 |
| 4 | java.sql.SQLException:[Microsoft][ODBC Dri... | <p>I use the following code</p>\n\n<pre><code>...</pre> | java jdbc | 2 |

In [0]:

```
print("number of duplicate questions :", num_rows['count(*)'].values[0]- df_no_dup.shape[0], "(", (1-((df_no_dup.shape[0])/(num_rows['count(*)'].values[0]))) *100, "% )")
```

number of duplicate questions : 1827881 (30.2920389063 %)

In [0]:

```
# number of times each question appeared in our database
df_no_dup.cnt_dup.value_counts()
```

Out[0]:

```
1    2656284
2    1272336
3     277575
4         90
5         25
6          5
Name: cnt_dup, dtype: int64
```

In [0]:

```
start = datetime.now()
df_no_dup["tag_count"] = df_no_dup["Tags"].apply(lambda text: len(text.split(" ")))
# adding a new feature number of tags per question
print("Time taken to run this cell :", datetime.now() - start)
df_no_dup.head()
```

Time taken to run this cell : 0:00:03.169523

Out[0]:

| | Title | Body | Tags | cnt_dup | tag_count |
|---|---|---|-------------------------------------|---------|-----------|
| 0 | Implementing Boundary Value Analysis of S... | <pre><code>#include<iosstream>\n#include<...</pre> | c++ c | 1 | 2 |
| 1 | Dynamic Datagrid Binding in Silverlight? | <p>I should do binding for datagrid dynamical... | c# silverlight data-binding | 1 | 3 |
| 2 | Dynamic Datagrid Binding in Silverlight? | <p>I should do binding for datagrid dynamical... | c# silverlight data-binding columns | 1 | 4 |
| 3 | java.lang.NoClassDefFoundError: javax/serv... | <p>I followed the guide in <a href="http://sta... | jsp jstl | 1 | 2 |
| 4 | java.sql.SQLException:[Microsoft][ODBC Dri... | <p>I use the following code</p>\n\n<pre><code>...</pre> | java jdbc | 2 | 2 |

In [0]:

```
# distribution of number of tags per question
df_no_dup.tag_count.value_counts()
```

Out[0]:

```
3    1206157
2    1111706
4     814996
1     568298
5     505158
Name: tag_count, dtype: int64
```

In [0]:

```
#Creating a new database with no duplicates
if not os.path.isfile('train_no_dup.db'):
    disk_dup = create_engine("sqlite:///train_no_dup.db")
    no_dup = pd.DataFrame(df_no_dup, columns=['Title', 'Body', 'Tags'])
    no_dup.to_sql('no_dup_train', disk_dup)
```

In [0]:

```
#This method seems more appropriate to work with this much data.
#creating the connection with database file.
if os.path.isfile('train_no_dup.db'):
    start = datetime.now()
    con = sqlite3.connect('train_no_dup.db')
    tag_data = pd.read_sql_query("""SELECT Tags FROM no_dup_train""", con)
    #Always remember to close the database
    con.close()

    # Let's now drop unwanted column.
    tag_data.drop(tag_data.index[0], inplace=True)
    #Printing first 5 columns from our data frame
    tag_data.head()
    print("Time taken to run this cell :", datetime.now() - start)
else:
    print("Please download the train.db file from drive or run the above cells to generate train.d
b file")
```

Time taken to run this cell : 0:00:52.992676

3.2 Analysis of Tags

3.2.1 Total number of unique tags

In [0]:

```
# Importing & Initializing the "CountVectorizer" object, which
#is scikit-learn's bag of words tool.

#by default 'split()' will tokenize each tag using space.
vectorizer = CountVectorizer(tokenizer = lambda x: x.split())
# fit_transform() does two functions: First, it fits the model
# and learns the vocabulary; second, it transforms our training data
# into feature vectors. The input to fit_transform should be a list of strings.
tag_dtm = vectorizer.fit_transform(tag_data['Tags'])
```

In [0]:

```
print("Number of data points :", tag_dtm.shape[0])
print("Number of unique tags :", tag_dtm.shape[1])
```

Number of data points : 4206314
Number of unique tags : 42048

In [0]:

```
#'get_feature_name()' gives us the vocabulary.
tags = vectorizer.get_feature_names()
#Lets look at the tags we have.
print("Some of the tags we have :", tags[:10])
```

Some of the tages we have : ['.a', '.app', '.asp.net-mvc', '.aspxauth', '.bash-profile', '.class-file', '.cs-file', '.doc', '.drv', '.ds-store']

3.2.3 Number of times a tag appeared

In [0]:

```
# https://stackoverflow.com/questions/15115765/how-to-access-sparse-matrix-elements
#Lets now store the document term matrix in a dictionary.
freqs = tag_dtm.sum(axis=0).A1
result = dict(zip(tags, freqs))
```

In [0]:

```
#Saving this dictionary to csv files.
if not os.path.isfile('tag_counts_dict_dtm.csv'):
    with open('tag_counts_dict_dtm.csv', 'w') as csv_file:
        writer = csv.writer(csv_file)
        for key, value in result.items():
            writer.writerow([key, value])
tag_df = pd.read_csv("tag_counts_dict_dtm.csv", names=['Tags', 'Counts'])
tag_df.head()
```

Out[0]:

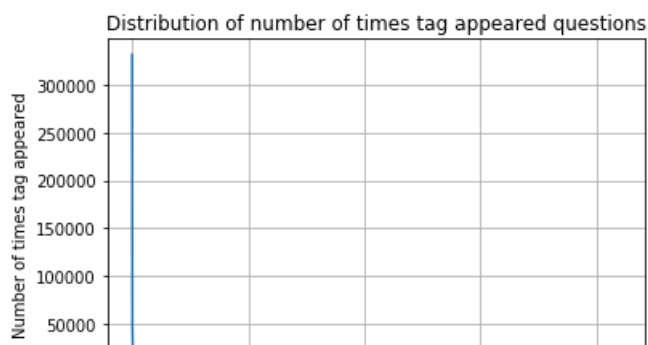
| | Tags | Counts |
|---|---------------|--------|
| 0 | .a | 18 |
| 1 | .app | 37 |
| 2 | .asp.net-mvc | 1 |
| 3 | .aspxauth | 21 |
| 4 | .bash-profile | 138 |

In [0]:

```
tag_df_sorted = tag_df.sort_values(['Counts'], ascending=False)
tag_counts = tag_df_sorted['Counts'].values
```

In [0]:

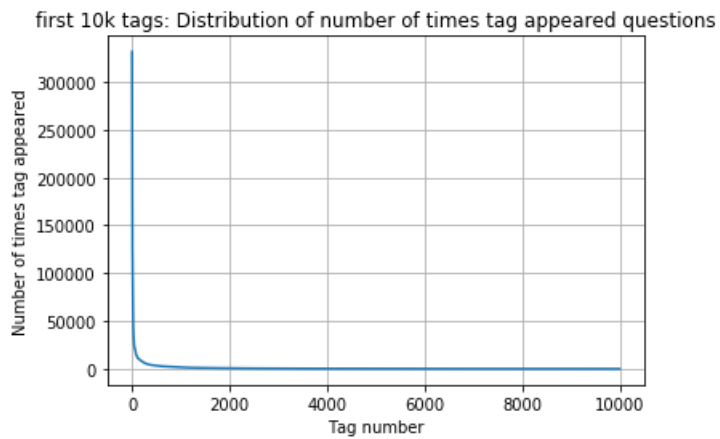
```
plt.plot(tag_counts)
plt.title("Distribution of number of times tag appeared questions")
plt.grid()
plt.xlabel("Tag number")
plt.ylabel("Number of times tag appeared")
plt.show()
```





In [0]:

```
plt.plot(tag_counts[0:10000])
plt.title('first 10k tags: Distribution of number of times tag appeared questions')
plt.grid()
plt.xlabel("Tag number")
plt.ylabel("Number of times tag appeared")
plt.show()
print(len(tag_counts[0:10000:25]), tag_counts[0:10000:25])
```

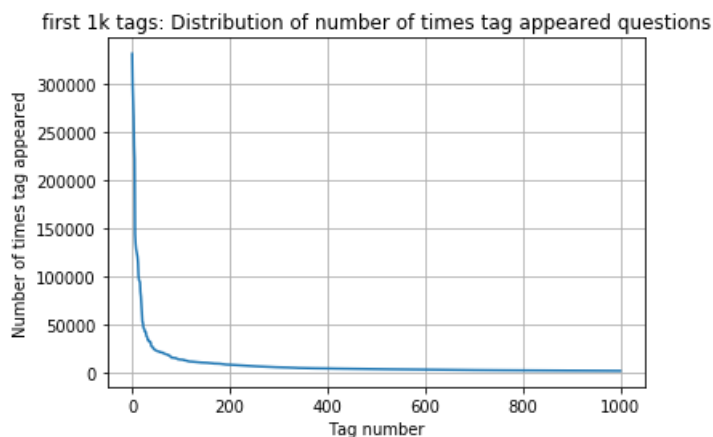


| | | | | | | | | | | |
|------|---------|-------|-------|-------|-------|-------|-------|------|------|------|
| 400 | [331505 | 44829 | 22429 | 17728 | 13364 | 11162 | 10029 | 9148 | 8054 | 7151 |
| 6466 | 5865 | 5370 | 4983 | 4526 | 4281 | 4144 | 3929 | 3750 | 3593 | |
| 3453 | 3299 | 3123 | 2989 | 2891 | 2738 | 2647 | 2527 | 2431 | 2331 | |
| 2259 | 2186 | 2097 | 2020 | 1959 | 1900 | 1828 | 1770 | 1723 | 1673 | |
| 1631 | 1574 | 1532 | 1479 | 1448 | 1406 | 1365 | 1328 | 1300 | 1266 | |
| 1245 | 1222 | 1197 | 1181 | 1158 | 1139 | 1121 | 1101 | 1076 | 1056 | |
| 1038 | 1023 | 1006 | 983 | 966 | 952 | 938 | 926 | 911 | 891 | |
| 882 | 869 | 856 | 841 | 830 | 816 | 804 | 789 | 779 | 770 | |
| 752 | 743 | 733 | 725 | 712 | 702 | 688 | 678 | 671 | 658 | |
| 650 | 643 | 634 | 627 | 616 | 607 | 598 | 589 | 583 | 577 | |
| 568 | 559 | 552 | 545 | 540 | 533 | 526 | 518 | 512 | 506 | |
| 500 | 495 | 490 | 485 | 480 | 477 | 469 | 465 | 457 | 450 | |
| 447 | 442 | 437 | 432 | 426 | 422 | 418 | 413 | 408 | 403 | |
| 398 | 393 | 388 | 385 | 381 | 378 | 374 | 370 | 367 | 365 | |
| 361 | 357 | 354 | 350 | 347 | 344 | 342 | 339 | 336 | 332 | |
| 330 | 326 | 323 | 319 | 315 | 312 | 309 | 307 | 304 | 301 | |
| 299 | 296 | 293 | 291 | 289 | 286 | 284 | 281 | 278 | 276 | |
| 275 | 272 | 270 | 268 | 265 | 262 | 260 | 258 | 256 | 254 | |
| 252 | 250 | 249 | 247 | 245 | 243 | 241 | 239 | 238 | 236 | |
| 234 | 233 | 232 | 230 | 228 | 226 | 224 | 222 | 220 | 219 | |
| 217 | 215 | 214 | 212 | 210 | 209 | 207 | 205 | 204 | 203 | |
| 201 | 200 | 199 | 198 | 196 | 194 | 193 | 192 | 191 | 189 | |
| 188 | 186 | 185 | 183 | 182 | 181 | 180 | 179 | 178 | 177 | |
| 175 | 174 | 172 | 171 | 170 | 169 | 168 | 167 | 166 | 165 | |
| 164 | 162 | 161 | 160 | 159 | 158 | 157 | 156 | 156 | 155 | |
| 154 | 153 | 152 | 151 | 150 | 149 | 149 | 148 | 147 | 146 | |
| 145 | 144 | 143 | 142 | 142 | 141 | 140 | 139 | 138 | 137 | |
| 137 | 136 | 135 | 134 | 134 | 133 | 132 | 131 | 130 | 130 | |
| 129 | 128 | 128 | 127 | 126 | 126 | 125 | 124 | 124 | 123 | |
| 123 | 122 | 122 | 121 | 120 | 120 | 119 | 118 | 118 | 117 | |
| 117 | 116 | 116 | 115 | 115 | 114 | 113 | 113 | 112 | 111 | |
| 111 | 110 | 109 | 109 | 108 | 108 | 107 | 106 | 106 | 106 | |
| 105 | 105 | 104 | 104 | 103 | 103 | 102 | 102 | 101 | 101 | |
| 100 | 100 | 99 | 99 | 98 | 98 | 97 | 97 | 96 | 96 | |
| 95 | 95 | 94 | 94 | 93 | 93 | 93 | 92 | 92 | 91 | |
| 91 | 90 | 90 | 89 | 89 | 88 | 88 | 87 | 87 | 86 | |
| 86 | 86 | 85 | 85 | 84 | 84 | 83 | 83 | 83 | 82 | |
| 82 | 82 | 81 | 81 | 80 | 80 | 80 | 79 | 79 | 78 | |
| 78 | 78 | 78 | 77 | 77 | 76 | 76 | 76 | 75 | 75 | |
| 75 | 74 | 74 | 74 | 73 | 73 | 73 | 73 | 72 | 72] | |

In [0]:

In [0]:

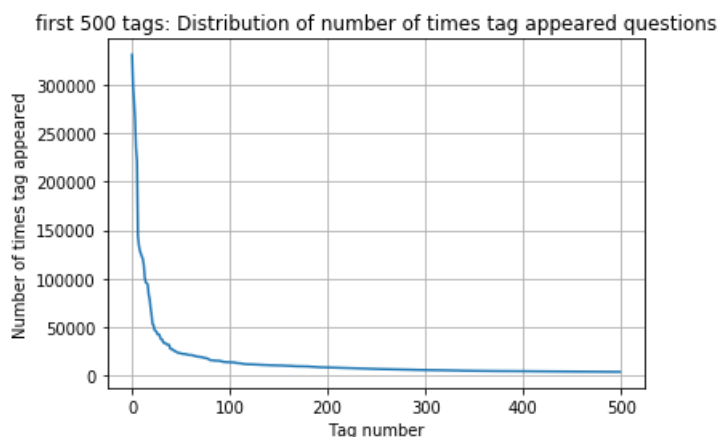
```
plt.plot(tag_counts[0:1000])
plt.title('first 1k tags: Distribution of number of times tag appeared questions')
plt.grid()
plt.xlabel("Tag number")
plt.ylabel("Number of times tag appeared")
plt.show()
print(len(tag_counts[0:1000:5]), tag_counts[0:1000:5])
```



```
200 [331505 221533 122769 95160 62023 44829 37170 31897 26925 24537
22429 21820 20957 19758 18905 17728 15533 15097 14884 13703
13364 13157 12407 11658 11228 11162 10863 10600 10350 10224
10029 9884 9719 9411 9252 9148 9040 8617 8361 8163
8054 7867 7702 7564 7274 7151 7052 6847 6656 6553
6466 6291 6183 6093 5971 5865 5760 5577 5490 5411
5370 5283 5207 5107 5066 4983 4891 4785 4658 4549
4526 4487 4429 4335 4310 4281 4239 4228 4195 4159
4144 4088 4050 4002 3957 3929 3874 3849 3818 3797
3750 3703 3685 3658 3615 3593 3564 3521 3505 3483
3453 3427 3396 3363 3326 3299 3272 3232 3196 3168
3123 3094 3073 3050 3012 2989 2984 2953 2934 2903
2891 2844 2819 2784 2754 2738 2726 2708 2681 2669
2647 2621 2604 2594 2556 2527 2510 2482 2460 2444
2431 2409 2395 2380 2363 2331 2312 2297 2290 2281
2259 2246 2222 2211 2198 2186 2162 2142 2132 2107
2097 2078 2057 2045 2036 2020 2011 1994 1971 1965
1959 1952 1940 1932 1912 1900 1879 1865 1855 1841
1828 1821 1813 1801 1782 1770 1760 1747 1741 1734
1723 1707 1697 1688 1683 1673 1665 1656 1646 1639]
```

In [0]:

```
plt.plot(tag_counts[0:500])
plt.title('first 500 tags: Distribution of number of times tag appeared questions')
plt.grid()
plt.xlabel("Tag number")
plt.ylabel("Number of times tag appeared")
plt.show()
print(len(tag_counts[0:500:5]), tag_counts[0:500:5])
```



```

100 [331505 221533 122769 95160 62023 44829 37170 31897 26925 24537
22429 21820 20957 19758 18905 17728 15533 15097 14884 13703
13364 13157 12407 11658 11228 11162 10863 10600 10350 10224
10029 9884 9719 9411 9252 9148 9040 8617 8361 8163
8054 7867 7702 7564 7274 7151 7052 6847 6656 6553
6466 6291 6183 6093 5971 5865 5760 5577 5490 5411
5370 5283 5207 5107 5066 4983 4891 4785 4658 4549
4526 4487 4429 4335 4310 4281 4239 4228 4195 4159
4144 4088 4050 4002 3957 3929 3874 3849 3818 3797
3750 3703 3685 3658 3615 3593 3564 3521 3505 3483]

```

In [0]:

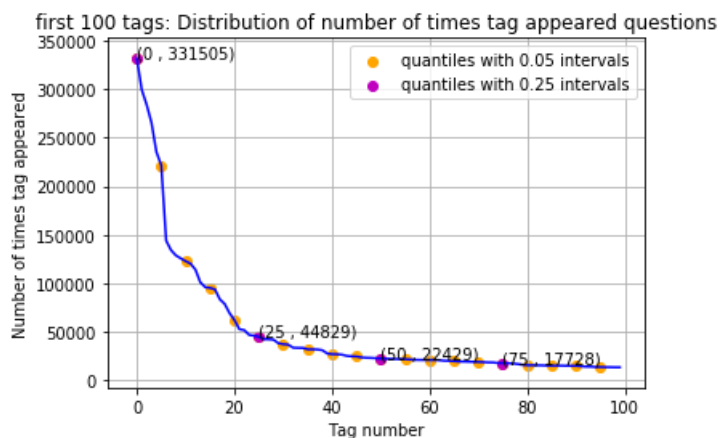
```

plt.plot(tag_counts[0:100], c='b')
plt.scatter(x=list(range(0,100,5)), y=tag_counts[0:100:5], c='orange', label="quantiles with 0.05 i
ntervals")
# quantiles with 0.25 difference
plt.scatter(x=list(range(0,100,25)), y=tag_counts[0:100:25], c='m', label = "quantiles with 0.25 in
tervals")

for x,y in zip(list(range(0,100,25)), tag_counts[0:100:25]):
    plt.annotate(s="({} , {})".format(x,y), xy=(x,y), xytext=(x-0.05, y+500))

plt.title('first 100 tags: Distribution of number of times tag appeared questions')
plt.grid()
plt.xlabel("Tag number")
plt.ylabel("Number of times tag appeared")
plt.legend()
plt.show()
print(len(tag_counts[0:100:5]), tag_counts[0:100:5])

```



```

20 [331505 221533 122769 95160 62023 44829 37170 31897 26925 24537
22429 21820 20957 19758 18905 17728 15533 15097 14884 13703]

```

In [0]:

```

# Store tags greater than 10K in one list
lst_tags_gt_10k = tag_df[tag_df.Counts>10000].Tags
#Print the length of the list
print ('{} Tags are used more than 10000 times'.format(len(lst_tags_gt_10k)))
# Store tags greater than 100K in one list
lst_tags_gt_100k = tag_df[tag_df.Counts>100000].Tags
#Print the length of the list.
print ('{} Tags are used more than 100000 times'.format(len(lst_tags_gt_100k)))

```

```

153 Tags are used more than 10000 times
14 Tags are used more than 100000 times

```

Observations:

1. There are total 153 tags which are used more than 10000 times.
2. 14 tags are used more than 100000 times.
3. Most frequent tag (i.e. c#) is used 331505 times.

4. Since some tags occur much more frequently than others, Micro-averaged F1-score is the appropriate metric for this problem.

3.2.4 Tags Per Question

In [0]:

```
#Storing the count of tag in each question in list 'tag_count'
tag_quest_count = tag_dtm.sum(axis=1).tolist()
#Converting list of lists into single list, we will get [[3], [4], [2], [2], [3]] and we are converting this to [3, 4, 2, 2, 3]
tag_quest_count=[int(j) for i in tag_quest_count for j in i]
print ('We have total {} datapoints.'.format(len(tag_quest_count)))

print(tag_quest_count[:5])
```

We have total 4206314 datapoints.
[3, 4, 2, 2, 3]

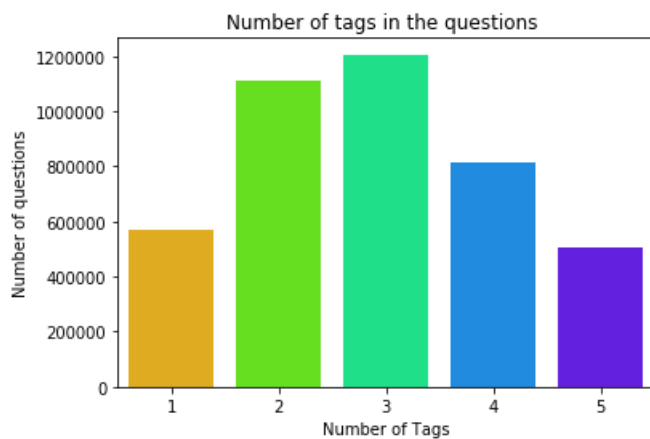
In [0]:

```
print( "Maximum number of tags per question: %d"%max(tag_quest_count))
print( "Minimum number of tags per question: %d"%min(tag_quest_count))
print( "Avg. number of tags per question: %f"% ((sum(tag_quest_count)*1.0)/len(tag_quest_count)))
```

Maximum number of tags per question: 5
Minimum number of tags per question: 1
Avg. number of tags per question: 2.899440

In [0]:

```
sns.countplot(tag_quest_count, palette='gist_rainbow')
plt.title("Number of tags in the questions ")
plt.xlabel("Number of Tags")
plt.ylabel("Number of questions")
plt.show()
```



Observations:

1. Maximum number of tags per question: 5
2. Minimum number of tags per question: 1
3. Avg. number of tags per question: 2.899
4. Most of the questions are having 2 or 3 tags

3.2.5 Most Frequent Tags

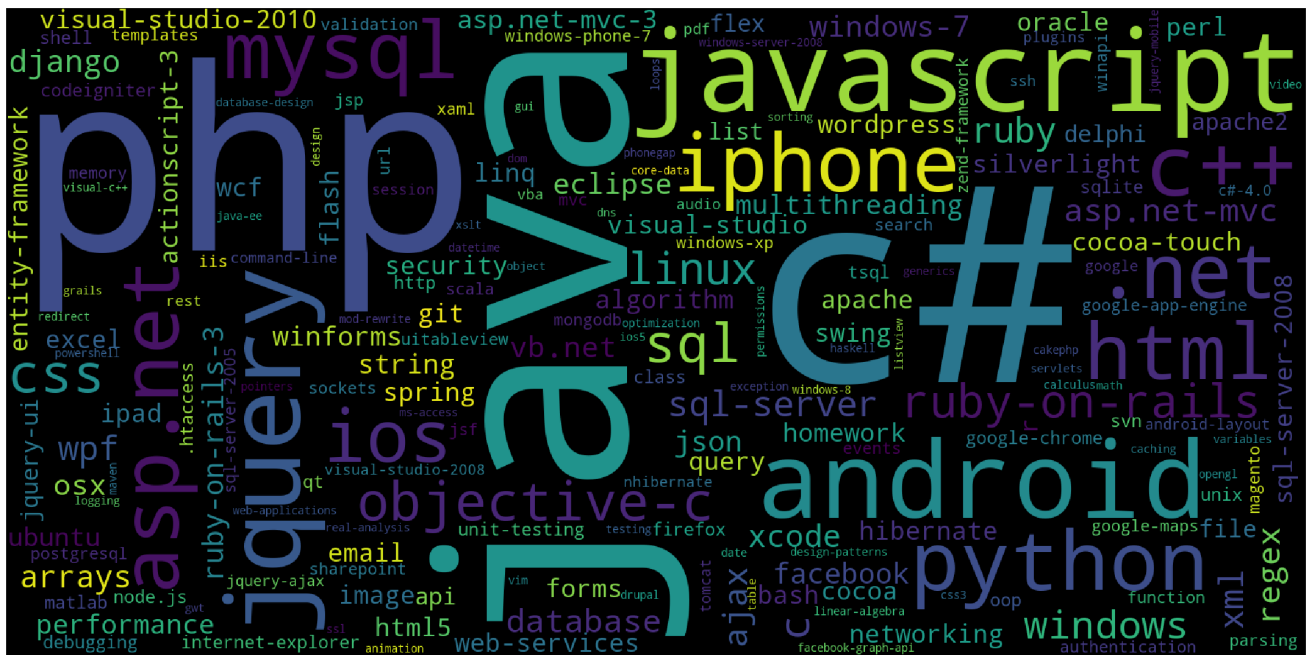
In [0]:

```
# Plotting word cloud
start = datetime.now()
```

```
# Lets first convert the 'result' dictionary to 'list of tuples'
tup = dict(result.items())

#Initializing WordCloud using frequencies of tags.
wordcloud = WordCloud(    background_color='black',
                           width=1600,
                           height=800,
                           ).generate_from_frequencies(tup)

fig = plt.figure(figsize=(30,20))
plt.imshow(wordcloud)
plt.axis('off')
plt.tight_layout(pad=0)
fig.savefig("tag.png")
plt.show()
print("Time taken to run this cell :", datetime.now() - start)
```



Time taken to run this cell : 0:00:05.470788

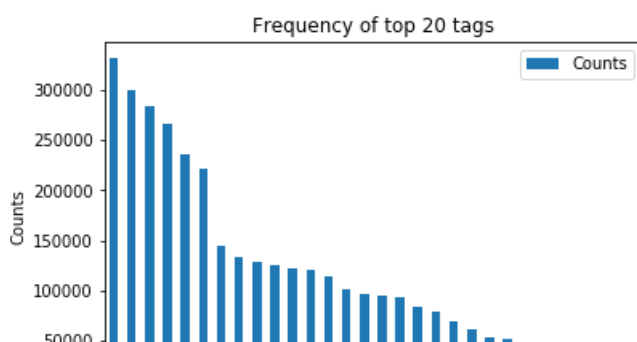
Observations:

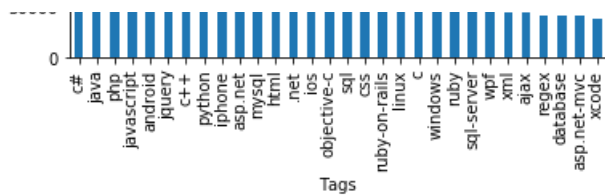
A look at the word cloud shows that "c#", "java", "php", "asp.net", "javascript", "c++" are some of the most frequent tags.

3.2.6 The top 20 tags

In [0]:

```
i=np.arange(30)
tag_df_sorted.head(30).plot(kind='bar')
plt.title('Frequency of top 20 tags')
plt.xticks(i, tag_df_sorted['Tags'])
plt.xlabel('Tags')
plt.ylabel('Counts')
plt.show()
```





Observations:

1. Majority of the most frequent tags are programming language.
2. C# is the top most frequent programming language.
3. Android, IOS, Linux and windows are among the top most frequent operating systems.

3.3 Cleaning and preprocessing of Questions

3.3.1 Preprocessing

1. Sample 1M data points
2. Separate out code-snippets from Body
3. Remove Special characters from Question title and description (not in code)
4. Remove stop words (Except 'C')
5. Remove HTML Tags
6. Convert all the characters into small letters
7. Use SnowballStemmer to stem the words

In [0]:

```
import nltk
nltk.download('stopwords')
```

[nltk_data] Downloading package stopwords to /root/nltk_data...
[nltk_data] Unzipping corpora/stopwords.zip.

Out[0]:

True

In [0]:

```
def striphtml(data):
    cleanr = re.compile('<.*?>')
    cleantext = re.sub(cleanr, ' ', str(data))
    return cleantext
stop_words = set(stopwords.words('english'))
stemmer = SnowballStemmer("english")
```

In [0]:

```
#http://www.sqlitetutorial.net/sqlite-python/create-tables/
def create_connection(db_file):
    """ create a database connection to the SQLite database
        specified by db_file
    :param db_file: database file
    :return: Connection object or None
    """
    try:
        conn = sqlite3.connect(db_file)
        return conn
    except Error as e:
        print(e)

    return None

def create_table(conn, create_table_sql):
    """ create a table from the create_table_sql statement
    :param conn: Connection object
    """
```

```

:param conn: connection object
:param create_table_sql: a CREATE TABLE statement
:return:
"""
try:
    c = conn.cursor()
    c.execute(create_table_sql)
except Error as e:
    print(e)

def checkTableExists(dbcon):
    cursr = dbcon.cursor()
    str = "select name from sqlite_master where type='table'"
    table_names = cursr.execute(str)
    print("Tables in the database:")
    tables = table_names.fetchall()
    print(tables[0][0])
    return(len(tables))

def create_database_table(database, query):
    conn = create_connection(database)
    if conn is not None:
        create_table(conn, query)
        checkTableExists(conn)
    else:
        print("Error! cannot create the database connection.")
    conn.close()

sql_create_table = """CREATE TABLE IF NOT EXISTS QuestionsProcessed (question text NOT NULL, code
text, tags text, words_pre integer, words_post integer, is_code integer);"""
create_database_table("Processed.db", sql_create_table)

```

Tables in the database:
QuestionsProcessed

In [0]:

```

# http://www.sqlitetutorial.net/sqlite-delete/
# https://stackoverflow.com/questions/2279706/select-random-row-from-a-sqlite-table
start = datetime.now()
read_db = 'train_no_dup.db'
write_db = 'Processed.db'
if os.path.isfile(read_db):
    conn_r = create_connection(read_db)
    if conn_r is not None:
        reader = conn_r.cursor()
        reader.execute("SELECT Title, Body, Tags From no_dup_train ORDER BY RANDOM() LIMIT
1000000;")

if os.path.isfile(write_db):
    conn_w = create_connection(write_db)
    if conn_w is not None:
        tables = checkTableExists(conn_w)
        writer = conn_w.cursor()
        if tables != 0:
            writer.execute("DELETE FROM QuestionsProcessed WHERE 1")
            print("Cleared All the rows")
print("Time taken to run this cell :", datetime.now() - start)

```

Tables in the database:
QuestionsProcessed
Cleared All the rows
Time taken to run this cell : 0:06:32.806567

we create a new data base to store the sampled and preprocessed questions

In [0]:

```

#http://www.bernzilla.com/2008/05/13/selecting-a-random-row-from-an-sqlite-table/

start = datetime.now()
preprocessed_data_list=[]
reader.fetchone()
questions_with_code=0

```

```

questions_with_code=0
len_pre=0
len_post=0
questions_proccesed = 0
for row in reader:

    is_code = 0

    title, question, tags = row[0], row[1], row[2]

    if '<code>' in question:
        questions_with_code+=1
        is_code = 1
    x = len(question)+len(title)
    len_pre+=x

    code = str(re.findall(r'<code>(.*?)</code>', question, flags=re.DOTALL))

    question=re.sub('<code>(.*?)</code>', '', question, flags=re.MULTILINE|re.DOTALL)
    question=stripthtml(question.encode('utf-8'))

    title=title.encode('utf-8')

    question=str(title)+" "+str(question)
    question=re.sub(r'[^A-Za-z]+', ' ', question)
    words=word_tokenize(str(question.lower()))

    #Removing all single letter and and stopwords from question exceptt for the letter 'c'
    question=' '.join(str(stemmer.stem(j)) for j in words if j not in stop_words and (len(j)!=1 or
j=='c'))

    len_post+=len(question)
    tup = (question,code,tags,x,len(question),is_code)
    questions_proccesed += 1
    writer.execute("insert into
QuestionsProcessed(question,code,tags,words_pre,words_post,is_code) values (?, ?, ?, ?, ?, ?)", tup)
    if (questions_proccesed%100000==0):
        print("number of questions completed=",questions_proccesed)

no_dup_avg_len_pre=(len_pre*1.0)/questions_proccesed
no_dup_avg_len_post=(len_post*1.0)/questions_proccesed

print( "Avg. length of questions(Title+Body) before processing: %d"%no_dup_avg_len_pre)
print( "Avg. length of questions(Title+Body) after processing: %d"%no_dup_avg_len_post)
print( "Percent of questions containing code: %d"%((questions_with_code*100.0)/questions_proccesed)
)

print("Time taken to run this cell :", datetime.now() - start)

```

```

number of questions completed= 100000
number of questions completed= 200000
number of questions completed= 300000
number of questions completed= 400000
number of questions completed= 500000
number of questions completed= 600000
number of questions completed= 700000
number of questions completed= 800000
number of questions completed= 900000
Avg. length of questions(Title+Body) before processing: 1169
Avg. length of questions(Title+Body) after processing: 327
Percent of questions containing code: 57
Time taken to run this cell : 0:47:05.946582

```

In [0]:

```

# dont forget to close the connections, or else you will end up with locks
conn_r.commit()
conn_w.commit()
conn_r.close()
conn_w.close()

```

In [0]:

```

if os.path.isfile(write_db):
    conn_r = create_connection(write_db)

```



```

if conn_r is not None:
    reader = conn_r.cursor()
    reader.execute("SELECT question From QuestionsProcessed LIMIT 10")
    print("Questions after preprocessed")
    print('='*100)
    reader.fetchone()
    for row in reader:
        print(row)
        print('-'*100)
conn_r.commit()
conn_r.close()

```

Questions after preprocessed

('ef code first defin one mani relationship differ key troubl defin one zero mani relationship ent
iti ef object model look like use fluent api object composi pk defin batch id batch detail id use
fluent api object composi pk defin batch detail id compani id map exist databas tpt basic idea su
bmittedtransact zero mani submittedsplittransact associ navig realli need one way
submittedtransact submittedsplittransact need dbcontext class onmodelcr overrid map class lazi loa
d occur submittedtransact submittedsplittransact help would much appreci edit taken advic made
follow chang dbcontext class ad follow onmodelcr overrid must miss someth get follow except thrown
submittedtransact key batch id batch detail id zero one mani submittedsplittransact key batch deta
il id compani id rather assum convent creat relationship two object configur requir sinc obvious w
rong',)

('explan new statement review section c code came accross statement block come accross new oper us
e way someon explain new call way',)

('error function notat function solv logic riddl iloczyni list structur list possibl candid solut
list possibl coordin matrix wan na choos one candid compar possibl candid element equal wan na del
et coordin call function skasuj look like ni knowledg haskel cant see what wrong',)

('step plan move one isp anoth one work busi plan switch isp realli soon need chang lot inform dns
wan wan wifi question guy help mayb peopl plan correct chang current isp new one first dns know re
ceiv new ip isp major chang need take consider exchang server owa vpn two site link wireless conne
ct km away citrix server vmware exchang domain control link place import server crucial step infor
m need know avoid downtim busi regard ndavid',)

('use ef migrat creat databas googl migrat tutori af first run applic creat databas ef enabl
migrat way creat databas migrat rune applic tri',)

('magento unit test problem magento site recent look way check integr magento site given point uni
t test jump one method would assum would big job write whole lot test check everyth site work
anyon involv unit test magento advis follow possibl test whole site custom modul nis exampl test w
ould amaz given site heavili link databas would nbe possibl fulli test site without disturb
databas better way automaticlli check integr magento site say integr realli mean fault site ship p
ayment etc work correct',)

('find network devic without bonjour write mac applic need discov mac pcs iphon ipad connect wifi
network bonjour seem reason choic turn problem mani type router mine exampl work block bonjour ser
vic need find ip devic tri connect applic specif port determin process run best approach
accomplish task without violat app store sandbox',)

('send multipl row mysql databas want send user mysql databas column user skill time nnow want abl
add one row user differ time etc would code send databas nthen use help schema',)

('insert data mysql php powerpoint event powerpoint present run continu way updat slide present
automat data mysql databas websit',)

In [0]:

```

#Taking 1 Million entries to a dataframe.
write_db = 'Processed.db'
if os.path.isfile(write_db):
    conn_r = create_connection(write_db)
    if conn_r is not None:
        preprocessed_data = pd.read_sql_query("""SELECT question, Tags FROM QuestionsProcessed""",
conn_r)
    conn_r.commit()
conn_r.close()

```

In [0]:

```
preprocessed_data.head()
```

Out[0]:

| | question | tags |
|---|---|----------------------|
| 0 | resiz root window tkinter | python tkinter |
| 1 | ef code first defin one mani relationship diff... | entity-framework-4.1 |
| 2 | explan new statement review section c code cam... | c++ |
| 3 | error function notat function solv logic riddl... | haskell logic |
| 4 | step plan move one isp anoth one work busi pla... | dns isp |

In [0]:

```
print("number of data points in sample :", preprocessed_data.shape[0])
print("number of dimensions :", preprocessed_data.shape[1])
```

number of data points in sample : 999999
number of dimensions : 2

4. Machine Learning Models

4.1 Converting tags for multilabel problems

| X | y1 | y2 | y3 | y4 |
|----|----|----|----|----|
| x1 | 0 | 1 | 1 | 0 |
| x1 | 1 | 0 | 0 | 0 |
| x1 | 0 | 1 | 0 | 0 |

In [0]:

```
# binary='true' will give a binary vectorizer
vectorizer = CountVectorizer(tokenizer = lambda x: x.split(), binary='true')
multilabel_y = vectorizer.fit_transform(preprocessed_data['tags'])
```

We will sample the number of tags instead considering all of them (due to limitation of computing power)

In [0]:

```
def tags_to_choose(n):
    t = multilabel_y.sum(axis=0).tolist()[0]
    sorted_tags_i = sorted(range(len(t)), key=lambda i: t[i], reverse=True)
    multilabel_yn=multilabel_y[:,sorted_tags_i[:n]]
    return multilabel_yn

def questions_explained_fn(n):
    multilabel_yn = tags_to_choose(n)
    x= multilabel_yn.sum(axis=1)
    return (np.count_nonzero(x==0))
```

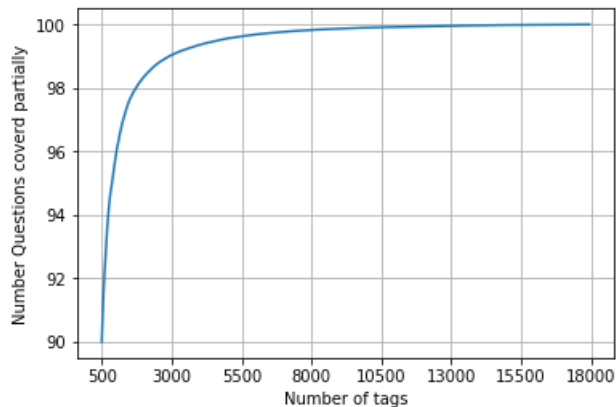
In [0]:

```
questions_explained = []
total_tags=multilabel_y.shape[1]
total_qs=preprocessed_data.shape[0]
for i in range(500, total_tags, 100):
    questions_explained.append(np.round(((total_qs-questions_explained_fn(i))/total_qs)*100,3))
```

In [0]:

```
fig, ax = plt.subplots()
```

```
fig, ax = plt.subplots()
ax.plot(questions_explained)
xlabel = list(500+np.array(range(-50,450,50))*50)
ax.set_xticklabels(xlabel)
plt.xlabel("Number of tags")
plt.ylabel("Number Questions covered partially")
plt.grid()
plt.show()
# you can choose any number of tags based on your computing power, minimum is 50(it covers 90% of the tags)
print("with ",5500,"tags we are covering ",questions_explained[50],"% of questions")
```



with 5500 tags we are covering 99.04 % of questions

In [0]:

```
multilabel_yx = tags_to_choose(5500)
print("number of questions that are not covered :", questions_explained_fn(5500),"out of ", total_qs)
```

number of questions that are not covered : 9599 out of 99999

In [0]:

```
print("Number of tags in sample :", multilabel_y.shape[1])
print("number of tags taken :", multilabel_yx.shape[1],"(",(multilabel_yx.shape[1]/multilabel_y.shape[1])*100,"%")")
```

Number of tags in sample : 35422
number of tags taken : 5500 (15.527073570097679 %)

We consider top 15% tags which covers 99% of the questions

4.2 Split the data into test and train (80:20)

In [0]:

```
total_size=preprocessed_data.shape[0]
train_size=int(0.80*total_size)

x_train=preprocessed_data.head(train_size)
x_test=preprocessed_data.tail(total_size - train_size)

y_train = multilabel_yx[0:train_size,:]
y_test = multilabel_yx[train_size:total_size,:]
```

In [0]:

```
print("Number of data points in train data :", y_train.shape)
print("Number of data points in test data :", y_test.shape)
```

Number of data points in train data : (799999, 5500)

Number of data points in train data : (799999, 5500)
Number of data points in test data : (200000, 5500)

4.3 Featurizing data

In [0]:

```
start = datetime.now()
vectorizer = TfidfVectorizer(min_df=0.00009, max_features=200000, smooth_idf=True, norm="l2", \
                             tokenizer = lambda x: x.split(), sublinear_tf=False, ngram_range=(1,3))
x_train_multilabel = vectorizer.fit_transform(x_train['question'])
x_test_multilabel = vectorizer.transform(x_test['question'])
print("Time taken to run this cell :", datetime.now() - start)
```

Time taken to run this cell : 0:09:50.460431

In [0]:

```
print("Dimensions of train data X:",x_train_multilabel.shape, "Y :",y_train.shape)
print("Dimensions of test data X:",x_test_multilabel.shape,"Y:",y_test.shape)
```

Dimensions of train data X: (799999, 88244) Y : (799999, 5500)
Dimensions of test data X: (200000, 88244) Y: (200000, 5500)

In [0]:

```
# https://www.analyticsvidhya.com/blog/2017/08/introduction-to-multi-label-classification/
#https://stats.stackexchange.com/questions/117796/scikit-multi-label-classification
# classifier = LabelPowerSet(GaussianNB())
"""
from skmultilearn.adapt import MLkNN
classifier = MLkNN(k=21)

# train
classifier.fit(x_train_multilabel, y_train)

# predict
predictions = classifier.predict(x_test_multilabel)
print(accuracy_score(y_test,predictions))
print(metrics.f1_score(y_test, predictions, average = 'macro'))
print(metrics.f1_score(y_test, predictions, average = 'micro'))
print(metrics.hamming_loss(y_test,predictions))

"""
# we are getting memory error because the multilearn package
# is trying to convert the data into dense matrix
# -----
#MemoryError                                Traceback (most recent call last)
#<ipython-input-170-f0e7c7f3e0be> in <module>()
#----> classifier.fit(x_train_multilabel, y_train)
```

Out[0]:

```
"\nfrom skmultilearn.adapt import MLkNN\nnclassifier = MLkNN(k=21)\n\n# train\nnclassifier.fit(x_train_multilabel, y_train)\n\n# predict\npredictions = classifier.predict(x_test_multilabel)\nprint(accuracy_score(y_test,predictions))\nprint(metrics.f1_score(y_test, predictions, average = 'macro'))\nprint(metrics.f1_score(y_test, predictions, average = 'micro'))\nprint(metrics.hamming_loss(y_test,predictions))\n\n"
```

4.4 Applying Logistic Regression with OneVsRest Classifier

In [0]:

```
# this will be taking so much time try not to run it, download the lr_with_equal_weight.pkl file and use to predict
# This takes about 6-7 hours to run.
classifier = OneVsRestClassifier(SGDClassifier(loss='log', alpha=0.00001, penalty='l1'), n_jobs=-1)
classifier.fit(x_train_multilabel, y_train)
predictions = classifier.predict(x_test_multilabel)
```

```

predictions = classifier.predict(X_test_matrices)

print("accuracy :",metrics.accuracy_score(y_test,predictions))
print("macro f1 score :",metrics.f1_score(y_test, predictions, average = 'macro'))
print("micro f1 scoore :",metrics.f1_score(y_test, predictions, average = 'micro'))
print("hamming loss :",metrics.hamming_loss(y_test,predictions))
print("Precision recall report :\n",metrics.classification_report(y_test, predictions))

```

```

accuracy : 0.081965
macro f1 score : 0.0963020140154
micro f1 scoore : 0.374270748817
hamming loss : 0.00041225090909090907

```

Precision recall report :

| | precision | recall | f1-score | support |
|----|-----------|--------|----------|---------|
| 0 | 0.62 | 0.23 | 0.33 | 15760 |
| 1 | 0.79 | 0.43 | 0.56 | 14039 |
| 2 | 0.82 | 0.55 | 0.66 | 13446 |
| 3 | 0.76 | 0.42 | 0.54 | 12730 |
| 4 | 0.94 | 0.76 | 0.84 | 11229 |
| 5 | 0.85 | 0.64 | 0.73 | 10561 |
| 6 | 0.70 | 0.30 | 0.42 | 6958 |
| 7 | 0.87 | 0.61 | 0.72 | 6309 |
| 8 | 0.70 | 0.40 | 0.50 | 6032 |
| 9 | 0.78 | 0.43 | 0.55 | 6020 |
| 10 | 0.86 | 0.62 | 0.72 | 5707 |
| 11 | 0.52 | 0.17 | 0.25 | 5723 |
| 12 | 0.55 | 0.10 | 0.16 | 5521 |
| 13 | 0.59 | 0.25 | 0.35 | 4722 |
| 14 | 0.61 | 0.22 | 0.32 | 4468 |
| 15 | 0.79 | 0.52 | 0.63 | 4536 |
| 16 | 0.58 | 0.27 | 0.37 | 4545 |
| 17 | 0.80 | 0.53 | 0.64 | 4069 |
| 18 | 0.61 | 0.24 | 0.35 | 3638 |
| 19 | 0.57 | 0.18 | 0.27 | 3218 |
| 20 | 0.33 | 0.06 | 0.10 | 3000 |
| 21 | 0.73 | 0.34 | 0.46 | 2585 |
| 22 | 0.59 | 0.29 | 0.38 | 2439 |
| 23 | 0.88 | 0.61 | 0.72 | 2199 |
| 24 | 0.64 | 0.39 | 0.48 | 2157 |
| 25 | 0.67 | 0.39 | 0.49 | 2123 |
| 26 | 0.86 | 0.65 | 0.74 | 1948 |
| 27 | 0.35 | 0.07 | 0.12 | 2027 |
| 28 | 0.59 | 0.29 | 0.39 | 2013 |
| 29 | 0.61 | 0.20 | 0.30 | 1801 |
| 30 | 0.48 | 0.24 | 0.32 | 1728 |
| 31 | 0.94 | 0.75 | 0.84 | 1725 |
| 32 | 0.60 | 0.26 | 0.36 | 1581 |
| 33 | 0.49 | 0.14 | 0.22 | 1533 |
| 34 | 0.81 | 0.33 | 0.47 | 1565 |
| 35 | 0.75 | 0.62 | 0.68 | 1568 |
| 36 | 0.76 | 0.50 | 0.60 | 1542 |
| 37 | 0.74 | 0.50 | 0.59 | 1536 |
| 38 | 0.37 | 0.12 | 0.19 | 1524 |
| 39 | 0.40 | 0.12 | 0.19 | 1345 |
| 40 | 0.65 | 0.38 | 0.48 | 1292 |
| 41 | 0.41 | 0.11 | 0.17 | 1264 |
| 42 | 0.69 | 0.25 | 0.37 | 1265 |
| 43 | 0.59 | 0.29 | 0.38 | 1171 |
| 44 | 0.41 | 0.15 | 0.22 | 1173 |
| 45 | 0.38 | 0.10 | 0.16 | 1137 |
| 46 | 0.62 | 0.12 | 0.20 | 1125 |
| 47 | 0.26 | 0.07 | 0.11 | 1116 |
| 48 | 0.44 | 0.15 | 0.22 | 1042 |
| 49 | 0.40 | 0.02 | 0.03 | 1096 |
| 50 | 0.63 | 0.38 | 0.48 | 1031 |
| 51 | 0.47 | 0.14 | 0.22 | 1033 |
| 52 | 0.87 | 0.68 | 0.76 | 1042 |
| 53 | 0.32 | 0.09 | 0.14 | 1027 |
| 54 | 0.53 | 0.14 | 0.22 | 1063 |
| 55 | 0.63 | 0.34 | 0.44 | 1048 |
| 56 | 0.78 | 0.42 | 0.54 | 1054 |
| 57 | 0.91 | 0.77 | 0.83 | 1058 |
| 58 | 0.37 | 0.10 | 0.16 | 1000 |
| 59 | 0.26 | 0.03 | 0.05 | 973 |
| 60 | 0.76 | 0.42 | 0.54 | 978 |
| 61 | 0.74 | 0.43 | 0.54 | 977 |

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|-----|------|------|------|-----|
| 62 | 0.27 | 0.06 | 0.10 | 957 |
| 63 | 0.81 | 0.22 | 0.34 | 958 |
| 64 | 0.88 | 0.63 | 0.73 | 944 |
| 65 | 0.76 | 0.49 | 0.60 | 923 |
| 66 | 0.67 | 0.36 | 0.47 | 959 |
| 67 | 0.55 | 0.15 | 0.24 | 951 |
| 68 | 0.38 | 0.13 | 0.20 | 924 |
| 69 | 0.71 | 0.25 | 0.37 | 897 |
| 70 | 0.78 | 0.47 | 0.59 | 900 |
| 71 | 0.82 | 0.40 | 0.54 | 893 |
| 72 | 0.21 | 0.01 | 0.01 | 836 |
| 73 | 0.74 | 0.16 | 0.26 | 850 |
| 74 | 0.58 | 0.37 | 0.45 | 838 |
| 75 | 0.88 | 0.64 | 0.74 | 855 |
| 76 | 0.47 | 0.28 | 0.35 | 837 |
| 77 | 0.68 | 0.41 | 0.52 | 824 |
| 78 | 0.14 | 0.01 | 0.01 | 793 |
| 79 | 0.34 | 0.09 | 0.14 | 751 |
| 80 | 0.31 | 0.08 | 0.13 | 793 |
| 81 | 0.71 | 0.33 | 0.45 | 758 |
| 82 | 0.60 | 0.28 | 0.38 | 764 |
| 83 | 0.82 | 0.59 | 0.69 | 710 |
| 84 | 0.82 | 0.48 | 0.61 | 734 |
| 85 | 0.79 | 0.42 | 0.55 | 723 |
| 86 | 0.44 | 0.23 | 0.30 | 708 |
| 87 | 0.93 | 0.58 | 0.72 | 714 |
| 88 | 0.91 | 0.53 | 0.67 | 683 |
| 89 | 0.58 | 0.20 | 0.30 | 711 |
| 90 | 0.71 | 0.42 | 0.53 | 699 |
| 91 | 0.44 | 0.03 | 0.06 | 725 |
| 92 | 0.71 | 0.47 | 0.57 | 676 |
| 93 | 0.47 | 0.10 | 0.16 | 672 |
| 94 | 0.66 | 0.40 | 0.50 | 645 |
| 95 | 0.86 | 0.66 | 0.75 | 691 |
| 96 | 0.57 | 0.09 | 0.15 | 664 |
| 97 | 0.91 | 0.59 | 0.72 | 633 |
| 98 | 0.64 | 0.38 | 0.48 | 615 |
| 99 | 0.53 | 0.19 | 0.29 | 667 |
| 100 | 0.89 | 0.71 | 0.79 | 656 |
| 101 | 0.22 | 0.03 | 0.05 | 648 |
| 102 | 0.64 | 0.13 | 0.22 | 654 |
| 103 | 0.92 | 0.63 | 0.75 | 653 |
| 104 | 0.87 | 0.52 | 0.65 | 656 |
| 105 | 0.20 | 0.02 | 0.04 | 607 |
| 106 | 0.68 | 0.34 | 0.45 | 635 |
| 107 | 0.23 | 0.03 | 0.05 | 594 |
| 108 | 0.40 | 0.18 | 0.25 | 592 |
| 109 | 0.32 | 0.07 | 0.12 | 604 |
| 110 | 0.46 | 0.21 | 0.29 | 606 |
| 111 | 0.70 | 0.39 | 0.50 | 567 |
| 112 | 0.68 | 0.27 | 0.38 | 571 |
| 113 | 0.61 | 0.36 | 0.45 | 578 |
| 114 | 0.47 | 0.18 | 0.26 | 564 |
| 115 | 0.35 | 0.13 | 0.19 | 537 |
| 116 | 0.93 | 0.66 | 0.77 | 583 |
| 117 | 0.59 | 0.09 | 0.15 | 534 |
| 118 | 0.66 | 0.35 | 0.46 | 566 |
| 119 | 0.20 | 0.04 | 0.07 | 567 |
| 120 | 0.48 | 0.16 | 0.24 | 497 |
| 121 | 0.55 | 0.19 | 0.29 | 536 |
| 122 | 0.24 | 0.05 | 0.08 | 528 |
| 123 | 0.81 | 0.53 | 0.64 | 550 |
| 124 | 0.50 | 0.21 | 0.29 | 563 |
| 125 | 0.35 | 0.06 | 0.10 | 545 |
| 126 | 0.49 | 0.18 | 0.27 | 544 |
| 127 | 0.95 | 0.76 | 0.84 | 549 |
| 128 | 0.63 | 0.34 | 0.44 | 495 |
| 129 | 0.94 | 0.59 | 0.73 | 509 |
| 130 | 0.34 | 0.11 | 0.16 | 501 |
| 131 | 0.28 | 0.04 | 0.07 | 524 |
| 132 | 0.48 | 0.26 | 0.34 | 485 |
| 133 | 0.55 | 0.37 | 0.45 | 515 |
| 134 | 0.32 | 0.04 | 0.08 | 536 |
| 135 | 0.77 | 0.38 | 0.51 | 526 |
| 136 | 0.67 | 0.34 | 0.45 | 493 |
| 137 | 0.40 | 0.08 | 0.14 | 501 |
| 138 | 0.31 | 0.05 | 0.09 | 501 |

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|-----|------|------|------|-----|
| 139 | 0.29 | 0.02 | 0.04 | 523 |
| 140 | 0.88 | 0.64 | 0.74 | 508 |
| 141 | 0.33 | 0.11 | 0.16 | 490 |
| 142 | 0.77 | 0.50 | 0.60 | 482 |
| 143 | 0.49 | 0.25 | 0.33 | 461 |
| 144 | 0.74 | 0.48 | 0.58 | 496 |
| 145 | 0.62 | 0.17 | 0.26 | 521 |
| 146 | 0.39 | 0.13 | 0.19 | 481 |
| 147 | 0.00 | 0.00 | 0.00 | 486 |
| 148 | 0.37 | 0.09 | 0.14 | 497 |
| 149 | 0.54 | 0.09 | 0.16 | 470 |
| 150 | 0.37 | 0.11 | 0.17 | 459 |
| 151 | 0.74 | 0.45 | 0.56 | 464 |
| 152 | 0.50 | 0.24 | 0.32 | 482 |
| 153 | 0.46 | 0.09 | 0.15 | 507 |
| 154 | 0.29 | 0.04 | 0.07 | 503 |
| 155 | 0.90 | 0.59 | 0.71 | 456 |
| 156 | 0.50 | 0.27 | 0.35 | 480 |
| 157 | 0.54 | 0.26 | 0.35 | 443 |
| 158 | 0.92 | 0.70 | 0.80 | 457 |
| 159 | 0.57 | 0.08 | 0.13 | 478 |
| 160 | 0.16 | 0.03 | 0.05 | 470 |
| 161 | 0.37 | 0.18 | 0.24 | 468 |
| 162 | 0.24 | 0.05 | 0.09 | 428 |
| 163 | 0.40 | 0.08 | 0.13 | 462 |
| 164 | 0.73 | 0.32 | 0.45 | 493 |
| 165 | 0.93 | 0.68 | 0.79 | 437 |
| 166 | 0.40 | 0.20 | 0.26 | 435 |
| 167 | 0.30 | 0.02 | 0.03 | 448 |
| 168 | 0.53 | 0.16 | 0.25 | 436 |
| 169 | 0.36 | 0.10 | 0.15 | 437 |
| 170 | 0.38 | 0.09 | 0.15 | 410 |
| 171 | 0.59 | 0.32 | 0.41 | 450 |
| 172 | 0.69 | 0.39 | 0.50 | 435 |
| 173 | 0.91 | 0.67 | 0.77 | 427 |
| 174 | 0.45 | 0.16 | 0.24 | 427 |
| 175 | 0.43 | 0.17 | 0.24 | 424 |
| 176 | 0.64 | 0.43 | 0.52 | 410 |
| 177 | 0.67 | 0.29 | 0.40 | 426 |
| 178 | 0.74 | 0.49 | 0.59 | 459 |
| 179 | 0.52 | 0.13 | 0.20 | 433 |
| 180 | 0.71 | 0.36 | 0.48 | 452 |
| 181 | 0.91 | 0.62 | 0.74 | 427 |
| 182 | 0.46 | 0.13 | 0.20 | 410 |
| 183 | 0.28 | 0.02 | 0.04 | 404 |
| 184 | 0.69 | 0.42 | 0.52 | 406 |
| 185 | 0.68 | 0.41 | 0.52 | 411 |
| 186 | 0.22 | 0.02 | 0.03 | 394 |
| 187 | 0.90 | 0.65 | 0.75 | 414 |
| 188 | 0.64 | 0.10 | 0.18 | 430 |
| 189 | 0.16 | 0.04 | 0.06 | 389 |
| 190 | 0.28 | 0.03 | 0.05 | 418 |
| 191 | 0.36 | 0.16 | 0.22 | 371 |
| 192 | 0.83 | 0.57 | 0.68 | 363 |
| 193 | 0.91 | 0.55 | 0.69 | 389 |
| 194 | 0.44 | 0.04 | 0.07 | 411 |
| 195 | 0.49 | 0.22 | 0.31 | 383 |
| 196 | 0.95 | 0.74 | 0.83 | 423 |
| 197 | 0.91 | 0.54 | 0.68 | 378 |
| 198 | 0.69 | 0.38 | 0.49 | 382 |
| 199 | 0.12 | 0.01 | 0.02 | 344 |
| 200 | 0.71 | 0.31 | 0.44 | 383 |
| 201 | 0.77 | 0.34 | 0.47 | 390 |
| 202 | 0.18 | 0.02 | 0.04 | 405 |
| 203 | 0.43 | 0.07 | 0.11 | 365 |
| 204 | 0.42 | 0.14 | 0.21 | 346 |
| 205 | 0.21 | 0.05 | 0.08 | 378 |
| 206 | 0.67 | 0.27 | 0.39 | 390 |
| 207 | 0.33 | 0.07 | 0.11 | 379 |
| 208 | 0.39 | 0.11 | 0.17 | 386 |
| 209 | 0.42 | 0.15 | 0.22 | 339 |
| 210 | 0.27 | 0.07 | 0.12 | 382 |
| 211 | 0.37 | 0.05 | 0.08 | 374 |
| 212 | 0.62 | 0.38 | 0.47 | 364 |
| 213 | 0.94 | 0.76 | 0.84 | 372 |
| 214 | 0.96 | 0.63 | 0.76 | 350 |
| 215 | 0.76 | 0.38 | 0.50 | 352 |

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|-----|------|------|------|-----|
| 216 | 0.00 | 0.00 | 0.00 | 351 |
| 217 | 0.64 | 0.29 | 0.40 | 329 |
| 218 | 0.72 | 0.31 | 0.44 | 341 |
| 219 | 0.94 | 0.71 | 0.81 | 331 |
| 220 | 0.49 | 0.27 | 0.35 | 342 |
| 221 | 0.76 | 0.39 | 0.52 | 339 |
| 222 | 0.29 | 0.04 | 0.06 | 332 |
| 223 | 0.43 | 0.12 | 0.18 | 327 |
| 224 | 0.31 | 0.06 | 0.11 | 324 |
| 225 | 0.51 | 0.21 | 0.30 | 352 |
| 226 | 0.65 | 0.30 | 0.41 | 317 |
| 227 | 0.54 | 0.12 | 0.20 | 355 |
| 228 | 0.57 | 0.19 | 0.29 | 341 |
| 229 | 0.58 | 0.37 | 0.46 | 334 |
| 230 | 0.64 | 0.49 | 0.56 | 304 |
| 231 | 0.43 | 0.04 | 0.07 | 321 |
| 232 | 0.77 | 0.50 | 0.61 | 311 |
| 233 | 0.32 | 0.10 | 0.15 | 312 |
| 234 | 0.09 | 0.01 | 0.02 | 306 |
| 235 | 0.03 | 0.00 | 0.01 | 305 |
| 236 | 0.16 | 0.02 | 0.04 | 340 |
| 237 | 0.58 | 0.30 | 0.40 | 316 |
| 238 | 0.65 | 0.23 | 0.34 | 297 |
| 239 | 0.35 | 0.13 | 0.19 | 305 |
| 240 | 0.73 | 0.44 | 0.55 | 310 |
| 241 | 0.67 | 0.36 | 0.47 | 307 |
| 242 | 0.58 | 0.16 | 0.25 | 316 |
| 243 | 0.26 | 0.07 | 0.11 | 314 |
| 244 | 0.51 | 0.12 | 0.19 | 316 |
| 245 | 0.67 | 0.46 | 0.55 | 313 |
| 246 | 0.79 | 0.46 | 0.58 | 325 |
| 247 | 0.60 | 0.36 | 0.45 | 291 |
| 248 | 0.33 | 0.01 | 0.02 | 311 |
| 249 | 0.57 | 0.24 | 0.33 | 314 |
| 250 | 0.38 | 0.05 | 0.09 | 309 |
| 251 | 0.30 | 0.08 | 0.13 | 300 |
| 252 | 0.55 | 0.27 | 0.36 | 325 |
| 253 | 0.76 | 0.51 | 0.61 | 316 |
| 254 | 0.43 | 0.09 | 0.15 | 306 |
| 255 | 0.54 | 0.19 | 0.28 | 289 |
| 256 | 0.49 | 0.11 | 0.18 | 304 |
| 257 | 0.16 | 0.02 | 0.04 | 268 |
| 258 | 0.85 | 0.58 | 0.69 | 266 |
| 259 | 0.06 | 0.00 | 0.01 | 298 |
| 260 | 0.55 | 0.36 | 0.43 | 292 |
| 261 | 0.25 | 0.05 | 0.08 | 289 |
| 262 | 0.50 | 0.01 | 0.01 | 305 |
| 263 | 0.00 | 0.00 | 0.00 | 281 |
| 264 | 0.59 | 0.25 | 0.35 | 295 |
| 265 | 0.16 | 0.02 | 0.04 | 281 |
| 266 | 0.83 | 0.52 | 0.64 | 269 |
| 267 | 0.45 | 0.12 | 0.19 | 312 |
| 268 | 0.75 | 0.40 | 0.52 | 294 |
| 269 | 0.34 | 0.05 | 0.09 | 285 |
| 270 | 0.56 | 0.33 | 0.42 | 279 |
| 271 | 0.50 | 0.28 | 0.36 | 269 |
| 272 | 0.59 | 0.38 | 0.46 | 277 |
| 273 | 0.69 | 0.31 | 0.43 | 272 |
| 274 | 0.36 | 0.01 | 0.03 | 285 |
| 275 | 0.94 | 0.69 | 0.80 | 295 |
| 276 | 0.46 | 0.19 | 0.27 | 283 |
| 277 | 0.65 | 0.29 | 0.40 | 250 |
| 278 | 0.57 | 0.20 | 0.30 | 281 |
| 279 | 0.86 | 0.58 | 0.69 | 270 |
| 280 | 0.62 | 0.35 | 0.44 | 272 |
| 281 | 0.32 | 0.07 | 0.11 | 278 |
| 282 | 0.00 | 0.00 | 0.00 | 264 |
| 283 | 0.85 | 0.59 | 0.70 | 281 |
| 284 | 0.78 | 0.53 | 0.63 | 261 |
| 285 | 0.33 | 0.09 | 0.14 | 283 |
| 286 | 0.00 | 0.00 | 0.00 | 275 |
| 287 | 0.29 | 0.03 | 0.05 | 274 |
| 288 | 0.37 | 0.04 | 0.06 | 284 |
| 289 | 0.00 | 0.00 | 0.00 | 260 |
| 290 | 0.54 | 0.24 | 0.34 | 245 |
| 291 | 0.07 | 0.00 | 0.01 | 267 |
| 292 | 0.33 | 0.07 | 0.11 | 263 |

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|-----|------|------|------|-----|
| 293 | 0.30 | 0.09 | 0.14 | 268 |
| 294 | 0.33 | 0.11 | 0.16 | 270 |
| 295 | 0.48 | 0.06 | 0.10 | 261 |
| 296 | 0.84 | 0.59 | 0.69 | 240 |
| 297 | 0.43 | 0.22 | 0.29 | 250 |
| 298 | 0.81 | 0.51 | 0.63 | 245 |
| 299 | 0.11 | 0.01 | 0.01 | 283 |
| 300 | 0.51 | 0.21 | 0.30 | 236 |
| 301 | 0.78 | 0.51 | 0.62 | 267 |
| 302 | 0.19 | 0.02 | 0.04 | 243 |
| 303 | 0.26 | 0.04 | 0.06 | 276 |
| 304 | 0.89 | 0.71 | 0.79 | 280 |
| 305 | 0.37 | 0.14 | 0.20 | 249 |
| 306 | 0.24 | 0.02 | 0.04 | 258 |
| 307 | 0.00 | 0.00 | 0.00 | 262 |
| 308 | 0.53 | 0.20 | 0.29 | 248 |
| 309 | 0.58 | 0.25 | 0.35 | 244 |
| 310 | 0.33 | 0.06 | 0.09 | 254 |
| 311 | 0.41 | 0.10 | 0.16 | 263 |
| 312 | 0.52 | 0.25 | 0.33 | 232 |
| 313 | 0.75 | 0.55 | 0.63 | 235 |
| 314 | 0.61 | 0.11 | 0.19 | 248 |
| 315 | 0.49 | 0.16 | 0.25 | 263 |
| 316 | 0.33 | 0.08 | 0.12 | 264 |
| 317 | 0.61 | 0.06 | 0.12 | 216 |
| 318 | 0.05 | 0.00 | 0.01 | 230 |
| 319 | 0.53 | 0.27 | 0.36 | 230 |
| 320 | 0.00 | 0.00 | 0.00 | 239 |
| 321 | 0.45 | 0.08 | 0.13 | 265 |
| 322 | 0.69 | 0.32 | 0.44 | 253 |
| 323 | 0.23 | 0.04 | 0.06 | 238 |
| 324 | 0.72 | 0.37 | 0.49 | 232 |
| 325 | 0.22 | 0.05 | 0.08 | 239 |
| 326 | 0.49 | 0.18 | 0.26 | 261 |
| 327 | 0.64 | 0.14 | 0.23 | 261 |
| 328 | 0.67 | 0.47 | 0.55 | 231 |
| 329 | 0.46 | 0.13 | 0.20 | 264 |
| 330 | 0.18 | 0.02 | 0.03 | 242 |
| 331 | 0.80 | 0.37 | 0.50 | 231 |
| 332 | 0.63 | 0.28 | 0.39 | 234 |
| 333 | 0.50 | 0.32 | 0.39 | 212 |
| 334 | 0.26 | 0.05 | 0.09 | 221 |
| 335 | 0.15 | 0.03 | 0.05 | 242 |
| 336 | 0.57 | 0.30 | 0.40 | 211 |
| 337 | 0.20 | 0.01 | 0.03 | 212 |
| 338 | 0.00 | 0.00 | 0.00 | 222 |
| 339 | 0.22 | 0.02 | 0.04 | 227 |
| 340 | 0.66 | 0.30 | 0.41 | 216 |
| 341 | 0.57 | 0.26 | 0.36 | 231 |
| 342 | 0.45 | 0.22 | 0.29 | 233 |
| 343 | 0.17 | 0.03 | 0.04 | 232 |
| 344 | 0.28 | 0.02 | 0.04 | 209 |
| 345 | 0.37 | 0.11 | 0.17 | 216 |
| 346 | 0.27 | 0.09 | 0.13 | 222 |
| 347 | 0.48 | 0.19 | 0.28 | 243 |
| 348 | 0.51 | 0.26 | 0.35 | 222 |
| 349 | 0.57 | 0.12 | 0.20 | 228 |
| 350 | 0.44 | 0.12 | 0.18 | 205 |
| 351 | 0.58 | 0.30 | 0.39 | 177 |
| 352 | 0.77 | 0.39 | 0.52 | 234 |
| 353 | 0.96 | 0.57 | 0.71 | 230 |
| 354 | 0.47 | 0.21 | 0.29 | 195 |
| 355 | 0.90 | 0.42 | 0.57 | 209 |
| 356 | 0.06 | 0.00 | 0.01 | 205 |
| 357 | 0.50 | 0.11 | 0.18 | 211 |
| 358 | 0.43 | 0.16 | 0.23 | 230 |
| 359 | 0.27 | 0.08 | 0.12 | 211 |
| 360 | 0.39 | 0.09 | 0.14 | 221 |
| 361 | 0.24 | 0.04 | 0.08 | 200 |
| 362 | 0.82 | 0.15 | 0.25 | 219 |
| 363 | 0.36 | 0.07 | 0.12 | 222 |
| 364 | 0.62 | 0.27 | 0.38 | 213 |
| 365 | 0.94 | 0.36 | 0.52 | 199 |
| 366 | 0.80 | 0.37 | 0.51 | 200 |
| 367 | 0.76 | 0.29 | 0.42 | 199 |
| 368 | 0.57 | 0.26 | 0.36 | 212 |
| 369 | 0.93 | 0.71 | 0.80 | 214 |

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|-----|------|------|------|-----|
| 370 | 0.10 | 0.02 | 0.03 | 197 |
| 371 | 0.20 | 0.03 | 0.05 | 212 |
| 372 | 0.41 | 0.14 | 0.21 | 210 |
| 373 | 0.43 | 0.03 | 0.05 | 211 |
| 374 | 0.41 | 0.15 | 0.22 | 213 |
| 375 | 0.00 | 0.00 | 0.00 | 216 |
| 376 | 0.87 | 0.53 | 0.66 | 195 |
| 377 | 0.95 | 0.67 | 0.79 | 187 |
| 378 | 0.15 | 0.03 | 0.04 | 191 |
| 379 | 0.17 | 0.02 | 0.04 | 178 |
| 380 | 0.79 | 0.48 | 0.60 | 193 |
| 381 | 0.13 | 0.02 | 0.04 | 187 |
| 382 | 0.67 | 0.03 | 0.06 | 193 |
| 383 | 0.17 | 0.04 | 0.06 | 204 |
| 384 | 0.28 | 0.15 | 0.19 | 193 |
| 385 | 0.12 | 0.02 | 0.04 | 207 |
| 386 | 0.84 | 0.45 | 0.59 | 211 |
| 387 | 0.06 | 0.00 | 0.01 | 210 |
| 388 | 0.31 | 0.04 | 0.06 | 223 |
| 389 | 0.24 | 0.09 | 0.13 | 203 |
| 390 | 0.72 | 0.24 | 0.36 | 199 |
| 391 | 0.40 | 0.08 | 0.13 | 200 |
| 392 | 0.22 | 0.05 | 0.09 | 183 |
| 393 | 0.62 | 0.31 | 0.41 | 189 |
| 394 | 0.96 | 0.66 | 0.78 | 194 |
| 395 | 0.53 | 0.18 | 0.27 | 183 |
| 396 | 0.43 | 0.21 | 0.28 | 189 |
| 397 | 0.71 | 0.34 | 0.46 | 191 |
| 398 | 0.34 | 0.06 | 0.11 | 206 |
| 399 | 0.33 | 0.01 | 0.03 | 221 |
| 400 | 0.28 | 0.04 | 0.07 | 196 |
| 401 | 0.28 | 0.09 | 0.14 | 179 |
| 402 | 0.28 | 0.08 | 0.12 | 187 |
| 403 | 0.51 | 0.22 | 0.31 | 203 |
| 404 | 0.46 | 0.12 | 0.19 | 205 |
| 405 | 0.35 | 0.08 | 0.13 | 218 |
| 406 | 0.19 | 0.04 | 0.06 | 196 |
| 407 | 0.72 | 0.35 | 0.47 | 206 |
| 408 | 0.31 | 0.06 | 0.10 | 203 |
| 409 | 0.70 | 0.43 | 0.53 | 187 |
| 410 | 0.85 | 0.54 | 0.66 | 208 |
| 411 | 0.83 | 0.45 | 0.58 | 193 |
| 412 | 0.33 | 0.02 | 0.03 | 192 |
| 413 | 0.66 | 0.36 | 0.46 | 182 |
| 414 | 0.45 | 0.19 | 0.27 | 175 |
| 415 | 0.64 | 0.49 | 0.55 | 181 |
| 416 | 0.00 | 0.00 | 0.00 | 202 |
| 417 | 0.92 | 0.44 | 0.60 | 202 |
| 418 | 0.17 | 0.01 | 0.02 | 195 |
| 419 | 0.78 | 0.25 | 0.38 | 177 |
| 420 | 0.26 | 0.07 | 0.11 | 168 |
| 421 | 0.80 | 0.45 | 0.58 | 187 |
| 422 | 0.92 | 0.46 | 0.62 | 209 |
| 423 | 0.66 | 0.16 | 0.26 | 177 |
| 424 | 0.35 | 0.06 | 0.10 | 182 |
| 425 | 0.52 | 0.14 | 0.23 | 187 |
| 426 | 0.22 | 0.04 | 0.07 | 185 |
| 427 | 0.43 | 0.13 | 0.20 | 185 |
| 428 | 0.42 | 0.18 | 0.25 | 185 |
| 429 | 0.92 | 0.46 | 0.61 | 175 |
| 430 | 0.90 | 0.49 | 0.64 | 190 |
| 431 | 0.31 | 0.03 | 0.05 | 185 |
| 432 | 0.71 | 0.03 | 0.05 | 189 |
| 433 | 0.60 | 0.20 | 0.30 | 184 |
| 434 | 0.79 | 0.36 | 0.49 | 200 |
| 435 | 0.20 | 0.01 | 0.01 | 167 |
| 436 | 0.21 | 0.01 | 0.03 | 209 |
| 437 | 0.50 | 0.07 | 0.12 | 200 |
| 438 | 0.29 | 0.09 | 0.14 | 169 |
| 439 | 0.44 | 0.15 | 0.23 | 170 |
| 440 | 0.25 | 0.04 | 0.07 | 182 |
| 441 | 0.62 | 0.34 | 0.44 | 156 |
| 442 | 0.20 | 0.02 | 0.03 | 170 |
| 443 | 0.00 | 0.00 | 0.00 | 189 |
| 444 | 0.00 | 0.00 | 0.00 | 172 |
| 445 | 0.33 | 0.11 | 0.16 | 180 |
| 446 | 0.21 | 0.06 | 0.10 | 175 |

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|-----|------|------|------|-----|
| 447 | 0.48 | 0.12 | 0.19 | 187 |
| 448 | 0.00 | 0.00 | 0.00 | 170 |
| 449 | 0.41 | 0.24 | 0.30 | 170 |
| 450 | 0.35 | 0.10 | 0.16 | 176 |
| 451 | 0.62 | 0.15 | 0.24 | 194 |
| 452 | 0.61 | 0.31 | 0.41 | 175 |
| 453 | 0.19 | 0.04 | 0.07 | 187 |
| 454 | 0.11 | 0.01 | 0.01 | 181 |
| 455 | 0.62 | 0.14 | 0.23 | 177 |
| 456 | 0.50 | 0.18 | 0.26 | 170 |
| 457 | 0.24 | 0.03 | 0.05 | 182 |
| 458 | 0.68 | 0.37 | 0.48 | 172 |
| 459 | 0.00 | 0.00 | 0.00 | 190 |
| 460 | 0.43 | 0.16 | 0.23 | 183 |
| 461 | 0.94 | 0.63 | 0.75 | 182 |
| 462 | 0.35 | 0.16 | 0.22 | 173 |
| 463 | 0.91 | 0.69 | 0.79 | 171 |
| 464 | 0.58 | 0.27 | 0.37 | 173 |
| 465 | 0.77 | 0.41 | 0.53 | 184 |
| 466 | 0.72 | 0.22 | 0.34 | 175 |
| 467 | 0.43 | 0.19 | 0.26 | 162 |
| 468 | 0.12 | 0.01 | 0.02 | 176 |
| 469 | 0.91 | 0.46 | 0.61 | 177 |
| 470 | 0.52 | 0.07 | 0.13 | 167 |
| 471 | 0.27 | 0.06 | 0.10 | 192 |
| 472 | 0.50 | 0.32 | 0.39 | 168 |
| 473 | 0.32 | 0.05 | 0.09 | 188 |
| 474 | 0.31 | 0.05 | 0.08 | 163 |
| 475 | 0.44 | 0.17 | 0.24 | 160 |
| 476 | 0.89 | 0.56 | 0.69 | 180 |
| 477 | 0.92 | 0.46 | 0.61 | 182 |
| 478 | 0.49 | 0.27 | 0.35 | 171 |
| 479 | 0.57 | 0.18 | 0.27 | 174 |
| 480 | 0.96 | 0.52 | 0.68 | 162 |
| 481 | 0.21 | 0.04 | 0.06 | 169 |
| 482 | 0.33 | 0.03 | 0.06 | 157 |
| 483 | 0.77 | 0.48 | 0.59 | 200 |
| 484 | 0.58 | 0.21 | 0.31 | 177 |
| 485 | 0.51 | 0.26 | 0.34 | 175 |
| 486 | 0.64 | 0.51 | 0.57 | 185 |
| 487 | 0.96 | 0.52 | 0.67 | 167 |
| 488 | 0.00 | 0.00 | 0.00 | 192 |
| 489 | 0.30 | 0.09 | 0.14 | 176 |
| 490 | 0.00 | 0.00 | 0.00 | 167 |
| 491 | 0.33 | 0.01 | 0.01 | 177 |
| 492 | 0.47 | 0.26 | 0.33 | 160 |
| 493 | 0.46 | 0.22 | 0.30 | 159 |
| 494 | 0.15 | 0.03 | 0.04 | 159 |
| 495 | 0.31 | 0.10 | 0.15 | 162 |
| 496 | 0.82 | 0.46 | 0.59 | 167 |
| 497 | 0.17 | 0.02 | 0.03 | 168 |
| 498 | 0.40 | 0.12 | 0.19 | 154 |
| 499 | 0.00 | 0.00 | 0.00 | 184 |
| 500 | 0.14 | 0.03 | 0.05 | 167 |
| 501 | 0.41 | 0.20 | 0.27 | 153 |
| 502 | 0.78 | 0.55 | 0.65 | 143 |
| 503 | 0.22 | 0.07 | 0.10 | 177 |
| 504 | 0.69 | 0.32 | 0.44 | 177 |
| 505 | 0.90 | 0.50 | 0.64 | 152 |
| 506 | 0.80 | 0.40 | 0.54 | 179 |
| 507 | 0.60 | 0.12 | 0.20 | 171 |
| 508 | 0.61 | 0.28 | 0.39 | 151 |
| 509 | 0.51 | 0.23 | 0.32 | 162 |
| 510 | 0.63 | 0.24 | 0.35 | 158 |
| 511 | 0.18 | 0.03 | 0.05 | 164 |
| 512 | 0.00 | 0.00 | 0.00 | 149 |
| 513 | 0.78 | 0.60 | 0.68 | 174 |
| 514 | 0.51 | 0.15 | 0.23 | 172 |
| 515 | 0.34 | 0.14 | 0.20 | 144 |
| 516 | 0.57 | 0.15 | 0.23 | 164 |
| 517 | 0.88 | 0.67 | 0.76 | 152 |
| 518 | 0.60 | 0.02 | 0.03 | 175 |
| 519 | 0.29 | 0.04 | 0.06 | 168 |
| 520 | 0.52 | 0.11 | 0.18 | 145 |
| 521 | 0.89 | 0.38 | 0.53 | 165 |
| 522 | 0.91 | 0.55 | 0.69 | 151 |
| 523 | 0.93 | 0.57 | 0.71 | 171 |

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|-----|------|------|------|-----|
| 523 | 0.55 | 0.57 | 0.71 | 171 |
| 524 | 0.89 | 0.53 | 0.66 | 160 |
| 525 | 0.59 | 0.41 | 0.49 | 139 |
| 526 | 0.57 | 0.19 | 0.29 | 165 |
| 527 | 0.57 | 0.22 | 0.31 | 148 |
| 528 | 0.64 | 0.21 | 0.32 | 178 |
| 529 | 0.31 | 0.06 | 0.10 | 152 |
| 530 | 0.11 | 0.01 | 0.01 | 143 |
| 531 | 0.57 | 0.20 | 0.30 | 174 |
| 532 | 0.63 | 0.20 | 0.30 | 135 |
| 533 | 0.35 | 0.05 | 0.09 | 179 |
| 534 | 0.26 | 0.04 | 0.08 | 135 |
| 535 | 0.29 | 0.09 | 0.14 | 157 |
| 536 | 0.88 | 0.53 | 0.66 | 163 |
| 537 | 0.79 | 0.39 | 0.53 | 127 |
| 538 | 0.34 | 0.13 | 0.19 | 130 |
| 539 | 0.55 | 0.20 | 0.29 | 155 |
| 540 | 0.43 | 0.18 | 0.25 | 165 |
| 541 | 0.35 | 0.11 | 0.16 | 139 |
| 542 | 0.38 | 0.05 | 0.09 | 159 |
| 543 | 0.44 | 0.18 | 0.25 | 140 |
| 544 | 0.76 | 0.17 | 0.28 | 143 |
| 545 | 0.44 | 0.12 | 0.19 | 147 |
| 546 | 0.47 | 0.18 | 0.26 | 153 |
| 547 | 0.76 | 0.28 | 0.41 | 165 |
| 548 | 0.35 | 0.10 | 0.16 | 149 |
| 549 | 0.62 | 0.26 | 0.37 | 123 |
| 550 | 0.82 | 0.06 | 0.11 | 148 |
| 551 | 0.68 | 0.41 | 0.51 | 145 |
| 552 | 0.50 | 0.04 | 0.07 | 157 |
| 553 | 0.46 | 0.23 | 0.31 | 151 |
| 554 | 0.50 | 0.01 | 0.01 | 152 |
| 555 | 0.43 | 0.17 | 0.24 | 147 |
| 556 | 0.72 | 0.35 | 0.47 | 143 |
| 557 | 0.47 | 0.20 | 0.28 | 139 |
| 558 | 0.92 | 0.54 | 0.68 | 165 |
| 559 | 0.37 | 0.10 | 0.16 | 147 |
| 560 | 0.27 | 0.13 | 0.17 | 139 |
| 561 | 0.29 | 0.08 | 0.12 | 152 |
| 562 | 0.45 | 0.26 | 0.33 | 132 |
| 563 | 0.41 | 0.17 | 0.24 | 150 |
| 564 | 0.30 | 0.08 | 0.13 | 165 |
| 565 | 0.73 | 0.38 | 0.50 | 147 |
| 566 | 0.27 | 0.05 | 0.08 | 151 |
| 567 | 0.52 | 0.24 | 0.33 | 153 |
| 568 | 0.48 | 0.19 | 0.27 | 148 |
| 569 | 0.17 | 0.04 | 0.06 | 142 |
| 570 | 0.11 | 0.02 | 0.04 | 140 |
| 571 | 0.07 | 0.01 | 0.01 | 149 |
| 572 | 1.00 | 0.02 | 0.04 | 146 |
| 573 | 0.51 | 0.29 | 0.37 | 135 |
| 574 | 0.73 | 0.24 | 0.36 | 137 |
| 575 | 0.50 | 0.11 | 0.18 | 142 |
| 576 | 0.24 | 0.10 | 0.14 | 145 |
| 577 | 0.82 | 0.25 | 0.38 | 145 |
| 578 | 0.72 | 0.33 | 0.45 | 131 |
| 579 | 0.40 | 0.15 | 0.22 | 142 |
| 580 | 0.00 | 0.00 | 0.00 | 143 |
| 581 | 0.38 | 0.09 | 0.15 | 139 |
| 582 | 0.57 | 0.15 | 0.24 | 150 |
| 583 | 0.00 | 0.00 | 0.00 | 121 |
| 584 | 0.57 | 0.28 | 0.38 | 148 |
| 585 | 0.61 | 0.41 | 0.49 | 134 |
| 586 | 0.64 | 0.37 | 0.47 | 151 |
| 587 | 0.74 | 0.11 | 0.20 | 150 |
| 588 | 0.48 | 0.11 | 0.18 | 141 |
| 589 | 0.20 | 0.03 | 0.05 | 137 |
| 590 | 0.79 | 0.36 | 0.50 | 154 |
| 591 | 0.52 | 0.22 | 0.31 | 126 |
| 592 | 0.85 | 0.49 | 0.62 | 144 |
| 593 | 0.29 | 0.06 | 0.10 | 130 |
| 594 | 0.46 | 0.15 | 0.22 | 148 |
| 595 | 0.13 | 0.02 | 0.03 | 115 |
| 596 | 0.64 | 0.46 | 0.53 | 142 |
| 597 | 0.95 | 0.46 | 0.62 | 123 |
| 598 | 0.63 | 0.21 | 0.32 | 150 |
| 599 | 0.00 | 0.00 | 0.00 | 134 |
| 600 | 0.24 | 0.04 | 0.07 | 154 |

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|-----|------|------|------|-----|
| 600 | 0.24 | 0.04 | 0.07 | 134 |
| 601 | 0.36 | 0.08 | 0.14 | 165 |
| 602 | 0.50 | 0.02 | 0.04 | 150 |
| 603 | 0.49 | 0.15 | 0.23 | 137 |
| 604 | 0.89 | 0.53 | 0.67 | 133 |
| 605 | 0.38 | 0.14 | 0.21 | 146 |
| 606 | 0.88 | 0.12 | 0.21 | 129 |
| 607 | 0.17 | 0.03 | 0.05 | 151 |
| 608 | 0.86 | 0.55 | 0.67 | 138 |
| 609 | 0.36 | 0.13 | 0.19 | 124 |
| 610 | 0.40 | 0.01 | 0.03 | 144 |
| 611 | 0.00 | 0.00 | 0.00 | 150 |
| 612 | 0.00 | 0.00 | 0.00 | 130 |
| 613 | 0.21 | 0.05 | 0.08 | 127 |
| 614 | 0.41 | 0.17 | 0.24 | 141 |
| 615 | 0.10 | 0.02 | 0.03 | 133 |
| 616 | 0.54 | 0.29 | 0.38 | 132 |
| 617 | 0.67 | 0.02 | 0.03 | 131 |
| 618 | 0.21 | 0.03 | 0.06 | 125 |
| 619 | 0.63 | 0.37 | 0.46 | 123 |
| 620 | 0.00 | 0.00 | 0.00 | 148 |
| 621 | 0.12 | 0.01 | 0.02 | 117 |
| 622 | 0.72 | 0.47 | 0.57 | 129 |
| 623 | 0.36 | 0.04 | 0.06 | 113 |
| 624 | 0.88 | 0.51 | 0.64 | 110 |
| 625 | 0.92 | 0.63 | 0.75 | 121 |
| 626 | 0.22 | 0.08 | 0.12 | 125 |
| 627 | 0.95 | 0.59 | 0.73 | 132 |
| 628 | 0.67 | 0.30 | 0.42 | 116 |
| 629 | 0.81 | 0.38 | 0.52 | 126 |
| 630 | 0.29 | 0.04 | 0.07 | 126 |
| 631 | 0.28 | 0.06 | 0.10 | 148 |
| 632 | 0.91 | 0.61 | 0.74 | 140 |
| 633 | 0.50 | 0.02 | 0.03 | 128 |
| 634 | 0.40 | 0.16 | 0.22 | 128 |
| 635 | 0.00 | 0.00 | 0.00 | 140 |
| 636 | 0.95 | 0.41 | 0.57 | 130 |
| 637 | 0.62 | 0.23 | 0.34 | 126 |
| 638 | 0.75 | 0.08 | 0.15 | 143 |
| 639 | 0.67 | 0.31 | 0.42 | 121 |
| 640 | 0.16 | 0.04 | 0.07 | 117 |
| 641 | 0.36 | 0.12 | 0.19 | 112 |
| 642 | 0.46 | 0.14 | 0.21 | 137 |
| 643 | 0.96 | 0.61 | 0.74 | 141 |
| 644 | 0.71 | 0.37 | 0.49 | 127 |
| 645 | 0.28 | 0.06 | 0.10 | 128 |
| 646 | 0.10 | 0.01 | 0.01 | 124 |
| 647 | 0.11 | 0.03 | 0.05 | 138 |
| 648 | 0.13 | 0.03 | 0.04 | 119 |
| 649 | 0.00 | 0.00 | 0.00 | 137 |
| 650 | 0.33 | 0.01 | 0.02 | 121 |
| 651 | 0.07 | 0.02 | 0.03 | 108 |
| 652 | 0.72 | 0.41 | 0.52 | 122 |
| 653 | 0.61 | 0.26 | 0.36 | 139 |
| 654 | 0.40 | 0.02 | 0.03 | 112 |
| 655 | 0.53 | 0.14 | 0.22 | 125 |
| 656 | 0.64 | 0.19 | 0.29 | 124 |
| 657 | 0.30 | 0.08 | 0.12 | 117 |
| 658 | 0.50 | 0.20 | 0.28 | 116 |
| 659 | 0.37 | 0.08 | 0.14 | 130 |
| 660 | 0.15 | 0.02 | 0.03 | 121 |
| 661 | 0.75 | 0.35 | 0.48 | 124 |
| 662 | 0.48 | 0.12 | 0.19 | 121 |
| 663 | 0.84 | 0.63 | 0.72 | 126 |
| 664 | 0.00 | 0.00 | 0.00 | 118 |
| 665 | 0.18 | 0.06 | 0.09 | 113 |
| 666 | 0.00 | 0.00 | 0.00 | 128 |
| 667 | 0.53 | 0.12 | 0.20 | 139 |
| 668 | 0.29 | 0.04 | 0.07 | 131 |
| 669 | 0.26 | 0.05 | 0.08 | 127 |
| 670 | 0.47 | 0.07 | 0.12 | 125 |
| 671 | 0.33 | 0.02 | 0.03 | 111 |
| 672 | 0.55 | 0.37 | 0.44 | 127 |
| 673 | 0.72 | 0.48 | 0.57 | 130 |
| 674 | 0.19 | 0.02 | 0.04 | 130 |
| 675 | 0.60 | 0.20 | 0.30 | 126 |
| 676 | 0.15 | 0.02 | 0.03 | 104 |
| 677 | 0.52 | 0.14 | 0.22 | 127 |

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|-----|------|------|------|-----|
| 677 | 0.55 | 0.14 | 0.22 | 127 |
| 678 | 0.57 | 0.15 | 0.24 | 130 |
| 679 | 0.26 | 0.10 | 0.14 | 112 |
| 680 | 0.43 | 0.09 | 0.15 | 131 |
| 681 | 0.00 | 0.00 | 0.00 | 140 |
| 682 | 0.53 | 0.35 | 0.42 | 114 |
| 683 | 0.78 | 0.12 | 0.22 | 112 |
| 684 | 0.35 | 0.06 | 0.10 | 115 |
| 685 | 0.66 | 0.15 | 0.24 | 128 |
| 686 | 0.57 | 0.10 | 0.17 | 122 |
| 687 | 0.25 | 0.03 | 0.05 | 109 |
| 688 | 0.29 | 0.02 | 0.03 | 108 |
| 689 | 0.00 | 0.00 | 0.00 | 125 |
| 690 | 0.50 | 0.01 | 0.02 | 117 |
| 691 | 0.36 | 0.09 | 0.15 | 127 |
| 692 | 0.80 | 0.35 | 0.49 | 129 |
| 693 | 0.42 | 0.16 | 0.23 | 118 |
| 694 | 0.72 | 0.37 | 0.49 | 151 |
| 695 | 0.67 | 0.29 | 0.41 | 112 |
| 696 | 0.81 | 0.22 | 0.34 | 119 |
| 697 | 0.19 | 0.05 | 0.07 | 109 |
| 698 | 0.58 | 0.33 | 0.42 | 122 |
| 699 | 0.96 | 0.49 | 0.65 | 102 |
| 700 | 0.29 | 0.07 | 0.11 | 102 |
| 701 | 0.46 | 0.26 | 0.33 | 107 |
| 702 | 0.25 | 0.03 | 0.05 | 105 |
| 703 | 0.25 | 0.01 | 0.02 | 113 |
| 704 | 0.62 | 0.27 | 0.37 | 98 |
| 705 | 0.21 | 0.05 | 0.08 | 100 |
| 706 | 0.72 | 0.33 | 0.45 | 131 |
| 707 | 0.45 | 0.21 | 0.29 | 112 |
| 708 | 0.44 | 0.03 | 0.06 | 119 |
| 709 | 0.28 | 0.07 | 0.11 | 105 |
| 710 | 0.18 | 0.03 | 0.04 | 117 |
| 711 | 0.39 | 0.14 | 0.21 | 115 |
| 712 | 0.41 | 0.10 | 0.16 | 129 |
| 713 | 0.68 | 0.27 | 0.38 | 101 |
| 714 | 0.57 | 0.10 | 0.17 | 122 |
| 715 | 0.00 | 0.00 | 0.00 | 97 |
| 716 | 0.38 | 0.16 | 0.23 | 116 |
| 717 | 0.43 | 0.08 | 0.14 | 110 |
| 718 | 0.38 | 0.04 | 0.08 | 113 |
| 719 | 0.75 | 0.49 | 0.59 | 110 |
| 720 | 0.78 | 0.05 | 0.10 | 130 |
| 721 | 0.00 | 0.00 | 0.00 | 104 |
| 722 | 0.89 | 0.66 | 0.75 | 119 |
| 723 | 0.00 | 0.00 | 0.00 | 108 |
| 724 | 0.43 | 0.22 | 0.29 | 112 |
| 725 | 0.32 | 0.05 | 0.08 | 126 |
| 726 | 0.93 | 0.67 | 0.78 | 120 |
| 727 | 0.30 | 0.05 | 0.09 | 130 |
| 728 | 0.67 | 0.02 | 0.04 | 103 |
| 729 | 0.70 | 0.17 | 0.28 | 111 |
| 730 | 0.33 | 0.03 | 0.05 | 110 |
| 731 | 0.00 | 0.00 | 0.00 | 96 |
| 732 | 0.55 | 0.05 | 0.10 | 112 |
| 733 | 0.39 | 0.08 | 0.13 | 90 |
| 734 | 0.28 | 0.11 | 0.15 | 95 |
| 735 | 0.80 | 0.39 | 0.52 | 116 |
| 736 | 0.40 | 0.02 | 0.03 | 128 |
| 737 | 0.25 | 0.09 | 0.13 | 93 |
| 738 | 0.89 | 0.15 | 0.26 | 107 |
| 739 | 0.58 | 0.29 | 0.39 | 99 |
| 740 | 0.40 | 0.04 | 0.07 | 105 |
| 741 | 0.46 | 0.05 | 0.09 | 116 |
| 742 | 0.68 | 0.43 | 0.53 | 105 |
| 743 | 0.40 | 0.19 | 0.26 | 84 |
| 744 | 0.44 | 0.14 | 0.21 | 102 |
| 745 | 0.69 | 0.23 | 0.34 | 111 |
| 746 | 0.36 | 0.10 | 0.15 | 104 |
| 747 | 0.44 | 0.14 | 0.21 | 110 |
| 748 | 0.58 | 0.21 | 0.30 | 92 |
| 749 | 0.87 | 0.57 | 0.69 | 106 |
| 750 | 0.00 | 0.00 | 0.00 | 116 |
| 751 | 0.28 | 0.09 | 0.14 | 109 |
| 752 | 0.85 | 0.54 | 0.66 | 104 |
| 753 | 1.00 | 0.01 | 0.02 | 119 |
| 754 | 0.07 | 0.06 | 0.10 | 86 |

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|-----|------|------|------|-----|
| 754 | 0.27 | 0.06 | 0.10 | 96 |
| 755 | 0.17 | 0.04 | 0.06 | 104 |
| 756 | 0.00 | 0.00 | 0.00 | 101 |
| 757 | 0.50 | 0.19 | 0.28 | 114 |
| 758 | 0.00 | 0.00 | 0.00 | 112 |
| 759 | 0.67 | 0.04 | 0.08 | 95 |
| 760 | 0.00 | 0.00 | 0.00 | 102 |
| 761 | 0.31 | 0.11 | 0.17 | 105 |
| 762 | 0.57 | 0.25 | 0.35 | 109 |
| 763 | 0.09 | 0.01 | 0.02 | 112 |
| 764 | 0.94 | 0.40 | 0.56 | 116 |
| 765 | 0.60 | 0.31 | 0.41 | 109 |
| 766 | 0.00 | 0.00 | 0.00 | 96 |
| 767 | 0.50 | 0.09 | 0.15 | 114 |
| 768 | 0.00 | 0.00 | 0.00 | 99 |
| 769 | 0.65 | 0.15 | 0.25 | 98 |
| 770 | 0.48 | 0.21 | 0.30 | 107 |
| 771 | 0.00 | 0.00 | 0.00 | 103 |
| 772 | 0.00 | 0.00 | 0.00 | 96 |
| 773 | 0.00 | 0.00 | 0.00 | 106 |
| 774 | 0.76 | 0.33 | 0.46 | 97 |
| 775 | 0.27 | 0.03 | 0.06 | 91 |
| 776 | 0.00 | 0.00 | 0.00 | 101 |
| 777 | 0.76 | 0.38 | 0.50 | 109 |
| 778 | 0.00 | 0.00 | 0.00 | 104 |
| 779 | 0.33 | 0.08 | 0.13 | 116 |
| 780 | 0.00 | 0.00 | 0.00 | 102 |
| 781 | 0.85 | 0.26 | 0.40 | 106 |
| 782 | 0.64 | 0.15 | 0.24 | 108 |
| 783 | 0.80 | 0.08 | 0.15 | 95 |
| 784 | 0.91 | 0.36 | 0.52 | 108 |
| 785 | 0.94 | 0.43 | 0.59 | 113 |
| 786 | 0.40 | 0.06 | 0.10 | 109 |
| 787 | 0.78 | 0.41 | 0.54 | 112 |
| 788 | 0.00 | 0.00 | 0.00 | 104 |
| 789 | 0.43 | 0.17 | 0.25 | 92 |
| 790 | 0.44 | 0.06 | 0.11 | 116 |
| 791 | 0.29 | 0.04 | 0.07 | 96 |
| 792 | 0.58 | 0.15 | 0.24 | 118 |
| 793 | 0.64 | 0.27 | 0.38 | 106 |
| 794 | 0.26 | 0.06 | 0.10 | 93 |
| 795 | 0.80 | 0.31 | 0.45 | 103 |
| 796 | 0.39 | 0.12 | 0.18 | 104 |
| 797 | 0.57 | 0.09 | 0.16 | 89 |
| 798 | 0.55 | 0.06 | 0.11 | 97 |
| 799 | 0.00 | 0.00 | 0.00 | 92 |
| 800 | 0.55 | 0.14 | 0.22 | 85 |
| 801 | 1.00 | 0.04 | 0.08 | 93 |
| 802 | 0.79 | 0.28 | 0.41 | 93 |
| 803 | 0.36 | 0.13 | 0.19 | 102 |
| 804 | 0.65 | 0.12 | 0.20 | 108 |
| 805 | 0.87 | 0.37 | 0.52 | 111 |
| 806 | 0.61 | 0.14 | 0.23 | 98 |
| 807 | 0.20 | 0.03 | 0.06 | 94 |
| 808 | 0.15 | 0.02 | 0.04 | 84 |
| 809 | 0.84 | 0.32 | 0.46 | 100 |
| 810 | 0.22 | 0.02 | 0.04 | 92 |
| 811 | 0.37 | 0.11 | 0.17 | 88 |
| 812 | 0.39 | 0.13 | 0.20 | 104 |
| 813 | 0.50 | 0.04 | 0.08 | 90 |
| 814 | 0.38 | 0.07 | 0.12 | 109 |
| 815 | 0.23 | 0.04 | 0.06 | 81 |
| 816 | 0.70 | 0.22 | 0.33 | 96 |
| 817 | 0.98 | 0.53 | 0.69 | 88 |
| 818 | 0.56 | 0.24 | 0.33 | 101 |
| 819 | 0.94 | 0.45 | 0.61 | 103 |
| 820 | 0.00 | 0.00 | 0.00 | 94 |
| 821 | 0.72 | 0.17 | 0.27 | 108 |
| 822 | 0.29 | 0.06 | 0.09 | 90 |
| 823 | 0.81 | 0.44 | 0.57 | 97 |
| 824 | 0.50 | 0.02 | 0.04 | 90 |
| 825 | 0.52 | 0.23 | 0.32 | 102 |
| 826 | 0.12 | 0.01 | 0.02 | 85 |
| 827 | 0.20 | 0.02 | 0.03 | 109 |
| 828 | 0.30 | 0.03 | 0.05 | 103 |
| 829 | 0.98 | 0.40 | 0.56 | 106 |
| 830 | 0.88 | 0.26 | 0.40 | 108 |
| 831 | 0.50 | 0.04 | 0.07 | 84 |

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|-----|------|------|------|-----|
| 831 | 0.50 | 0.04 | 0.07 | 84 |
| 832 | 0.00 | 0.00 | 0.00 | 98 |
| 833 | 0.77 | 0.26 | 0.39 | 92 |
| 834 | 0.50 | 0.10 | 0.17 | 91 |
| 835 | 0.87 | 0.28 | 0.43 | 92 |
| 836 | 0.28 | 0.07 | 0.11 | 104 |
| 837 | 0.63 | 0.24 | 0.34 | 102 |
| 838 | 0.22 | 0.07 | 0.11 | 111 |
| 839 | 0.00 | 0.00 | 0.00 | 96 |
| 840 | 0.41 | 0.15 | 0.22 | 86 |
| 841 | 0.34 | 0.10 | 0.16 | 105 |
| 842 | 0.20 | 0.01 | 0.02 | 92 |
| 843 | 0.39 | 0.16 | 0.23 | 86 |
| 844 | 0.00 | 0.00 | 0.00 | 108 |
| 845 | 0.45 | 0.06 | 0.11 | 82 |
| 846 | 0.22 | 0.04 | 0.07 | 101 |
| 847 | 0.97 | 0.60 | 0.74 | 94 |
| 848 | 1.00 | 0.41 | 0.58 | 101 |
| 849 | 0.39 | 0.14 | 0.20 | 88 |
| 850 | 0.88 | 0.36 | 0.51 | 81 |
| 851 | 0.79 | 0.10 | 0.18 | 109 |
| 852 | 0.45 | 0.13 | 0.20 | 101 |
| 853 | 0.25 | 0.03 | 0.06 | 91 |
| 854 | 0.29 | 0.06 | 0.10 | 95 |
| 855 | 0.20 | 0.01 | 0.02 | 99 |
| 856 | 0.14 | 0.01 | 0.02 | 79 |
| 857 | 0.67 | 0.32 | 0.43 | 91 |
| 858 | 0.00 | 0.00 | 0.00 | 89 |
| 859 | 0.42 | 0.09 | 0.15 | 91 |
| 860 | 0.49 | 0.19 | 0.28 | 88 |
| 861 | 0.32 | 0.07 | 0.11 | 101 |
| 862 | 0.51 | 0.30 | 0.37 | 81 |
| 863 | 0.69 | 0.20 | 0.31 | 101 |
| 864 | 0.28 | 0.11 | 0.16 | 80 |
| 865 | 0.00 | 0.00 | 0.00 | 97 |
| 866 | 0.88 | 0.46 | 0.60 | 94 |
| 867 | 0.00 | 0.00 | 0.00 | 97 |
| 868 | 0.29 | 0.07 | 0.11 | 91 |
| 869 | 0.35 | 0.09 | 0.14 | 88 |
| 870 | 0.53 | 0.25 | 0.34 | 112 |
| 871 | 0.93 | 0.57 | 0.71 | 94 |
| 872 | 0.00 | 0.00 | 0.00 | 84 |
| 873 | 0.89 | 0.53 | 0.66 | 74 |
| 874 | 0.91 | 0.53 | 0.67 | 80 |
| 875 | 0.46 | 0.23 | 0.31 | 79 |
| 876 | 0.56 | 0.07 | 0.12 | 71 |
| 877 | 0.77 | 0.26 | 0.39 | 92 |
| 878 | 1.00 | 0.08 | 0.15 | 99 |
| 879 | 0.56 | 0.14 | 0.23 | 98 |
| 880 | 0.37 | 0.18 | 0.24 | 82 |
| 881 | 0.70 | 0.35 | 0.47 | 80 |
| 882 | 0.91 | 0.55 | 0.69 | 94 |
| 883 | 0.07 | 0.01 | 0.02 | 102 |
| 884 | 0.88 | 0.22 | 0.35 | 95 |
| 885 | 0.91 | 0.57 | 0.70 | 87 |
| 886 | 0.20 | 0.01 | 0.02 | 88 |
| 887 | 0.41 | 0.08 | 0.13 | 90 |
| 888 | 0.84 | 0.46 | 0.60 | 104 |
| 889 | 0.20 | 0.01 | 0.02 | 93 |
| 890 | 0.14 | 0.02 | 0.04 | 83 |
| 891 | 0.00 | 0.00 | 0.00 | 92 |
| 892 | 0.58 | 0.17 | 0.26 | 88 |
| 893 | 0.00 | 0.00 | 0.00 | 74 |
| 894 | 1.00 | 0.40 | 0.57 | 98 |
| 895 | 0.47 | 0.22 | 0.30 | 73 |
| 896 | 0.00 | 0.00 | 0.00 | 87 |
| 897 | 0.29 | 0.03 | 0.05 | 73 |
| 898 | 0.58 | 0.22 | 0.32 | 86 |
| 899 | 0.24 | 0.08 | 0.12 | 100 |
| 900 | 0.43 | 0.14 | 0.21 | 93 |
| 901 | 0.82 | 0.36 | 0.50 | 86 |
| 902 | 0.38 | 0.07 | 0.12 | 107 |
| 903 | 0.43 | 0.03 | 0.06 | 97 |
| 904 | 0.52 | 0.17 | 0.26 | 88 |
| 905 | 0.00 | 0.00 | 0.00 | 94 |
| 906 | 0.14 | 0.02 | 0.04 | 83 |
| 907 | 0.00 | 0.00 | 0.00 | 85 |

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|-----|------|------|------|----|
| 908 | 0.00 | 0.00 | 0.00 | 90 |
| 909 | 0.14 | 0.01 | 0.02 | 83 |
| 910 | 0.60 | 0.07 | 0.13 | 83 |
| 911 | 0.19 | 0.03 | 0.06 | 87 |
| 912 | 0.94 | 0.38 | 0.54 | 87 |
| 913 | 0.56 | 0.10 | 0.18 | 86 |
| 914 | 0.52 | 0.16 | 0.25 | 91 |
| 915 | 0.25 | 0.02 | 0.04 | 87 |
| 916 | 0.00 | 0.00 | 0.00 | 92 |
| 917 | 0.00 | 0.00 | 0.00 | 92 |
| 918 | 0.81 | 0.37 | 0.51 | 78 |
| 919 | 0.44 | 0.10 | 0.16 | 81 |
| 920 | 0.00 | 0.00 | 0.00 | 87 |
| 921 | 0.00 | 0.00 | 0.00 | 95 |
| 922 | 0.85 | 0.27 | 0.41 | 82 |
| 923 | 0.33 | 0.02 | 0.04 | 89 |
| 924 | 0.00 | 0.00 | 0.00 | 73 |
| 925 | 0.41 | 0.09 | 0.14 | 82 |
| 926 | 0.43 | 0.03 | 0.06 | 91 |
| 927 | 0.38 | 0.10 | 0.15 | 83 |
| 928 | 0.33 | 0.03 | 0.05 | 79 |
| 929 | 0.55 | 0.07 | 0.12 | 89 |
| 930 | 0.29 | 0.07 | 0.11 | 85 |
| 931 | 0.00 | 0.00 | 0.00 | 95 |
| 932 | 0.25 | 0.01 | 0.02 | 80 |
| 933 | 0.50 | 0.07 | 0.12 | 72 |
| 934 | 0.64 | 0.29 | 0.40 | 79 |
| 935 | 0.52 | 0.15 | 0.23 | 75 |
| 936 | 0.70 | 0.22 | 0.34 | 85 |
| 937 | 0.47 | 0.09 | 0.16 | 75 |
| 938 | 0.23 | 0.09 | 0.13 | 69 |
| 939 | 0.00 | 0.00 | 0.00 | 85 |
| 940 | 0.11 | 0.01 | 0.02 | 72 |
| 941 | 0.00 | 0.00 | 0.00 | 69 |
| 942 | 0.44 | 0.09 | 0.14 | 94 |
| 943 | 0.00 | 0.00 | 0.00 | 85 |
| 944 | 0.94 | 0.36 | 0.52 | 89 |
| 945 | 0.19 | 0.04 | 0.06 | 77 |
| 946 | 0.78 | 0.15 | 0.25 | 93 |
| 947 | 0.00 | 0.00 | 0.00 | 81 |
| 948 | 0.95 | 0.50 | 0.66 | 78 |
| 949 | 0.00 | 0.00 | 0.00 | 75 |
| 950 | 0.00 | 0.00 | 0.00 | 80 |
| 951 | 0.12 | 0.01 | 0.02 | 88 |
| 952 | 0.29 | 0.03 | 0.05 | 80 |
| 953 | 1.00 | 0.71 | 0.83 | 85 |
| 954 | 0.83 | 0.55 | 0.66 | 71 |
| 955 | 0.00 | 0.00 | 0.00 | 80 |
| 956 | 0.81 | 0.37 | 0.51 | 68 |
| 957 | 0.87 | 0.52 | 0.65 | 75 |
| 958 | 0.43 | 0.13 | 0.20 | 90 |
| 959 | 0.81 | 0.15 | 0.25 | 87 |
| 960 | 0.89 | 0.38 | 0.53 | 87 |
| 961 | 0.74 | 0.29 | 0.42 | 68 |
| 962 | 0.65 | 0.26 | 0.37 | 86 |
| 963 | 0.57 | 0.19 | 0.28 | 85 |
| 964 | 0.43 | 0.15 | 0.23 | 78 |
| 965 | 0.76 | 0.44 | 0.56 | 88 |
| 966 | 0.93 | 0.46 | 0.61 | 85 |
| 967 | 0.52 | 0.23 | 0.32 | 70 |
| 968 | 0.33 | 0.04 | 0.07 | 82 |
| 969 | 0.88 | 0.47 | 0.61 | 92 |
| 970 | 0.31 | 0.05 | 0.09 | 73 |
| 971 | 0.00 | 0.00 | 0.00 | 77 |
| 972 | 0.46 | 0.16 | 0.24 | 82 |
| 973 | 0.80 | 0.10 | 0.18 | 80 |
| 974 | 0.12 | 0.01 | 0.02 | 83 |
| 975 | 0.98 | 0.58 | 0.73 | 76 |
| 976 | 0.00 | 0.00 | 0.00 | 85 |
| 977 | 0.00 | 0.00 | 0.00 | 65 |
| 978 | 0.57 | 0.11 | 0.19 | 72 |
| 979 | 0.33 | 0.02 | 0.04 | 85 |
| 980 | 0.23 | 0.05 | 0.08 | 64 |
| 981 | 0.25 | 0.03 | 0.05 | 76 |
| 982 | 0.58 | 0.07 | 0.13 | 96 |
| 983 | 0.94 | 0.31 | 0.46 | 94 |
| 984 | 0.29 | 0.02 | 0.04 | 87 |

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|------|------|------|------|----|
| 985 | 0.33 | 0.01 | 0.03 | 75 |
| 986 | 0.00 | 0.00 | 0.00 | 79 |
| 987 | 0.00 | 0.00 | 0.00 | 86 |
| 988 | 0.50 | 0.01 | 0.02 | 88 |
| 989 | 0.00 | 0.00 | 0.00 | 84 |
| 990 | 0.52 | 0.14 | 0.22 | 95 |
| 991 | 0.37 | 0.15 | 0.22 | 71 |
| 992 | 0.57 | 0.38 | 0.46 | 68 |
| 993 | 0.00 | 0.00 | 0.00 | 75 |
| 994 | 0.00 | 0.00 | 0.00 | 90 |
| 995 | 0.95 | 0.43 | 0.60 | 83 |
| 996 | 0.89 | 0.43 | 0.58 | 79 |
| 997 | 0.71 | 0.08 | 0.14 | 64 |
| 998 | 0.27 | 0.04 | 0.07 | 74 |
| 999 | 0.81 | 0.36 | 0.50 | 81 |
| 1000 | 0.00 | 0.00 | 0.00 | 74 |
| 1001 | 0.14 | 0.02 | 0.03 | 62 |
| 1002 | 0.67 | 0.25 | 0.37 | 71 |
| 1003 | 0.00 | 0.00 | 0.00 | 72 |
| 1004 | 0.50 | 0.08 | 0.14 | 75 |
| 1005 | 0.93 | 0.53 | 0.67 | 72 |
| 1006 | 0.52 | 0.15 | 0.23 | 81 |
| 1007 | 0.00 | 0.00 | 0.00 | 74 |
| 1008 | 0.17 | 0.01 | 0.03 | 72 |
| 1009 | 0.00 | 0.00 | 0.00 | 75 |
| 1010 | 0.47 | 0.16 | 0.24 | 91 |
| 1011 | 0.59 | 0.18 | 0.27 | 90 |
| 1012 | 0.62 | 0.25 | 0.36 | 80 |
| 1013 | 0.00 | 0.00 | 0.00 | 88 |
| 1014 | 0.80 | 0.06 | 0.11 | 71 |
| 1015 | 0.57 | 0.11 | 0.18 | 74 |
| 1016 | 0.88 | 0.22 | 0.35 | 68 |
| 1017 | 0.70 | 0.39 | 0.50 | 71 |
| 1018 | 0.65 | 0.21 | 0.32 | 80 |
| 1019 | 0.00 | 0.00 | 0.00 | 83 |
| 1020 | 0.46 | 0.08 | 0.14 | 74 |
| 1021 | 0.93 | 0.49 | 0.64 | 78 |
| 1022 | 0.86 | 0.32 | 0.47 | 77 |
| 1023 | 0.12 | 0.01 | 0.02 | 78 |
| 1024 | 0.68 | 0.31 | 0.43 | 67 |
| 1025 | 0.50 | 0.01 | 0.02 | 80 |
| 1026 | 0.69 | 0.23 | 0.35 | 77 |
| 1027 | 0.80 | 0.32 | 0.46 | 88 |
| 1028 | 0.24 | 0.06 | 0.09 | 70 |
| 1029 | 0.00 | 0.00 | 0.00 | 79 |
| 1030 | 0.33 | 0.07 | 0.12 | 67 |
| 1031 | 0.88 | 0.47 | 0.61 | 75 |
| 1032 | 0.56 | 0.28 | 0.38 | 64 |
| 1033 | 0.88 | 0.21 | 0.34 | 70 |
| 1034 | 0.17 | 0.06 | 0.09 | 69 |
| 1035 | 0.44 | 0.10 | 0.16 | 72 |
| 1036 | 0.30 | 0.04 | 0.07 | 79 |
| 1037 | 0.24 | 0.05 | 0.08 | 84 |
| 1038 | 0.00 | 0.00 | 0.00 | 87 |
| 1039 | 0.68 | 0.35 | 0.46 | 65 |
| 1040 | 0.72 | 0.36 | 0.48 | 73 |
| 1041 | 0.00 | 0.00 | 0.00 | 77 |
| 1042 | 0.27 | 0.05 | 0.09 | 77 |
| 1043 | 0.16 | 0.07 | 0.09 | 60 |
| 1044 | 0.00 | 0.00 | 0.00 | 73 |
| 1045 | 0.00 | 0.00 | 0.00 | 67 |
| 1046 | 0.43 | 0.04 | 0.07 | 83 |
| 1047 | 1.00 | 0.40 | 0.57 | 70 |
| 1048 | 1.00 | 0.02 | 0.03 | 65 |
| 1049 | 0.62 | 0.14 | 0.22 | 74 |
| 1050 | 0.50 | 0.02 | 0.03 | 62 |
| 1051 | 0.58 | 0.16 | 0.25 | 70 |
| 1052 | 0.00 | 0.00 | 0.00 | 69 |
| 1053 | 0.25 | 0.08 | 0.12 | 72 |
| 1054 | 0.44 | 0.15 | 0.23 | 72 |
| 1055 | 0.90 | 0.52 | 0.66 | 73 |
| 1056 | 0.74 | 0.34 | 0.46 | 92 |
| 1057 | 0.67 | 0.05 | 0.10 | 73 |
| 1058 | 0.31 | 0.12 | 0.17 | 68 |
| 1059 | 0.00 | 0.00 | 0.00 | 71 |
| 1060 | 0.33 | 0.10 | 0.16 | 69 |
| 1061 | 0.85 | 0.24 | 0.37 | 72 |

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|------|------|------|------|----|
| 1062 | 0.44 | 0.29 | 0.35 | 66 |
| 1063 | 0.14 | 0.01 | 0.02 | 84 |
| 1064 | 0.00 | 0.00 | 0.00 | 78 |
| 1065 | 0.81 | 0.45 | 0.58 | 66 |
| 1066 | 0.21 | 0.04 | 0.07 | 69 |
| 1067 | 0.11 | 0.01 | 0.02 | 80 |
| 1068 | 1.00 | 0.01 | 0.03 | 71 |
| 1069 | 0.52 | 0.18 | 0.27 | 60 |
| 1070 | 0.20 | 0.01 | 0.02 | 77 |
| 1071 | 0.88 | 0.29 | 0.43 | 80 |
| 1072 | 0.25 | 0.06 | 0.10 | 80 |
| 1073 | 0.00 | 0.00 | 0.00 | 74 |
| 1074 | 0.21 | 0.04 | 0.07 | 69 |
| 1075 | 0.44 | 0.07 | 0.12 | 56 |
| 1076 | 0.32 | 0.13 | 0.18 | 63 |
| 1077 | 0.58 | 0.19 | 0.29 | 58 |
| 1078 | 0.00 | 0.00 | 0.00 | 63 |
| 1079 | 0.83 | 0.24 | 0.37 | 85 |
| 1080 | 0.52 | 0.15 | 0.24 | 78 |
| 1081 | 0.00 | 0.00 | 0.00 | 84 |
| 1082 | 0.74 | 0.42 | 0.54 | 73 |
| 1083 | 0.09 | 0.02 | 0.03 | 55 |
| 1084 | 0.51 | 0.26 | 0.34 | 70 |
| 1085 | 0.69 | 0.26 | 0.38 | 85 |
| 1086 | 0.00 | 0.00 | 0.00 | 68 |
| 1087 | 0.40 | 0.02 | 0.05 | 82 |
| 1088 | 0.00 | 0.00 | 0.00 | 67 |
| 1089 | 0.81 | 0.44 | 0.57 | 78 |
| 1090 | 0.70 | 0.11 | 0.19 | 64 |
| 1091 | 0.35 | 0.09 | 0.15 | 75 |
| 1092 | 0.38 | 0.16 | 0.23 | 61 |
| 1093 | 0.65 | 0.17 | 0.28 | 63 |
| 1094 | 0.00 | 0.00 | 0.00 | 77 |
| 1095 | 0.36 | 0.13 | 0.19 | 70 |
| 1096 | 0.86 | 0.34 | 0.48 | 71 |
| 1097 | 0.44 | 0.12 | 0.18 | 69 |
| 1098 | 0.58 | 0.22 | 0.32 | 63 |
| 1099 | 0.80 | 0.49 | 0.61 | 67 |
| 1100 | 0.57 | 0.06 | 0.11 | 68 |
| 1101 | 0.00 | 0.00 | 0.00 | 57 |
| 1102 | 0.90 | 0.54 | 0.67 | 69 |
| 1103 | 0.14 | 0.01 | 0.03 | 70 |
| 1104 | 0.40 | 0.05 | 0.09 | 75 |
| 1105 | 0.21 | 0.05 | 0.08 | 62 |
| 1106 | 0.25 | 0.01 | 0.03 | 72 |
| 1107 | 0.00 | 0.00 | 0.00 | 76 |
| 1108 | 0.00 | 0.00 | 0.00 | 72 |
| 1109 | 0.00 | 0.00 | 0.00 | 86 |
| 1110 | 0.85 | 0.43 | 0.57 | 82 |
| 1111 | 0.00 | 0.00 | 0.00 | 70 |
| 1112 | 0.50 | 0.01 | 0.03 | 72 |
| 1113 | 0.65 | 0.24 | 0.35 | 70 |
| 1114 | 0.20 | 0.02 | 0.03 | 57 |
| 1115 | 0.25 | 0.04 | 0.07 | 68 |
| 1116 | 0.00 | 0.00 | 0.00 | 64 |
| 1117 | 0.29 | 0.03 | 0.05 | 66 |
| 1118 | 0.50 | 0.11 | 0.18 | 81 |
| 1119 | 0.68 | 0.24 | 0.35 | 63 |
| 1120 | 0.15 | 0.06 | 0.09 | 62 |
| 1121 | 0.00 | 0.00 | 0.00 | 79 |
| 1122 | 0.80 | 0.21 | 0.34 | 56 |
| 1123 | 0.24 | 0.06 | 0.09 | 71 |
| 1124 | 0.00 | 0.00 | 0.00 | 78 |
| 1125 | 0.80 | 0.06 | 0.11 | 66 |
| 1126 | 0.00 | 0.00 | 0.00 | 62 |
| 1127 | 0.75 | 0.18 | 0.29 | 66 |
| 1128 | 0.00 | 0.00 | 0.00 | 70 |
| 1129 | 0.94 | 0.46 | 0.62 | 65 |
| 1130 | 0.85 | 0.37 | 0.51 | 63 |
| 1131 | 0.89 | 0.52 | 0.66 | 79 |
| 1132 | 0.38 | 0.07 | 0.12 | 67 |
| 1133 | 0.00 | 0.00 | 0.00 | 64 |
| 1134 | 0.20 | 0.03 | 0.05 | 67 |
| 1135 | 0.73 | 0.21 | 0.32 | 78 |
| 1136 | 0.44 | 0.07 | 0.13 | 54 |
| 1137 | 0.00 | 0.00 | 0.00 | 64 |
| 1138 | 0.39 | 0.09 | 0.15 | 76 |

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|------|------|------|------|----|
| 1139 | 0.00 | 0.00 | 0.00 | 64 |
| 1140 | 0.00 | 0.00 | 0.00 | 67 |
| 1141 | 0.06 | 0.01 | 0.02 | 70 |
| 1142 | 0.44 | 0.06 | 0.11 | 66 |
| 1143 | 0.74 | 0.40 | 0.52 | 62 |
| 1144 | 0.00 | 0.00 | 0.00 | 67 |
| 1145 | 0.43 | 0.06 | 0.11 | 47 |
| 1146 | 0.35 | 0.09 | 0.14 | 69 |
| 1147 | 0.71 | 0.40 | 0.51 | 63 |
| 1148 | 0.37 | 0.10 | 0.16 | 70 |
| 1149 | 0.41 | 0.13 | 0.19 | 55 |
| 1150 | 0.57 | 0.33 | 0.42 | 49 |
| 1151 | 0.57 | 0.07 | 0.12 | 58 |
| 1152 | 0.00 | 0.00 | 0.00 | 65 |
| 1153 | 0.00 | 0.00 | 0.00 | 67 |
| 1154 | 0.00 | 0.00 | 0.00 | 66 |
| 1155 | 0.94 | 0.52 | 0.67 | 62 |
| 1156 | 0.62 | 0.07 | 0.12 | 72 |
| 1157 | 0.90 | 0.42 | 0.57 | 62 |
| 1158 | 0.00 | 0.00 | 0.00 | 60 |
| 1159 | 0.43 | 0.16 | 0.23 | 64 |
| 1160 | 0.30 | 0.05 | 0.09 | 59 |
| 1161 | 0.10 | 0.02 | 0.03 | 55 |
| 1162 | 0.51 | 0.29 | 0.37 | 63 |
| 1163 | 0.77 | 0.36 | 0.49 | 64 |
| 1164 | 0.00 | 0.00 | 0.00 | 54 |
| 1165 | 0.32 | 0.10 | 0.15 | 62 |
| 1166 | 0.00 | 0.00 | 0.00 | 73 |
| 1167 | 0.46 | 0.21 | 0.29 | 56 |
| 1168 | 0.33 | 0.03 | 0.06 | 60 |
| 1169 | 0.35 | 0.11 | 0.17 | 63 |
| 1170 | 0.80 | 0.05 | 0.10 | 73 |
| 1171 | 0.60 | 0.31 | 0.41 | 58 |
| 1172 | 0.29 | 0.03 | 0.06 | 59 |
| 1173 | 0.23 | 0.04 | 0.07 | 68 |
| 1174 | 0.45 | 0.14 | 0.22 | 63 |
| 1175 | 0.98 | 0.60 | 0.74 | 70 |
| 1176 | 0.87 | 0.42 | 0.57 | 62 |
| 1177 | 0.00 | 0.00 | 0.00 | 62 |
| 1178 | 0.00 | 0.00 | 0.00 | 45 |
| 1179 | 0.97 | 0.37 | 0.53 | 79 |
| 1180 | 0.70 | 0.12 | 0.21 | 58 |
| 1181 | 0.88 | 0.30 | 0.44 | 71 |
| 1182 | 0.12 | 0.02 | 0.03 | 56 |
| 1183 | 0.00 | 0.00 | 0.00 | 63 |
| 1184 | 0.00 | 0.00 | 0.00 | 72 |
| 1185 | 0.33 | 0.04 | 0.06 | 56 |
| 1186 | 0.82 | 0.19 | 0.30 | 75 |
| 1187 | 0.17 | 0.02 | 0.03 | 57 |
| 1188 | 0.45 | 0.08 | 0.14 | 60 |
| 1189 | 0.25 | 0.02 | 0.03 | 65 |
| 1190 | 0.50 | 0.01 | 0.03 | 68 |
| 1191 | 0.59 | 0.16 | 0.25 | 62 |
| 1192 | 0.00 | 0.00 | 0.00 | 68 |
| 1193 | 0.00 | 0.00 | 0.00 | 66 |
| 1194 | 0.40 | 0.04 | 0.06 | 57 |
| 1195 | 0.11 | 0.01 | 0.03 | 67 |
| 1196 | 0.88 | 0.10 | 0.18 | 69 |
| 1197 | 0.36 | 0.06 | 0.10 | 66 |
| 1198 | 0.40 | 0.03 | 0.06 | 62 |
| 1199 | 0.33 | 0.08 | 0.14 | 59 |
| 1200 | 0.92 | 0.21 | 0.34 | 57 |
| 1201 | 1.00 | 0.31 | 0.47 | 62 |
| 1202 | 0.87 | 0.47 | 0.61 | 58 |
| 1203 | 0.00 | 0.00 | 0.00 | 67 |
| 1204 | 0.63 | 0.35 | 0.45 | 74 |
| 1205 | 0.50 | 0.02 | 0.04 | 55 |
| 1206 | 0.55 | 0.09 | 0.16 | 65 |
| 1207 | 0.47 | 0.11 | 0.17 | 75 |
| 1208 | 0.63 | 0.20 | 0.30 | 61 |
| 1209 | 0.69 | 0.39 | 0.49 | 62 |
| 1210 | 0.14 | 0.02 | 0.03 | 59 |
| 1211 | 0.50 | 0.19 | 0.28 | 47 |
| 1212 | 0.00 | 0.00 | 0.00 | 59 |
| 1213 | 0.95 | 0.36 | 0.52 | 59 |
| 1214 | 1.00 | 0.03 | 0.05 | 74 |
| 1215 | 0.25 | 0.02 | 0.03 | 65 |

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|------|------|------|------|----|
| 1216 | 0.00 | 0.00 | 0.00 | 60 |
| 1217 | 0.53 | 0.19 | 0.27 | 54 |
| 1218 | 0.00 | 0.00 | 0.00 | 62 |
| 1219 | 0.93 | 0.68 | 0.79 | 78 |
| 1220 | 0.85 | 0.57 | 0.68 | 72 |
| 1221 | 0.75 | 0.35 | 0.48 | 60 |
| 1222 | 0.43 | 0.14 | 0.21 | 63 |
| 1223 | 0.00 | 0.00 | 0.00 | 66 |
| 1224 | 0.56 | 0.14 | 0.23 | 69 |
| 1225 | 0.00 | 0.00 | 0.00 | 69 |
| 1226 | 0.80 | 0.18 | 0.29 | 68 |
| 1227 | 0.53 | 0.17 | 0.26 | 58 |
| 1228 | 0.00 | 0.00 | 0.00 | 51 |
| 1229 | 0.00 | 0.00 | 0.00 | 59 |
| 1230 | 0.00 | 0.00 | 0.00 | 75 |
| 1231 | 0.50 | 0.11 | 0.18 | 64 |
| 1232 | 0.00 | 0.00 | 0.00 | 66 |
| 1233 | 0.29 | 0.03 | 0.06 | 58 |
| 1234 | 0.00 | 0.00 | 0.00 | 63 |
| 1235 | 0.06 | 0.02 | 0.03 | 62 |
| 1236 | 0.00 | 0.00 | 0.00 | 57 |
| 1237 | 1.00 | 0.01 | 0.03 | 77 |
| 1238 | 0.81 | 0.40 | 0.54 | 52 |
| 1239 | 0.86 | 0.30 | 0.45 | 63 |
| 1240 | 0.90 | 0.40 | 0.55 | 48 |
| 1241 | 0.00 | 0.00 | 0.00 | 71 |
| 1242 | 0.79 | 0.18 | 0.29 | 62 |
| 1243 | 0.43 | 0.10 | 0.16 | 61 |
| 1244 | 0.00 | 0.00 | 0.00 | 53 |
| 1245 | 0.09 | 0.01 | 0.02 | 75 |
| 1246 | 0.38 | 0.05 | 0.10 | 55 |
| 1247 | 0.50 | 0.02 | 0.04 | 55 |
| 1248 | 0.00 | 0.00 | 0.00 | 49 |
| 1249 | 0.33 | 0.05 | 0.09 | 74 |
| 1250 | 0.97 | 0.47 | 0.64 | 59 |
| 1251 | 0.38 | 0.14 | 0.21 | 56 |
| 1252 | 0.33 | 0.10 | 0.15 | 63 |
| 1253 | 0.59 | 0.21 | 0.31 | 48 |
| 1254 | 0.95 | 0.60 | 0.73 | 62 |
| 1255 | 0.00 | 0.00 | 0.00 | 69 |
| 1256 | 0.30 | 0.05 | 0.08 | 65 |
| 1257 | 0.00 | 0.00 | 0.00 | 62 |
| 1258 | 0.39 | 0.14 | 0.20 | 51 |
| 1259 | 0.62 | 0.12 | 0.21 | 64 |
| 1260 | 0.00 | 0.00 | 0.00 | 64 |
| 1261 | 0.00 | 0.00 | 0.00 | 63 |
| 1262 | 0.93 | 0.22 | 0.36 | 58 |
| 1263 | 0.36 | 0.07 | 0.12 | 54 |
| 1264 | 0.00 | 0.00 | 0.00 | 62 |
| 1265 | 0.00 | 0.00 | 0.00 | 59 |
| 1266 | 0.90 | 0.46 | 0.60 | 57 |
| 1267 | 0.14 | 0.02 | 0.03 | 51 |
| 1268 | 0.25 | 0.04 | 0.07 | 46 |
| 1269 | 0.97 | 0.53 | 0.68 | 55 |
| 1270 | 0.88 | 0.10 | 0.18 | 69 |
| 1271 | 0.60 | 0.14 | 0.22 | 65 |
| 1272 | 0.38 | 0.08 | 0.14 | 60 |
| 1273 | 0.35 | 0.10 | 0.16 | 59 |
| 1274 | 0.25 | 0.05 | 0.08 | 62 |
| 1275 | 0.00 | 0.00 | 0.00 | 52 |
| 1276 | 0.40 | 0.07 | 0.12 | 57 |
| 1277 | 0.29 | 0.03 | 0.06 | 61 |
| 1278 | 0.70 | 0.11 | 0.19 | 62 |
| 1279 | 0.93 | 0.57 | 0.71 | 47 |
| 1280 | 0.25 | 0.03 | 0.06 | 63 |
| 1281 | 0.58 | 0.11 | 0.19 | 61 |
| 1282 | 0.60 | 0.18 | 0.28 | 50 |
| 1283 | 0.27 | 0.08 | 0.12 | 52 |
| 1284 | 0.68 | 0.23 | 0.35 | 56 |
| 1285 | 0.67 | 0.04 | 0.07 | 57 |
| 1286 | 0.71 | 0.10 | 0.18 | 49 |
| 1287 | 0.57 | 0.14 | 0.23 | 56 |
| 1288 | 0.57 | 0.27 | 0.36 | 49 |
| 1289 | 0.00 | 0.00 | 0.00 | 55 |
| 1290 | 0.00 | 0.00 | 0.00 | 68 |
| 1291 | 0.90 | 0.50 | 0.64 | 52 |
| 1292 | 0.29 | 0.03 | 0.05 | 73 |

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|------|------|------|------|----|
| 1293 | 0.88 | 0.43 | 0.58 | 67 |
| 1294 | 0.00 | 0.00 | 0.00 | 54 |
| 1295 | 0.25 | 0.06 | 0.10 | 34 |
| 1296 | 1.00 | 0.34 | 0.51 | 56 |
| 1297 | 0.00 | 0.00 | 0.00 | 66 |
| 1298 | 1.00 | 0.03 | 0.06 | 68 |
| 1299 | 0.57 | 0.06 | 0.11 | 64 |
| 1300 | 0.91 | 0.50 | 0.65 | 64 |
| 1301 | 0.00 | 0.00 | 0.00 | 48 |
| 1302 | 0.00 | 0.00 | 0.00 | 63 |
| 1303 | 0.00 | 0.00 | 0.00 | 62 |
| 1304 | 0.50 | 0.02 | 0.04 | 54 |
| 1305 | 0.23 | 0.10 | 0.14 | 51 |
| 1306 | 0.22 | 0.07 | 0.11 | 55 |
| 1307 | 0.00 | 0.00 | 0.00 | 53 |
| 1308 | 0.61 | 0.31 | 0.41 | 54 |
| 1309 | 0.67 | 0.16 | 0.26 | 61 |
| 1310 | 0.00 | 0.00 | 0.00 | 42 |
| 1311 | 0.25 | 0.02 | 0.03 | 55 |
| 1312 | 0.00 | 0.00 | 0.00 | 64 |
| 1313 | 0.00 | 0.00 | 0.00 | 58 |
| 1314 | 0.90 | 0.36 | 0.51 | 50 |
| 1315 | 0.00 | 0.00 | 0.00 | 57 |
| 1316 | 0.59 | 0.22 | 0.32 | 46 |
| 1317 | 1.00 | 0.05 | 0.09 | 42 |
| 1318 | 0.50 | 0.22 | 0.30 | 74 |
| 1319 | 0.00 | 0.00 | 0.00 | 55 |
| 1320 | 0.00 | 0.00 | 0.00 | 59 |
| 1321 | 1.00 | 0.02 | 0.04 | 56 |
| 1322 | 0.00 | 0.00 | 0.00 | 61 |
| 1323 | 0.00 | 0.00 | 0.00 | 43 |
| 1324 | 0.47 | 0.18 | 0.26 | 45 |
| 1325 | 0.62 | 0.09 | 0.16 | 56 |
| 1326 | 0.72 | 0.35 | 0.47 | 52 |
| 1327 | 0.52 | 0.20 | 0.29 | 56 |
| 1328 | 0.00 | 0.00 | 0.00 | 56 |
| 1329 | 0.56 | 0.10 | 0.17 | 51 |
| 1330 | 0.00 | 0.00 | 0.00 | 54 |
| 1331 | 0.50 | 0.12 | 0.19 | 51 |
| 1332 | 0.00 | 0.00 | 0.00 | 48 |
| 1333 | 0.00 | 0.00 | 0.00 | 51 |
| 1334 | 0.00 | 0.00 | 0.00 | 38 |
| 1335 | 0.91 | 0.42 | 0.58 | 50 |
| 1336 | 0.00 | 0.00 | 0.00 | 48 |
| 1337 | 0.38 | 0.10 | 0.15 | 52 |
| 1338 | 0.58 | 0.21 | 0.31 | 52 |
| 1339 | 0.25 | 0.04 | 0.06 | 56 |
| 1340 | 0.50 | 0.04 | 0.07 | 52 |
| 1341 | 1.00 | 0.02 | 0.03 | 58 |
| 1342 | 0.00 | 0.00 | 0.00 | 56 |
| 1343 | 0.33 | 0.03 | 0.06 | 62 |
| 1344 | 0.93 | 0.32 | 0.47 | 44 |
| 1345 | 0.38 | 0.06 | 0.10 | 53 |
| 1346 | 0.20 | 0.02 | 0.03 | 53 |
| 1347 | 0.00 | 0.00 | 0.00 | 52 |
| 1348 | 0.50 | 0.10 | 0.17 | 58 |
| 1349 | 0.64 | 0.36 | 0.46 | 50 |
| 1350 | 0.00 | 0.00 | 0.00 | 62 |
| 1351 | 0.96 | 0.39 | 0.55 | 59 |
| 1352 | 0.00 | 0.00 | 0.00 | 57 |
| 1353 | 0.63 | 0.24 | 0.35 | 50 |
| 1354 | 0.67 | 0.11 | 0.19 | 55 |
| 1355 | 0.00 | 0.00 | 0.00 | 55 |
| 1356 | 0.17 | 0.02 | 0.03 | 56 |
| 1357 | 0.16 | 0.08 | 0.11 | 38 |
| 1358 | 0.20 | 0.04 | 0.06 | 53 |
| 1359 | 1.00 | 0.23 | 0.37 | 44 |
| 1360 | 1.00 | 0.23 | 0.38 | 56 |
| 1361 | 0.25 | 0.04 | 0.06 | 56 |
| 1362 | 1.00 | 0.33 | 0.49 | 46 |
| 1363 | 0.73 | 0.22 | 0.34 | 49 |
| 1364 | 0.00 | 0.00 | 0.00 | 66 |
| 1365 | 0.33 | 0.05 | 0.09 | 60 |
| 1366 | 0.86 | 0.11 | 0.19 | 56 |
| 1367 | 0.00 | 0.00 | 0.00 | 63 |
| 1368 | 0.53 | 0.15 | 0.23 | 67 |
| 1369 | 1.00 | 0.44 | 0.61 | 59 |

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|------|------|------|------|----|
| 1370 | 0.94 | 0.33 | 0.48 | 49 |
| 1371 | 0.76 | 0.25 | 0.38 | 51 |
| 1372 | 0.20 | 0.02 | 0.04 | 50 |
| 1373 | 0.93 | 0.40 | 0.56 | 63 |
| 1374 | 0.20 | 0.02 | 0.03 | 55 |
| 1375 | 0.00 | 0.00 | 0.00 | 60 |
| 1376 | 0.52 | 0.18 | 0.27 | 60 |
| 1377 | 0.00 | 0.00 | 0.00 | 42 |
| 1378 | 0.94 | 0.30 | 0.45 | 54 |
| 1379 | 0.00 | 0.00 | 0.00 | 50 |
| 1380 | 0.00 | 0.00 | 0.00 | 45 |
| 1381 | 0.60 | 0.06 | 0.12 | 47 |
| 1382 | 0.11 | 0.02 | 0.03 | 54 |
| 1383 | 0.33 | 0.04 | 0.08 | 45 |
| 1384 | 0.00 | 0.00 | 0.00 | 52 |
| 1385 | 0.73 | 0.23 | 0.35 | 48 |
| 1386 | 0.60 | 0.06 | 0.11 | 50 |
| 1387 | 0.17 | 0.02 | 0.04 | 47 |
| 1388 | 0.75 | 0.16 | 0.26 | 57 |
| 1389 | 0.00 | 0.00 | 0.00 | 49 |
| 1390 | 0.55 | 0.27 | 0.36 | 44 |
| 1391 | 0.00 | 0.00 | 0.00 | 58 |
| 1392 | 0.77 | 0.19 | 0.30 | 54 |
| 1393 | 0.38 | 0.12 | 0.18 | 51 |
| 1394 | 0.50 | 0.02 | 0.04 | 51 |
| 1395 | 0.83 | 0.21 | 0.33 | 48 |
| 1396 | 0.67 | 0.13 | 0.22 | 61 |
| 1397 | 1.00 | 0.02 | 0.03 | 61 |
| 1398 | 0.62 | 0.15 | 0.24 | 55 |
| 1399 | 0.74 | 0.25 | 0.37 | 57 |
| 1400 | 0.50 | 0.06 | 0.11 | 49 |
| 1401 | 0.50 | 0.04 | 0.07 | 56 |
| 1402 | 0.54 | 0.13 | 0.22 | 52 |
| 1403 | 0.75 | 0.12 | 0.21 | 49 |
| 1404 | 0.92 | 0.80 | 0.86 | 41 |
| 1405 | 0.75 | 0.32 | 0.44 | 57 |
| 1406 | 0.33 | 0.02 | 0.04 | 54 |
| 1407 | 0.70 | 0.55 | 0.62 | 47 |
| 1408 | 0.38 | 0.07 | 0.12 | 41 |
| 1409 | 1.00 | 0.39 | 0.56 | 49 |
| 1410 | 1.00 | 0.44 | 0.61 | 48 |
| 1411 | 0.17 | 0.02 | 0.03 | 55 |
| 1412 | 0.73 | 0.13 | 0.23 | 60 |
| 1413 | 1.00 | 0.01 | 0.03 | 67 |
| 1414 | 0.00 | 0.00 | 0.00 | 50 |
| 1415 | 0.00 | 0.00 | 0.00 | 53 |
| 1416 | 0.40 | 0.10 | 0.16 | 59 |
| 1417 | 0.53 | 0.14 | 0.22 | 66 |
| 1418 | 0.67 | 0.04 | 0.08 | 50 |
| 1419 | 0.80 | 0.11 | 0.20 | 36 |
| 1420 | 0.30 | 0.06 | 0.11 | 47 |
| 1421 | 0.00 | 0.00 | 0.00 | 46 |
| 1422 | 0.38 | 0.10 | 0.16 | 51 |
| 1423 | 0.82 | 0.18 | 0.30 | 49 |
| 1424 | 0.50 | 0.07 | 0.12 | 56 |
| 1425 | 0.00 | 0.00 | 0.00 | 51 |
| 1426 | 0.67 | 0.04 | 0.07 | 53 |
| 1427 | 0.30 | 0.06 | 0.11 | 47 |
| 1428 | 0.00 | 0.00 | 0.00 | 39 |
| 1429 | 0.97 | 0.56 | 0.71 | 50 |
| 1430 | 0.86 | 0.20 | 0.33 | 59 |
| 1431 | 0.00 | 0.00 | 0.00 | 67 |
| 1432 | 0.00 | 0.00 | 0.00 | 53 |
| 1433 | 0.38 | 0.08 | 0.14 | 72 |
| 1434 | 0.62 | 0.10 | 0.17 | 51 |
| 1435 | 0.54 | 0.12 | 0.20 | 56 |
| 1436 | 0.67 | 0.11 | 0.18 | 56 |
| 1437 | 0.57 | 0.16 | 0.25 | 51 |
| 1438 | 0.00 | 0.00 | 0.00 | 46 |
| 1439 | 0.67 | 0.04 | 0.07 | 52 |
| 1440 | 0.00 | 0.00 | 0.00 | 41 |
| 1441 | 1.00 | 0.04 | 0.08 | 47 |
| 1442 | 1.00 | 0.02 | 0.04 | 45 |
| 1443 | 0.10 | 0.02 | 0.03 | 54 |
| 1444 | 0.15 | 0.04 | 0.06 | 52 |
| 1445 | 0.00 | 0.00 | 0.00 | 52 |
| 1446 | 0.61 | 0.25 | 0.35 | 44 |

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|------|------|------|------|----|
| 1447 | 1.00 | 0.17 | 0.29 | 47 |
| 1448 | 0.00 | 0.00 | 0.00 | 48 |
| 1449 | 0.33 | 0.02 | 0.03 | 56 |
| 1450 | 0.00 | 0.00 | 0.00 | 54 |
| 1451 | 0.12 | 0.02 | 0.03 | 65 |
| 1452 | 0.50 | 0.07 | 0.13 | 55 |
| 1453 | 0.29 | 0.07 | 0.11 | 61 |
| 1454 | 0.00 | 0.00 | 0.00 | 62 |
| 1455 | 0.65 | 0.22 | 0.33 | 49 |
| 1456 | 0.20 | 0.02 | 0.03 | 53 |
| 1457 | 0.62 | 0.31 | 0.41 | 42 |
| 1458 | 0.75 | 0.05 | 0.10 | 59 |
| 1459 | 0.00 | 0.00 | 0.00 | 49 |
| 1460 | 0.71 | 0.10 | 0.18 | 50 |
| 1461 | 0.00 | 0.00 | 0.00 | 45 |
| 1462 | 0.42 | 0.11 | 0.17 | 47 |
| 1463 | 0.71 | 0.33 | 0.45 | 45 |
| 1464 | 1.00 | 0.04 | 0.08 | 50 |
| 1465 | 0.33 | 0.05 | 0.08 | 62 |
| 1466 | 0.00 | 0.00 | 0.00 | 51 |
| 1467 | 0.33 | 0.02 | 0.03 | 62 |
| 1468 | 0.93 | 0.48 | 0.63 | 54 |
| 1469 | 0.50 | 0.11 | 0.17 | 38 |
| 1470 | 0.81 | 0.26 | 0.40 | 65 |
| 1471 | 1.00 | 0.29 | 0.45 | 52 |
| 1472 | 0.50 | 0.09 | 0.15 | 44 |
| 1473 | 0.17 | 0.04 | 0.06 | 50 |
| 1474 | 0.00 | 0.00 | 0.00 | 56 |
| 1475 | 0.00 | 0.00 | 0.00 | 58 |
| 1476 | 0.12 | 0.02 | 0.03 | 58 |
| 1477 | 0.00 | 0.00 | 0.00 | 39 |
| 1478 | 0.96 | 0.48 | 0.64 | 50 |
| 1479 | 0.00 | 0.00 | 0.00 | 49 |
| 1480 | 0.00 | 0.00 | 0.00 | 41 |
| 1481 | 0.83 | 0.33 | 0.47 | 57 |
| 1482 | 0.00 | 0.00 | 0.00 | 49 |
| 1483 | 0.00 | 0.00 | 0.00 | 49 |
| 1484 | 1.00 | 0.10 | 0.18 | 59 |
| 1485 | 0.93 | 0.28 | 0.43 | 47 |
| 1486 | 0.50 | 0.02 | 0.04 | 53 |
| 1487 | 0.00 | 0.00 | 0.00 | 42 |
| 1488 | 0.00 | 0.00 | 0.00 | 47 |
| 1489 | 0.33 | 0.02 | 0.04 | 52 |
| 1490 | 0.72 | 0.30 | 0.42 | 44 |
| 1491 | 0.00 | 0.00 | 0.00 | 47 |
| 1492 | 0.81 | 0.25 | 0.39 | 51 |
| 1493 | 0.00 | 0.00 | 0.00 | 39 |
| 1494 | 0.00 | 0.00 | 0.00 | 38 |
| 1495 | 0.40 | 0.12 | 0.19 | 49 |
| 1496 | 0.62 | 0.16 | 0.26 | 49 |
| 1497 | 0.00 | 0.00 | 0.00 | 51 |
| 1498 | 1.00 | 0.04 | 0.07 | 52 |
| 1499 | 0.50 | 0.06 | 0.11 | 48 |
| 1500 | 0.00 | 0.00 | 0.00 | 51 |
| 1501 | 0.25 | 0.02 | 0.03 | 56 |
| 1502 | 0.00 | 0.00 | 0.00 | 48 |
| 1503 | 0.82 | 0.48 | 0.61 | 58 |
| 1504 | 0.50 | 0.02 | 0.04 | 44 |
| 1505 | 0.00 | 0.00 | 0.00 | 45 |
| 1506 | 0.20 | 0.02 | 0.04 | 44 |
| 1507 | 0.00 | 0.00 | 0.00 | 55 |
| 1508 | 0.33 | 0.04 | 0.08 | 45 |
| 1509 | 0.62 | 0.17 | 0.27 | 46 |
| 1510 | 0.00 | 0.00 | 0.00 | 46 |
| 1511 | 0.00 | 0.00 | 0.00 | 43 |
| 1512 | 0.89 | 0.19 | 0.31 | 42 |
| 1513 | 0.00 | 0.00 | 0.00 | 44 |
| 1514 | 0.58 | 0.33 | 0.42 | 45 |
| 1515 | 1.00 | 0.48 | 0.65 | 42 |
| 1516 | 1.00 | 0.36 | 0.53 | 42 |
| 1517 | 0.22 | 0.10 | 0.14 | 49 |
| 1518 | 1.00 | 0.18 | 0.30 | 51 |
| 1519 | 0.50 | 0.02 | 0.04 | 47 |
| 1520 | 0.00 | 0.00 | 0.00 | 48 |
| 1521 | 0.00 | 0.00 | 0.00 | 54 |
| 1522 | 0.22 | 0.05 | 0.09 | 38 |
| 1523 | 0.00 | 0.00 | 0.00 | 44 |

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|------|------|------|------|----|
| 1524 | 0.67 | 0.04 | 0.07 | 55 |
| 1525 | 0.00 | 0.00 | 0.00 | 47 |
| 1526 | 0.00 | 0.00 | 0.00 | 55 |
| 1527 | 0.00 | 0.00 | 0.00 | 48 |
| 1528 | 0.67 | 0.04 | 0.07 | 54 |
| 1529 | 0.67 | 0.06 | 0.12 | 63 |
| 1530 | 0.77 | 0.25 | 0.38 | 40 |
| 1531 | 0.00 | 0.00 | 0.00 | 40 |
| 1532 | 0.22 | 0.04 | 0.07 | 48 |
| 1533 | 0.00 | 0.00 | 0.00 | 49 |
| 1534 | 0.00 | 0.00 | 0.00 | 45 |
| 1535 | 1.00 | 0.19 | 0.32 | 42 |
| 1536 | 1.00 | 0.06 | 0.11 | 54 |
| 1537 | 0.64 | 0.12 | 0.21 | 56 |
| 1538 | 0.50 | 0.03 | 0.05 | 38 |
| 1539 | 0.00 | 0.00 | 0.00 | 47 |
| 1540 | 0.44 | 0.10 | 0.16 | 40 |
| 1541 | 0.82 | 0.20 | 0.32 | 46 |
| 1542 | 1.00 | 0.15 | 0.26 | 46 |
| 1543 | 0.25 | 0.02 | 0.04 | 42 |
| 1544 | 0.70 | 0.33 | 0.45 | 48 |
| 1545 | 1.00 | 0.02 | 0.05 | 41 |
| 1546 | 0.00 | 0.00 | 0.00 | 35 |
| 1547 | 0.00 | 0.00 | 0.00 | 45 |
| 1548 | 0.20 | 0.04 | 0.06 | 55 |
| 1549 | 0.88 | 0.30 | 0.44 | 47 |
| 1550 | 1.00 | 0.12 | 0.22 | 48 |
| 1551 | 0.84 | 0.68 | 0.75 | 40 |
| 1552 | 0.67 | 0.04 | 0.07 | 51 |
| 1553 | 0.75 | 0.07 | 0.12 | 44 |
| 1554 | 0.91 | 0.20 | 0.32 | 51 |
| 1555 | 0.00 | 0.00 | 0.00 | 59 |
| 1556 | 0.50 | 0.18 | 0.27 | 60 |
| 1557 | 1.00 | 0.07 | 0.12 | 46 |
| 1558 | 0.67 | 0.05 | 0.09 | 43 |
| 1559 | 0.00 | 0.00 | 0.00 | 52 |
| 1560 | 0.67 | 0.09 | 0.16 | 44 |
| 1561 | 0.95 | 0.50 | 0.66 | 38 |
| 1562 | 0.40 | 0.10 | 0.15 | 42 |
| 1563 | 0.30 | 0.06 | 0.10 | 49 |
| 1564 | 1.00 | 0.15 | 0.25 | 48 |
| 1565 | 1.00 | 0.38 | 0.56 | 52 |
| 1566 | 0.97 | 0.63 | 0.76 | 46 |
| 1567 | 0.00 | 0.00 | 0.00 | 46 |
| 1568 | 0.81 | 0.44 | 0.57 | 39 |
| 1569 | 0.57 | 0.09 | 0.15 | 47 |
| 1570 | 0.60 | 0.12 | 0.21 | 48 |
| 1571 | 0.00 | 0.00 | 0.00 | 47 |
| 1572 | 0.00 | 0.00 | 0.00 | 52 |
| 1573 | 0.00 | 0.00 | 0.00 | 31 |
| 1574 | 0.95 | 0.38 | 0.55 | 55 |
| 1575 | 0.14 | 0.02 | 0.04 | 49 |
| 1576 | 1.00 | 0.43 | 0.61 | 46 |
| 1577 | 0.25 | 0.02 | 0.03 | 55 |
| 1578 | 0.00 | 0.00 | 0.00 | 42 |
| 1579 | 0.89 | 0.20 | 0.32 | 41 |
| 1580 | 0.00 | 0.00 | 0.00 | 47 |
| 1581 | 0.40 | 0.08 | 0.13 | 50 |
| 1582 | 0.00 | 0.00 | 0.00 | 47 |
| 1583 | 0.50 | 0.11 | 0.18 | 54 |
| 1584 | 0.50 | 0.04 | 0.08 | 49 |
| 1585 | 0.25 | 0.06 | 0.09 | 35 |
| 1586 | 0.00 | 0.00 | 0.00 | 43 |
| 1587 | 0.64 | 0.13 | 0.22 | 53 |
| 1588 | 0.00 | 0.00 | 0.00 | 49 |
| 1589 | 0.00 | 0.00 | 0.00 | 44 |
| 1590 | 0.50 | 0.05 | 0.09 | 39 |
| 1591 | 0.00 | 0.00 | 0.00 | 36 |
| 1592 | 0.00 | 0.00 | 0.00 | 46 |
| 1593 | 0.75 | 0.22 | 0.34 | 55 |
| 1594 | 0.91 | 0.21 | 0.34 | 47 |
| 1595 | 1.00 | 0.22 | 0.35 | 51 |
| 1596 | 0.00 | 0.00 | 0.00 | 42 |
| 1597 | 0.00 | 0.00 | 0.00 | 50 |
| 1598 | 0.53 | 0.20 | 0.29 | 40 |
| 1599 | 0.00 | 0.00 | 0.00 | 38 |
| 1600 | 0.00 | 0.00 | 0.00 | 47 |

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|------|------|------|------|----|
| 1601 | 0.88 | 0.38 | 0.53 | 37 |
| 1602 | 0.25 | 0.02 | 0.03 | 62 |
| 1603 | 0.00 | 0.00 | 0.00 | 43 |
| 1604 | 0.00 | 0.00 | 0.00 | 66 |
| 1605 | 0.33 | 0.03 | 0.06 | 33 |
| 1606 | 0.00 | 0.00 | 0.00 | 35 |
| 1607 | 1.00 | 0.29 | 0.44 | 42 |
| 1608 | 0.96 | 0.57 | 0.71 | 44 |
| 1609 | 0.67 | 0.05 | 0.09 | 40 |
| 1610 | 0.91 | 0.46 | 0.61 | 46 |
| 1611 | 0.33 | 0.04 | 0.07 | 55 |
| 1612 | 0.88 | 0.35 | 0.50 | 43 |
| 1613 | 0.00 | 0.00 | 0.00 | 51 |
| 1614 | 0.69 | 0.24 | 0.35 | 38 |
| 1615 | 0.00 | 0.00 | 0.00 | 47 |
| 1616 | 0.45 | 0.10 | 0.16 | 51 |
| 1617 | 0.00 | 0.00 | 0.00 | 52 |
| 1618 | 0.25 | 0.02 | 0.04 | 43 |
| 1619 | 1.00 | 0.03 | 0.05 | 37 |
| 1620 | 0.00 | 0.00 | 0.00 | 50 |
| 1621 | 0.00 | 0.00 | 0.00 | 44 |
| 1622 | 0.56 | 0.12 | 0.20 | 41 |
| 1623 | 0.50 | 0.13 | 0.21 | 46 |
| 1624 | 1.00 | 0.05 | 0.09 | 42 |
| 1625 | 0.94 | 0.33 | 0.49 | 48 |
| 1626 | 0.20 | 0.02 | 0.04 | 51 |
| 1627 | 0.00 | 0.00 | 0.00 | 37 |
| 1628 | 0.20 | 0.04 | 0.07 | 48 |
| 1629 | 0.00 | 0.00 | 0.00 | 43 |
| 1630 | 0.00 | 0.00 | 0.00 | 50 |
| 1631 | 0.00 | 0.00 | 0.00 | 41 |
| 1632 | 0.29 | 0.04 | 0.08 | 45 |
| 1633 | 0.90 | 0.40 | 0.55 | 45 |
| 1634 | 0.43 | 0.11 | 0.17 | 56 |
| 1635 | 0.71 | 0.27 | 0.39 | 44 |
| 1636 | 1.00 | 0.33 | 0.50 | 39 |
| 1637 | 0.74 | 0.27 | 0.40 | 51 |
| 1638 | 0.00 | 0.00 | 0.00 | 31 |
| 1639 | 0.00 | 0.00 | 0.00 | 53 |
| 1640 | 1.00 | 0.19 | 0.31 | 59 |
| 1641 | 0.20 | 0.03 | 0.05 | 35 |
| 1642 | 0.38 | 0.10 | 0.15 | 52 |
| 1643 | 0.00 | 0.00 | 0.00 | 32 |
| 1644 | 0.00 | 0.00 | 0.00 | 45 |
| 1645 | 0.00 | 0.00 | 0.00 | 50 |
| 1646 | 0.36 | 0.08 | 0.13 | 52 |
| 1647 | 0.53 | 0.26 | 0.34 | 39 |
| 1648 | 0.25 | 0.02 | 0.03 | 56 |
| 1649 | 0.75 | 0.32 | 0.45 | 37 |
| 1650 | 0.30 | 0.07 | 0.12 | 42 |
| 1651 | 0.62 | 0.09 | 0.16 | 55 |
| 1652 | 0.89 | 0.47 | 0.62 | 34 |
| 1653 | 0.83 | 0.12 | 0.22 | 40 |
| 1654 | 0.00 | 0.00 | 0.00 | 45 |
| 1655 | 0.00 | 0.00 | 0.00 | 56 |
| 1656 | 0.00 | 0.00 | 0.00 | 50 |
| 1657 | 0.00 | 0.00 | 0.00 | 46 |
| 1658 | 0.84 | 0.37 | 0.52 | 43 |
| 1659 | 0.88 | 0.45 | 0.59 | 49 |
| 1660 | 0.80 | 0.23 | 0.36 | 52 |
| 1661 | 1.00 | 0.02 | 0.04 | 54 |
| 1662 | 0.00 | 0.00 | 0.00 | 43 |
| 1663 | 0.00 | 0.00 | 0.00 | 59 |
| 1664 | 0.00 | 0.00 | 0.00 | 45 |
| 1665 | 0.00 | 0.00 | 0.00 | 51 |
| 1666 | 0.00 | 0.00 | 0.00 | 47 |
| 1667 | 0.17 | 0.02 | 0.04 | 50 |
| 1668 | 0.86 | 0.30 | 0.44 | 40 |
| 1669 | 0.25 | 0.03 | 0.05 | 38 |
| 1670 | 1.00 | 0.14 | 0.24 | 37 |
| 1671 | 0.50 | 0.02 | 0.04 | 51 |
| 1672 | 0.86 | 0.51 | 0.64 | 47 |
| 1673 | 0.86 | 0.12 | 0.21 | 49 |
| 1674 | 0.25 | 0.02 | 0.04 | 45 |
| 1675 | 0.00 | 0.00 | 0.00 | 46 |
| 1676 | 0.00 | 0.00 | 0.00 | 45 |
| 1677 | 0.38 | 0.07 | 0.11 | 45 |

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|------|------|------|------|----|
| 1677 | 0.00 | 0.00 | 0.00 | 43 |
| 1678 | 0.00 | 0.00 | 0.00 | 43 |
| 1679 | 1.00 | 0.02 | 0.04 | 52 |
| 1680 | 0.60 | 0.07 | 0.13 | 41 |
| 1681 | 0.00 | 0.00 | 0.00 | 41 |
| 1682 | 0.00 | 0.00 | 0.00 | 35 |
| 1683 | 0.67 | 0.05 | 0.09 | 41 |
| 1684 | 0.50 | 0.11 | 0.19 | 35 |
| 1685 | 1.00 | 0.02 | 0.04 | 53 |
| 1686 | 0.00 | 0.00 | 0.00 | 43 |
| 1687 | 0.00 | 0.00 | 0.00 | 39 |
| 1688 | 0.00 | 0.00 | 0.00 | 38 |
| 1689 | 0.50 | 0.18 | 0.26 | 51 |
| 1690 | 0.50 | 0.06 | 0.11 | 47 |
| 1691 | 0.00 | 0.00 | 0.00 | 30 |
| 1692 | 0.64 | 0.23 | 0.34 | 30 |
| 1693 | 0.00 | 0.00 | 0.00 | 47 |
| 1694 | 0.00 | 0.00 | 0.00 | 51 |
| 1695 | 0.00 | 0.00 | 0.00 | 43 |
| 1696 | 0.86 | 0.30 | 0.44 | 40 |
| 1697 | 0.00 | 0.00 | 0.00 | 33 |
| 1698 | 0.00 | 0.00 | 0.00 | 45 |
| 1699 | 0.00 | 0.00 | 0.00 | 42 |
| 1700 | 1.00 | 0.42 | 0.59 | 45 |
| 1701 | 0.83 | 0.38 | 0.53 | 39 |
| 1702 | 0.00 | 0.00 | 0.00 | 56 |
| 1703 | 1.00 | 0.36 | 0.53 | 44 |
| 1704 | 0.83 | 0.34 | 0.48 | 44 |
| 1705 | 1.00 | 0.40 | 0.57 | 40 |
| 1706 | 1.00 | 0.23 | 0.37 | 35 |
| 1707 | 0.00 | 0.00 | 0.00 | 32 |
| 1708 | 1.00 | 0.27 | 0.42 | 45 |
| 1709 | 0.00 | 0.00 | 0.00 | 37 |
| 1710 | 0.00 | 0.00 | 0.00 | 47 |
| 1711 | 0.25 | 0.07 | 0.11 | 30 |
| 1712 | 0.00 | 0.00 | 0.00 | 38 |
| 1713 | 0.00 | 0.00 | 0.00 | 39 |
| 1714 | 0.73 | 0.31 | 0.43 | 36 |
| 1715 | 0.00 | 0.00 | 0.00 | 38 |
| 1716 | 0.20 | 0.02 | 0.03 | 55 |
| 1717 | 0.60 | 0.07 | 0.13 | 42 |
| 1718 | 0.55 | 0.24 | 0.33 | 46 |
| 1719 | 0.54 | 0.14 | 0.22 | 51 |
| 1720 | 0.27 | 0.11 | 0.16 | 35 |
| 1721 | 0.85 | 0.47 | 0.61 | 36 |
| 1722 | 0.89 | 0.42 | 0.57 | 38 |
| 1723 | 0.92 | 0.30 | 0.45 | 40 |
| 1724 | 0.67 | 0.04 | 0.07 | 53 |
| 1725 | 0.00 | 0.00 | 0.00 | 27 |
| 1726 | 0.20 | 0.02 | 0.04 | 48 |
| 1727 | 0.83 | 0.50 | 0.62 | 38 |
| 1728 | 0.18 | 0.05 | 0.08 | 38 |
| 1729 | 0.86 | 0.11 | 0.19 | 57 |
| 1730 | 0.85 | 0.47 | 0.60 | 47 |
| 1731 | 0.00 | 0.00 | 0.00 | 48 |
| 1732 | 0.00 | 0.00 | 0.00 | 41 |
| 1733 | 0.15 | 0.06 | 0.09 | 33 |
| 1734 | 0.33 | 0.05 | 0.09 | 37 |
| 1735 | 0.50 | 0.04 | 0.08 | 45 |
| 1736 | 0.95 | 0.41 | 0.57 | 44 |
| 1737 | 0.80 | 0.26 | 0.39 | 47 |
| 1738 | 1.00 | 0.38 | 0.55 | 48 |
| 1739 | 0.25 | 0.02 | 0.04 | 48 |
| 1740 | 0.00 | 0.00 | 0.00 | 51 |
| 1741 | 0.91 | 0.24 | 0.38 | 42 |
| 1742 | 0.93 | 0.29 | 0.44 | 45 |
| 1743 | 1.00 | 0.14 | 0.24 | 43 |
| 1744 | 0.00 | 0.00 | 0.00 | 50 |
| 1745 | 1.00 | 0.25 | 0.40 | 40 |
| 1746 | 0.67 | 0.16 | 0.26 | 49 |
| 1747 | 0.00 | 0.00 | 0.00 | 37 |
| 1748 | 0.83 | 0.42 | 0.56 | 36 |
| 1749 | 0.40 | 0.05 | 0.09 | 41 |
| 1750 | 0.00 | 0.00 | 0.00 | 41 |
| 1751 | 0.91 | 0.29 | 0.44 | 34 |
| 1752 | 0.00 | 0.00 | 0.00 | 37 |
| 1753 | 0.80 | 0.20 | 0.31 | 41 |
| 1754 | 0.00 | 0.00 | 0.00 | 46 |

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|------|------|------|------|----|
| 1754 | 0.00 | 0.00 | 0.00 | 35 |
| 1755 | 0.00 | 0.00 | 0.00 | 35 |
| 1756 | 0.59 | 0.22 | 0.32 | 46 |
| 1757 | 0.00 | 0.00 | 0.00 | 44 |
| 1758 | 0.50 | 0.05 | 0.09 | 43 |
| 1759 | 0.17 | 0.03 | 0.06 | 30 |
| 1760 | 0.00 | 0.00 | 0.00 | 46 |
| 1761 | 0.00 | 0.00 | 0.00 | 39 |
| 1762 | 0.00 | 0.00 | 0.00 | 41 |
| 1763 | 0.00 | 0.00 | 0.00 | 47 |
| 1764 | 0.86 | 0.18 | 0.29 | 34 |
| 1765 | 0.00 | 0.00 | 0.00 | 32 |
| 1766 | 0.71 | 0.29 | 0.41 | 42 |
| 1767 | 0.90 | 0.24 | 0.38 | 38 |
| 1768 | 0.00 | 0.00 | 0.00 | 35 |
| 1769 | 0.57 | 0.12 | 0.20 | 33 |
| 1770 | 0.67 | 0.05 | 0.10 | 39 |
| 1771 | 0.00 | 0.00 | 0.00 | 37 |
| 1772 | 0.54 | 0.15 | 0.23 | 48 |
| 1773 | 1.00 | 0.33 | 0.49 | 46 |
| 1774 | 0.67 | 0.14 | 0.23 | 44 |
| 1775 | 0.50 | 0.02 | 0.03 | 63 |
| 1776 | 0.80 | 0.10 | 0.18 | 40 |
| 1777 | 1.00 | 0.03 | 0.05 | 39 |
| 1778 | 0.50 | 0.08 | 0.14 | 38 |
| 1779 | 0.00 | 0.00 | 0.00 | 44 |
| 1780 | 0.92 | 0.55 | 0.69 | 44 |
| 1781 | 0.67 | 0.05 | 0.09 | 40 |
| 1782 | 0.33 | 0.05 | 0.08 | 43 |
| 1783 | 0.00 | 0.00 | 0.00 | 39 |
| 1784 | 0.44 | 0.09 | 0.15 | 44 |
| 1785 | 0.71 | 0.13 | 0.22 | 38 |
| 1786 | 0.00 | 0.00 | 0.00 | 39 |
| 1787 | 1.00 | 0.05 | 0.09 | 44 |
| 1788 | 0.00 | 0.00 | 0.00 | 46 |
| 1789 | 0.70 | 0.17 | 0.28 | 40 |
| 1790 | 0.75 | 0.27 | 0.39 | 45 |
| 1791 | 0.00 | 0.00 | 0.00 | 39 |
| 1792 | 0.20 | 0.05 | 0.08 | 41 |
| 1793 | 0.71 | 0.21 | 0.33 | 47 |
| 1794 | 0.38 | 0.07 | 0.12 | 43 |
| 1795 | 0.76 | 0.38 | 0.51 | 34 |
| 1796 | 0.72 | 0.40 | 0.51 | 45 |
| 1797 | 1.00 | 0.19 | 0.32 | 31 |
| 1798 | 0.25 | 0.06 | 0.09 | 36 |
| 1799 | 0.68 | 0.27 | 0.39 | 55 |
| 1800 | 0.00 | 0.00 | 0.00 | 30 |
| 1801 | 0.00 | 0.00 | 0.00 | 35 |
| 1802 | 1.00 | 0.23 | 0.37 | 48 |
| 1803 | 0.12 | 0.03 | 0.04 | 38 |
| 1804 | 0.00 | 0.00 | 0.00 | 35 |
| 1805 | 0.00 | 0.00 | 0.00 | 32 |
| 1806 | 0.71 | 0.27 | 0.39 | 37 |
| 1807 | 1.00 | 0.19 | 0.32 | 37 |
| 1808 | 0.00 | 0.00 | 0.00 | 36 |
| 1809 | 0.00 | 0.00 | 0.00 | 42 |
| 1810 | 0.00 | 0.00 | 0.00 | 42 |
| 1811 | 0.00 | 0.00 | 0.00 | 35 |
| 1812 | 0.57 | 0.10 | 0.17 | 39 |
| 1813 | 0.71 | 0.28 | 0.40 | 36 |
| 1814 | 0.43 | 0.06 | 0.11 | 48 |
| 1815 | 1.00 | 0.44 | 0.62 | 45 |
| 1816 | 0.75 | 0.26 | 0.39 | 34 |
| 1817 | 0.67 | 0.19 | 0.29 | 32 |
| 1818 | 1.00 | 0.27 | 0.43 | 44 |
| 1819 | 0.00 | 0.00 | 0.00 | 46 |
| 1820 | 0.00 | 0.00 | 0.00 | 40 |
| 1821 | 0.00 | 0.00 | 0.00 | 37 |
| 1822 | 0.00 | 0.00 | 0.00 | 35 |
| 1823 | 0.00 | 0.00 | 0.00 | 33 |
| 1824 | 0.00 | 0.00 | 0.00 | 38 |
| 1825 | 1.00 | 0.05 | 0.10 | 38 |
| 1826 | 0.73 | 0.18 | 0.29 | 45 |
| 1827 | 0.00 | 0.00 | 0.00 | 36 |
| 1828 | 0.00 | 0.00 | 0.00 | 45 |
| 1829 | 0.96 | 0.68 | 0.80 | 38 |
| 1830 | 0.17 | 0.03 | 0.05 | 35 |
| 1831 | 0.75 | 0.26 | 0.39 | 34 |

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|------|------|------|------|----|
| 1831 | 0.70 | 0.20 | 0.00 | 37 |
| 1832 | 0.50 | 0.03 | 0.06 | 33 |
| 1833 | 0.60 | 0.13 | 0.21 | 23 |
| 1834 | 0.50 | 0.02 | 0.04 | 44 |
| 1835 | 0.00 | 0.00 | 0.00 | 50 |
| 1836 | 1.00 | 0.05 | 0.09 | 44 |
| 1837 | 0.86 | 0.26 | 0.40 | 46 |
| 1838 | 0.00 | 0.00 | 0.00 | 33 |
| 1839 | 0.60 | 0.20 | 0.30 | 45 |
| 1840 | 0.00 | 0.00 | 0.00 | 37 |
| 1841 | 1.00 | 0.03 | 0.05 | 39 |
| 1842 | 0.00 | 0.00 | 0.00 | 40 |
| 1843 | 0.00 | 0.00 | 0.00 | 41 |
| 1844 | 0.33 | 0.05 | 0.08 | 43 |
| 1845 | 0.00 | 0.00 | 0.00 | 36 |
| 1846 | 0.00 | 0.00 | 0.00 | 38 |
| 1847 | 0.00 | 0.00 | 0.00 | 33 |
| 1848 | 0.00 | 0.00 | 0.00 | 37 |
| 1849 | 1.00 | 0.12 | 0.21 | 34 |
| 1850 | 0.00 | 0.00 | 0.00 | 42 |
| 1851 | 0.60 | 0.41 | 0.48 | 37 |
| 1852 | 0.80 | 0.11 | 0.19 | 37 |
| 1853 | 0.91 | 0.24 | 0.38 | 41 |
| 1854 | 1.00 | 0.45 | 0.62 | 40 |
| 1855 | 0.00 | 0.00 | 0.00 | 40 |
| 1856 | 0.00 | 0.00 | 0.00 | 39 |
| 1857 | 0.00 | 0.00 | 0.00 | 30 |
| 1858 | 0.33 | 0.02 | 0.04 | 49 |
| 1859 | 0.67 | 0.28 | 0.39 | 29 |
| 1860 | 0.00 | 0.00 | 0.00 | 45 |
| 1861 | 0.25 | 0.05 | 0.08 | 40 |
| 1862 | 0.90 | 0.23 | 0.37 | 39 |
| 1863 | 0.00 | 0.00 | 0.00 | 37 |
| 1864 | 0.81 | 0.35 | 0.49 | 37 |
| 1865 | 0.91 | 0.28 | 0.43 | 36 |
| 1866 | 0.00 | 0.00 | 0.00 | 39 |
| 1867 | 0.38 | 0.07 | 0.12 | 42 |
| 1868 | 0.73 | 0.25 | 0.37 | 44 |
| 1869 | 0.00 | 0.00 | 0.00 | 39 |
| 1870 | 0.00 | 0.00 | 0.00 | 46 |
| 1871 | 0.00 | 0.00 | 0.00 | 43 |
| 1872 | 0.14 | 0.03 | 0.05 | 34 |
| 1873 | 0.40 | 0.04 | 0.08 | 47 |
| 1874 | 0.57 | 0.10 | 0.17 | 39 |
| 1875 | 0.33 | 0.03 | 0.05 | 36 |
| 1876 | 0.56 | 0.14 | 0.22 | 37 |
| 1877 | 0.00 | 0.00 | 0.00 | 47 |
| 1878 | 0.50 | 0.06 | 0.11 | 48 |
| 1879 | 0.67 | 0.19 | 0.29 | 32 |
| 1880 | 0.87 | 0.28 | 0.43 | 46 |
| 1881 | 0.17 | 0.03 | 0.05 | 38 |
| 1882 | 0.00 | 0.00 | 0.00 | 36 |
| 1883 | 0.00 | 0.00 | 0.00 | 40 |
| 1884 | 0.38 | 0.09 | 0.14 | 34 |
| 1885 | 0.00 | 0.00 | 0.00 | 41 |
| 1886 | 0.00 | 0.00 | 0.00 | 42 |
| 1887 | 0.00 | 0.00 | 0.00 | 38 |
| 1888 | 1.00 | 0.02 | 0.04 | 49 |
| 1889 | 1.00 | 0.42 | 0.59 | 36 |
| 1890 | 0.70 | 0.19 | 0.30 | 36 |
| 1891 | 0.67 | 0.23 | 0.34 | 44 |
| 1892 | 0.33 | 0.04 | 0.07 | 24 |
| 1893 | 0.00 | 0.00 | 0.00 | 36 |
| 1894 | 1.00 | 0.39 | 0.56 | 46 |
| 1895 | 0.00 | 0.00 | 0.00 | 33 |
| 1896 | 1.00 | 0.12 | 0.21 | 42 |
| 1897 | 0.00 | 0.00 | 0.00 | 35 |
| 1898 | 0.00 | 0.00 | 0.00 | 31 |
| 1899 | 0.71 | 0.33 | 0.45 | 36 |
| 1900 | 0.00 | 0.00 | 0.00 | 30 |
| 1901 | 0.62 | 0.10 | 0.18 | 49 |
| 1902 | 0.67 | 0.12 | 0.20 | 34 |
| 1903 | 1.00 | 0.07 | 0.14 | 40 |
| 1904 | 0.00 | 0.00 | 0.00 | 42 |
| 1905 | 0.00 | 0.00 | 0.00 | 44 |
| 1906 | 0.84 | 0.34 | 0.48 | 47 |
| 1907 | 0.00 | 0.00 | 0.00 | 46 |
| 1908 | 0.57 | 0.33 | 0.42 | 36 |

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|------|------|------|------|----|
| 1908 | 0.57 | 0.33 | 0.42 | 38 |
| 1909 | 1.00 | 0.06 | 0.11 | 35 |
| 1910 | 0.00 | 0.00 | 0.00 | 46 |
| 1911 | 0.00 | 0.00 | 0.00 | 39 |
| 1912 | 0.85 | 0.29 | 0.43 | 38 |
| 1913 | 0.00 | 0.00 | 0.00 | 38 |
| 1914 | 0.73 | 0.19 | 0.30 | 43 |
| 1915 | 0.84 | 0.52 | 0.64 | 31 |
| 1916 | 0.33 | 0.08 | 0.12 | 39 |
| 1917 | 0.00 | 0.00 | 0.00 | 38 |
| 1918 | 0.75 | 0.20 | 0.32 | 45 |
| 1919 | 0.58 | 0.19 | 0.29 | 37 |
| 1920 | 0.00 | 0.00 | 0.00 | 29 |
| 1921 | 0.00 | 0.00 | 0.00 | 31 |
| 1922 | 0.61 | 0.34 | 0.44 | 41 |
| 1923 | 0.17 | 0.02 | 0.03 | 54 |
| 1924 | 0.80 | 0.12 | 0.22 | 32 |
| 1925 | 0.00 | 0.00 | 0.00 | 32 |
| 1926 | 0.00 | 0.00 | 0.00 | 38 |
| 1927 | 0.94 | 0.38 | 0.54 | 42 |
| 1928 | 0.00 | 0.00 | 0.00 | 41 |
| 1929 | 0.00 | 0.00 | 0.00 | 47 |
| 1930 | 1.00 | 0.40 | 0.57 | 30 |
| 1931 | 1.00 | 0.05 | 0.09 | 41 |
| 1932 | 0.00 | 0.00 | 0.00 | 40 |
| 1933 | 0.62 | 0.19 | 0.29 | 43 |
| 1934 | 0.00 | 0.00 | 0.00 | 42 |
| 1935 | 0.33 | 0.06 | 0.10 | 36 |
| 1936 | 0.57 | 0.29 | 0.38 | 42 |
| 1937 | 1.00 | 0.03 | 0.05 | 36 |
| 1938 | 0.94 | 0.50 | 0.65 | 32 |
| 1939 | 1.00 | 0.12 | 0.21 | 50 |
| 1940 | 0.33 | 0.03 | 0.05 | 35 |
| 1941 | 0.00 | 0.00 | 0.00 | 41 |
| 1942 | 0.80 | 0.20 | 0.32 | 40 |
| 1943 | 0.00 | 0.00 | 0.00 | 38 |
| 1944 | 0.84 | 0.47 | 0.60 | 34 |
| 1945 | 0.00 | 0.00 | 0.00 | 42 |
| 1946 | 0.90 | 0.32 | 0.47 | 28 |
| 1947 | 0.00 | 0.00 | 0.00 | 37 |
| 1948 | 0.00 | 0.00 | 0.00 | 32 |
| 1949 | 0.00 | 0.00 | 0.00 | 32 |
| 1950 | 0.69 | 0.35 | 0.46 | 26 |
| 1951 | 0.00 | 0.00 | 0.00 | 49 |
| 1952 | 0.00 | 0.00 | 0.00 | 32 |
| 1953 | 0.50 | 0.03 | 0.06 | 31 |
| 1954 | 0.71 | 0.12 | 0.21 | 40 |
| 1955 | 0.00 | 0.00 | 0.00 | 47 |
| 1956 | 1.00 | 0.07 | 0.13 | 43 |
| 1957 | 0.00 | 0.00 | 0.00 | 38 |
| 1958 | 0.77 | 0.26 | 0.39 | 38 |
| 1959 | 0.00 | 0.00 | 0.00 | 34 |
| 1960 | 0.32 | 0.21 | 0.25 | 39 |
| 1961 | 1.00 | 0.03 | 0.06 | 34 |
| 1962 | 0.20 | 0.02 | 0.04 | 42 |
| 1963 | 0.60 | 0.09 | 0.16 | 32 |
| 1964 | 0.00 | 0.00 | 0.00 | 41 |
| 1965 | 0.33 | 0.02 | 0.04 | 42 |
| 1966 | 0.00 | 0.00 | 0.00 | 37 |
| 1967 | 0.00 | 0.00 | 0.00 | 41 |
| 1968 | 0.86 | 0.60 | 0.71 | 30 |
| 1969 | 0.50 | 0.24 | 0.32 | 25 |
| 1970 | 0.50 | 0.15 | 0.23 | 40 |
| 1971 | 0.00 | 0.00 | 0.00 | 43 |
| 1972 | 0.00 | 0.00 | 0.00 | 42 |
| 1973 | 0.00 | 0.00 | 0.00 | 32 |
| 1974 | 0.00 | 0.00 | 0.00 | 33 |
| 1975 | 1.00 | 0.21 | 0.35 | 28 |
| 1976 | 0.00 | 0.00 | 0.00 | 35 |
| 1977 | 0.92 | 0.22 | 0.36 | 49 |
| 1978 | 1.00 | 0.33 | 0.49 | 49 |
| 1979 | 0.00 | 0.00 | 0.00 | 34 |
| 1980 | 0.00 | 0.00 | 0.00 | 28 |
| 1981 | 1.00 | 0.24 | 0.38 | 34 |
| 1982 | 0.00 | 0.00 | 0.00 | 30 |
| 1983 | 0.50 | 0.03 | 0.05 | 40 |
| 1984 | 0.00 | 0.00 | 0.00 | 38 |
| 1985 | 0.00 | 0.00 | 0.00 | 42 |

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|------|------|------|------|----|
| 1985 | 0.00 | 0.00 | 0.00 | 42 |
| 1986 | 0.00 | 0.00 | 0.00 | 32 |
| 1987 | 0.00 | 0.00 | 0.00 | 37 |
| 1988 | 0.25 | 0.03 | 0.05 | 34 |
| 1989 | 0.75 | 0.15 | 0.24 | 41 |
| 1990 | 0.00 | 0.00 | 0.00 | 34 |
| 1991 | 0.00 | 0.00 | 0.00 | 34 |
| 1992 | 0.00 | 0.00 | 0.00 | 30 |
| 1993 | 0.67 | 0.17 | 0.27 | 36 |
| 1994 | 0.83 | 0.16 | 0.26 | 32 |
| 1995 | 0.00 | 0.00 | 0.00 | 38 |
| 1996 | 0.00 | 0.00 | 0.00 | 32 |
| 1997 | 0.00 | 0.00 | 0.00 | 39 |
| 1998 | 0.00 | 0.00 | 0.00 | 32 |
| 1999 | 0.73 | 0.18 | 0.29 | 44 |
| 2000 | 0.50 | 0.02 | 0.05 | 41 |
| 2001 | 1.00 | 0.24 | 0.39 | 37 |
| 2002 | 0.30 | 0.08 | 0.12 | 38 |
| 2003 | 0.00 | 0.00 | 0.00 | 31 |
| 2004 | 0.00 | 0.00 | 0.00 | 35 |
| 2005 | 0.80 | 0.24 | 0.36 | 34 |
| 2006 | 0.80 | 0.24 | 0.36 | 34 |
| 2007 | 1.00 | 0.06 | 0.12 | 31 |
| 2008 | 0.00 | 0.00 | 0.00 | 40 |
| 2009 | 1.00 | 0.25 | 0.40 | 40 |
| 2010 | 0.40 | 0.05 | 0.09 | 39 |
| 2011 | 0.62 | 0.14 | 0.22 | 37 |
| 2012 | 0.00 | 0.00 | 0.00 | 35 |
| 2013 | 0.00 | 0.00 | 0.00 | 27 |
| 2014 | 0.00 | 0.00 | 0.00 | 38 |
| 2015 | 0.00 | 0.00 | 0.00 | 34 |
| 2016 | 0.00 | 0.00 | 0.00 | 33 |
| 2017 | 0.00 | 0.00 | 0.00 | 31 |
| 2018 | 1.00 | 0.06 | 0.11 | 34 |
| 2019 | 0.00 | 0.00 | 0.00 | 40 |
| 2020 | 0.00 | 0.00 | 0.00 | 29 |
| 2021 | 0.00 | 0.00 | 0.00 | 34 |
| 2022 | 0.00 | 0.00 | 0.00 | 37 |
| 2023 | 0.54 | 0.23 | 0.33 | 30 |
| 2024 | 0.00 | 0.00 | 0.00 | 34 |
| 2025 | 0.00 | 0.00 | 0.00 | 36 |
| 2026 | 0.92 | 0.22 | 0.36 | 49 |
| 2027 | 0.00 | 0.00 | 0.00 | 22 |
| 2028 | 0.94 | 0.38 | 0.55 | 39 |
| 2029 | 0.00 | 0.00 | 0.00 | 36 |
| 2030 | 1.00 | 0.49 | 0.65 | 37 |
| 2031 | 0.90 | 0.28 | 0.43 | 32 |
| 2032 | 1.00 | 0.17 | 0.29 | 41 |
| 2033 | 0.00 | 0.00 | 0.00 | 28 |
| 2034 | 0.30 | 0.08 | 0.12 | 38 |
| 2035 | 0.00 | 0.00 | 0.00 | 26 |
| 2036 | 0.00 | 0.00 | 0.00 | 33 |
| 2037 | 0.00 | 0.00 | 0.00 | 32 |
| 2038 | 0.80 | 0.22 | 0.34 | 37 |
| 2039 | 0.00 | 0.00 | 0.00 | 32 |
| 2040 | 0.55 | 0.15 | 0.24 | 40 |
| 2041 | 0.40 | 0.07 | 0.12 | 29 |
| 2042 | 0.00 | 0.00 | 0.00 | 30 |
| 2043 | 0.00 | 0.00 | 0.00 | 33 |
| 2044 | 0.00 | 0.00 | 0.00 | 35 |
| 2045 | 0.50 | 0.18 | 0.26 | 34 |
| 2046 | 0.50 | 0.03 | 0.06 | 31 |
| 2047 | 0.50 | 0.06 | 0.11 | 32 |
| 2048 | 0.00 | 0.00 | 0.00 | 36 |
| 2049 | 1.00 | 0.02 | 0.05 | 43 |
| 2050 | 0.00 | 0.00 | 0.00 | 27 |
| 2051 | 0.50 | 0.10 | 0.16 | 31 |
| 2052 | 0.00 | 0.00 | 0.00 | 34 |
| 2053 | 0.00 | 0.00 | 0.00 | 32 |
| 2054 | 0.71 | 0.11 | 0.19 | 45 |
| 2055 | 0.00 | 0.00 | 0.00 | 39 |
| 2056 | 0.95 | 0.58 | 0.72 | 33 |
| 2057 | 0.40 | 0.05 | 0.09 | 38 |
| 2058 | 0.25 | 0.03 | 0.05 | 33 |
| 2059 | 0.00 | 0.00 | 0.00 | 44 |
| 2060 | 1.00 | 0.46 | 0.63 | 35 |
| 2061 | 0.40 | 0.10 | 0.16 | 40 |
| 2062 | 0.00 | 0.00 | 0.00 | 31 |

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|------|------|------|------|----|
| 2062 | 0.00 | 0.00 | 0.00 | 31 |
| 2063 | 1.00 | 0.44 | 0.61 | 32 |
| 2064 | 0.00 | 0.00 | 0.00 | 45 |
| 2065 | 0.93 | 0.40 | 0.56 | 35 |
| 2066 | 0.00 | 0.00 | 0.00 | 37 |
| 2067 | 0.40 | 0.06 | 0.10 | 35 |
| 2068 | 0.00 | 0.00 | 0.00 | 43 |
| 2069 | 0.00 | 0.00 | 0.00 | 26 |
| 2070 | 0.00 | 0.00 | 0.00 | 40 |
| 2071 | 1.00 | 0.46 | 0.63 | 37 |
| 2072 | 0.00 | 0.00 | 0.00 | 31 |
| 2073 | 0.40 | 0.11 | 0.18 | 35 |
| 2074 | 0.00 | 0.00 | 0.00 | 35 |
| 2075 | 0.00 | 0.00 | 0.00 | 31 |
| 2076 | 0.00 | 0.00 | 0.00 | 30 |
| 2077 | 0.83 | 0.18 | 0.29 | 28 |
| 2078 | 0.00 | 0.00 | 0.00 | 37 |
| 2079 | 0.00 | 0.00 | 0.00 | 38 |
| 2080 | 0.00 | 0.00 | 0.00 | 28 |
| 2081 | 0.00 | 0.00 | 0.00 | 28 |
| 2082 | 0.00 | 0.00 | 0.00 | 33 |
| 2083 | 1.00 | 0.11 | 0.19 | 28 |
| 2084 | 1.00 | 0.26 | 0.41 | 23 |
| 2085 | 0.84 | 0.46 | 0.59 | 35 |
| 2086 | 0.60 | 0.08 | 0.14 | 39 |
| 2087 | 0.00 | 0.00 | 0.00 | 31 |
| 2088 | 0.00 | 0.00 | 0.00 | 25 |
| 2089 | 0.77 | 0.46 | 0.58 | 37 |
| 2090 | 0.00 | 0.00 | 0.00 | 34 |
| 2091 | 0.00 | 0.00 | 0.00 | 34 |
| 2092 | 0.00 | 0.00 | 0.00 | 38 |
| 2093 | 0.00 | 0.00 | 0.00 | 36 |
| 2094 | 0.29 | 0.06 | 0.10 | 33 |
| 2095 | 0.40 | 0.05 | 0.09 | 40 |
| 2096 | 0.67 | 0.11 | 0.18 | 38 |
| 2097 | 0.33 | 0.04 | 0.07 | 25 |
| 2098 | 0.00 | 0.00 | 0.00 | 33 |
| 2099 | 1.00 | 0.19 | 0.32 | 42 |
| 2100 | 0.00 | 0.00 | 0.00 | 29 |
| 2101 | 0.00 | 0.00 | 0.00 | 29 |
| 2102 | 0.50 | 0.06 | 0.10 | 35 |
| 2103 | 0.67 | 0.10 | 0.17 | 40 |
| 2104 | 0.00 | 0.00 | 0.00 | 42 |
| 2105 | 0.00 | 0.00 | 0.00 | 36 |
| 2106 | 0.00 | 0.00 | 0.00 | 33 |
| 2107 | 0.00 | 0.00 | 0.00 | 33 |
| 2108 | 0.00 | 0.00 | 0.00 | 34 |
| 2109 | 0.00 | 0.00 | 0.00 | 42 |
| 2110 | 0.00 | 0.00 | 0.00 | 28 |
| 2111 | 0.40 | 0.05 | 0.09 | 40 |
| 2112 | 1.00 | 0.04 | 0.08 | 24 |
| 2113 | 0.00 | 0.00 | 0.00 | 36 |
| 2114 | 0.43 | 0.09 | 0.15 | 33 |
| 2115 | 0.00 | 0.00 | 0.00 | 32 |
| 2116 | 0.67 | 0.15 | 0.24 | 27 |
| 2117 | 0.00 | 0.00 | 0.00 | 30 |
| 2118 | 0.79 | 0.38 | 0.51 | 29 |
| 2119 | 0.50 | 0.07 | 0.12 | 28 |
| 2120 | 0.94 | 0.46 | 0.62 | 35 |
| 2121 | 0.00 | 0.00 | 0.00 | 35 |
| 2122 | 0.00 | 0.00 | 0.00 | 37 |
| 2123 | 0.00 | 0.00 | 0.00 | 35 |
| 2124 | 0.40 | 0.06 | 0.10 | 35 |
| 2125 | 0.00 | 0.00 | 0.00 | 37 |
| 2126 | 0.00 | 0.00 | 0.00 | 35 |
| 2127 | 0.40 | 0.06 | 0.11 | 32 |
| 2128 | 0.36 | 0.13 | 0.20 | 30 |
| 2129 | 0.00 | 0.00 | 0.00 | 32 |
| 2130 | 0.00 | 0.00 | 0.00 | 41 |
| 2131 | 1.00 | 0.04 | 0.07 | 26 |
| 2132 | 0.00 | 0.00 | 0.00 | 34 |
| 2133 | 0.00 | 0.00 | 0.00 | 29 |
| 2134 | 0.00 | 0.00 | 0.00 | 36 |
| 2135 | 0.00 | 0.00 | 0.00 | 29 |
| 2136 | 0.00 | 0.00 | 0.00 | 35 |
| 2137 | 0.83 | 0.37 | 0.51 | 27 |
| 2138 | 0.00 | 0.00 | 0.00 | 35 |
| 2139 | 0.00 | 0.00 | 0.00 | 30 |

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|------|------|------|------|----|
| 2139 | 0.85 | 0.37 | 0.51 | 30 |
| 2140 | 0.00 | 0.00 | 0.00 | 33 |
| 2141 | 0.67 | 0.05 | 0.10 | 38 |
| 2142 | 0.00 | 0.00 | 0.00 | 37 |
| 2143 | 1.00 | 0.10 | 0.18 | 31 |
| 2144 | 0.71 | 0.14 | 0.24 | 35 |
| 2145 | 1.00 | 0.37 | 0.54 | 38 |
| 2146 | 1.00 | 0.17 | 0.29 | 35 |
| 2147 | 0.38 | 0.15 | 0.22 | 33 |
| 2148 | 0.00 | 0.00 | 0.00 | 32 |
| 2149 | 0.67 | 0.05 | 0.10 | 37 |
| 2150 | 0.00 | 0.00 | 0.00 | 41 |
| 2151 | 0.00 | 0.00 | 0.00 | 39 |
| 2152 | 0.00 | 0.00 | 0.00 | 36 |
| 2153 | 0.00 | 0.00 | 0.00 | 31 |
| 2154 | 0.00 | 0.00 | 0.00 | 30 |
| 2155 | 1.00 | 0.42 | 0.59 | 26 |
| 2156 | 0.00 | 0.00 | 0.00 | 32 |
| 2157 | 0.00 | 0.00 | 0.00 | 38 |
| 2158 | 0.00 | 0.00 | 0.00 | 33 |
| 2159 | 0.00 | 0.00 | 0.00 | 32 |
| 2160 | 0.33 | 0.03 | 0.06 | 32 |
| 2161 | 0.00 | 0.00 | 0.00 | 34 |
| 2162 | 0.50 | 0.22 | 0.31 | 27 |
| 2163 | 0.00 | 0.00 | 0.00 | 37 |
| 2164 | 1.00 | 0.03 | 0.06 | 30 |
| 2165 | 0.00 | 0.00 | 0.00 | 35 |
| 2166 | 0.56 | 0.21 | 0.30 | 24 |
| 2167 | 0.00 | 0.00 | 0.00 | 37 |
| 2168 | 0.87 | 0.50 | 0.63 | 26 |
| 2169 | 0.00 | 0.00 | 0.00 | 27 |
| 2170 | 0.00 | 0.00 | 0.00 | 39 |
| 2171 | 0.00 | 0.00 | 0.00 | 25 |
| 2172 | 0.00 | 0.00 | 0.00 | 33 |
| 2173 | 0.00 | 0.00 | 0.00 | 39 |
| 2174 | 0.94 | 0.43 | 0.59 | 35 |
| 2175 | 1.00 | 0.33 | 0.50 | 30 |
| 2176 | 0.00 | 0.00 | 0.00 | 36 |
| 2177 | 0.33 | 0.04 | 0.06 | 28 |
| 2178 | 0.00 | 0.00 | 0.00 | 34 |
| 2179 | 0.00 | 0.00 | 0.00 | 35 |
| 2180 | 0.00 | 0.00 | 0.00 | 23 |
| 2181 | 0.00 | 0.00 | 0.00 | 34 |
| 2182 | 0.00 | 0.00 | 0.00 | 27 |
| 2183 | 1.00 | 0.08 | 0.15 | 25 |
| 2184 | 0.00 | 0.00 | 0.00 | 33 |
| 2185 | 1.00 | 0.15 | 0.26 | 33 |
| 2186 | 0.33 | 0.16 | 0.21 | 19 |
| 2187 | 0.00 | 0.00 | 0.00 | 38 |
| 2188 | 0.00 | 0.00 | 0.00 | 20 |
| 2189 | 0.00 | 0.00 | 0.00 | 32 |
| 2190 | 0.33 | 0.06 | 0.11 | 31 |
| 2191 | 0.67 | 0.12 | 0.21 | 33 |
| 2192 | 0.00 | 0.00 | 0.00 | 28 |
| 2193 | 1.00 | 0.06 | 0.11 | 36 |
| 2194 | 0.00 | 0.00 | 0.00 | 35 |
| 2195 | 0.00 | 0.00 | 0.00 | 26 |
| 2196 | 0.00 | 0.00 | 0.00 | 32 |
| 2197 | 0.00 | 0.00 | 0.00 | 34 |
| 2198 | 1.00 | 0.03 | 0.06 | 33 |
| 2199 | 0.00 | 0.00 | 0.00 | 27 |
| 2200 | 0.60 | 0.10 | 0.17 | 31 |
| 2201 | 0.00 | 0.00 | 0.00 | 22 |
| 2202 | 0.00 | 0.00 | 0.00 | 28 |
| 2203 | 0.75 | 0.19 | 0.30 | 32 |
| 2204 | 0.00 | 0.00 | 0.00 | 34 |
| 2205 | 0.00 | 0.00 | 0.00 | 27 |
| 2206 | 1.00 | 0.11 | 0.21 | 35 |
| 2207 | 0.00 | 0.00 | 0.00 | 32 |
| 2208 | 1.00 | 0.03 | 0.06 | 31 |
| 2209 | 0.00 | 0.00 | 0.00 | 34 |
| 2210 | 0.00 | 0.00 | 0.00 | 31 |
| 2211 | 0.00 | 0.00 | 0.00 | 38 |
| 2212 | 1.00 | 0.03 | 0.07 | 29 |
| 2213 | 1.00 | 0.08 | 0.15 | 24 |
| 2214 | 0.00 | 0.00 | 0.00 | 26 |
| 2215 | 0.60 | 0.08 | 0.14 | 39 |

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|------|------|------|------|----|
| 2216 | 0.50 | 0.11 | 0.18 | 28 |
| 2217 | 0.00 | 0.00 | 0.00 | 29 |
| 2218 | 0.00 | 0.00 | 0.00 | 39 |
| 2219 | 0.00 | 0.00 | 0.00 | 26 |
| 2220 | 0.00 | 0.00 | 0.00 | 29 |
| 2221 | 1.00 | 0.41 | 0.58 | 22 |
| 2222 | 0.00 | 0.00 | 0.00 | 28 |
| 2223 | 1.00 | 0.08 | 0.15 | 37 |
| 2224 | 0.00 | 0.00 | 0.00 | 31 |
| 2225 | 0.20 | 0.03 | 0.04 | 40 |
| 2226 | 1.00 | 0.18 | 0.31 | 33 |
| 2227 | 0.00 | 0.00 | 0.00 | 41 |
| 2228 | 0.00 | 0.00 | 0.00 | 33 |
| 2229 | 0.00 | 0.00 | 0.00 | 29 |
| 2230 | 0.00 | 0.00 | 0.00 | 34 |
| 2231 | 0.00 | 0.00 | 0.00 | 28 |
| 2232 | 0.86 | 0.23 | 0.36 | 26 |
| 2233 | 0.00 | 0.00 | 0.00 | 27 |
| 2234 | 1.00 | 0.23 | 0.38 | 26 |
| 2235 | 1.00 | 0.39 | 0.57 | 33 |
| 2236 | 0.00 | 0.00 | 0.00 | 33 |
| 2237 | 0.64 | 0.19 | 0.30 | 36 |
| 2238 | 1.00 | 0.16 | 0.27 | 38 |
| 2239 | 0.00 | 0.00 | 0.00 | 27 |
| 2240 | 0.93 | 0.37 | 0.53 | 35 |
| 2241 | 0.00 | 0.00 | 0.00 | 41 |
| 2242 | 0.50 | 0.03 | 0.06 | 30 |
| 2243 | 0.00 | 0.00 | 0.00 | 29 |
| 2244 | 0.00 | 0.00 | 0.00 | 37 |
| 2245 | 0.50 | 0.15 | 0.24 | 39 |
| 2246 | 0.00 | 0.00 | 0.00 | 29 |
| 2247 | 0.00 | 0.00 | 0.00 | 30 |
| 2248 | 0.00 | 0.00 | 0.00 | 37 |
| 2249 | 0.00 | 0.00 | 0.00 | 33 |
| 2250 | 0.50 | 0.04 | 0.07 | 27 |
| 2251 | 0.00 | 0.00 | 0.00 | 31 |
| 2252 | 0.00 | 0.00 | 0.00 | 27 |
| 2253 | 0.00 | 0.00 | 0.00 | 32 |
| 2254 | 0.73 | 0.23 | 0.35 | 35 |
| 2255 | 0.00 | 0.00 | 0.00 | 37 |
| 2256 | 0.00 | 0.00 | 0.00 | 33 |
| 2257 | 0.82 | 0.45 | 0.58 | 20 |
| 2258 | 0.00 | 0.00 | 0.00 | 28 |
| 2259 | 0.43 | 0.13 | 0.20 | 23 |
| 2260 | 0.00 | 0.00 | 0.00 | 31 |
| 2261 | 1.00 | 0.10 | 0.19 | 29 |
| 2262 | 0.60 | 0.12 | 0.19 | 26 |
| 2263 | 0.00 | 0.00 | 0.00 | 32 |
| 2264 | 0.00 | 0.00 | 0.00 | 35 |
| 2265 | 0.00 | 0.00 | 0.00 | 33 |
| 2266 | 0.67 | 0.23 | 0.34 | 35 |
| 2267 | 0.00 | 0.00 | 0.00 | 30 |
| 2268 | 0.50 | 0.05 | 0.08 | 22 |
| 2269 | 0.00 | 0.00 | 0.00 | 31 |
| 2270 | 0.00 | 0.00 | 0.00 | 32 |
| 2271 | 0.00 | 0.00 | 0.00 | 28 |
| 2272 | 0.83 | 0.19 | 0.31 | 26 |
| 2273 | 0.00 | 0.00 | 0.00 | 27 |
| 2274 | 0.00 | 0.00 | 0.00 | 33 |
| 2275 | 0.00 | 0.00 | 0.00 | 33 |
| 2276 | 0.50 | 0.09 | 0.15 | 22 |
| 2277 | 0.00 | 0.00 | 0.00 | 33 |
| 2278 | 0.00 | 0.00 | 0.00 | 36 |
| 2279 | 1.00 | 0.32 | 0.49 | 34 |
| 2280 | 0.00 | 0.00 | 0.00 | 24 |
| 2281 | 0.00 | 0.00 | 0.00 | 26 |
| 2282 | 0.40 | 0.09 | 0.15 | 22 |
| 2283 | 0.20 | 0.04 | 0.06 | 28 |
| 2284 | 0.00 | 0.00 | 0.00 | 43 |
| 2285 | 0.00 | 0.00 | 0.00 | 31 |
| 2286 | 0.00 | 0.00 | 0.00 | 30 |
| 2287 | 0.00 | 0.00 | 0.00 | 32 |
| 2288 | 0.00 | 0.00 | 0.00 | 28 |
| 2289 | 0.88 | 0.19 | 0.31 | 37 |
| 2290 | 0.00 | 0.00 | 0.00 | 23 |
| 2291 | 0.00 | 0.00 | 0.00 | 33 |
| 2292 | 0.50 | 0.03 | 0.06 | 33 |

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|------|------|------|------|----|
| 2293 | 0.00 | 0.00 | 0.00 | 29 |
| 2294 | 0.00 | 0.00 | 0.00 | 28 |
| 2295 | 0.00 | 0.00 | 0.00 | 29 |
| 2296 | 0.00 | 0.00 | 0.00 | 24 |
| 2297 | 0.00 | 0.00 | 0.00 | 28 |
| 2298 | 1.00 | 0.15 | 0.27 | 26 |
| 2299 | 0.00 | 0.00 | 0.00 | 28 |
| 2300 | 1.00 | 0.10 | 0.18 | 31 |
| 2301 | 0.00 | 0.00 | 0.00 | 28 |
| 2302 | 0.00 | 0.00 | 0.00 | 34 |
| 2303 | 0.50 | 0.04 | 0.07 | 27 |
| 2304 | 0.00 | 0.00 | 0.00 | 31 |
| 2305 | 0.00 | 0.00 | 0.00 | 38 |
| 2306 | 0.00 | 0.00 | 0.00 | 37 |
| 2307 | 0.83 | 0.36 | 0.50 | 28 |
| 2308 | 1.00 | 0.04 | 0.07 | 28 |
| 2309 | 0.00 | 0.00 | 0.00 | 26 |
| 2310 | 1.00 | 0.21 | 0.35 | 28 |
| 2311 | 0.00 | 0.00 | 0.00 | 29 |
| 2312 | 1.00 | 0.11 | 0.19 | 38 |
| 2313 | 0.50 | 0.04 | 0.07 | 25 |
| 2314 | 1.00 | 0.05 | 0.09 | 22 |
| 2315 | 0.00 | 0.00 | 0.00 | 33 |
| 2316 | 0.00 | 0.00 | 0.00 | 30 |
| 2317 | 0.00 | 0.00 | 0.00 | 37 |
| 2318 | 0.00 | 0.00 | 0.00 | 26 |
| 2319 | 0.20 | 0.05 | 0.08 | 21 |
| 2320 | 0.00 | 0.00 | 0.00 | 29 |
| 2321 | 0.00 | 0.00 | 0.00 | 23 |
| 2322 | 0.00 | 0.00 | 0.00 | 33 |
| 2323 | 0.00 | 0.00 | 0.00 | 29 |
| 2324 | 0.00 | 0.00 | 0.00 | 29 |
| 2325 | 0.40 | 0.10 | 0.15 | 21 |
| 2326 | 0.00 | 0.00 | 0.00 | 36 |
| 2327 | 0.00 | 0.00 | 0.00 | 34 |
| 2328 | 0.00 | 0.00 | 0.00 | 25 |
| 2329 | 1.00 | 0.07 | 0.13 | 28 |
| 2330 | 0.00 | 0.00 | 0.00 | 30 |
| 2331 | 0.79 | 0.38 | 0.51 | 29 |
| 2332 | 0.00 | 0.00 | 0.00 | 32 |
| 2333 | 0.00 | 0.00 | 0.00 | 34 |
| 2334 | 0.50 | 0.03 | 0.06 | 30 |
| 2335 | 0.00 | 0.00 | 0.00 | 29 |
| 2336 | 1.00 | 0.03 | 0.06 | 30 |
| 2337 | 0.00 | 0.00 | 0.00 | 26 |
| 2338 | 0.92 | 0.40 | 0.56 | 30 |
| 2339 | 0.00 | 0.00 | 0.00 | 35 |
| 2340 | 0.00 | 0.00 | 0.00 | 26 |
| 2341 | 0.00 | 0.00 | 0.00 | 33 |
| 2342 | 1.00 | 0.15 | 0.27 | 39 |
| 2343 | 0.80 | 0.15 | 0.26 | 26 |
| 2344 | 0.00 | 0.00 | 0.00 | 39 |
| 2345 | 0.00 | 0.00 | 0.00 | 36 |
| 2346 | 0.00 | 0.00 | 0.00 | 37 |
| 2347 | 0.00 | 0.00 | 0.00 | 18 |
| 2348 | 0.60 | 0.10 | 0.17 | 31 |
| 2349 | 0.50 | 0.05 | 0.09 | 20 |
| 2350 | 0.00 | 0.00 | 0.00 | 32 |
| 2351 | 0.00 | 0.00 | 0.00 | 32 |
| 2352 | 0.00 | 0.00 | 0.00 | 28 |
| 2353 | 0.00 | 0.00 | 0.00 | 22 |
| 2354 | 0.92 | 0.33 | 0.49 | 36 |
| 2355 | 0.67 | 0.06 | 0.11 | 33 |
| 2356 | 0.00 | 0.00 | 0.00 | 31 |
| 2357 | 0.60 | 0.09 | 0.16 | 32 |
| 2358 | 0.12 | 0.05 | 0.07 | 19 |
| 2359 | 0.00 | 0.00 | 0.00 | 29 |
| 2360 | 0.00 | 0.00 | 0.00 | 27 |
| 2361 | 0.00 | 0.00 | 0.00 | 25 |
| 2362 | 1.00 | 0.04 | 0.08 | 24 |
| 2363 | 0.00 | 0.00 | 0.00 | 35 |
| 2364 | 0.00 | 0.00 | 0.00 | 32 |
| 2365 | 0.00 | 0.00 | 0.00 | 39 |
| 2366 | 0.00 | 0.00 | 0.00 | 32 |
| 2367 | 0.00 | 0.00 | 0.00 | 31 |
| 2368 | 0.00 | 0.00 | 0.00 | 32 |
| 2369 | 0.00 | 0.00 | 0.00 | 29 |

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|------|------|------|------|----|
| 2370 | 0.00 | 0.00 | 0.00 | 32 |
| 2371 | 0.00 | 0.00 | 0.00 | 31 |
| 2372 | 0.00 | 0.00 | 0.00 | 32 |
| 2373 | 0.67 | 0.06 | 0.12 | 31 |
| 2374 | 0.00 | 0.00 | 0.00 | 30 |
| 2375 | 0.00 | 0.00 | 0.00 | 20 |
| 2376 | 0.83 | 0.18 | 0.29 | 28 |
| 2377 | 0.00 | 0.00 | 0.00 | 35 |
| 2378 | 0.00 | 0.00 | 0.00 | 24 |
| 2379 | 1.00 | 0.04 | 0.08 | 23 |
| 2380 | 0.00 | 0.00 | 0.00 | 31 |
| 2381 | 0.67 | 0.05 | 0.10 | 38 |
| 2382 | 0.00 | 0.00 | 0.00 | 26 |
| 2383 | 0.00 | 0.00 | 0.00 | 33 |
| 2384 | 0.00 | 0.00 | 0.00 | 36 |
| 2385 | 0.00 | 0.00 | 0.00 | 24 |
| 2386 | 0.54 | 0.33 | 0.41 | 21 |
| 2387 | 0.00 | 0.00 | 0.00 | 28 |
| 2388 | 0.00 | 0.00 | 0.00 | 22 |
| 2389 | 1.00 | 0.18 | 0.30 | 28 |
| 2390 | 0.88 | 0.20 | 0.33 | 35 |
| 2391 | 0.00 | 0.00 | 0.00 | 23 |
| 2392 | 0.00 | 0.00 | 0.00 | 27 |
| 2393 | 0.00 | 0.00 | 0.00 | 24 |
| 2394 | 1.00 | 0.43 | 0.61 | 23 |
| 2395 | 0.00 | 0.00 | 0.00 | 24 |
| 2396 | 1.00 | 0.03 | 0.06 | 31 |
| 2397 | 0.00 | 0.00 | 0.00 | 28 |
| 2398 | 0.00 | 0.00 | 0.00 | 35 |
| 2399 | 0.40 | 0.08 | 0.13 | 25 |
| 2400 | 0.00 | 0.00 | 0.00 | 33 |
| 2401 | 0.00 | 0.00 | 0.00 | 22 |
| 2402 | 0.25 | 0.03 | 0.05 | 36 |
| 2403 | 0.00 | 0.00 | 0.00 | 29 |
| 2404 | 0.50 | 0.08 | 0.13 | 26 |
| 2405 | 0.00 | 0.00 | 0.00 | 26 |
| 2406 | 0.58 | 0.42 | 0.49 | 26 |
| 2407 | 1.00 | 0.04 | 0.07 | 26 |
| 2408 | 1.00 | 0.03 | 0.06 | 32 |
| 2409 | 0.00 | 0.00 | 0.00 | 29 |
| 2410 | 0.00 | 0.00 | 0.00 | 26 |
| 2411 | 0.00 | 0.00 | 0.00 | 30 |
| 2412 | 0.00 | 0.00 | 0.00 | 30 |
| 2413 | 0.00 | 0.00 | 0.00 | 29 |
| 2414 | 0.00 | 0.00 | 0.00 | 33 |
| 2415 | 0.00 | 0.00 | 0.00 | 22 |
| 2416 | 0.00 | 0.00 | 0.00 | 27 |
| 2417 | 0.50 | 0.09 | 0.15 | 22 |
| 2418 | 0.00 | 0.00 | 0.00 | 33 |
| 2419 | 1.00 | 0.03 | 0.07 | 29 |
| 2420 | 0.00 | 0.00 | 0.00 | 38 |
| 2421 | 0.00 | 0.00 | 0.00 | 28 |
| 2422 | 0.00 | 0.00 | 0.00 | 25 |
| 2423 | 0.78 | 0.32 | 0.45 | 22 |
| 2424 | 0.50 | 0.03 | 0.05 | 35 |
| 2425 | 1.00 | 0.11 | 0.19 | 28 |
| 2426 | 0.50 | 0.03 | 0.06 | 34 |
| 2427 | 0.00 | 0.00 | 0.00 | 23 |
| 2428 | 0.00 | 0.00 | 0.00 | 30 |
| 2429 | 0.00 | 0.00 | 0.00 | 21 |
| 2430 | 0.00 | 0.00 | 0.00 | 26 |
| 2431 | 0.50 | 0.04 | 0.08 | 23 |
| 2432 | 0.00 | 0.00 | 0.00 | 33 |
| 2433 | 0.00 | 0.00 | 0.00 | 26 |
| 2434 | 0.78 | 0.48 | 0.60 | 29 |
| 2435 | 0.00 | 0.00 | 0.00 | 29 |
| 2436 | 0.00 | 0.00 | 0.00 | 29 |
| 2437 | 0.00 | 0.00 | 0.00 | 27 |
| 2438 | 0.00 | 0.00 | 0.00 | 26 |
| 2439 | 0.00 | 0.00 | 0.00 | 27 |
| 2440 | 0.00 | 0.00 | 0.00 | 28 |
| 2441 | 1.00 | 0.33 | 0.50 | 30 |
| 2442 | 0.00 | 0.00 | 0.00 | 26 |
| 2443 | 0.00 | 0.00 | 0.00 | 27 |
| 2444 | 0.00 | 0.00 | 0.00 | 30 |
| 2445 | 1.00 | 0.42 | 0.59 | 24 |
| 2446 | 0.00 | 0.00 | 0.00 | 21 |

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|------|------|------|------|----|
| 2447 | 0.80 | 0.13 | 0.22 | 31 |
| 2448 | 1.00 | 0.04 | 0.08 | 23 |
| 2449 | 0.00 | 0.00 | 0.00 | 34 |
| 2450 | 0.00 | 0.00 | 0.00 | 33 |
| 2451 | 0.00 | 0.00 | 0.00 | 27 |
| 2452 | 1.00 | 0.07 | 0.13 | 29 |
| 2453 | 0.75 | 0.10 | 0.18 | 29 |
| 2454 | 0.00 | 0.00 | 0.00 | 28 |
| 2455 | 0.17 | 0.04 | 0.06 | 27 |
| 2456 | 0.00 | 0.00 | 0.00 | 25 |
| 2457 | 0.00 | 0.00 | 0.00 | 26 |
| 2458 | 0.71 | 0.16 | 0.26 | 31 |
| 2459 | 0.00 | 0.00 | 0.00 | 31 |
| 2460 | 0.00 | 0.00 | 0.00 | 30 |
| 2461 | 1.00 | 0.18 | 0.30 | 28 |
| 2462 | 0.67 | 0.07 | 0.12 | 30 |
| 2463 | 0.00 | 0.00 | 0.00 | 33 |
| 2464 | 0.00 | 0.00 | 0.00 | 29 |
| 2465 | 0.00 | 0.00 | 0.00 | 19 |
| 2466 | 0.00 | 0.00 | 0.00 | 25 |
| 2467 | 0.00 | 0.00 | 0.00 | 32 |
| 2468 | 0.00 | 0.00 | 0.00 | 29 |
| 2469 | 0.00 | 0.00 | 0.00 | 23 |
| 2470 | 0.92 | 0.41 | 0.56 | 27 |
| 2471 | 0.00 | 0.00 | 0.00 | 19 |
| 2472 | 0.00 | 0.00 | 0.00 | 25 |
| 2473 | 0.00 | 0.00 | 0.00 | 31 |
| 2474 | 0.00 | 0.00 | 0.00 | 27 |
| 2475 | 0.00 | 0.00 | 0.00 | 25 |
| 2476 | 0.92 | 0.37 | 0.52 | 30 |
| 2477 | 0.00 | 0.00 | 0.00 | 32 |
| 2478 | 0.67 | 0.07 | 0.13 | 28 |
| 2479 | 0.00 | 0.00 | 0.00 | 32 |
| 2480 | 0.00 | 0.00 | 0.00 | 36 |
| 2481 | 0.00 | 0.00 | 0.00 | 30 |
| 2482 | 0.00 | 0.00 | 0.00 | 23 |
| 2483 | 0.00 | 0.00 | 0.00 | 29 |
| 2484 | 0.62 | 0.22 | 0.32 | 23 |
| 2485 | 0.00 | 0.00 | 0.00 | 20 |
| 2486 | 0.00 | 0.00 | 0.00 | 24 |
| 2487 | 0.00 | 0.00 | 0.00 | 26 |
| 2488 | 0.00 | 0.00 | 0.00 | 27 |
| 2489 | 1.00 | 0.03 | 0.06 | 32 |
| 2490 | 0.00 | 0.00 | 0.00 | 32 |
| 2491 | 0.00 | 0.00 | 0.00 | 24 |
| 2492 | 0.50 | 0.19 | 0.27 | 27 |
| 2493 | 0.00 | 0.00 | 0.00 | 26 |
| 2494 | 0.00 | 0.00 | 0.00 | 24 |
| 2495 | 0.00 | 0.00 | 0.00 | 28 |
| 2496 | 0.00 | 0.00 | 0.00 | 20 |
| 2497 | 0.50 | 0.03 | 0.06 | 29 |
| 2498 | 1.00 | 0.18 | 0.30 | 34 |
| 2499 | 0.92 | 0.44 | 0.59 | 25 |
| 2500 | 0.00 | 0.00 | 0.00 | 30 |
| 2501 | 0.00 | 0.00 | 0.00 | 27 |
| 2502 | 0.50 | 0.14 | 0.22 | 28 |
| 2503 | 0.00 | 0.00 | 0.00 | 22 |
| 2504 | 0.00 | 0.00 | 0.00 | 26 |
| 2505 | 0.00 | 0.00 | 0.00 | 28 |
| 2506 | 0.33 | 0.04 | 0.08 | 23 |
| 2507 | 0.00 | 0.00 | 0.00 | 17 |
| 2508 | 0.00 | 0.00 | 0.00 | 25 |
| 2509 | 0.00 | 0.00 | 0.00 | 34 |
| 2510 | 0.00 | 0.00 | 0.00 | 24 |
| 2511 | 0.40 | 0.11 | 0.17 | 19 |
| 2512 | 0.00 | 0.00 | 0.00 | 27 |
| 2513 | 0.00 | 0.00 | 0.00 | 30 |
| 2514 | 0.75 | 0.12 | 0.21 | 24 |
| 2515 | 0.00 | 0.00 | 0.00 | 26 |
| 2516 | 0.00 | 0.00 | 0.00 | 18 |
| 2517 | 0.00 | 0.00 | 0.00 | 36 |
| 2518 | 1.00 | 0.03 | 0.06 | 30 |
| 2519 | 0.00 | 0.00 | 0.00 | 31 |
| 2520 | 0.00 | 0.00 | 0.00 | 33 |
| 2521 | 1.00 | 0.33 | 0.50 | 21 |
| 2522 | 0.00 | 0.00 | 0.00 | 12 |
| 2523 | 0.00 | 0.00 | 0.00 | 27 |

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|------|------|------|------|----|
| 2524 | 0.89 | 0.35 | 0.50 | 23 |
| 2525 | 0.00 | 0.00 | 0.00 | 31 |
| 2526 | 0.00 | 0.00 | 0.00 | 35 |
| 2527 | 0.00 | 0.00 | 0.00 | 30 |
| 2528 | 0.00 | 0.00 | 0.00 | 24 |
| 2529 | 0.87 | 0.33 | 0.47 | 40 |
| 2530 | 0.25 | 0.03 | 0.05 | 33 |
| 2531 | 0.00 | 0.00 | 0.00 | 17 |
| 2532 | 0.00 | 0.00 | 0.00 | 29 |
| 2533 | 0.00 | 0.00 | 0.00 | 24 |
| 2534 | 1.00 | 0.07 | 0.13 | 28 |
| 2535 | 0.00 | 0.00 | 0.00 | 26 |
| 2536 | 0.00 | 0.00 | 0.00 | 26 |
| 2537 | 0.00 | 0.00 | 0.00 | 31 |
| 2538 | 0.00 | 0.00 | 0.00 | 28 |
| 2539 | 0.00 | 0.00 | 0.00 | 18 |
| 2540 | 0.67 | 0.20 | 0.31 | 30 |
| 2541 | 1.00 | 0.07 | 0.13 | 29 |
| 2542 | 0.00 | 0.00 | 0.00 | 23 |
| 2543 | 0.75 | 0.09 | 0.17 | 32 |
| 2544 | 1.00 | 0.19 | 0.31 | 27 |
| 2545 | 1.00 | 0.08 | 0.15 | 38 |
| 2546 | 1.00 | 0.04 | 0.07 | 26 |
| 2547 | 0.00 | 0.00 | 0.00 | 31 |
| 2548 | 0.00 | 0.00 | 0.00 | 27 |
| 2549 | 0.00 | 0.00 | 0.00 | 31 |
| 2550 | 0.67 | 0.08 | 0.14 | 26 |
| 2551 | 0.45 | 0.24 | 0.31 | 21 |
| 2552 | 0.00 | 0.00 | 0.00 | 28 |
| 2553 | 0.00 | 0.00 | 0.00 | 31 |
| 2554 | 0.67 | 0.11 | 0.18 | 19 |
| 2555 | 1.00 | 0.17 | 0.30 | 23 |
| 2556 | 0.60 | 0.39 | 0.47 | 23 |
| 2557 | 0.00 | 0.00 | 0.00 | 19 |
| 2558 | 0.00 | 0.00 | 0.00 | 23 |
| 2559 | 0.00 | 0.00 | 0.00 | 26 |
| 2560 | 0.00 | 0.00 | 0.00 | 20 |
| 2561 | 0.14 | 0.06 | 0.08 | 17 |
| 2562 | 1.00 | 0.10 | 0.18 | 20 |
| 2563 | 0.80 | 0.16 | 0.27 | 25 |
| 2564 | 0.00 | 0.00 | 0.00 | 21 |
| 2565 | 0.00 | 0.00 | 0.00 | 28 |
| 2566 | 0.00 | 0.00 | 0.00 | 26 |
| 2567 | 0.00 | 0.00 | 0.00 | 30 |
| 2568 | 0.00 | 0.00 | 0.00 | 37 |
| 2569 | 0.75 | 0.27 | 0.40 | 22 |
| 2570 | 1.00 | 0.12 | 0.22 | 24 |
| 2571 | 0.00 | 0.00 | 0.00 | 20 |
| 2572 | 0.00 | 0.00 | 0.00 | 26 |
| 2573 | 1.00 | 0.07 | 0.12 | 30 |
| 2574 | 0.00 | 0.00 | 0.00 | 29 |
| 2575 | 0.00 | 0.00 | 0.00 | 28 |
| 2576 | 0.00 | 0.00 | 0.00 | 22 |
| 2577 | 0.00 | 0.00 | 0.00 | 25 |
| 2578 | 0.00 | 0.00 | 0.00 | 24 |
| 2579 | 0.00 | 0.00 | 0.00 | 29 |
| 2580 | 0.00 | 0.00 | 0.00 | 27 |
| 2581 | 0.00 | 0.00 | 0.00 | 29 |
| 2582 | 0.00 | 0.00 | 0.00 | 21 |
| 2583 | 1.00 | 0.13 | 0.23 | 23 |
| 2584 | 0.00 | 0.00 | 0.00 | 27 |
| 2585 | 0.86 | 0.70 | 0.78 | 27 |
| 2586 | 0.00 | 0.00 | 0.00 | 25 |
| 2587 | 1.00 | 0.21 | 0.34 | 29 |
| 2588 | 0.00 | 0.00 | 0.00 | 20 |
| 2589 | 0.00 | 0.00 | 0.00 | 28 |
| 2590 | 0.00 | 0.00 | 0.00 | 28 |
| 2591 | 0.00 | 0.00 | 0.00 | 29 |
| 2592 | 1.00 | 0.05 | 0.10 | 20 |
| 2593 | 0.00 | 0.00 | 0.00 | 31 |
| 2594 | 0.00 | 0.00 | 0.00 | 19 |
| 2595 | 0.00 | 0.00 | 0.00 | 31 |
| 2596 | 0.00 | 0.00 | 0.00 | 28 |
| 2597 | 0.67 | 0.06 | 0.11 | 32 |
| 2598 | 0.60 | 0.10 | 0.18 | 29 |
| 2599 | 0.00 | 0.00 | 0.00 | 20 |
| 2600 | 0.00 | 0.00 | 0.00 | 18 |

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|------|------|------|------|----|
| 2601 | 0.00 | 0.00 | 0.00 | 14 |
| 2602 | 0.00 | 0.00 | 0.00 | 29 |
| 2603 | 0.25 | 0.04 | 0.07 | 26 |
| 2604 | 0.00 | 0.00 | 0.00 | 25 |
| 2605 | 0.00 | 0.00 | 0.00 | 23 |
| 2606 | 1.00 | 0.05 | 0.09 | 22 |
| 2607 | 0.00 | 0.00 | 0.00 | 25 |
| 2608 | 1.00 | 0.04 | 0.08 | 25 |
| 2609 | 0.00 | 0.00 | 0.00 | 30 |
| 2610 | 0.00 | 0.00 | 0.00 | 26 |
| 2611 | 0.00 | 0.00 | 0.00 | 26 |
| 2612 | 0.00 | 0.00 | 0.00 | 30 |
| 2613 | 0.00 | 0.00 | 0.00 | 28 |
| 2614 | 0.00 | 0.00 | 0.00 | 28 |
| 2615 | 0.00 | 0.00 | 0.00 | 32 |
| 2616 | 0.00 | 0.00 | 0.00 | 23 |
| 2617 | 0.00 | 0.00 | 0.00 | 21 |
| 2618 | 0.00 | 0.00 | 0.00 | 26 |
| 2619 | 0.00 | 0.00 | 0.00 | 29 |
| 2620 | 0.86 | 0.32 | 0.46 | 19 |
| 2621 | 0.00 | 0.00 | 0.00 | 28 |
| 2622 | 0.00 | 0.00 | 0.00 | 23 |
| 2623 | 0.00 | 0.00 | 0.00 | 26 |
| 2624 | 0.00 | 0.00 | 0.00 | 24 |
| 2625 | 0.00 | 0.00 | 0.00 | 24 |
| 2626 | 0.00 | 0.00 | 0.00 | 30 |
| 2627 | 0.00 | 0.00 | 0.00 | 28 |
| 2628 | 0.83 | 0.29 | 0.43 | 17 |
| 2629 | 0.00 | 0.00 | 0.00 | 31 |
| 2630 | 0.00 | 0.00 | 0.00 | 30 |
| 2631 | 0.00 | 0.00 | 0.00 | 33 |
| 2632 | 0.00 | 0.00 | 0.00 | 31 |
| 2633 | 0.86 | 0.16 | 0.27 | 37 |
| 2634 | 0.00 | 0.00 | 0.00 | 21 |
| 2635 | 0.00 | 0.00 | 0.00 | 30 |
| 2636 | 0.00 | 0.00 | 0.00 | 22 |
| 2637 | 0.00 | 0.00 | 0.00 | 24 |
| 2638 | 0.00 | 0.00 | 0.00 | 29 |
| 2639 | 0.00 | 0.00 | 0.00 | 29 |
| 2640 | 0.00 | 0.00 | 0.00 | 20 |
| 2641 | 0.00 | 0.00 | 0.00 | 27 |
| 2642 | 0.00 | 0.00 | 0.00 | 28 |
| 2643 | 0.00 | 0.00 | 0.00 | 29 |
| 2644 | 0.89 | 0.31 | 0.46 | 26 |
| 2645 | 0.00 | 0.00 | 0.00 | 22 |
| 2646 | 0.00 | 0.00 | 0.00 | 20 |
| 2647 | 0.67 | 0.07 | 0.13 | 27 |
| 2648 | 0.00 | 0.00 | 0.00 | 30 |
| 2649 | 0.00 | 0.00 | 0.00 | 19 |
| 2650 | 0.00 | 0.00 | 0.00 | 15 |
| 2651 | 0.00 | 0.00 | 0.00 | 32 |
| 2652 | 0.00 | 0.00 | 0.00 | 19 |
| 2653 | 0.00 | 0.00 | 0.00 | 28 |
| 2654 | 1.00 | 0.35 | 0.52 | 23 |
| 2655 | 0.00 | 0.00 | 0.00 | 27 |
| 2656 | 0.00 | 0.00 | 0.00 | 26 |
| 2657 | 0.00 | 0.00 | 0.00 | 31 |
| 2658 | 0.00 | 0.00 | 0.00 | 21 |
| 2659 | 0.50 | 0.04 | 0.07 | 28 |
| 2660 | 0.00 | 0.00 | 0.00 | 24 |
| 2661 | 0.00 | 0.00 | 0.00 | 18 |
| 2662 | 0.83 | 0.19 | 0.31 | 26 |
| 2663 | 0.00 | 0.00 | 0.00 | 26 |
| 2664 | 0.00 | 0.00 | 0.00 | 28 |
| 2665 | 0.00 | 0.00 | 0.00 | 22 |
| 2666 | 0.67 | 0.07 | 0.13 | 28 |
| 2667 | 0.00 | 0.00 | 0.00 | 31 |
| 2668 | 0.00 | 0.00 | 0.00 | 18 |
| 2669 | 0.00 | 0.00 | 0.00 | 32 |
| 2670 | 0.00 | 0.00 | 0.00 | 24 |
| 2671 | 0.00 | 0.00 | 0.00 | 22 |
| 2672 | 0.00 | 0.00 | 0.00 | 23 |
| 2673 | 0.93 | 0.56 | 0.70 | 25 |
| 2674 | 0.50 | 0.04 | 0.07 | 26 |
| 2675 | 1.00 | 0.13 | 0.23 | 23 |
| 2676 | 0.00 | 0.00 | 0.00 | 23 |
| 2677 | 0.00 | 0.00 | 0.00 | 24 |

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| 2678 | 0.00 | 0.00 | 0.00 | 26 |
| 2679 | 0.00 | 0.00 | 0.00 | 19 |
| 2680 | 0.00 | 0.00 | 0.00 | 19 |
| 2681 | 0.00 | 0.00 | 0.00 | 21 |
| 2682 | 0.89 | 0.27 | 0.41 | 30 |
| 2683 | 0.00 | 0.00 | 0.00 | 28 |
| 2684 | 0.00 | 0.00 | 0.00 | 26 |
| 2685 | 0.00 | 0.00 | 0.00 | 23 |
| 2686 | 0.50 | 0.11 | 0.18 | 28 |
| 2687 | 0.00 | 0.00 | 0.00 | 21 |
| 2688 | 0.00 | 0.00 | 0.00 | 32 |
| 2689 | 0.00 | 0.00 | 0.00 | 27 |
| 2690 | 1.00 | 0.17 | 0.30 | 23 |
| 2691 | 0.00 | 0.00 | 0.00 | 23 |
| 2692 | 0.00 | 0.00 | 0.00 | 24 |
| 2693 | 0.00 | 0.00 | 0.00 | 24 |
| 2694 | 0.00 | 0.00 | 0.00 | 20 |
| 2695 | 0.00 | 0.00 | 0.00 | 29 |
| 2696 | 0.00 | 0.00 | 0.00 | 20 |
| 2697 | 0.80 | 0.15 | 0.26 | 26 |
| 2698 | 0.00 | 0.00 | 0.00 | 30 |
| 2699 | 0.00 | 0.00 | 0.00 | 20 |
| 2700 | 0.00 | 0.00 | 0.00 | 25 |
| 2701 | 1.00 | 0.04 | 0.08 | 23 |
| 2702 | 0.00 | 0.00 | 0.00 | 24 |
| 2703 | 0.40 | 0.08 | 0.14 | 24 |
| 2704 | 0.00 | 0.00 | 0.00 | 29 |
| 2705 | 0.00 | 0.00 | 0.00 | 36 |
| 2706 | 0.20 | 0.03 | 0.06 | 29 |
| 2707 | 0.00 | 0.00 | 0.00 | 25 |
| 2708 | 0.00 | 0.00 | 0.00 | 21 |
| 2709 | 0.67 | 0.07 | 0.13 | 28 |
| 2710 | 0.00 | 0.00 | 0.00 | 14 |
| 2711 | 0.00 | 0.00 | 0.00 | 28 |
| 2712 | 0.00 | 0.00 | 0.00 | 21 |
| 2713 | 0.00 | 0.00 | 0.00 | 33 |
| 2714 | 0.00 | 0.00 | 0.00 | 21 |
| 2715 | 0.50 | 0.04 | 0.08 | 23 |
| 2716 | 0.00 | 0.00 | 0.00 | 26 |
| 2717 | 0.00 | 0.00 | 0.00 | 22 |
| 2718 | 0.50 | 0.07 | 0.12 | 30 |
| 2719 | 0.00 | 0.00 | 0.00 | 25 |
| 2720 | 0.00 | 0.00 | 0.00 | 25 |
| 2721 | 0.00 | 0.00 | 0.00 | 23 |
| 2722 | 0.00 | 0.00 | 0.00 | 20 |
| 2723 | 0.00 | 0.00 | 0.00 | 29 |
| 2724 | 0.00 | 0.00 | 0.00 | 20 |
| 2725 | 0.78 | 0.33 | 0.47 | 21 |
| 2726 | 0.00 | 0.00 | 0.00 | 25 |
| 2727 | 0.00 | 0.00 | 0.00 | 27 |
| 2728 | 0.00 | 0.00 | 0.00 | 24 |
| 2729 | 1.00 | 0.33 | 0.50 | 15 |
| 2730 | 0.00 | 0.00 | 0.00 | 26 |
| 2731 | 0.00 | 0.00 | 0.00 | 28 |
| 2732 | 0.00 | 0.00 | 0.00 | 30 |
| 2733 | 0.00 | 0.00 | 0.00 | 35 |
| 2734 | 0.80 | 0.17 | 0.28 | 24 |
| 2735 | 0.00 | 0.00 | 0.00 | 17 |
| 2736 | 0.50 | 0.19 | 0.28 | 26 |
| 2737 | 0.00 | 0.00 | 0.00 | 22 |
| 2738 | 0.00 | 0.00 | 0.00 | 33 |
| 2739 | 0.00 | 0.00 | 0.00 | 29 |
| 2740 | 0.00 | 0.00 | 0.00 | 28 |
| 2741 | 1.00 | 0.33 | 0.50 | 27 |
| 2742 | 1.00 | 0.52 | 0.69 | 23 |
| 2743 | 0.00 | 0.00 | 0.00 | 23 |
| 2744 | 0.00 | 0.00 | 0.00 | 20 |
| 2745 | 0.00 | 0.00 | 0.00 | 28 |
| 2746 | 0.00 | 0.00 | 0.00 | 25 |
| 2747 | 0.00 | 0.00 | 0.00 | 22 |
| 2748 | 0.00 | 0.00 | 0.00 | 24 |
| 2749 | 0.00 | 0.00 | 0.00 | 28 |
| 2750 | 1.00 | 0.10 | 0.19 | 29 |
| 2751 | 0.00 | 0.00 | 0.00 | 25 |
| 2752 | 0.00 | 0.00 | 0.00 | 23 |
| 2753 | 0.00 | 0.00 | 0.00 | 30 |
| 2754 | 0.00 | 0.00 | 0.00 | 20 |

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|------|------|------|------|----|
| 2755 | 0.00 | 0.00 | 0.00 | 23 |
| 2756 | 0.00 | 0.00 | 0.00 | 26 |
| 2757 | 1.00 | 0.06 | 0.11 | 18 |
| 2758 | 0.80 | 0.22 | 0.35 | 18 |
| 2759 | 0.00 | 0.00 | 0.00 | 23 |
| 2760 | 0.00 | 0.00 | 0.00 | 30 |
| 2761 | 0.00 | 0.00 | 0.00 | 18 |
| 2762 | 0.00 | 0.00 | 0.00 | 21 |
| 2763 | 0.00 | 0.00 | 0.00 | 20 |
| 2764 | 0.00 | 0.00 | 0.00 | 17 |
| 2765 | 0.00 | 0.00 | 0.00 | 28 |
| 2766 | 1.00 | 0.06 | 0.11 | 18 |
| 2767 | 0.00 | 0.00 | 0.00 | 24 |
| 2768 | 1.00 | 0.25 | 0.40 | 24 |
| 2769 | 0.00 | 0.00 | 0.00 | 23 |
| 2770 | 0.00 | 0.00 | 0.00 | 19 |
| 2771 | 0.00 | 0.00 | 0.00 | 23 |
| 2772 | 1.00 | 0.11 | 0.19 | 19 |
| 2773 | 0.00 | 0.00 | 0.00 | 19 |
| 2774 | 1.00 | 0.24 | 0.38 | 21 |
| 2775 | 0.00 | 0.00 | 0.00 | 19 |
| 2776 | 0.00 | 0.00 | 0.00 | 23 |
| 2777 | 0.00 | 0.00 | 0.00 | 29 |
| 2778 | 0.00 | 0.00 | 0.00 | 21 |
| 2779 | 0.00 | 0.00 | 0.00 | 20 |
| 2780 | 0.00 | 0.00 | 0.00 | 23 |
| 2781 | 0.00 | 0.00 | 0.00 | 26 |
| 2782 | 0.00 | 0.00 | 0.00 | 31 |
| 2783 | 0.00 | 0.00 | 0.00 | 24 |
| 2784 | 0.00 | 0.00 | 0.00 | 23 |
| 2785 | 0.00 | 0.00 | 0.00 | 17 |
| 2786 | 0.00 | 0.00 | 0.00 | 26 |
| 2787 | 0.00 | 0.00 | 0.00 | 27 |
| 2788 | 0.71 | 0.20 | 0.31 | 25 |
| 2789 | 0.00 | 0.00 | 0.00 | 21 |
| 2790 | 0.00 | 0.00 | 0.00 | 23 |
| 2791 | 0.00 | 0.00 | 0.00 | 29 |
| 2792 | 0.00 | 0.00 | 0.00 | 35 |
| 2793 | 0.00 | 0.00 | 0.00 | 18 |
| 2794 | 0.00 | 0.00 | 0.00 | 17 |
| 2795 | 0.00 | 0.00 | 0.00 | 21 |
| 2796 | 0.00 | 0.00 | 0.00 | 19 |
| 2797 | 1.00 | 0.05 | 0.09 | 21 |
| 2798 | 0.00 | 0.00 | 0.00 | 17 |
| 2799 | 0.00 | 0.00 | 0.00 | 22 |
| 2800 | 1.00 | 0.04 | 0.08 | 24 |
| 2801 | 0.50 | 0.11 | 0.17 | 19 |
| 2802 | 0.00 | 0.00 | 0.00 | 23 |
| 2803 | 0.00 | 0.00 | 0.00 | 17 |
| 2804 | 0.00 | 0.00 | 0.00 | 23 |
| 2805 | 0.00 | 0.00 | 0.00 | 22 |
| 2806 | 0.00 | 0.00 | 0.00 | 24 |
| 2807 | 0.00 | 0.00 | 0.00 | 18 |
| 2808 | 1.00 | 0.04 | 0.08 | 24 |
| 2809 | 1.00 | 0.04 | 0.08 | 24 |
| 2810 | 0.00 | 0.00 | 0.00 | 20 |
| 2811 | 0.00 | 0.00 | 0.00 | 20 |
| 2812 | 0.00 | 0.00 | 0.00 | 23 |
| 2813 | 0.00 | 0.00 | 0.00 | 24 |
| 2814 | 0.00 | 0.00 | 0.00 | 17 |
| 2815 | 0.00 | 0.00 | 0.00 | 26 |
| 2816 | 0.00 | 0.00 | 0.00 | 16 |
| 2817 | 0.00 | 0.00 | 0.00 | 23 |
| 2818 | 0.00 | 0.00 | 0.00 | 26 |
| 2819 | 0.25 | 0.07 | 0.11 | 14 |
| 2820 | 0.00 | 0.00 | 0.00 | 22 |
| 2821 | 1.00 | 0.10 | 0.17 | 21 |
| 2822 | 0.00 | 0.00 | 0.00 | 24 |
| 2823 | 0.00 | 0.00 | 0.00 | 18 |
| 2824 | 0.00 | 0.00 | 0.00 | 26 |
| 2825 | 0.00 | 0.00 | 0.00 | 18 |
| 2826 | 0.75 | 0.15 | 0.25 | 20 |
| 2827 | 0.00 | 0.00 | 0.00 | 17 |
| 2828 | 0.00 | 0.00 | 0.00 | 25 |
| 2829 | 1.00 | 0.04 | 0.07 | 28 |
| 2830 | 0.00 | 0.00 | 0.00 | 19 |
| 2831 | 0.00 | 0.00 | 0.00 | 25 |

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|------|------|------|------|----|
| 2832 | 0.00 | 0.00 | 0.00 | 20 |
| 2833 | 0.00 | 0.00 | 0.00 | 21 |
| 2834 | 0.00 | 0.00 | 0.00 | 25 |
| 2835 | 1.00 | 0.17 | 0.29 | 18 |
| 2836 | 0.00 | 0.00 | 0.00 | 26 |
| 2837 | 0.00 | 0.00 | 0.00 | 31 |
| 2838 | 1.00 | 0.08 | 0.15 | 24 |
| 2839 | 0.00 | 0.00 | 0.00 | 21 |
| 2840 | 0.00 | 0.00 | 0.00 | 20 |
| 2841 | 0.00 | 0.00 | 0.00 | 28 |
| 2842 | 1.00 | 0.23 | 0.37 | 35 |
| 2843 | 1.00 | 0.16 | 0.27 | 19 |
| 2844 | 0.00 | 0.00 | 0.00 | 24 |
| 2845 | 0.00 | 0.00 | 0.00 | 21 |
| 2846 | 1.00 | 0.08 | 0.15 | 25 |
| 2847 | 0.00 | 0.00 | 0.00 | 23 |
| 2848 | 0.00 | 0.00 | 0.00 | 26 |
| 2849 | 0.00 | 0.00 | 0.00 | 30 |
| 2850 | 0.00 | 0.00 | 0.00 | 31 |
| 2851 | 1.00 | 0.16 | 0.27 | 19 |
| 2852 | 0.00 | 0.00 | 0.00 | 29 |
| 2853 | 0.00 | 0.00 | 0.00 | 27 |
| 2854 | 0.00 | 0.00 | 0.00 | 22 |
| 2855 | 0.00 | 0.00 | 0.00 | 27 |
| 2856 | 0.00 | 0.00 | 0.00 | 18 |
| 2857 | 0.00 | 0.00 | 0.00 | 18 |
| 2858 | 0.00 | 0.00 | 0.00 | 22 |
| 2859 | 0.00 | 0.00 | 0.00 | 19 |
| 2860 | 0.00 | 0.00 | 0.00 | 22 |
| 2861 | 0.00 | 0.00 | 0.00 | 21 |
| 2862 | 0.00 | 0.00 | 0.00 | 23 |
| 2863 | 0.00 | 0.00 | 0.00 | 24 |
| 2864 | 0.00 | 0.00 | 0.00 | 28 |
| 2865 | 0.00 | 0.00 | 0.00 | 18 |
| 2866 | 0.67 | 0.27 | 0.39 | 22 |
| 2867 | 0.00 | 0.00 | 0.00 | 28 |
| 2868 | 0.00 | 0.00 | 0.00 | 27 |
| 2869 | 0.00 | 0.00 | 0.00 | 24 |
| 2870 | 0.00 | 0.00 | 0.00 | 21 |
| 2871 | 0.00 | 0.00 | 0.00 | 22 |
| 2872 | 0.00 | 0.00 | 0.00 | 21 |
| 2873 | 0.00 | 0.00 | 0.00 | 26 |
| 2874 | 0.00 | 0.00 | 0.00 | 25 |
| 2875 | 1.00 | 0.05 | 0.09 | 21 |
| 2876 | 0.00 | 0.00 | 0.00 | 25 |
| 2877 | 0.00 | 0.00 | 0.00 | 22 |
| 2878 | 0.80 | 0.19 | 0.31 | 21 |
| 2879 | 1.00 | 0.11 | 0.20 | 27 |
| 2880 | 1.00 | 0.04 | 0.08 | 24 |
| 2881 | 0.00 | 0.00 | 0.00 | 26 |
| 2882 | 0.00 | 0.00 | 0.00 | 29 |
| 2883 | 0.00 | 0.00 | 0.00 | 26 |
| 2884 | 0.00 | 0.00 | 0.00 | 25 |
| 2885 | 0.33 | 0.05 | 0.09 | 19 |
| 2886 | 0.83 | 0.26 | 0.40 | 19 |
| 2887 | 0.00 | 0.00 | 0.00 | 18 |
| 2888 | 0.00 | 0.00 | 0.00 | 22 |
| 2889 | 0.00 | 0.00 | 0.00 | 20 |
| 2890 | 0.00 | 0.00 | 0.00 | 28 |
| 2891 | 0.00 | 0.00 | 0.00 | 34 |
| 2892 | 0.00 | 0.00 | 0.00 | 18 |
| 2893 | 0.00 | 0.00 | 0.00 | 26 |
| 2894 | 0.00 | 0.00 | 0.00 | 19 |
| 2895 | 0.00 | 0.00 | 0.00 | 26 |
| 2896 | 0.00 | 0.00 | 0.00 | 17 |
| 2897 | 0.00 | 0.00 | 0.00 | 25 |
| 2898 | 0.00 | 0.00 | 0.00 | 19 |
| 2899 | 0.00 | 0.00 | 0.00 | 19 |
| 2900 | 0.00 | 0.00 | 0.00 | 28 |
| 2901 | 0.00 | 0.00 | 0.00 | 27 |
| 2902 | 0.00 | 0.00 | 0.00 | 19 |
| 2903 | 0.00 | 0.00 | 0.00 | 26 |
| 2904 | 0.00 | 0.00 | 0.00 | 21 |
| 2905 | 1.00 | 0.16 | 0.27 | 19 |
| 2906 | 0.00 | 0.00 | 0.00 | 19 |
| 2907 | 1.00 | 0.20 | 0.33 | 20 |
| 2908 | 0.00 | 0.00 | 0.00 | 19 |

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| 2909 | 0.00 | 0.00 | 0.00 | 23 |
| 2910 | 0.00 | 0.00 | 0.00 | 20 |
| 2911 | 0.00 | 0.00 | 0.00 | 24 |
| 2912 | 1.00 | 0.05 | 0.09 | 22 |
| 2913 | 0.00 | 0.00 | 0.00 | 21 |
| 2914 | 0.00 | 0.00 | 0.00 | 28 |
| 2915 | 0.00 | 0.00 | 0.00 | 20 |
| 2916 | 0.00 | 0.00 | 0.00 | 24 |
| 2917 | 0.00 | 0.00 | 0.00 | 23 |
| 2918 | 1.00 | 0.04 | 0.08 | 25 |
| 2919 | 0.00 | 0.00 | 0.00 | 18 |
| 2920 | 1.00 | 0.14 | 0.25 | 21 |
| 2921 | 0.00 | 0.00 | 0.00 | 28 |
| 2922 | 0.00 | 0.00 | 0.00 | 17 |
| 2923 | 0.00 | 0.00 | 0.00 | 17 |
| 2924 | 0.00 | 0.00 | 0.00 | 25 |
| 2925 | 0.00 | 0.00 | 0.00 | 18 |
| 2926 | 0.00 | 0.00 | 0.00 | 20 |
| 2927 | 0.00 | 0.00 | 0.00 | 22 |
| 2928 | 1.00 | 0.05 | 0.09 | 21 |
| 2929 | 0.00 | 0.00 | 0.00 | 15 |
| 2930 | 0.00 | 0.00 | 0.00 | 21 |
| 2931 | 0.00 | 0.00 | 0.00 | 25 |
| 2932 | 0.00 | 0.00 | 0.00 | 21 |
| 2933 | 0.00 | 0.00 | 0.00 | 12 |
| 2934 | 0.00 | 0.00 | 0.00 | 29 |
| 2935 | 0.00 | 0.00 | 0.00 | 29 |
| 2936 | 0.00 | 0.00 | 0.00 | 20 |
| 2937 | 0.67 | 0.09 | 0.16 | 22 |
| 2938 | 0.00 | 0.00 | 0.00 | 24 |
| 2939 | 1.00 | 0.16 | 0.28 | 31 |
| 2940 | 0.00 | 0.00 | 0.00 | 23 |
| 2941 | 0.00 | 0.00 | 0.00 | 24 |
| 2942 | 0.00 | 0.00 | 0.00 | 23 |
| 2943 | 0.00 | 0.00 | 0.00 | 22 |
| 2944 | 0.00 | 0.00 | 0.00 | 17 |
| 2945 | 0.00 | 0.00 | 0.00 | 22 |
| 2946 | 0.00 | 0.00 | 0.00 | 17 |
| 2947 | 0.00 | 0.00 | 0.00 | 27 |
| 2948 | 0.00 | 0.00 | 0.00 | 18 |
| 2949 | 0.00 | 0.00 | 0.00 | 23 |
| 2950 | 0.00 | 0.00 | 0.00 | 22 |
| 2951 | 0.80 | 0.21 | 0.33 | 19 |
| 2952 | 0.00 | 0.00 | 0.00 | 15 |
| 2953 | 1.00 | 0.16 | 0.27 | 19 |
| 2954 | 0.00 | 0.00 | 0.00 | 19 |
| 2955 | 0.00 | 0.00 | 0.00 | 17 |
| 2956 | 0.00 | 0.00 | 0.00 | 20 |
| 2957 | 1.00 | 0.06 | 0.12 | 16 |
| 2958 | 0.00 | 0.00 | 0.00 | 17 |
| 2959 | 0.00 | 0.00 | 0.00 | 24 |
| 2960 | 0.00 | 0.00 | 0.00 | 23 |
| 2961 | 0.00 | 0.00 | 0.00 | 28 |
| 2962 | 0.50 | 0.05 | 0.10 | 19 |
| 2963 | 0.00 | 0.00 | 0.00 | 17 |
| 2964 | 0.00 | 0.00 | 0.00 | 25 |
| 2965 | 0.00 | 0.00 | 0.00 | 24 |
| 2966 | 0.00 | 0.00 | 0.00 | 18 |
| 2967 | 0.00 | 0.00 | 0.00 | 22 |
| 2968 | 0.00 | 0.00 | 0.00 | 17 |
| 2969 | 0.00 | 0.00 | 0.00 | 16 |
| 2970 | 0.00 | 0.00 | 0.00 | 24 |
| 2971 | 0.00 | 0.00 | 0.00 | 25 |
| 2972 | 0.00 | 0.00 | 0.00 | 18 |
| 2973 | 0.00 | 0.00 | 0.00 | 24 |
| 2974 | 0.00 | 0.00 | 0.00 | 19 |
| 2975 | 0.00 | 0.00 | 0.00 | 27 |
| 2976 | 0.00 | 0.00 | 0.00 | 21 |
| 2977 | 0.67 | 0.09 | 0.15 | 23 |
| 2978 | 0.00 | 0.00 | 0.00 | 26 |
| 2979 | 0.00 | 0.00 | 0.00 | 22 |
| 2980 | 0.00 | 0.00 | 0.00 | 24 |
| 2981 | 0.00 | 0.00 | 0.00 | 19 |
| 2982 | 1.00 | 0.05 | 0.09 | 21 |
| 2983 | 0.00 | 0.00 | 0.00 | 23 |
| 2984 | 0.00 | 0.00 | 0.00 | 24 |
| 2985 | 1.00 | 0.09 | 0.16 | 23 |

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| 2986 | 1.00 | 0.09 | 0.16 | 23 |
| 2987 | 0.00 | 0.00 | 0.00 | 25 |
| 2988 | 1.00 | 0.17 | 0.29 | 24 |
| 2989 | 0.00 | 0.00 | 0.00 | 17 |
| 2990 | 0.00 | 0.00 | 0.00 | 23 |
| 2991 | 0.00 | 0.00 | 0.00 | 27 |
| 2992 | 0.00 | 0.00 | 0.00 | 18 |
| 2993 | 1.00 | 0.21 | 0.35 | 19 |
| 2994 | 0.00 | 0.00 | 0.00 | 27 |
| 2995 | 0.40 | 0.08 | 0.13 | 25 |
| 2996 | 0.00 | 0.00 | 0.00 | 21 |
| 2997 | 0.00 | 0.00 | 0.00 | 16 |
| 2998 | 0.00 | 0.00 | 0.00 | 28 |
| 2999 | 0.00 | 0.00 | 0.00 | 25 |
| 3000 | 0.00 | 0.00 | 0.00 | 16 |
| 3001 | 0.00 | 0.00 | 0.00 | 23 |
| 3002 | 0.00 | 0.00 | 0.00 | 20 |
| 3003 | 0.00 | 0.00 | 0.00 | 28 |
| 3004 | 0.00 | 0.00 | 0.00 | 14 |
| 3005 | 1.00 | 0.05 | 0.09 | 21 |
| 3006 | 0.00 | 0.00 | 0.00 | 19 |
| 3007 | 0.00 | 0.00 | 0.00 | 26 |
| 3008 | 0.00 | 0.00 | 0.00 | 27 |
| 3009 | 0.50 | 0.04 | 0.07 | 26 |
| 3010 | 0.00 | 0.00 | 0.00 | 20 |
| 3011 | 0.00 | 0.00 | 0.00 | 21 |
| 3012 | 0.00 | 0.00 | 0.00 | 21 |
| 3013 | 0.00 | 0.00 | 0.00 | 15 |
| 3014 | 0.00 | 0.00 | 0.00 | 27 |
| 3015 | 0.67 | 0.11 | 0.18 | 19 |
| 3016 | 1.00 | 0.05 | 0.10 | 19 |
| 3017 | 0.00 | 0.00 | 0.00 | 20 |
| 3018 | 0.00 | 0.00 | 0.00 | 19 |
| 3019 | 1.00 | 0.06 | 0.12 | 16 |
| 3020 | 0.00 | 0.00 | 0.00 | 15 |
| 3021 | 0.50 | 0.06 | 0.10 | 18 |
| 3022 | 0.00 | 0.00 | 0.00 | 18 |
| 3023 | 0.00 | 0.00 | 0.00 | 21 |
| 3024 | 1.00 | 0.27 | 0.42 | 26 |
| 3025 | 0.00 | 0.00 | 0.00 | 18 |
| 3026 | 0.50 | 0.04 | 0.08 | 23 |
| 3027 | 0.00 | 0.00 | 0.00 | 28 |
| 3028 | 0.83 | 0.24 | 0.37 | 21 |
| 3029 | 0.75 | 0.14 | 0.23 | 22 |
| 3030 | 0.00 | 0.00 | 0.00 | 21 |
| 3031 | 0.00 | 0.00 | 0.00 | 19 |
| 3032 | 0.00 | 0.00 | 0.00 | 23 |
| 3033 | 0.00 | 0.00 | 0.00 | 21 |
| 3034 | 0.00 | 0.00 | 0.00 | 17 |
| 3035 | 0.00 | 0.00 | 0.00 | 20 |
| 3036 | 0.67 | 0.10 | 0.17 | 21 |
| 3037 | 0.00 | 0.00 | 0.00 | 26 |
| 3038 | 0.00 | 0.00 | 0.00 | 27 |
| 3039 | 0.00 | 0.00 | 0.00 | 21 |
| 3040 | 0.00 | 0.00 | 0.00 | 19 |
| 3041 | 0.00 | 0.00 | 0.00 | 20 |
| 3042 | 0.00 | 0.00 | 0.00 | 24 |
| 3043 | 0.00 | 0.00 | 0.00 | 28 |
| 3044 | 0.00 | 0.00 | 0.00 | 18 |
| 3045 | 0.00 | 0.00 | 0.00 | 26 |
| 3046 | 0.00 | 0.00 | 0.00 | 26 |
| 3047 | 0.00 | 0.00 | 0.00 | 23 |
| 3048 | 0.00 | 0.00 | 0.00 | 18 |
| 3049 | 0.00 | 0.00 | 0.00 | 23 |
| 3050 | 1.00 | 0.18 | 0.30 | 17 |
| 3051 | 0.50 | 0.04 | 0.07 | 26 |
| 3052 | 0.00 | 0.00 | 0.00 | 32 |
| 3053 | 0.00 | 0.00 | 0.00 | 24 |
| 3054 | 0.00 | 0.00 | 0.00 | 16 |
| 3055 | 0.00 | 0.00 | 0.00 | 21 |
| 3056 | 0.00 | 0.00 | 0.00 | 23 |
| 3057 | 0.00 | 0.00 | 0.00 | 28 |
| 3058 | 0.00 | 0.00 | 0.00 | 13 |
| 3059 | 0.00 | 0.00 | 0.00 | 17 |
| 3060 | 0.00 | 0.00 | 0.00 | 15 |
| 3061 | 0.00 | 0.00 | 0.00 | 19 |
| 3062 | 0.00 | 0.00 | 0.00 | 18 |

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|------|------|------|------|----|
| 3062 | 0.00 | 0.00 | 0.00 | 18 |
| 3063 | 0.00 | 0.00 | 0.00 | 18 |
| 3064 | 0.00 | 0.00 | 0.00 | 22 |
| 3065 | 0.00 | 0.00 | 0.00 | 16 |
| 3066 | 0.00 | 0.00 | 0.00 | 18 |
| 3067 | 0.00 | 0.00 | 0.00 | 18 |
| 3068 | 0.00 | 0.00 | 0.00 | 22 |
| 3069 | 0.00 | 0.00 | 0.00 | 27 |
| 3070 | 0.00 | 0.00 | 0.00 | 23 |
| 3071 | 0.00 | 0.00 | 0.00 | 16 |
| 3072 | 0.00 | 0.00 | 0.00 | 24 |
| 3073 | 1.00 | 0.50 | 0.67 | 20 |
| 3074 | 0.00 | 0.00 | 0.00 | 22 |
| 3075 | 1.00 | 0.04 | 0.08 | 25 |
| 3076 | 0.00 | 0.00 | 0.00 | 18 |
| 3077 | 0.00 | 0.00 | 0.00 | 21 |
| 3078 | 0.00 | 0.00 | 0.00 | 18 |
| 3079 | 0.00 | 0.00 | 0.00 | 15 |
| 3080 | 1.00 | 0.07 | 0.12 | 15 |
| 3081 | 0.00 | 0.00 | 0.00 | 20 |
| 3082 | 0.00 | 0.00 | 0.00 | 23 |
| 3083 | 0.00 | 0.00 | 0.00 | 17 |
| 3084 | 0.00 | 0.00 | 0.00 | 16 |
| 3085 | 0.00 | 0.00 | 0.00 | 25 |
| 3086 | 0.00 | 0.00 | 0.00 | 13 |
| 3087 | 0.00 | 0.00 | 0.00 | 24 |
| 3088 | 0.00 | 0.00 | 0.00 | 22 |
| 3089 | 0.00 | 0.00 | 0.00 | 25 |
| 3090 | 0.00 | 0.00 | 0.00 | 21 |
| 3091 | 0.00 | 0.00 | 0.00 | 15 |
| 3092 | 0.00 | 0.00 | 0.00 | 19 |
| 3093 | 0.00 | 0.00 | 0.00 | 21 |
| 3094 | 0.00 | 0.00 | 0.00 | 22 |
| 3095 | 0.00 | 0.00 | 0.00 | 22 |
| 3096 | 0.00 | 0.00 | 0.00 | 26 |
| 3097 | 0.00 | 0.00 | 0.00 | 23 |
| 3098 | 0.00 | 0.00 | 0.00 | 22 |
| 3099 | 0.00 | 0.00 | 0.00 | 17 |
| 3100 | 1.00 | 0.22 | 0.36 | 18 |
| 3101 | 0.00 | 0.00 | 0.00 | 19 |
| 3102 | 0.00 | 0.00 | 0.00 | 15 |
| 3103 | 0.00 | 0.00 | 0.00 | 17 |
| 3104 | 0.00 | 0.00 | 0.00 | 20 |
| 3105 | 0.00 | 0.00 | 0.00 | 16 |
| 3106 | 0.00 | 0.00 | 0.00 | 14 |
| 3107 | 0.00 | 0.00 | 0.00 | 22 |
| 3108 | 0.00 | 0.00 | 0.00 | 24 |
| 3109 | 0.00 | 0.00 | 0.00 | 20 |
| 3110 | 0.00 | 0.00 | 0.00 | 19 |
| 3111 | 0.00 | 0.00 | 0.00 | 23 |
| 3112 | 0.00 | 0.00 | 0.00 | 21 |
| 3113 | 0.00 | 0.00 | 0.00 | 19 |
| 3114 | 0.00 | 0.00 | 0.00 | 18 |
| 3115 | 0.00 | 0.00 | 0.00 | 22 |
| 3116 | 0.00 | 0.00 | 0.00 | 19 |
| 3117 | 0.00 | 0.00 | 0.00 | 20 |
| 3118 | 0.00 | 0.00 | 0.00 | 18 |
| 3119 | 0.00 | 0.00 | 0.00 | 23 |
| 3120 | 0.00 | 0.00 | 0.00 | 18 |
| 3121 | 0.00 | 0.00 | 0.00 | 19 |
| 3122 | 1.00 | 0.19 | 0.32 | 16 |
| 3123 | 0.00 | 0.00 | 0.00 | 20 |
| 3124 | 0.50 | 0.05 | 0.08 | 22 |
| 3125 | 0.17 | 0.07 | 0.10 | 14 |
| 3126 | 0.00 | 0.00 | 0.00 | 16 |
| 3127 | 0.00 | 0.00 | 0.00 | 18 |
| 3128 | 0.00 | 0.00 | 0.00 | 33 |
| 3129 | 0.00 | 0.00 | 0.00 | 19 |
| 3130 | 0.00 | 0.00 | 0.00 | 28 |
| 3131 | 0.00 | 0.00 | 0.00 | 22 |
| 3132 | 0.00 | 0.00 | 0.00 | 20 |
| 3133 | 0.25 | 0.06 | 0.10 | 17 |
| 3134 | 0.00 | 0.00 | 0.00 | 19 |
| 3135 | 0.00 | 0.00 | 0.00 | 20 |
| 3136 | 0.00 | 0.00 | 0.00 | 20 |
| 3137 | 0.00 | 0.00 | 0.00 | 21 |
| 3138 | 0.00 | 0.00 | 0.00 | 21 |
| 3139 | 0.00 | 0.00 | 0.00 | 22 |

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|------|------|------|------|----|
| 3139 | 0.00 | 0.00 | 0.00 | 22 |
| 3140 | 0.00 | 0.00 | 0.00 | 18 |
| 3141 | 0.00 | 0.00 | 0.00 | 15 |
| 3142 | 0.00 | 0.00 | 0.00 | 20 |
| 3143 | 0.00 | 0.00 | 0.00 | 17 |
| 3144 | 0.00 | 0.00 | 0.00 | 23 |
| 3145 | 0.00 | 0.00 | 0.00 | 19 |
| 3146 | 0.00 | 0.00 | 0.00 | 17 |
| 3147 | 1.00 | 0.31 | 0.48 | 16 |
| 3148 | 0.80 | 0.50 | 0.62 | 16 |
| 3149 | 0.00 | 0.00 | 0.00 | 23 |
| 3150 | 0.00 | 0.00 | 0.00 | 25 |
| 3151 | 0.00 | 0.00 | 0.00 | 25 |
| 3152 | 0.00 | 0.00 | 0.00 | 26 |
| 3153 | 0.00 | 0.00 | 0.00 | 27 |
| 3154 | 0.00 | 0.00 | 0.00 | 20 |
| 3155 | 1.00 | 0.33 | 0.50 | 18 |
| 3156 | 0.00 | 0.00 | 0.00 | 17 |
| 3157 | 0.75 | 0.21 | 0.33 | 14 |
| 3158 | 0.00 | 0.00 | 0.00 | 23 |
| 3159 | 0.00 | 0.00 | 0.00 | 19 |
| 3160 | 0.50 | 0.05 | 0.09 | 20 |
| 3161 | 0.00 | 0.00 | 0.00 | 18 |
| 3162 | 0.00 | 0.00 | 0.00 | 19 |
| 3163 | 0.00 | 0.00 | 0.00 | 21 |
| 3164 | 0.00 | 0.00 | 0.00 | 16 |
| 3165 | 0.00 | 0.00 | 0.00 | 22 |
| 3166 | 0.00 | 0.00 | 0.00 | 19 |
| 3167 | 0.00 | 0.00 | 0.00 | 21 |
| 3168 | 0.00 | 0.00 | 0.00 | 27 |
| 3169 | 0.00 | 0.00 | 0.00 | 21 |
| 3170 | 0.00 | 0.00 | 0.00 | 23 |
| 3171 | 0.00 | 0.00 | 0.00 | 15 |
| 3172 | 0.00 | 0.00 | 0.00 | 24 |
| 3173 | 0.00 | 0.00 | 0.00 | 18 |
| 3174 | 0.00 | 0.00 | 0.00 | 21 |
| 3175 | 0.00 | 0.00 | 0.00 | 14 |
| 3176 | 0.00 | 0.00 | 0.00 | 19 |
| 3177 | 0.00 | 0.00 | 0.00 | 22 |
| 3178 | 0.00 | 0.00 | 0.00 | 20 |
| 3179 | 0.00 | 0.00 | 0.00 | 18 |
| 3180 | 0.00 | 0.00 | 0.00 | 20 |
| 3181 | 0.00 | 0.00 | 0.00 | 27 |
| 3182 | 0.00 | 0.00 | 0.00 | 23 |
| 3183 | 0.00 | 0.00 | 0.00 | 13 |
| 3184 | 0.00 | 0.00 | 0.00 | 22 |
| 3185 | 0.00 | 0.00 | 0.00 | 20 |
| 3186 | 0.00 | 0.00 | 0.00 | 28 |
| 3187 | 0.00 | 0.00 | 0.00 | 19 |
| 3188 | 0.00 | 0.00 | 0.00 | 23 |
| 3189 | 0.00 | 0.00 | 0.00 | 25 |
| 3190 | 0.00 | 0.00 | 0.00 | 21 |
| 3191 | 0.00 | 0.00 | 0.00 | 20 |
| 3192 | 0.00 | 0.00 | 0.00 | 22 |
| 3193 | 0.00 | 0.00 | 0.00 | 21 |
| 3194 | 0.00 | 0.00 | 0.00 | 16 |
| 3195 | 0.00 | 0.00 | 0.00 | 21 |
| 3196 | 0.00 | 0.00 | 0.00 | 21 |
| 3197 | 1.00 | 0.05 | 0.10 | 20 |
| 3198 | 0.00 | 0.00 | 0.00 | 18 |
| 3199 | 0.00 | 0.00 | 0.00 | 23 |
| 3200 | 0.33 | 0.05 | 0.09 | 19 |
| 3201 | 1.00 | 0.06 | 0.11 | 18 |
| 3202 | 0.00 | 0.00 | 0.00 | 25 |
| 3203 | 0.00 | 0.00 | 0.00 | 21 |
| 3204 | 1.00 | 0.07 | 0.12 | 15 |
| 3205 | 0.00 | 0.00 | 0.00 | 18 |
| 3206 | 0.00 | 0.00 | 0.00 | 23 |
| 3207 | 0.00 | 0.00 | 0.00 | 15 |
| 3208 | 0.00 | 0.00 | 0.00 | 20 |
| 3209 | 0.00 | 0.00 | 0.00 | 21 |
| 3210 | 0.00 | 0.00 | 0.00 | 20 |
| 3211 | 0.00 | 0.00 | 0.00 | 22 |
| 3212 | 0.00 | 0.00 | 0.00 | 21 |
| 3213 | 0.00 | 0.00 | 0.00 | 22 |
| 3214 | 0.00 | 0.00 | 0.00 | 25 |
| 3215 | 0.00 | 0.00 | 0.00 | 16 |
| 3216 | 0.00 | 0.00 | 0.00 | 7 |

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|------|------|------|------|----|
| 3216 | 0.00 | 0.00 | 0.00 | 7 |
| 3217 | 1.00 | 0.18 | 0.30 | 17 |
| 3218 | 0.00 | 0.00 | 0.00 | 26 |
| 3219 | 0.00 | 0.00 | 0.00 | 19 |
| 3220 | 0.00 | 0.00 | 0.00 | 29 |
| 3221 | 0.00 | 0.00 | 0.00 | 25 |
| 3222 | 0.00 | 0.00 | 0.00 | 14 |
| 3223 | 1.00 | 0.12 | 0.21 | 17 |
| 3224 | 0.00 | 0.00 | 0.00 | 23 |
| 3225 | 0.00 | 0.00 | 0.00 | 22 |
| 3226 | 0.00 | 0.00 | 0.00 | 20 |
| 3227 | 0.00 | 0.00 | 0.00 | 24 |
| 3228 | 0.00 | 0.00 | 0.00 | 17 |
| 3229 | 0.00 | 0.00 | 0.00 | 31 |
| 3230 | 0.00 | 0.00 | 0.00 | 21 |
| 3231 | 0.00 | 0.00 | 0.00 | 22 |
| 3232 | 0.00 | 0.00 | 0.00 | 15 |
| 3233 | 0.00 | 0.00 | 0.00 | 21 |
| 3234 | 0.00 | 0.00 | 0.00 | 23 |
| 3235 | 0.00 | 0.00 | 0.00 | 21 |
| 3236 | 0.00 | 0.00 | 0.00 | 14 |
| 3237 | 0.00 | 0.00 | 0.00 | 21 |
| 3238 | 0.00 | 0.00 | 0.00 | 17 |
| 3239 | 0.00 | 0.00 | 0.00 | 22 |
| 3240 | 0.00 | 0.00 | 0.00 | 22 |
| 3241 | 0.00 | 0.00 | 0.00 | 15 |
| 3242 | 0.00 | 0.00 | 0.00 | 21 |
| 3243 | 0.00 | 0.00 | 0.00 | 15 |
| 3244 | 0.00 | 0.00 | 0.00 | 29 |
| 3245 | 0.00 | 0.00 | 0.00 | 17 |
| 3246 | 0.00 | 0.00 | 0.00 | 22 |
| 3247 | 0.00 | 0.00 | 0.00 | 25 |
| 3248 | 0.00 | 0.00 | 0.00 | 20 |
| 3249 | 0.00 | 0.00 | 0.00 | 22 |
| 3250 | 0.00 | 0.00 | 0.00 | 24 |
| 3251 | 0.00 | 0.00 | 0.00 | 19 |
| 3252 | 0.00 | 0.00 | 0.00 | 17 |
| 3253 | 0.00 | 0.00 | 0.00 | 16 |
| 3254 | 0.00 | 0.00 | 0.00 | 25 |
| 3255 | 0.00 | 0.00 | 0.00 | 15 |
| 3256 | 0.00 | 0.00 | 0.00 | 17 |
| 3257 | 0.00 | 0.00 | 0.00 | 15 |
| 3258 | 0.00 | 0.00 | 0.00 | 21 |
| 3259 | 0.00 | 0.00 | 0.00 | 14 |
| 3260 | 0.00 | 0.00 | 0.00 | 18 |
| 3261 | 0.00 | 0.00 | 0.00 | 24 |
| 3262 | 0.00 | 0.00 | 0.00 | 20 |
| 3263 | 0.00 | 0.00 | 0.00 | 16 |
| 3264 | 1.00 | 0.05 | 0.10 | 19 |
| 3265 | 0.00 | 0.00 | 0.00 | 21 |
| 3266 | 0.00 | 0.00 | 0.00 | 20 |
| 3267 | 0.00 | 0.00 | 0.00 | 22 |
| 3268 | 0.00 | 0.00 | 0.00 | 13 |
| 3269 | 0.00 | 0.00 | 0.00 | 18 |
| 3270 | 0.00 | 0.00 | 0.00 | 15 |
| 3271 | 0.00 | 0.00 | 0.00 | 19 |
| 3272 | 0.00 | 0.00 | 0.00 | 25 |
| 3273 | 0.00 | 0.00 | 0.00 | 18 |
| 3274 | 0.00 | 0.00 | 0.00 | 22 |
| 3275 | 0.00 | 0.00 | 0.00 | 23 |
| 3276 | 0.00 | 0.00 | 0.00 | 17 |
| 3277 | 0.00 | 0.00 | 0.00 | 20 |
| 3278 | 0.00 | 0.00 | 0.00 | 22 |
| 3279 | 0.00 | 0.00 | 0.00 | 21 |
| 3280 | 0.00 | 0.00 | 0.00 | 19 |
| 3281 | 0.00 | 0.00 | 0.00 | 18 |
| 3282 | 0.00 | 0.00 | 0.00 | 20 |
| 3283 | 0.00 | 0.00 | 0.00 | 15 |
| 3284 | 0.00 | 0.00 | 0.00 | 17 |
| 3285 | 0.00 | 0.00 | 0.00 | 20 |
| 3286 | 0.00 | 0.00 | 0.00 | 11 |
| 3287 | 0.00 | 0.00 | 0.00 | 16 |
| 3288 | 0.00 | 0.00 | 0.00 | 14 |
| 3289 | 0.00 | 0.00 | 0.00 | 27 |
| 3290 | 0.00 | 0.00 | 0.00 | 26 |
| 3291 | 0.00 | 0.00 | 0.00 | 24 |
| 3292 | 0.00 | 0.00 | 0.00 | 19 |
| 3293 | 0.00 | 0.00 | 0.00 | 15 |

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| 3293 | 0.00 | 0.00 | 0.00 | 13 |
| 3294 | 1.00 | 0.05 | 0.09 | 22 |
| 3295 | 0.00 | 0.00 | 0.00 | 19 |
| 3296 | 0.00 | 0.00 | 0.00 | 26 |
| 3297 | 0.00 | 0.00 | 0.00 | 22 |
| 3298 | 0.00 | 0.00 | 0.00 | 16 |
| 3299 | 0.00 | 0.00 | 0.00 | 19 |
| 3300 | 0.00 | 0.00 | 0.00 | 16 |
| 3301 | 1.00 | 0.05 | 0.10 | 19 |
| 3302 | 1.00 | 0.06 | 0.11 | 17 |
| 3303 | 0.00 | 0.00 | 0.00 | 17 |
| 3304 | 0.00 | 0.00 | 0.00 | 16 |
| 3305 | 0.00 | 0.00 | 0.00 | 26 |
| 3306 | 0.00 | 0.00 | 0.00 | 16 |
| 3307 | 0.00 | 0.00 | 0.00 | 21 |
| 3308 | 0.00 | 0.00 | 0.00 | 15 |
| 3309 | 0.00 | 0.00 | 0.00 | 14 |
| 3310 | 0.00 | 0.00 | 0.00 | 16 |
| 3311 | 0.00 | 0.00 | 0.00 | 26 |
| 3312 | 0.00 | 0.00 | 0.00 | 21 |
| 3313 | 0.00 | 0.00 | 0.00 | 17 |
| 3314 | 0.00 | 0.00 | 0.00 | 20 |
| 3315 | 0.00 | 0.00 | 0.00 | 18 |
| 3316 | 0.00 | 0.00 | 0.00 | 20 |
| 3317 | 0.00 | 0.00 | 0.00 | 20 |
| 3318 | 0.00 | 0.00 | 0.00 | 19 |
| 3319 | 0.00 | 0.00 | 0.00 | 11 |
| 3320 | 0.00 | 0.00 | 0.00 | 17 |
| 3321 | 0.00 | 0.00 | 0.00 | 21 |
| 3322 | 0.00 | 0.00 | 0.00 | 20 |
| 3323 | 0.00 | 0.00 | 0.00 | 19 |
| 3324 | 1.00 | 0.12 | 0.21 | 17 |
| 3325 | 0.00 | 0.00 | 0.00 | 13 |
| 3326 | 0.00 | 0.00 | 0.00 | 18 |
| 3327 | 0.00 | 0.00 | 0.00 | 15 |
| 3328 | 1.00 | 0.04 | 0.08 | 24 |
| 3329 | 0.00 | 0.00 | 0.00 | 23 |
| 3330 | 1.00 | 0.25 | 0.40 | 12 |
| 3331 | 0.33 | 0.06 | 0.11 | 16 |
| 3332 | 0.00 | 0.00 | 0.00 | 19 |
| 3333 | 0.00 | 0.00 | 0.00 | 23 |
| 3334 | 0.00 | 0.00 | 0.00 | 21 |
| 3335 | 0.00 | 0.00 | 0.00 | 12 |
| 3336 | 0.00 | 0.00 | 0.00 | 16 |
| 3337 | 0.00 | 0.00 | 0.00 | 8 |
| 3338 | 0.00 | 0.00 | 0.00 | 21 |
| 3339 | 0.00 | 0.00 | 0.00 | 22 |
| 3340 | 0.00 | 0.00 | 0.00 | 23 |
| 3341 | 0.00 | 0.00 | 0.00 | 14 |
| 3342 | 0.00 | 0.00 | 0.00 | 26 |
| 3343 | 0.00 | 0.00 | 0.00 | 19 |
| 3344 | 0.00 | 0.00 | 0.00 | 10 |
| 3345 | 0.00 | 0.00 | 0.00 | 22 |
| 3346 | 0.00 | 0.00 | 0.00 | 19 |
| 3347 | 0.00 | 0.00 | 0.00 | 21 |
| 3348 | 0.00 | 0.00 | 0.00 | 17 |
| 3349 | 0.00 | 0.00 | 0.00 | 20 |
| 3350 | 0.00 | 0.00 | 0.00 | 21 |
| 3351 | 0.00 | 0.00 | 0.00 | 21 |
| 3352 | 0.00 | 0.00 | 0.00 | 16 |
| 3353 | 0.00 | 0.00 | 0.00 | 19 |
| 3354 | 0.00 | 0.00 | 0.00 | 15 |
| 3355 | 0.00 | 0.00 | 0.00 | 19 |
| 3356 | 0.00 | 0.00 | 0.00 | 14 |
| 3357 | 0.00 | 0.00 | 0.00 | 17 |
| 3358 | 0.00 | 0.00 | 0.00 | 19 |
| 3359 | 0.00 | 0.00 | 0.00 | 17 |
| 3360 | 0.00 | 0.00 | 0.00 | 11 |
| 3361 | 0.00 | 0.00 | 0.00 | 20 |
| 3362 | 0.00 | 0.00 | 0.00 | 18 |
| 3363 | 0.00 | 0.00 | 0.00 | 23 |
| 3364 | 0.00 | 0.00 | 0.00 | 19 |
| 3365 | 0.00 | 0.00 | 0.00 | 15 |
| 3366 | 0.00 | 0.00 | 0.00 | 28 |
| 3367 | 1.00 | 0.06 | 0.12 | 16 |
| 3368 | 0.00 | 0.00 | 0.00 | 12 |
| 3369 | 0.00 | 0.00 | 0.00 | 16 |
| 3370 | 0.00 | 0.00 | 0.00 | 10 |

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|------|------|------|------|----|
| 3370 | 0.00 | 0.00 | 0.00 | 18 |
| 3371 | 0.00 | 0.00 | 0.00 | 24 |
| 3372 | 0.00 | 0.00 | 0.00 | 22 |
| 3373 | 0.00 | 0.00 | 0.00 | 12 |
| 3374 | 0.00 | 0.00 | 0.00 | 23 |
| 3375 | 0.00 | 0.00 | 0.00 | 23 |
| 3376 | 0.00 | 0.00 | 0.00 | 22 |
| 3377 | 0.00 | 0.00 | 0.00 | 16 |
| 3378 | 0.00 | 0.00 | 0.00 | 16 |
| 3379 | 0.00 | 0.00 | 0.00 | 14 |
| 3380 | 0.00 | 0.00 | 0.00 | 21 |
| 3381 | 0.00 | 0.00 | 0.00 | 17 |
| 3382 | 0.00 | 0.00 | 0.00 | 19 |
| 3383 | 0.00 | 0.00 | 0.00 | 16 |
| 3384 | 0.00 | 0.00 | 0.00 | 18 |
| 3385 | 0.00 | 0.00 | 0.00 | 10 |
| 3386 | 0.00 | 0.00 | 0.00 | 28 |
| 3387 | 0.00 | 0.00 | 0.00 | 18 |
| 3388 | 0.00 | 0.00 | 0.00 | 16 |
| 3389 | 1.00 | 0.06 | 0.12 | 16 |
| 3390 | 0.00 | 0.00 | 0.00 | 8 |
| 3391 | 0.00 | 0.00 | 0.00 | 24 |
| 3392 | 0.00 | 0.00 | 0.00 | 17 |
| 3393 | 0.00 | 0.00 | 0.00 | 15 |
| 3394 | 1.00 | 0.25 | 0.40 | 20 |
| 3395 | 0.00 | 0.00 | 0.00 | 23 |
| 3396 | 0.00 | 0.00 | 0.00 | 14 |
| 3397 | 0.00 | 0.00 | 0.00 | 13 |
| 3398 | 0.00 | 0.00 | 0.00 | 19 |
| 3399 | 0.00 | 0.00 | 0.00 | 21 |
| 3400 | 0.00 | 0.00 | 0.00 | 18 |
| 3401 | 0.00 | 0.00 | 0.00 | 22 |
| 3402 | 0.00 | 0.00 | 0.00 | 15 |
| 3403 | 0.00 | 0.00 | 0.00 | 15 |
| 3404 | 0.33 | 0.10 | 0.15 | 10 |
| 3405 | 0.00 | 0.00 | 0.00 | 19 |
| 3406 | 0.00 | 0.00 | 0.00 | 25 |
| 3407 | 0.00 | 0.00 | 0.00 | 19 |
| 3408 | 0.00 | 0.00 | 0.00 | 16 |
| 3409 | 0.00 | 0.00 | 0.00 | 19 |
| 3410 | 0.00 | 0.00 | 0.00 | 21 |
| 3411 | 0.00 | 0.00 | 0.00 | 16 |
| 3412 | 0.00 | 0.00 | 0.00 | 16 |
| 3413 | 0.00 | 0.00 | 0.00 | 12 |
| 3414 | 0.00 | 0.00 | 0.00 | 16 |
| 3415 | 0.00 | 0.00 | 0.00 | 19 |
| 3416 | 0.00 | 0.00 | 0.00 | 19 |
| 3417 | 0.00 | 0.00 | 0.00 | 19 |
| 3418 | 0.00 | 0.00 | 0.00 | 8 |
| 3419 | 0.00 | 0.00 | 0.00 | 20 |
| 3420 | 0.00 | 0.00 | 0.00 | 23 |
| 3421 | 0.00 | 0.00 | 0.00 | 12 |
| 3422 | 0.00 | 0.00 | 0.00 | 22 |
| 3423 | 0.00 | 0.00 | 0.00 | 20 |
| 3424 | 0.00 | 0.00 | 0.00 | 21 |
| 3425 | 0.00 | 0.00 | 0.00 | 16 |
| 3426 | 0.00 | 0.00 | 0.00 | 21 |
| 3427 | 0.00 | 0.00 | 0.00 | 17 |
| 3428 | 0.00 | 0.00 | 0.00 | 12 |
| 3429 | 0.00 | 0.00 | 0.00 | 15 |
| 3430 | 0.00 | 0.00 | 0.00 | 22 |
| 3431 | 0.00 | 0.00 | 0.00 | 16 |
| 3432 | 0.00 | 0.00 | 0.00 | 15 |
| 3433 | 0.00 | 0.00 | 0.00 | 16 |
| 3434 | 0.00 | 0.00 | 0.00 | 16 |
| 3435 | 0.00 | 0.00 | 0.00 | 21 |
| 3436 | 0.00 | 0.00 | 0.00 | 16 |
| 3437 | 0.00 | 0.00 | 0.00 | 14 |
| 3438 | 0.00 | 0.00 | 0.00 | 19 |
| 3439 | 0.00 | 0.00 | 0.00 | 12 |
| 3440 | 0.00 | 0.00 | 0.00 | 17 |
| 3441 | 0.00 | 0.00 | 0.00 | 16 |
| 3442 | 0.00 | 0.00 | 0.00 | 16 |
| 3443 | 0.00 | 0.00 | 0.00 | 15 |
| 3444 | 0.00 | 0.00 | 0.00 | 14 |
| 3445 | 0.00 | 0.00 | 0.00 | 21 |
| 3446 | 0.00 | 0.00 | 0.00 | 20 |
| 3447 | 0.00 | 0.00 | 0.00 | 22 |

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|------|------|------|------|----|
| 3447 | 0.00 | 0.00 | 0.00 | 23 |
| 3448 | 0.00 | 0.00 | 0.00 | 13 |
| 3449 | 0.00 | 0.00 | 0.00 | 19 |
| 3450 | 0.00 | 0.00 | 0.00 | 20 |
| 3451 | 0.00 | 0.00 | 0.00 | 11 |
| 3452 | 0.00 | 0.00 | 0.00 | 13 |
| 3453 | 0.00 | 0.00 | 0.00 | 21 |
| 3454 | 0.00 | 0.00 | 0.00 | 20 |
| 3455 | 0.00 | 0.00 | 0.00 | 11 |
| 3456 | 0.00 | 0.00 | 0.00 | 20 |
| 3457 | 0.00 | 0.00 | 0.00 | 16 |
| 3458 | 0.00 | 0.00 | 0.00 | 19 |
| 3459 | 0.00 | 0.00 | 0.00 | 14 |
| 3460 | 0.00 | 0.00 | 0.00 | 20 |
| 3461 | 0.00 | 0.00 | 0.00 | 19 |
| 3462 | 0.00 | 0.00 | 0.00 | 21 |
| 3463 | 0.00 | 0.00 | 0.00 | 20 |
| 3464 | 0.00 | 0.00 | 0.00 | 14 |
| 3465 | 0.00 | 0.00 | 0.00 | 13 |
| 3466 | 0.00 | 0.00 | 0.00 | 20 |
| 3467 | 0.00 | 0.00 | 0.00 | 22 |
| 3468 | 0.00 | 0.00 | 0.00 | 18 |
| 3469 | 0.00 | 0.00 | 0.00 | 14 |
| 3470 | 0.00 | 0.00 | 0.00 | 18 |
| 3471 | 0.00 | 0.00 | 0.00 | 17 |
| 3472 | 0.00 | 0.00 | 0.00 | 18 |
| 3473 | 0.00 | 0.00 | 0.00 | 15 |
| 3474 | 0.00 | 0.00 | 0.00 | 20 |
| 3475 | 1.00 | 0.16 | 0.27 | 19 |
| 3476 | 0.00 | 0.00 | 0.00 | 15 |
| 3477 | 0.00 | 0.00 | 0.00 | 11 |
| 3478 | 0.00 | 0.00 | 0.00 | 19 |
| 3479 | 0.00 | 0.00 | 0.00 | 16 |
| 3480 | 0.00 | 0.00 | 0.00 | 18 |
| 3481 | 0.00 | 0.00 | 0.00 | 14 |
| 3482 | 0.00 | 0.00 | 0.00 | 14 |
| 3483 | 0.00 | 0.00 | 0.00 | 20 |
| 3484 | 0.67 | 0.12 | 0.20 | 17 |
| 3485 | 0.00 | 0.00 | 0.00 | 16 |
| 3486 | 0.00 | 0.00 | 0.00 | 15 |
| 3487 | 0.00 | 0.00 | 0.00 | 21 |
| 3488 | 0.00 | 0.00 | 0.00 | 15 |
| 3489 | 0.00 | 0.00 | 0.00 | 21 |
| 3490 | 0.00 | 0.00 | 0.00 | 21 |
| 3491 | 0.00 | 0.00 | 0.00 | 19 |
| 3492 | 0.00 | 0.00 | 0.00 | 23 |
| 3493 | 1.00 | 0.12 | 0.21 | 17 |
| 3494 | 0.00 | 0.00 | 0.00 | 21 |
| 3495 | 0.00 | 0.00 | 0.00 | 11 |
| 3496 | 0.00 | 0.00 | 0.00 | 14 |
| 3497 | 0.00 | 0.00 | 0.00 | 15 |
| 3498 | 0.00 | 0.00 | 0.00 | 17 |
| 3499 | 0.00 | 0.00 | 0.00 | 19 |
| 3500 | 0.00 | 0.00 | 0.00 | 15 |
| 3501 | 0.00 | 0.00 | 0.00 | 20 |
| 3502 | 0.00 | 0.00 | 0.00 | 15 |
| 3503 | 0.00 | 0.00 | 0.00 | 19 |
| 3504 | 0.00 | 0.00 | 0.00 | 23 |
| 3505 | 0.50 | 0.06 | 0.11 | 16 |
| 3506 | 0.00 | 0.00 | 0.00 | 17 |
| 3507 | 0.00 | 0.00 | 0.00 | 20 |
| 3508 | 0.00 | 0.00 | 0.00 | 11 |
| 3509 | 0.00 | 0.00 | 0.00 | 20 |
| 3510 | 0.00 | 0.00 | 0.00 | 15 |
| 3511 | 0.00 | 0.00 | 0.00 | 14 |
| 3512 | 0.00 | 0.00 | 0.00 | 14 |
| 3513 | 0.00 | 0.00 | 0.00 | 17 |
| 3514 | 0.00 | 0.00 | 0.00 | 20 |
| 3515 | 0.00 | 0.00 | 0.00 | 19 |
| 3516 | 0.00 | 0.00 | 0.00 | 18 |
| 3517 | 0.00 | 0.00 | 0.00 | 16 |
| 3518 | 0.00 | 0.00 | 0.00 | 15 |
| 3519 | 0.00 | 0.00 | 0.00 | 19 |
| 3520 | 0.00 | 0.00 | 0.00 | 17 |
| 3521 | 0.00 | 0.00 | 0.00 | 15 |
| 3522 | 0.00 | 0.00 | 0.00 | 23 |
| 3523 | 0.00 | 0.00 | 0.00 | 17 |
| 3524 | 0.00 | 0.00 | 0.00 | 21 |

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|------|------|------|------|----|
| 3524 | 0.00 | 0.00 | 0.00 | 21 |
| 3525 | 0.00 | 0.00 | 0.00 | 17 |
| 3526 | 0.00 | 0.00 | 0.00 | 12 |
| 3527 | 0.00 | 0.00 | 0.00 | 20 |
| 3528 | 0.00 | 0.00 | 0.00 | 25 |
| 3529 | 0.00 | 0.00 | 0.00 | 19 |
| 3530 | 0.00 | 0.00 | 0.00 | 9 |
| 3531 | 0.00 | 0.00 | 0.00 | 18 |
| 3532 | 0.00 | 0.00 | 0.00 | 17 |
| 3533 | 0.00 | 0.00 | 0.00 | 13 |
| 3534 | 0.00 | 0.00 | 0.00 | 19 |
| 3535 | 0.00 | 0.00 | 0.00 | 12 |
| 3536 | 0.00 | 0.00 | 0.00 | 20 |
| 3537 | 0.00 | 0.00 | 0.00 | 22 |
| 3538 | 0.00 | 0.00 | 0.00 | 12 |
| 3539 | 1.00 | 0.06 | 0.12 | 16 |
| 3540 | 0.00 | 0.00 | 0.00 | 14 |
| 3541 | 0.60 | 0.20 | 0.30 | 15 |
| 3542 | 0.00 | 0.00 | 0.00 | 17 |
| 3543 | 0.00 | 0.00 | 0.00 | 17 |
| 3544 | 0.00 | 0.00 | 0.00 | 17 |
| 3545 | 0.00 | 0.00 | 0.00 | 14 |
| 3546 | 0.00 | 0.00 | 0.00 | 14 |
| 3547 | 0.00 | 0.00 | 0.00 | 18 |
| 3548 | 0.00 | 0.00 | 0.00 | 21 |
| 3549 | 0.00 | 0.00 | 0.00 | 11 |
| 3550 | 0.00 | 0.00 | 0.00 | 13 |
| 3551 | 0.00 | 0.00 | 0.00 | 17 |
| 3552 | 0.00 | 0.00 | 0.00 | 12 |
| 3553 | 0.00 | 0.00 | 0.00 | 13 |
| 3554 | 0.00 | 0.00 | 0.00 | 16 |
| 3555 | 0.00 | 0.00 | 0.00 | 24 |
| 3556 | 0.00 | 0.00 | 0.00 | 8 |
| 3557 | 0.00 | 0.00 | 0.00 | 15 |
| 3558 | 0.00 | 0.00 | 0.00 | 13 |
| 3559 | 0.00 | 0.00 | 0.00 | 22 |
| 3560 | 0.00 | 0.00 | 0.00 | 15 |
| 3561 | 0.00 | 0.00 | 0.00 | 19 |
| 3562 | 0.00 | 0.00 | 0.00 | 16 |
| 3563 | 0.00 | 0.00 | 0.00 | 21 |
| 3564 | 0.00 | 0.00 | 0.00 | 19 |
| 3565 | 0.00 | 0.00 | 0.00 | 19 |
| 3566 | 0.00 | 0.00 | 0.00 | 16 |
| 3567 | 0.00 | 0.00 | 0.00 | 13 |
| 3568 | 0.00 | 0.00 | 0.00 | 20 |
| 3569 | 0.00 | 0.00 | 0.00 | 13 |
| 3570 | 0.00 | 0.00 | 0.00 | 16 |
| 3571 | 1.00 | 0.04 | 0.08 | 25 |
| 3572 | 0.00 | 0.00 | 0.00 | 18 |
| 3573 | 0.00 | 0.00 | 0.00 | 11 |
| 3574 | 0.00 | 0.00 | 0.00 | 19 |
| 3575 | 0.00 | 0.00 | 0.00 | 23 |
| 3576 | 0.00 | 0.00 | 0.00 | 12 |
| 3577 | 0.00 | 0.00 | 0.00 | 21 |
| 3578 | 0.00 | 0.00 | 0.00 | 16 |
| 3579 | 0.00 | 0.00 | 0.00 | 21 |
| 3580 | 0.00 | 0.00 | 0.00 | 17 |
| 3581 | 0.00 | 0.00 | 0.00 | 21 |
| 3582 | 0.00 | 0.00 | 0.00 | 13 |
| 3583 | 0.00 | 0.00 | 0.00 | 24 |
| 3584 | 0.00 | 0.00 | 0.00 | 18 |
| 3585 | 0.00 | 0.00 | 0.00 | 13 |
| 3586 | 0.00 | 0.00 | 0.00 | 14 |
| 3587 | 0.00 | 0.00 | 0.00 | 22 |
| 3588 | 0.00 | 0.00 | 0.00 | 14 |
| 3589 | 0.00 | 0.00 | 0.00 | 18 |
| 3590 | 0.00 | 0.00 | 0.00 | 23 |
| 3591 | 0.00 | 0.00 | 0.00 | 18 |
| 3592 | 0.00 | 0.00 | 0.00 | 11 |
| 3593 | 0.00 | 0.00 | 0.00 | 16 |
| 3594 | 1.00 | 0.25 | 0.40 | 12 |
| 3595 | 0.00 | 0.00 | 0.00 | 21 |
| 3596 | 0.00 | 0.00 | 0.00 | 17 |
| 3597 | 0.00 | 0.00 | 0.00 | 19 |
| 3598 | 0.00 | 0.00 | 0.00 | 13 |
| 3599 | 0.00 | 0.00 | 0.00 | 18 |
| 3600 | 0.00 | 0.00 | 0.00 | 17 |

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|------|------|------|------|----|
| 3601 | 0.00 | 0.00 | 0.00 | 18 |
| 3602 | 1.00 | 0.08 | 0.14 | 13 |
| 3603 | 0.00 | 0.00 | 0.00 | 12 |
| 3604 | 0.00 | 0.00 | 0.00 | 18 |
| 3605 | 0.00 | 0.00 | 0.00 | 16 |
| 3606 | 0.00 | 0.00 | 0.00 | 15 |
| 3607 | 0.00 | 0.00 | 0.00 | 22 |
| 3608 | 0.00 | 0.00 | 0.00 | 21 |
| 3609 | 0.00 | 0.00 | 0.00 | 20 |
| 3610 | 0.00 | 0.00 | 0.00 | 17 |
| 3611 | 0.00 | 0.00 | 0.00 | 19 |
| 3612 | 0.00 | 0.00 | 0.00 | 13 |
| 3613 | 0.00 | 0.00 | 0.00 | 12 |
| 3614 | 0.00 | 0.00 | 0.00 | 18 |
| 3615 | 0.00 | 0.00 | 0.00 | 7 |
| 3616 | 0.00 | 0.00 | 0.00 | 23 |
| 3617 | 0.00 | 0.00 | 0.00 | 14 |
| 3618 | 0.00 | 0.00 | 0.00 | 21 |
| 3619 | 0.00 | 0.00 | 0.00 | 18 |
| 3620 | 0.00 | 0.00 | 0.00 | 20 |
| 3621 | 0.00 | 0.00 | 0.00 | 15 |
| 3622 | 0.00 | 0.00 | 0.00 | 17 |
| 3623 | 0.00 | 0.00 | 0.00 | 16 |
| 3624 | 0.00 | 0.00 | 0.00 | 18 |
| 3625 | 0.00 | 0.00 | 0.00 | 21 |
| 3626 | 1.00 | 0.25 | 0.40 | 12 |
| 3627 | 0.00 | 0.00 | 0.00 | 18 |
| 3628 | 0.50 | 0.07 | 0.12 | 14 |
| 3629 | 0.00 | 0.00 | 0.00 | 13 |
| 3630 | 0.00 | 0.00 | 0.00 | 10 |
| 3631 | 0.00 | 0.00 | 0.00 | 17 |
| 3632 | 0.00 | 0.00 | 0.00 | 8 |
| 3633 | 0.00 | 0.00 | 0.00 | 16 |
| 3634 | 0.00 | 0.00 | 0.00 | 19 |
| 3635 | 0.00 | 0.00 | 0.00 | 14 |
| 3636 | 0.00 | 0.00 | 0.00 | 13 |
| 3637 | 0.00 | 0.00 | 0.00 | 18 |
| 3638 | 0.00 | 0.00 | 0.00 | 23 |
| 3639 | 0.00 | 0.00 | 0.00 | 20 |
| 3640 | 0.00 | 0.00 | 0.00 | 17 |
| 3641 | 0.00 | 0.00 | 0.00 | 20 |
| 3642 | 0.50 | 0.09 | 0.15 | 11 |
| 3643 | 0.00 | 0.00 | 0.00 | 13 |
| 3644 | 0.00 | 0.00 | 0.00 | 19 |
| 3645 | 0.00 | 0.00 | 0.00 | 11 |
| 3646 | 0.33 | 0.08 | 0.12 | 13 |
| 3647 | 0.00 | 0.00 | 0.00 | 13 |
| 3648 | 0.00 | 0.00 | 0.00 | 19 |
| 3649 | 0.00 | 0.00 | 0.00 | 19 |
| 3650 | 0.00 | 0.00 | 0.00 | 12 |
| 3651 | 0.00 | 0.00 | 0.00 | 18 |
| 3652 | 0.00 | 0.00 | 0.00 | 18 |
| 3653 | 0.00 | 0.00 | 0.00 | 12 |
| 3654 | 0.00 | 0.00 | 0.00 | 20 |
| 3655 | 0.00 | 0.00 | 0.00 | 22 |
| 3656 | 0.00 | 0.00 | 0.00 | 19 |
| 3657 | 0.00 | 0.00 | 0.00 | 10 |
| 3658 | 0.00 | 0.00 | 0.00 | 15 |
| 3659 | 0.00 | 0.00 | 0.00 | 11 |
| 3660 | 0.00 | 0.00 | 0.00 | 15 |
| 3661 | 0.00 | 0.00 | 0.00 | 18 |
| 3662 | 0.00 | 0.00 | 0.00 | 18 |
| 3663 | 0.00 | 0.00 | 0.00 | 19 |
| 3664 | 0.00 | 0.00 | 0.00 | 12 |
| 3665 | 1.00 | 0.04 | 0.08 | 24 |
| 3666 | 0.00 | 0.00 | 0.00 | 18 |
| 3667 | 0.00 | 0.00 | 0.00 | 16 |
| 3668 | 0.00 | 0.00 | 0.00 | 12 |
| 3669 | 0.00 | 0.00 | 0.00 | 22 |
| 3670 | 0.00 | 0.00 | 0.00 | 19 |
| 3671 | 0.00 | 0.00 | 0.00 | 19 |
| 3672 | 0.00 | 0.00 | 0.00 | 19 |
| 3673 | 0.00 | 0.00 | 0.00 | 14 |
| 3674 | 0.00 | 0.00 | 0.00 | 18 |
| 3675 | 0.00 | 0.00 | 0.00 | 16 |
| 3676 | 0.00 | 0.00 | 0.00 | 12 |
| 3677 | 0.00 | 0.00 | 0.00 | 17 |

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| 3678 | 0.00 | 0.00 | 0.00 | 20 |
| 3679 | 0.00 | 0.00 | 0.00 | 21 |
| 3680 | 0.00 | 0.00 | 0.00 | 22 |
| 3681 | 0.00 | 0.00 | 0.00 | 15 |
| 3682 | 0.00 | 0.00 | 0.00 | 17 |
| 3683 | 0.00 | 0.00 | 0.00 | 19 |
| 3684 | 0.00 | 0.00 | 0.00 | 13 |
| 3685 | 0.00 | 0.00 | 0.00 | 17 |
| 3686 | 0.00 | 0.00 | 0.00 | 18 |
| 3687 | 0.00 | 0.00 | 0.00 | 26 |
| 3688 | 0.00 | 0.00 | 0.00 | 20 |
| 3689 | 1.00 | 0.10 | 0.18 | 20 |
| 3690 | 0.00 | 0.00 | 0.00 | 22 |
| 3691 | 0.00 | 0.00 | 0.00 | 18 |
| 3692 | 0.00 | 0.00 | 0.00 | 15 |
| 3693 | 0.00 | 0.00 | 0.00 | 15 |
| 3694 | 0.40 | 0.14 | 0.21 | 14 |
| 3695 | 0.00 | 0.00 | 0.00 | 19 |
| 3696 | 0.00 | 0.00 | 0.00 | 13 |
| 3697 | 0.00 | 0.00 | 0.00 | 13 |
| 3698 | 0.00 | 0.00 | 0.00 | 16 |
| 3699 | 0.00 | 0.00 | 0.00 | 17 |
| 3700 | 0.00 | 0.00 | 0.00 | 19 |
| 3701 | 0.00 | 0.00 | 0.00 | 15 |
| 3702 | 0.00 | 0.00 | 0.00 | 23 |
| 3703 | 0.00 | 0.00 | 0.00 | 19 |
| 3704 | 0.00 | 0.00 | 0.00 | 12 |
| 3705 | 0.00 | 0.00 | 0.00 | 21 |
| 3706 | 0.00 | 0.00 | 0.00 | 17 |
| 3707 | 0.00 | 0.00 | 0.00 | 19 |
| 3708 | 0.00 | 0.00 | 0.00 | 19 |
| 3709 | 0.00 | 0.00 | 0.00 | 13 |
| 3710 | 0.00 | 0.00 | 0.00 | 13 |
| 3711 | 0.00 | 0.00 | 0.00 | 11 |
| 3712 | 0.00 | 0.00 | 0.00 | 18 |
| 3713 | 0.00 | 0.00 | 0.00 | 17 |
| 3714 | 0.00 | 0.00 | 0.00 | 18 |
| 3715 | 0.00 | 0.00 | 0.00 | 13 |
| 3716 | 0.00 | 0.00 | 0.00 | 21 |
| 3717 | 0.00 | 0.00 | 0.00 | 17 |
| 3718 | 0.00 | 0.00 | 0.00 | 13 |
| 3719 | 0.00 | 0.00 | 0.00 | 18 |
| 3720 | 0.00 | 0.00 | 0.00 | 11 |
| 3721 | 0.00 | 0.00 | 0.00 | 15 |
| 3722 | 0.00 | 0.00 | 0.00 | 12 |
| 3723 | 0.00 | 0.00 | 0.00 | 19 |
| 3724 | 0.00 | 0.00 | 0.00 | 12 |
| 3725 | 0.00 | 0.00 | 0.00 | 14 |
| 3726 | 0.00 | 0.00 | 0.00 | 16 |
| 3727 | 0.00 | 0.00 | 0.00 | 14 |
| 3728 | 0.00 | 0.00 | 0.00 | 19 |
| 3729 | 0.00 | 0.00 | 0.00 | 15 |
| 3730 | 0.00 | 0.00 | 0.00 | 12 |
| 3731 | 0.00 | 0.00 | 0.00 | 16 |
| 3732 | 0.00 | 0.00 | 0.00 | 17 |
| 3733 | 0.00 | 0.00 | 0.00 | 17 |
| 3734 | 0.00 | 0.00 | 0.00 | 16 |
| 3735 | 0.00 | 0.00 | 0.00 | 18 |
| 3736 | 0.00 | 0.00 | 0.00 | 15 |
| 3737 | 0.00 | 0.00 | 0.00 | 15 |
| 3738 | 0.00 | 0.00 | 0.00 | 15 |
| 3739 | 0.00 | 0.00 | 0.00 | 19 |
| 3740 | 0.00 | 0.00 | 0.00 | 16 |
| 3741 | 0.00 | 0.00 | 0.00 | 20 |
| 3742 | 0.00 | 0.00 | 0.00 | 15 |
| 3743 | 0.00 | 0.00 | 0.00 | 13 |
| 3744 | 1.00 | 0.15 | 0.27 | 13 |
| 3745 | 0.00 | 0.00 | 0.00 | 15 |
| 3746 | 0.00 | 0.00 | 0.00 | 16 |
| 3747 | 0.00 | 0.00 | 0.00 | 19 |
| 3748 | 0.00 | 0.00 | 0.00 | 11 |
| 3749 | 0.00 | 0.00 | 0.00 | 20 |
| 3750 | 0.00 | 0.00 | 0.00 | 17 |
| 3751 | 0.00 | 0.00 | 0.00 | 11 |
| 3752 | 0.00 | 0.00 | 0.00 | 13 |
| 3753 | 0.00 | 0.00 | 0.00 | 18 |
| 3754 | 0.00 | 0.00 | 0.00 | 17 |

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| 3755 | 0.00 | 0.00 | 0.00 | 20 |
| 3756 | 0.00 | 0.00 | 0.00 | 16 |
| 3757 | 0.00 | 0.00 | 0.00 | 14 |
| 3758 | 0.00 | 0.00 | 0.00 | 14 |
| 3759 | 0.00 | 0.00 | 0.00 | 22 |
| 3760 | 0.00 | 0.00 | 0.00 | 15 |
| 3761 | 0.00 | 0.00 | 0.00 | 17 |
| 3762 | 0.00 | 0.00 | 0.00 | 17 |
| 3763 | 0.00 | 0.00 | 0.00 | 15 |
| 3764 | 1.00 | 0.21 | 0.35 | 19 |
| 3765 | 0.00 | 0.00 | 0.00 | 17 |
| 3766 | 0.00 | 0.00 | 0.00 | 7 |
| 3767 | 0.00 | 0.00 | 0.00 | 15 |
| 3768 | 0.00 | 0.00 | 0.00 | 12 |
| 3769 | 0.00 | 0.00 | 0.00 | 14 |
| 3770 | 0.00 | 0.00 | 0.00 | 15 |
| 3771 | 0.00 | 0.00 | 0.00 | 16 |
| 3772 | 0.00 | 0.00 | 0.00 | 15 |
| 3773 | 0.00 | 0.00 | 0.00 | 16 |
| 3774 | 0.00 | 0.00 | 0.00 | 17 |
| 3775 | 0.00 | 0.00 | 0.00 | 16 |
| 3776 | 0.00 | 0.00 | 0.00 | 11 |
| 3777 | 0.00 | 0.00 | 0.00 | 19 |
| 3778 | 0.00 | 0.00 | 0.00 | 22 |
| 3779 | 0.00 | 0.00 | 0.00 | 9 |
| 3780 | 1.00 | 0.15 | 0.27 | 13 |
| 3781 | 0.00 | 0.00 | 0.00 | 12 |
| 3782 | 0.00 | 0.00 | 0.00 | 23 |
| 3783 | 0.00 | 0.00 | 0.00 | 13 |
| 3784 | 0.00 | 0.00 | 0.00 | 15 |
| 3785 | 0.00 | 0.00 | 0.00 | 19 |
| 3786 | 0.00 | 0.00 | 0.00 | 17 |
| 3787 | 0.00 | 0.00 | 0.00 | 13 |
| 3788 | 0.00 | 0.00 | 0.00 | 18 |
| 3789 | 1.00 | 0.06 | 0.11 | 17 |
| 3790 | 0.00 | 0.00 | 0.00 | 14 |
| 3791 | 0.00 | 0.00 | 0.00 | 13 |
| 3792 | 0.00 | 0.00 | 0.00 | 18 |
| 3793 | 0.00 | 0.00 | 0.00 | 12 |
| 3794 | 0.00 | 0.00 | 0.00 | 22 |
| 3795 | 0.00 | 0.00 | 0.00 | 14 |
| 3796 | 0.00 | 0.00 | 0.00 | 23 |
| 3797 | 0.00 | 0.00 | 0.00 | 8 |
| 3798 | 0.00 | 0.00 | 0.00 | 23 |
| 3799 | 0.00 | 0.00 | 0.00 | 9 |
| 3800 | 0.00 | 0.00 | 0.00 | 17 |
| 3801 | 0.00 | 0.00 | 0.00 | 17 |
| 3802 | 0.00 | 0.00 | 0.00 | 14 |
| 3803 | 0.00 | 0.00 | 0.00 | 21 |
| 3804 | 0.00 | 0.00 | 0.00 | 15 |
| 3805 | 0.00 | 0.00 | 0.00 | 13 |
| 3806 | 0.00 | 0.00 | 0.00 | 13 |
| 3807 | 0.00 | 0.00 | 0.00 | 10 |
| 3808 | 0.00 | 0.00 | 0.00 | 14 |
| 3809 | 0.00 | 0.00 | 0.00 | 17 |
| 3810 | 0.00 | 0.00 | 0.00 | 21 |
| 3811 | 0.00 | 0.00 | 0.00 | 14 |
| 3812 | 0.00 | 0.00 | 0.00 | 18 |
| 3813 | 0.00 | 0.00 | 0.00 | 19 |
| 3814 | 0.00 | 0.00 | 0.00 | 16 |
| 3815 | 0.00 | 0.00 | 0.00 | 14 |
| 3816 | 0.00 | 0.00 | 0.00 | 14 |
| 3817 | 0.00 | 0.00 | 0.00 | 14 |
| 3818 | 0.00 | 0.00 | 0.00 | 15 |
| 3819 | 0.00 | 0.00 | 0.00 | 18 |
| 3820 | 0.00 | 0.00 | 0.00 | 16 |
| 3821 | 0.00 | 0.00 | 0.00 | 19 |
| 3822 | 0.00 | 0.00 | 0.00 | 21 |
| 3823 | 0.00 | 0.00 | 0.00 | 16 |
| 3824 | 0.00 | 0.00 | 0.00 | 17 |
| 3825 | 0.00 | 0.00 | 0.00 | 16 |
| 3826 | 0.00 | 0.00 | 0.00 | 20 |
| 3827 | 0.00 | 0.00 | 0.00 | 17 |
| 3828 | 0.00 | 0.00 | 0.00 | 17 |
| 3829 | 0.00 | 0.00 | 0.00 | 16 |
| 3830 | 0.00 | 0.00 | 0.00 | 19 |
| 3831 | 0.00 | 0.00 | 0.00 | 15 |

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|------|------|------|------|----|
| 3832 | 0.00 | 0.00 | 0.00 | 20 |
| 3833 | 0.00 | 0.00 | 0.00 | 16 |
| 3834 | 0.00 | 0.00 | 0.00 | 13 |
| 3835 | 0.00 | 0.00 | 0.00 | 14 |
| 3836 | 0.00 | 0.00 | 0.00 | 12 |
| 3837 | 0.00 | 0.00 | 0.00 | 14 |
| 3838 | 0.00 | 0.00 | 0.00 | 9 |
| 3839 | 0.00 | 0.00 | 0.00 | 13 |
| 3840 | 0.00 | 0.00 | 0.00 | 14 |
| 3841 | 0.00 | 0.00 | 0.00 | 19 |
| 3842 | 0.00 | 0.00 | 0.00 | 19 |
| 3843 | 0.00 | 0.00 | 0.00 | 16 |
| 3844 | 0.00 | 0.00 | 0.00 | 13 |
| 3845 | 0.00 | 0.00 | 0.00 | 21 |
| 3846 | 0.00 | 0.00 | 0.00 | 7 |
| 3847 | 0.00 | 0.00 | 0.00 | 16 |
| 3848 | 0.00 | 0.00 | 0.00 | 10 |
| 3849 | 0.00 | 0.00 | 0.00 | 19 |
| 3850 | 0.00 | 0.00 | 0.00 | 18 |
| 3851 | 0.00 | 0.00 | 0.00 | 11 |
| 3852 | 0.00 | 0.00 | 0.00 | 17 |
| 3853 | 0.00 | 0.00 | 0.00 | 13 |
| 3854 | 0.00 | 0.00 | 0.00 | 20 |
| 3855 | 0.00 | 0.00 | 0.00 | 20 |
| 3856 | 0.00 | 0.00 | 0.00 | 10 |
| 3857 | 0.00 | 0.00 | 0.00 | 20 |
| 3858 | 0.00 | 0.00 | 0.00 | 22 |
| 3859 | 0.00 | 0.00 | 0.00 | 13 |
| 3860 | 0.00 | 0.00 | 0.00 | 19 |
| 3861 | 0.00 | 0.00 | 0.00 | 16 |
| 3862 | 0.00 | 0.00 | 0.00 | 18 |
| 3863 | 0.00 | 0.00 | 0.00 | 10 |
| 3864 | 1.00 | 0.15 | 0.27 | 13 |
| 3865 | 0.00 | 0.00 | 0.00 | 15 |
| 3866 | 0.00 | 0.00 | 0.00 | 13 |
| 3867 | 0.00 | 0.00 | 0.00 | 18 |
| 3868 | 0.00 | 0.00 | 0.00 | 13 |
| 3869 | 0.00 | 0.00 | 0.00 | 17 |
| 3870 | 0.00 | 0.00 | 0.00 | 14 |
| 3871 | 0.00 | 0.00 | 0.00 | 11 |
| 3872 | 0.00 | 0.00 | 0.00 | 10 |
| 3873 | 0.00 | 0.00 | 0.00 | 17 |
| 3874 | 0.00 | 0.00 | 0.00 | 9 |
| 3875 | 0.00 | 0.00 | 0.00 | 13 |
| 3876 | 0.00 | 0.00 | 0.00 | 12 |
| 3877 | 0.00 | 0.00 | 0.00 | 13 |
| 3878 | 0.00 | 0.00 | 0.00 | 16 |
| 3879 | 0.00 | 0.00 | 0.00 | 17 |
| 3880 | 0.00 | 0.00 | 0.00 | 11 |
| 3881 | 0.00 | 0.00 | 0.00 | 17 |
| 3882 | 0.00 | 0.00 | 0.00 | 13 |
| 3883 | 0.00 | 0.00 | 0.00 | 11 |
| 3884 | 0.00 | 0.00 | 0.00 | 15 |
| 3885 | 0.00 | 0.00 | 0.00 | 17 |
| 3886 | 0.00 | 0.00 | 0.00 | 14 |
| 3887 | 1.00 | 0.20 | 0.33 | 10 |
| 3888 | 0.00 | 0.00 | 0.00 | 16 |
| 3889 | 0.00 | 0.00 | 0.00 | 13 |
| 3890 | 0.00 | 0.00 | 0.00 | 14 |
| 3891 | 0.00 | 0.00 | 0.00 | 15 |
| 3892 | 0.00 | 0.00 | 0.00 | 19 |
| 3893 | 0.00 | 0.00 | 0.00 | 9 |
| 3894 | 0.00 | 0.00 | 0.00 | 16 |
| 3895 | 0.00 | 0.00 | 0.00 | 18 |
| 3896 | 0.00 | 0.00 | 0.00 | 17 |
| 3897 | 0.00 | 0.00 | 0.00 | 18 |
| 3898 | 0.00 | 0.00 | 0.00 | 10 |
| 3899 | 0.00 | 0.00 | 0.00 | 14 |
| 3900 | 0.00 | 0.00 | 0.00 | 22 |
| 3901 | 0.00 | 0.00 | 0.00 | 23 |
| 3902 | 0.00 | 0.00 | 0.00 | 11 |
| 3903 | 0.00 | 0.00 | 0.00 | 10 |
| 3904 | 0.00 | 0.00 | 0.00 | 7 |
| 3905 | 0.00 | 0.00 | 0.00 | 19 |
| 3906 | 1.00 | 0.13 | 0.24 | 15 |
| 3907 | 0.00 | 0.00 | 0.00 | 9 |
| 3908 | 0.00 | 0.00 | 0.00 | 12 |

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| 3909 | 0.00 | 0.00 | 0.00 | 17 |
| 3910 | 0.00 | 0.00 | 0.00 | 11 |
| 3911 | 0.00 | 0.00 | 0.00 | 14 |
| 3912 | 0.00 | 0.00 | 0.00 | 18 |
| 3913 | 0.00 | 0.00 | 0.00 | 12 |
| 3914 | 0.00 | 0.00 | 0.00 | 15 |
| 3915 | 0.00 | 0.00 | 0.00 | 12 |
| 3916 | 0.00 | 0.00 | 0.00 | 14 |
| 3917 | 0.00 | 0.00 | 0.00 | 12 |
| 3918 | 0.00 | 0.00 | 0.00 | 11 |
| 3919 | 0.00 | 0.00 | 0.00 | 12 |
| 3920 | 0.00 | 0.00 | 0.00 | 24 |
| 3921 | 0.00 | 0.00 | 0.00 | 13 |
| 3922 | 0.00 | 0.00 | 0.00 | 15 |
| 3923 | 1.00 | 0.07 | 0.12 | 15 |
| 3924 | 0.00 | 0.00 | 0.00 | 10 |
| 3925 | 0.00 | 0.00 | 0.00 | 20 |
| 3926 | 0.00 | 0.00 | 0.00 | 15 |
| 3927 | 0.00 | 0.00 | 0.00 | 20 |
| 3928 | 0.00 | 0.00 | 0.00 | 11 |
| 3929 | 0.00 | 0.00 | 0.00 | 15 |
| 3930 | 0.00 | 0.00 | 0.00 | 8 |
| 3931 | 0.00 | 0.00 | 0.00 | 16 |
| 3932 | 0.00 | 0.00 | 0.00 | 15 |
| 3933 | 0.00 | 0.00 | 0.00 | 15 |
| 3934 | 0.00 | 0.00 | 0.00 | 17 |
| 3935 | 0.00 | 0.00 | 0.00 | 10 |
| 3936 | 0.00 | 0.00 | 0.00 | 21 |
| 3937 | 0.00 | 0.00 | 0.00 | 14 |
| 3938 | 0.00 | 0.00 | 0.00 | 19 |
| 3939 | 0.00 | 0.00 | 0.00 | 17 |
| 3940 | 0.00 | 0.00 | 0.00 | 19 |
| 3941 | 0.00 | 0.00 | 0.00 | 13 |
| 3942 | 0.00 | 0.00 | 0.00 | 12 |
| 3943 | 0.00 | 0.00 | 0.00 | 18 |
| 3944 | 0.00 | 0.00 | 0.00 | 17 |
| 3945 | 0.00 | 0.00 | 0.00 | 17 |
| 3946 | 0.00 | 0.00 | 0.00 | 12 |
| 3947 | 0.00 | 0.00 | 0.00 | 15 |
| 3948 | 0.00 | 0.00 | 0.00 | 14 |
| 3949 | 0.00 | 0.00 | 0.00 | 17 |
| 3950 | 0.00 | 0.00 | 0.00 | 14 |
| 3951 | 0.00 | 0.00 | 0.00 | 15 |
| 3952 | 0.00 | 0.00 | 0.00 | 17 |
| 3953 | 0.00 | 0.00 | 0.00 | 11 |
| 3954 | 0.00 | 0.00 | 0.00 | 14 |
| 3955 | 0.00 | 0.00 | 0.00 | 15 |
| 3956 | 0.00 | 0.00 | 0.00 | 17 |
| 3957 | 0.00 | 0.00 | 0.00 | 9 |
| 3958 | 0.00 | 0.00 | 0.00 | 20 |
| 3959 | 1.00 | 0.33 | 0.50 | 9 |
| 3960 | 0.00 | 0.00 | 0.00 | 13 |
| 3961 | 0.00 | 0.00 | 0.00 | 18 |
| 3962 | 0.00 | 0.00 | 0.00 | 14 |
| 3963 | 0.00 | 0.00 | 0.00 | 15 |
| 3964 | 0.00 | 0.00 | 0.00 | 13 |
| 3965 | 0.00 | 0.00 | 0.00 | 16 |
| 3966 | 0.00 | 0.00 | 0.00 | 15 |
| 3967 | 0.00 | 0.00 | 0.00 | 15 |
| 3968 | 0.00 | 0.00 | 0.00 | 17 |
| 3969 | 0.00 | 0.00 | 0.00 | 20 |
| 3970 | 0.00 | 0.00 | 0.00 | 16 |
| 3971 | 0.00 | 0.00 | 0.00 | 19 |
| 3972 | 1.00 | 0.12 | 0.22 | 16 |
| 3973 | 0.00 | 0.00 | 0.00 | 15 |
| 3974 | 0.00 | 0.00 | 0.00 | 8 |
| 3975 | 0.00 | 0.00 | 0.00 | 16 |
| 3976 | 0.00 | 0.00 | 0.00 | 15 |
| 3977 | 0.00 | 0.00 | 0.00 | 14 |
| 3978 | 0.00 | 0.00 | 0.00 | 16 |
| 3979 | 0.00 | 0.00 | 0.00 | 13 |
| 3980 | 0.00 | 0.00 | 0.00 | 28 |
| 3981 | 0.00 | 0.00 | 0.00 | 16 |
| 3982 | 0.00 | 0.00 | 0.00 | 12 |
| 3983 | 0.00 | 0.00 | 0.00 | 13 |
| 3984 | 0.00 | 0.00 | 0.00 | 12 |
| 3985 | 0.00 | 0.00 | 0.00 | 15 |

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| 3986 | 0.00 | 0.00 | 0.00 | 10 |
| 3987 | 0.00 | 0.00 | 0.00 | 20 |
| 3988 | 0.00 | 0.00 | 0.00 | 17 |
| 3989 | 0.00 | 0.00 | 0.00 | 14 |
| 3990 | 0.00 | 0.00 | 0.00 | 11 |
| 3991 | 0.00 | 0.00 | 0.00 | 14 |
| 3992 | 0.00 | 0.00 | 0.00 | 13 |
| 3993 | 1.00 | 0.23 | 0.38 | 13 |
| 3994 | 0.00 | 0.00 | 0.00 | 18 |
| 3995 | 0.00 | 0.00 | 0.00 | 13 |
| 3996 | 0.00 | 0.00 | 0.00 | 13 |
| 3997 | 0.00 | 0.00 | 0.00 | 19 |
| 3998 | 0.00 | 0.00 | 0.00 | 10 |
| 3999 | 1.00 | 0.13 | 0.24 | 15 |
| 4000 | 0.00 | 0.00 | 0.00 | 20 |
| 4001 | 0.00 | 0.00 | 0.00 | 16 |
| 4002 | 0.00 | 0.00 | 0.00 | 11 |
| 4003 | 0.00 | 0.00 | 0.00 | 14 |
| 4004 | 0.00 | 0.00 | 0.00 | 15 |
| 4005 | 0.00 | 0.00 | 0.00 | 21 |
| 4006 | 0.00 | 0.00 | 0.00 | 12 |
| 4007 | 0.00 | 0.00 | 0.00 | 15 |
| 4008 | 0.00 | 0.00 | 0.00 | 9 |
| 4009 | 0.50 | 0.06 | 0.11 | 16 |
| 4010 | 0.00 | 0.00 | 0.00 | 12 |
| 4011 | 0.00 | 0.00 | 0.00 | 16 |
| 4012 | 0.00 | 0.00 | 0.00 | 19 |
| 4013 | 0.00 | 0.00 | 0.00 | 13 |
| 4014 | 0.00 | 0.00 | 0.00 | 13 |
| 4015 | 0.00 | 0.00 | 0.00 | 13 |
| 4016 | 0.00 | 0.00 | 0.00 | 16 |
| 4017 | 0.00 | 0.00 | 0.00 | 17 |
| 4018 | 0.00 | 0.00 | 0.00 | 10 |
| 4019 | 0.00 | 0.00 | 0.00 | 12 |
| 4020 | 0.00 | 0.00 | 0.00 | 13 |
| 4021 | 0.00 | 0.00 | 0.00 | 17 |
| 4022 | 0.00 | 0.00 | 0.00 | 16 |
| 4023 | 0.00 | 0.00 | 0.00 | 14 |
| 4024 | 0.00 | 0.00 | 0.00 | 11 |
| 4025 | 0.00 | 0.00 | 0.00 | 8 |
| 4026 | 0.00 | 0.00 | 0.00 | 8 |
| 4027 | 0.00 | 0.00 | 0.00 | 18 |
| 4028 | 0.00 | 0.00 | 0.00 | 13 |
| 4029 | 0.00 | 0.00 | 0.00 | 11 |
| 4030 | 0.00 | 0.00 | 0.00 | 19 |
| 4031 | 0.00 | 0.00 | 0.00 | 9 |
| 4032 | 0.00 | 0.00 | 0.00 | 12 |
| 4033 | 0.00 | 0.00 | 0.00 | 14 |
| 4034 | 0.00 | 0.00 | 0.00 | 17 |
| 4035 | 0.00 | 0.00 | 0.00 | 10 |
| 4036 | 0.00 | 0.00 | 0.00 | 12 |
| 4037 | 0.00 | 0.00 | 0.00 | 13 |
| 4038 | 0.00 | 0.00 | 0.00 | 13 |
| 4039 | 0.00 | 0.00 | 0.00 | 13 |
| 4040 | 0.00 | 0.00 | 0.00 | 12 |
| 4041 | 0.00 | 0.00 | 0.00 | 17 |
| 4042 | 0.00 | 0.00 | 0.00 | 10 |
| 4043 | 0.00 | 0.00 | 0.00 | 15 |
| 4044 | 0.00 | 0.00 | 0.00 | 13 |
| 4045 | 0.00 | 0.00 | 0.00 | 20 |
| 4046 | 0.00 | 0.00 | 0.00 | 16 |
| 4047 | 0.00 | 0.00 | 0.00 | 12 |
| 4048 | 0.00 | 0.00 | 0.00 | 16 |
| 4049 | 0.00 | 0.00 | 0.00 | 14 |
| 4050 | 0.00 | 0.00 | 0.00 | 15 |
| 4051 | 0.00 | 0.00 | 0.00 | 20 |
| 4052 | 0.00 | 0.00 | 0.00 | 10 |
| 4053 | 0.00 | 0.00 | 0.00 | 14 |
| 4054 | 0.00 | 0.00 | 0.00 | 14 |
| 4055 | 0.00 | 0.00 | 0.00 | 5 |
| 4056 | 0.00 | 0.00 | 0.00 | 15 |
| 4057 | 1.00 | 0.07 | 0.12 | 15 |
| 4058 | 0.00 | 0.00 | 0.00 | 17 |
| 4059 | 0.00 | 0.00 | 0.00 | 13 |
| 4060 | 0.00 | 0.00 | 0.00 | 14 |
| 4061 | 0.00 | 0.00 | 0.00 | 10 |
| 4062 | 0.00 | 0.00 | 0.00 | 15 |

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|------|------|------|------|----|
| 4063 | 0.00 | 0.00 | 0.00 | 15 |
| 4064 | 0.00 | 0.00 | 0.00 | 17 |
| 4065 | 0.00 | 0.00 | 0.00 | 17 |
| 4066 | 0.00 | 0.00 | 0.00 | 14 |
| 4067 | 0.00 | 0.00 | 0.00 | 15 |
| 4068 | 0.00 | 0.00 | 0.00 | 21 |
| 4069 | 0.00 | 0.00 | 0.00 | 9 |
| 4070 | 0.00 | 0.00 | 0.00 | 9 |
| 4071 | 0.00 | 0.00 | 0.00 | 21 |
| 4072 | 0.00 | 0.00 | 0.00 | 18 |
| 4073 | 0.00 | 0.00 | 0.00 | 9 |
| 4074 | 0.00 | 0.00 | 0.00 | 12 |
| 4075 | 0.00 | 0.00 | 0.00 | 20 |
| 4076 | 0.00 | 0.00 | 0.00 | 15 |
| 4077 | 0.00 | 0.00 | 0.00 | 15 |
| 4078 | 0.00 | 0.00 | 0.00 | 9 |
| 4079 | 0.00 | 0.00 | 0.00 | 15 |
| 4080 | 0.00 | 0.00 | 0.00 | 19 |
| 4081 | 0.00 | 0.00 | 0.00 | 10 |
| 4082 | 0.00 | 0.00 | 0.00 | 11 |
| 4083 | 0.00 | 0.00 | 0.00 | 12 |
| 4084 | 0.00 | 0.00 | 0.00 | 14 |
| 4085 | 0.00 | 0.00 | 0.00 | 9 |
| 4086 | 0.00 | 0.00 | 0.00 | 9 |
| 4087 | 0.00 | 0.00 | 0.00 | 9 |
| 4088 | 0.00 | 0.00 | 0.00 | 18 |
| 4089 | 0.00 | 0.00 | 0.00 | 14 |
| 4090 | 0.00 | 0.00 | 0.00 | 18 |
| 4091 | 0.00 | 0.00 | 0.00 | 14 |
| 4092 | 0.00 | 0.00 | 0.00 | 13 |
| 4093 | 0.00 | 0.00 | 0.00 | 16 |
| 4094 | 0.00 | 0.00 | 0.00 | 14 |
| 4095 | 0.00 | 0.00 | 0.00 | 19 |
| 4096 | 0.00 | 0.00 | 0.00 | 15 |
| 4097 | 0.00 | 0.00 | 0.00 | 14 |
| 4098 | 0.00 | 0.00 | 0.00 | 16 |
| 4099 | 0.00 | 0.00 | 0.00 | 21 |
| 4100 | 0.00 | 0.00 | 0.00 | 18 |
| 4101 | 0.00 | 0.00 | 0.00 | 15 |
| 4102 | 0.00 | 0.00 | 0.00 | 15 |
| 4103 | 0.00 | 0.00 | 0.00 | 17 |
| 4104 | 0.00 | 0.00 | 0.00 | 13 |
| 4105 | 0.00 | 0.00 | 0.00 | 15 |
| 4106 | 0.00 | 0.00 | 0.00 | 14 |
| 4107 | 0.00 | 0.00 | 0.00 | 13 |
| 4108 | 0.00 | 0.00 | 0.00 | 15 |
| 4109 | 0.00 | 0.00 | 0.00 | 15 |
| 4110 | 0.00 | 0.00 | 0.00 | 13 |
| 4111 | 0.00 | 0.00 | 0.00 | 16 |
| 4112 | 0.00 | 0.00 | 0.00 | 13 |
| 4113 | 0.00 | 0.00 | 0.00 | 12 |
| 4114 | 0.00 | 0.00 | 0.00 | 13 |
| 4115 | 0.00 | 0.00 | 0.00 | 11 |
| 4116 | 0.00 | 0.00 | 0.00 | 15 |
| 4117 | 0.00 | 0.00 | 0.00 | 12 |
| 4118 | 0.00 | 0.00 | 0.00 | 12 |
| 4119 | 0.00 | 0.00 | 0.00 | 18 |
| 4120 | 1.00 | 0.09 | 0.17 | 11 |
| 4121 | 0.00 | 0.00 | 0.00 | 9 |
| 4122 | 0.00 | 0.00 | 0.00 | 12 |
| 4123 | 0.00 | 0.00 | 0.00 | 11 |
| 4124 | 0.00 | 0.00 | 0.00 | 9 |
| 4125 | 0.00 | 0.00 | 0.00 | 9 |
| 4126 | 0.00 | 0.00 | 0.00 | 15 |
| 4127 | 0.00 | 0.00 | 0.00 | 16 |
| 4128 | 0.00 | 0.00 | 0.00 | 13 |
| 4129 | 0.00 | 0.00 | 0.00 | 11 |
| 4130 | 0.00 | 0.00 | 0.00 | 7 |
| 4131 | 0.00 | 0.00 | 0.00 | 12 |
| 4132 | 0.00 | 0.00 | 0.00 | 15 |
| 4133 | 1.00 | 0.08 | 0.15 | 12 |
| 4134 | 0.00 | 0.00 | 0.00 | 16 |
| 4135 | 0.00 | 0.00 | 0.00 | 16 |
| 4136 | 0.00 | 0.00 | 0.00 | 11 |
| 4137 | 0.00 | 0.00 | 0.00 | 12 |
| 4138 | 0.00 | 0.00 | 0.00 | 12 |
| 4139 | 0.00 | 0.00 | 0.00 | 21 |

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|------|------|------|------|----|
| 4140 | 0.00 | 0.00 | 0.00 | 13 |
| 4141 | 0.00 | 0.00 | 0.00 | 7 |
| 4142 | 0.00 | 0.00 | 0.00 | 12 |
| 4143 | 0.00 | 0.00 | 0.00 | 19 |
| 4144 | 0.00 | 0.00 | 0.00 | 10 |
| 4145 | 0.00 | 0.00 | 0.00 | 13 |
| 4146 | 0.00 | 0.00 | 0.00 | 18 |
| 4147 | 0.00 | 0.00 | 0.00 | 14 |
| 4148 | 0.00 | 0.00 | 0.00 | 11 |
| 4149 | 0.00 | 0.00 | 0.00 | 7 |
| 4150 | 0.00 | 0.00 | 0.00 | 10 |
| 4151 | 0.00 | 0.00 | 0.00 | 18 |
| 4152 | 0.00 | 0.00 | 0.00 | 14 |
| 4153 | 0.00 | 0.00 | 0.00 | 16 |
| 4154 | 0.00 | 0.00 | 0.00 | 12 |
| 4155 | 0.00 | 0.00 | 0.00 | 10 |
| 4156 | 0.00 | 0.00 | 0.00 | 15 |
| 4157 | 0.00 | 0.00 | 0.00 | 16 |
| 4158 | 0.00 | 0.00 | 0.00 | 19 |
| 4159 | 0.00 | 0.00 | 0.00 | 10 |
| 4160 | 0.00 | 0.00 | 0.00 | 17 |
| 4161 | 0.00 | 0.00 | 0.00 | 18 |
| 4162 | 0.00 | 0.00 | 0.00 | 12 |
| 4163 | 0.00 | 0.00 | 0.00 | 11 |
| 4164 | 0.00 | 0.00 | 0.00 | 8 |
| 4165 | 0.00 | 0.00 | 0.00 | 17 |
| 4166 | 0.00 | 0.00 | 0.00 | 17 |
| 4167 | 0.00 | 0.00 | 0.00 | 8 |
| 4168 | 0.00 | 0.00 | 0.00 | 12 |
| 4169 | 0.00 | 0.00 | 0.00 | 19 |
| 4170 | 0.00 | 0.00 | 0.00 | 15 |
| 4171 | 0.00 | 0.00 | 0.00 | 10 |
| 4172 | 0.00 | 0.00 | 0.00 | 17 |
| 4173 | 0.00 | 0.00 | 0.00 | 12 |
| 4174 | 0.00 | 0.00 | 0.00 | 14 |
| 4175 | 0.00 | 0.00 | 0.00 | 18 |
| 4176 | 0.00 | 0.00 | 0.00 | 8 |
| 4177 | 0.00 | 0.00 | 0.00 | 20 |
| 4178 | 0.00 | 0.00 | 0.00 | 15 |
| 4179 | 0.00 | 0.00 | 0.00 | 16 |
| 4180 | 0.00 | 0.00 | 0.00 | 12 |
| 4181 | 0.00 | 0.00 | 0.00 | 18 |
| 4182 | 0.00 | 0.00 | 0.00 | 8 |
| 4183 | 0.00 | 0.00 | 0.00 | 18 |
| 4184 | 0.00 | 0.00 | 0.00 | 16 |
| 4185 | 0.00 | 0.00 | 0.00 | 12 |
| 4186 | 0.00 | 0.00 | 0.00 | 16 |
| 4187 | 0.00 | 0.00 | 0.00 | 14 |
| 4188 | 0.00 | 0.00 | 0.00 | 17 |
| 4189 | 0.00 | 0.00 | 0.00 | 13 |
| 4190 | 0.00 | 0.00 | 0.00 | 11 |
| 4191 | 0.00 | 0.00 | 0.00 | 14 |
| 4192 | 0.00 | 0.00 | 0.00 | 11 |
| 4193 | 0.00 | 0.00 | 0.00 | 11 |
| 4194 | 0.00 | 0.00 | 0.00 | 17 |
| 4195 | 0.00 | 0.00 | 0.00 | 6 |
| 4196 | 0.00 | 0.00 | 0.00 | 17 |
| 4197 | 0.00 | 0.00 | 0.00 | 13 |
| 4198 | 0.00 | 0.00 | 0.00 | 12 |
| 4199 | 0.00 | 0.00 | 0.00 | 9 |
| 4200 | 0.00 | 0.00 | 0.00 | 12 |
| 4201 | 0.00 | 0.00 | 0.00 | 13 |
| 4202 | 0.00 | 0.00 | 0.00 | 13 |
| 4203 | 0.00 | 0.00 | 0.00 | 15 |
| 4204 | 0.00 | 0.00 | 0.00 | 15 |
| 4205 | 0.00 | 0.00 | 0.00 | 11 |
| 4206 | 0.00 | 0.00 | 0.00 | 14 |
| 4207 | 0.00 | 0.00 | 0.00 | 9 |
| 4208 | 0.00 | 0.00 | 0.00 | 15 |
| 4209 | 0.00 | 0.00 | 0.00 | 14 |
| 4210 | 0.00 | 0.00 | 0.00 | 11 |
| 4211 | 0.00 | 0.00 | 0.00 | 12 |
| 4212 | 0.00 | 0.00 | 0.00 | 12 |
| 4213 | 0.00 | 0.00 | 0.00 | 14 |
| 4214 | 0.00 | 0.00 | 0.00 | 9 |
| 4215 | 0.00 | 0.00 | 0.00 | 7 |
| 4216 | 0.00 | 0.00 | 0.00 | 12 |

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|------|------|------|------|----|
| 4217 | 0.00 | 0.00 | 0.00 | 11 |
| 4218 | 0.00 | 0.00 | 0.00 | 13 |
| 4219 | 1.00 | 0.09 | 0.17 | 11 |
| 4220 | 1.00 | 0.07 | 0.13 | 14 |
| 4221 | 0.00 | 0.00 | 0.00 | 11 |
| 4222 | 1.00 | 0.08 | 0.14 | 13 |
| 4223 | 0.00 | 0.00 | 0.00 | 4 |
| 4224 | 0.00 | 0.00 | 0.00 | 12 |
| 4225 | 0.00 | 0.00 | 0.00 | 13 |
| 4226 | 0.00 | 0.00 | 0.00 | 7 |
| 4227 | 0.00 | 0.00 | 0.00 | 14 |
| 4228 | 0.00 | 0.00 | 0.00 | 9 |
| 4229 | 0.00 | 0.00 | 0.00 | 14 |
| 4230 | 0.00 | 0.00 | 0.00 | 11 |
| 4231 | 0.00 | 0.00 | 0.00 | 13 |
| 4232 | 0.00 | 0.00 | 0.00 | 16 |
| 4233 | 0.00 | 0.00 | 0.00 | 20 |
| 4234 | 0.00 | 0.00 | 0.00 | 12 |
| 4235 | 0.00 | 0.00 | 0.00 | 12 |
| 4236 | 0.00 | 0.00 | 0.00 | 13 |
| 4237 | 0.00 | 0.00 | 0.00 | 11 |
| 4238 | 0.00 | 0.00 | 0.00 | 15 |
| 4239 | 0.00 | 0.00 | 0.00 | 10 |
| 4240 | 0.00 | 0.00 | 0.00 | 11 |
| 4241 | 0.00 | 0.00 | 0.00 | 17 |
| 4242 | 0.00 | 0.00 | 0.00 | 16 |
| 4243 | 0.00 | 0.00 | 0.00 | 17 |
| 4244 | 0.00 | 0.00 | 0.00 | 12 |
| 4245 | 0.00 | 0.00 | 0.00 | 16 |
| 4246 | 0.00 | 0.00 | 0.00 | 10 |
| 4247 | 0.00 | 0.00 | 0.00 | 19 |
| 4248 | 0.00 | 0.00 | 0.00 | 9 |
| 4249 | 0.00 | 0.00 | 0.00 | 15 |
| 4250 | 0.00 | 0.00 | 0.00 | 18 |
| 4251 | 0.00 | 0.00 | 0.00 | 11 |
| 4252 | 0.00 | 0.00 | 0.00 | 9 |
| 4253 | 0.00 | 0.00 | 0.00 | 16 |
| 4254 | 0.00 | 0.00 | 0.00 | 13 |
| 4255 | 0.00 | 0.00 | 0.00 | 7 |
| 4256 | 0.00 | 0.00 | 0.00 | 11 |
| 4257 | 0.00 | 0.00 | 0.00 | 17 |
| 4258 | 0.00 | 0.00 | 0.00 | 12 |
| 4259 | 0.00 | 0.00 | 0.00 | 12 |
| 4260 | 0.00 | 0.00 | 0.00 | 17 |
| 4261 | 0.00 | 0.00 | 0.00 | 12 |
| 4262 | 0.00 | 0.00 | 0.00 | 10 |
| 4263 | 0.00 | 0.00 | 0.00 | 21 |
| 4264 | 0.00 | 0.00 | 0.00 | 16 |
| 4265 | 0.00 | 0.00 | 0.00 | 13 |
| 4266 | 0.00 | 0.00 | 0.00 | 13 |
| 4267 | 0.00 | 0.00 | 0.00 | 12 |
| 4268 | 0.00 | 0.00 | 0.00 | 14 |
| 4269 | 0.00 | 0.00 | 0.00 | 16 |
| 4270 | 0.00 | 0.00 | 0.00 | 12 |
| 4271 | 0.00 | 0.00 | 0.00 | 10 |
| 4272 | 0.00 | 0.00 | 0.00 | 15 |
| 4273 | 0.00 | 0.00 | 0.00 | 9 |
| 4274 | 0.00 | 0.00 | 0.00 | 17 |
| 4275 | 0.00 | 0.00 | 0.00 | 16 |
| 4276 | 0.00 | 0.00 | 0.00 | 8 |
| 4277 | 0.00 | 0.00 | 0.00 | 14 |
| 4278 | 0.00 | 0.00 | 0.00 | 18 |
| 4279 | 0.00 | 0.00 | 0.00 | 17 |
| 4280 | 0.00 | 0.00 | 0.00 | 12 |
| 4281 | 0.00 | 0.00 | 0.00 | 4 |
| 4282 | 0.00 | 0.00 | 0.00 | 17 |
| 4283 | 0.00 | 0.00 | 0.00 | 14 |
| 4284 | 0.00 | 0.00 | 0.00 | 15 |
| 4285 | 0.00 | 0.00 | 0.00 | 22 |
| 4286 | 0.00 | 0.00 | 0.00 | 18 |
| 4287 | 0.00 | 0.00 | 0.00 | 9 |
| 4288 | 0.00 | 0.00 | 0.00 | 14 |
| 4289 | 0.00 | 0.00 | 0.00 | 9 |
| 4290 | 0.00 | 0.00 | 0.00 | 12 |
| 4291 | 0.00 | 0.00 | 0.00 | 11 |
| 4292 | 1.00 | 0.06 | 0.11 | 17 |
| 4293 | 0.00 | 0.00 | 0.00 | 8 |

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|------|------|------|------|----|
| 4294 | 0.00 | 0.00 | 0.00 | 8 |
| 4295 | 0.00 | 0.00 | 0.00 | 9 |
| 4296 | 0.00 | 0.00 | 0.00 | 9 |
| 4297 | 0.00 | 0.00 | 0.00 | 19 |
| 4298 | 0.00 | 0.00 | 0.00 | 11 |
| 4299 | 0.00 | 0.00 | 0.00 | 6 |
| 4300 | 0.00 | 0.00 | 0.00 | 13 |
| 4301 | 0.00 | 0.00 | 0.00 | 14 |
| 4302 | 0.00 | 0.00 | 0.00 | 14 |
| 4303 | 0.00 | 0.00 | 0.00 | 15 |
| 4304 | 0.00 | 0.00 | 0.00 | 4 |
| 4305 | 0.00 | 0.00 | 0.00 | 13 |
| 4306 | 0.00 | 0.00 | 0.00 | 12 |
| 4307 | 0.00 | 0.00 | 0.00 | 7 |
| 4308 | 0.00 | 0.00 | 0.00 | 19 |
| 4309 | 0.00 | 0.00 | 0.00 | 12 |
| 4310 | 0.00 | 0.00 | 0.00 | 15 |
| 4311 | 0.00 | 0.00 | 0.00 | 13 |
| 4312 | 0.00 | 0.00 | 0.00 | 20 |
| 4313 | 0.00 | 0.00 | 0.00 | 10 |
| 4314 | 0.00 | 0.00 | 0.00 | 10 |
| 4315 | 0.00 | 0.00 | 0.00 | 12 |
| 4316 | 0.00 | 0.00 | 0.00 | 11 |
| 4317 | 0.00 | 0.00 | 0.00 | 11 |
| 4318 | 0.00 | 0.00 | 0.00 | 13 |
| 4319 | 0.00 | 0.00 | 0.00 | 11 |
| 4320 | 0.00 | 0.00 | 0.00 | 10 |
| 4321 | 0.00 | 0.00 | 0.00 | 13 |
| 4322 | 0.00 | 0.00 | 0.00 | 10 |
| 4323 | 0.00 | 0.00 | 0.00 | 14 |
| 4324 | 0.00 | 0.00 | 0.00 | 13 |
| 4325 | 0.00 | 0.00 | 0.00 | 8 |
| 4326 | 0.00 | 0.00 | 0.00 | 13 |
| 4327 | 0.00 | 0.00 | 0.00 | 15 |
| 4328 | 0.00 | 0.00 | 0.00 | 15 |
| 4329 | 0.00 | 0.00 | 0.00 | 15 |
| 4330 | 0.00 | 0.00 | 0.00 | 13 |
| 4331 | 0.00 | 0.00 | 0.00 | 9 |
| 4332 | 0.00 | 0.00 | 0.00 | 12 |
| 4333 | 0.00 | 0.00 | 0.00 | 13 |
| 4334 | 0.00 | 0.00 | 0.00 | 12 |
| 4335 | 0.00 | 0.00 | 0.00 | 16 |
| 4336 | 0.00 | 0.00 | 0.00 | 14 |
| 4337 | 0.00 | 0.00 | 0.00 | 11 |
| 4338 | 0.00 | 0.00 | 0.00 | 11 |
| 4339 | 0.00 | 0.00 | 0.00 | 18 |
| 4340 | 0.00 | 0.00 | 0.00 | 12 |
| 4341 | 0.00 | 0.00 | 0.00 | 13 |
| 4342 | 0.00 | 0.00 | 0.00 | 6 |
| 4343 | 0.00 | 0.00 | 0.00 | 16 |
| 4344 | 0.00 | 0.00 | 0.00 | 14 |
| 4345 | 0.00 | 0.00 | 0.00 | 15 |
| 4346 | 0.00 | 0.00 | 0.00 | 10 |
| 4347 | 0.00 | 0.00 | 0.00 | 14 |
| 4348 | 0.00 | 0.00 | 0.00 | 12 |
| 4349 | 0.00 | 0.00 | 0.00 | 14 |
| 4350 | 0.00 | 0.00 | 0.00 | 17 |
| 4351 | 0.00 | 0.00 | 0.00 | 16 |
| 4352 | 0.00 | 0.00 | 0.00 | 11 |
| 4353 | 0.00 | 0.00 | 0.00 | 9 |
| 4354 | 0.00 | 0.00 | 0.00 | 17 |
| 4355 | 0.00 | 0.00 | 0.00 | 23 |
| 4356 | 0.00 | 0.00 | 0.00 | 6 |
| 4357 | 0.00 | 0.00 | 0.00 | 10 |
| 4358 | 0.00 | 0.00 | 0.00 | 9 |
| 4359 | 0.00 | 0.00 | 0.00 | 10 |
| 4360 | 0.00 | 0.00 | 0.00 | 17 |
| 4361 | 0.00 | 0.00 | 0.00 | 5 |
| 4362 | 0.00 | 0.00 | 0.00 | 13 |
| 4363 | 0.00 | 0.00 | 0.00 | 11 |
| 4364 | 0.00 | 0.00 | 0.00 | 17 |
| 4365 | 0.00 | 0.00 | 0.00 | 14 |
| 4366 | 0.00 | 0.00 | 0.00 | 13 |
| 4367 | 0.00 | 0.00 | 0.00 | 10 |
| 4368 | 0.75 | 0.17 | 0.27 | 18 |
| 4369 | 0.00 | 0.00 | 0.00 | 7 |
| 4370 | 0.00 | 0.00 | 0.00 | 12 |

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|------|------|------|------|----|
| 4370 | 0.00 | 0.00 | 0.00 | 12 |
| 4371 | 0.00 | 0.00 | 0.00 | 14 |
| 4372 | 0.00 | 0.00 | 0.00 | 6 |
| 4373 | 0.00 | 0.00 | 0.00 | 8 |
| 4374 | 0.00 | 0.00 | 0.00 | 16 |
| 4375 | 0.00 | 0.00 | 0.00 | 11 |
| 4376 | 0.00 | 0.00 | 0.00 | 18 |
| 4377 | 0.00 | 0.00 | 0.00 | 9 |
| 4378 | 0.00 | 0.00 | 0.00 | 14 |
| 4379 | 0.00 | 0.00 | 0.00 | 8 |
| 4380 | 0.00 | 0.00 | 0.00 | 9 |
| 4381 | 0.00 | 0.00 | 0.00 | 10 |
| 4382 | 0.00 | 0.00 | 0.00 | 16 |
| 4383 | 0.00 | 0.00 | 0.00 | 13 |
| 4384 | 0.00 | 0.00 | 0.00 | 9 |
| 4385 | 0.00 | 0.00 | 0.00 | 12 |
| 4386 | 0.00 | 0.00 | 0.00 | 14 |
| 4387 | 0.00 | 0.00 | 0.00 | 11 |
| 4388 | 0.00 | 0.00 | 0.00 | 8 |
| 4389 | 0.00 | 0.00 | 0.00 | 12 |
| 4390 | 0.00 | 0.00 | 0.00 | 8 |
| 4391 | 0.00 | 0.00 | 0.00 | 16 |
| 4392 | 0.00 | 0.00 | 0.00 | 7 |
| 4393 | 0.00 | 0.00 | 0.00 | 8 |
| 4394 | 0.00 | 0.00 | 0.00 | 11 |
| 4395 | 0.00 | 0.00 | 0.00 | 9 |
| 4396 | 0.00 | 0.00 | 0.00 | 11 |
| 4397 | 0.00 | 0.00 | 0.00 | 13 |
| 4398 | 0.00 | 0.00 | 0.00 | 17 |
| 4399 | 0.00 | 0.00 | 0.00 | 10 |
| 4400 | 0.00 | 0.00 | 0.00 | 17 |
| 4401 | 0.00 | 0.00 | 0.00 | 8 |
| 4402 | 0.33 | 0.08 | 0.13 | 12 |
| 4403 | 0.00 | 0.00 | 0.00 | 14 |
| 4404 | 0.00 | 0.00 | 0.00 | 14 |
| 4405 | 0.00 | 0.00 | 0.00 | 10 |
| 4406 | 0.00 | 0.00 | 0.00 | 14 |
| 4407 | 0.00 | 0.00 | 0.00 | 13 |
| 4408 | 0.00 | 0.00 | 0.00 | 13 |
| 4409 | 0.00 | 0.00 | 0.00 | 11 |
| 4410 | 0.00 | 0.00 | 0.00 | 16 |
| 4411 | 0.00 | 0.00 | 0.00 | 12 |
| 4412 | 0.00 | 0.00 | 0.00 | 10 |
| 4413 | 0.00 | 0.00 | 0.00 | 16 |
| 4414 | 0.00 | 0.00 | 0.00 | 14 |
| 4415 | 0.00 | 0.00 | 0.00 | 11 |
| 4416 | 0.00 | 0.00 | 0.00 | 14 |
| 4417 | 0.00 | 0.00 | 0.00 | 13 |
| 4418 | 0.00 | 0.00 | 0.00 | 8 |
| 4419 | 0.00 | 0.00 | 0.00 | 12 |
| 4420 | 0.00 | 0.00 | 0.00 | 13 |
| 4421 | 0.00 | 0.00 | 0.00 | 15 |
| 4422 | 0.00 | 0.00 | 0.00 | 14 |
| 4423 | 0.00 | 0.00 | 0.00 | 15 |
| 4424 | 0.00 | 0.00 | 0.00 | 9 |
| 4425 | 0.00 | 0.00 | 0.00 | 10 |
| 4426 | 0.00 | 0.00 | 0.00 | 17 |
| 4427 | 0.00 | 0.00 | 0.00 | 12 |
| 4428 | 0.00 | 0.00 | 0.00 | 12 |
| 4429 | 0.00 | 0.00 | 0.00 | 13 |
| 4430 | 0.00 | 0.00 | 0.00 | 10 |
| 4431 | 0.00 | 0.00 | 0.00 | 10 |
| 4432 | 0.00 | 0.00 | 0.00 | 10 |
| 4433 | 0.00 | 0.00 | 0.00 | 15 |
| 4434 | 0.00 | 0.00 | 0.00 | 13 |
| 4435 | 0.00 | 0.00 | 0.00 | 21 |
| 4436 | 0.00 | 0.00 | 0.00 | 17 |
| 4437 | 0.00 | 0.00 | 0.00 | 9 |
| 4438 | 0.00 | 0.00 | 0.00 | 11 |
| 4439 | 0.00 | 0.00 | 0.00 | 17 |
| 4440 | 0.00 | 0.00 | 0.00 | 14 |
| 4441 | 0.00 | 0.00 | 0.00 | 15 |
| 4442 | 0.00 | 0.00 | 0.00 | 8 |
| 4443 | 0.00 | 0.00 | 0.00 | 13 |
| 4444 | 0.00 | 0.00 | 0.00 | 10 |
| 4445 | 0.00 | 0.00 | 0.00 | 13 |
| 4446 | 0.00 | 0.00 | 0.00 | 10 |
| 4447 | 0.00 | 0.00 | 0.00 | 10 |

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|------|------|------|------|----|
| 4447 | 0.00 | 0.00 | 0.00 | 10 |
| 4448 | 0.00 | 0.00 | 0.00 | 7 |
| 4449 | 0.00 | 0.00 | 0.00 | 12 |
| 4450 | 0.00 | 0.00 | 0.00 | 8 |
| 4451 | 0.00 | 0.00 | 0.00 | 13 |
| 4452 | 0.00 | 0.00 | 0.00 | 15 |
| 4453 | 0.00 | 0.00 | 0.00 | 8 |
| 4454 | 0.00 | 0.00 | 0.00 | 4 |
| 4455 | 0.00 | 0.00 | 0.00 | 15 |
| 4456 | 0.00 | 0.00 | 0.00 | 9 |
| 4457 | 0.00 | 0.00 | 0.00 | 10 |
| 4458 | 0.00 | 0.00 | 0.00 | 13 |
| 4459 | 0.00 | 0.00 | 0.00 | 14 |
| 4460 | 0.00 | 0.00 | 0.00 | 10 |
| 4461 | 0.00 | 0.00 | 0.00 | 12 |
| 4462 | 0.00 | 0.00 | 0.00 | 10 |
| 4463 | 0.00 | 0.00 | 0.00 | 12 |
| 4464 | 0.00 | 0.00 | 0.00 | 9 |
| 4465 | 0.00 | 0.00 | 0.00 | 9 |
| 4466 | 0.00 | 0.00 | 0.00 | 12 |
| 4467 | 0.00 | 0.00 | 0.00 | 10 |
| 4468 | 0.00 | 0.00 | 0.00 | 11 |
| 4469 | 0.00 | 0.00 | 0.00 | 13 |
| 4470 | 0.00 | 0.00 | 0.00 | 18 |
| 4471 | 0.00 | 0.00 | 0.00 | 11 |
| 4472 | 0.00 | 0.00 | 0.00 | 16 |
| 4473 | 0.00 | 0.00 | 0.00 | 12 |
| 4474 | 0.00 | 0.00 | 0.00 | 10 |
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| 4476 | 0.00 | 0.00 | 0.00 | 13 |
| 4477 | 0.00 | 0.00 | 0.00 | 12 |
| 4478 | 0.00 | 0.00 | 0.00 | 11 |
| 4479 | 0.00 | 0.00 | 0.00 | 14 |
| 4480 | 0.00 | 0.00 | 0.00 | 10 |
| 4481 | 0.00 | 0.00 | 0.00 | 11 |
| 4482 | 0.00 | 0.00 | 0.00 | 13 |
| 4483 | 0.00 | 0.00 | 0.00 | 13 |
| 4484 | 0.00 | 0.00 | 0.00 | 15 |
| 4485 | 0.00 | 0.00 | 0.00 | 13 |
| 4486 | 0.00 | 0.00 | 0.00 | 14 |
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| 4489 | 0.00 | 0.00 | 0.00 | 13 |
| 4490 | 0.00 | 0.00 | 0.00 | 18 |
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| 4492 | 0.00 | 0.00 | 0.00 | 12 |
| 4493 | 0.00 | 0.00 | 0.00 | 16 |
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| 4496 | 0.00 | 0.00 | 0.00 | 8 |
| 4497 | 0.00 | 0.00 | 0.00 | 13 |
| 4498 | 0.00 | 0.00 | 0.00 | 18 |
| 4499 | 0.00 | 0.00 | 0.00 | 11 |
| 4500 | 0.00 | 0.00 | 0.00 | 8 |
| 4501 | 0.00 | 0.00 | 0.00 | 17 |
| 4502 | 0.00 | 0.00 | 0.00 | 9 |
| 4503 | 0.00 | 0.00 | 0.00 | 12 |
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| 4506 | 0.00 | 0.00 | 0.00 | 13 |
| 4507 | 0.00 | 0.00 | 0.00 | 12 |
| 4508 | 0.00 | 0.00 | 0.00 | 13 |
| 4509 | 0.00 | 0.00 | 0.00 | 19 |
| 4510 | 0.00 | 0.00 | 0.00 | 12 |
| 4511 | 0.00 | 0.00 | 0.00 | 12 |
| 4512 | 0.00 | 0.00 | 0.00 | 13 |
| 4513 | 0.00 | 0.00 | 0.00 | 11 |
| 4514 | 0.00 | 0.00 | 0.00 | 8 |
| 4515 | 0.00 | 0.00 | 0.00 | 9 |
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| 4517 | 0.00 | 0.00 | 0.00 | 13 |
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| 4519 | 0.00 | 0.00 | 0.00 | 12 |
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| 4521 | 0.00 | 0.00 | 0.00 | 14 |
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| 4523 | 0.00 | 0.00 | 0.00 | 14 |
| 4524 | 0.00 | 0.00 | 0.00 | 13 |

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| 4524 | 0.00 | 0.00 | 0.00 | 13 |
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| 4526 | 0.00 | 0.00 | 0.00 | 14 |
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| 4550 | 0.00 | 0.00 | 0.00 | 8 |
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| 4552 | 0.00 | 0.00 | 0.00 | 10 |
| 4553 | 0.00 | 0.00 | 0.00 | 8 |
| 4554 | 0.00 | 0.00 | 0.00 | 10 |
| 4555 | 0.00 | 0.00 | 0.00 | 8 |
| 4556 | 0.00 | 0.00 | 0.00 | 5 |
| 4557 | 0.00 | 0.00 | 0.00 | 10 |
| 4558 | 0.00 | 0.00 | 0.00 | 9 |
| 4559 | 0.00 | 0.00 | 0.00 | 14 |
| 4560 | 0.00 | 0.00 | 0.00 | 16 |
| 4561 | 0.00 | 0.00 | 0.00 | 15 |
| 4562 | 0.00 | 0.00 | 0.00 | 11 |
| 4563 | 0.00 | 0.00 | 0.00 | 9 |
| 4564 | 0.00 | 0.00 | 0.00 | 13 |
| 4565 | 0.00 | 0.00 | 0.00 | 12 |
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| 4568 | 0.00 | 0.00 | 0.00 | 7 |
| 4569 | 0.00 | 0.00 | 0.00 | 7 |
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| 4571 | 0.00 | 0.00 | 0.00 | 12 |
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| 4573 | 0.00 | 0.00 | 0.00 | 12 |
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| 4576 | 0.00 | 0.00 | 0.00 | 10 |
| 4577 | 0.00 | 0.00 | 0.00 | 9 |
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| 4590 | 0.00 | 0.00 | 0.00 | 6 |
| 4591 | 0.00 | 0.00 | 0.00 | 11 |
| 4592 | 0.00 | 0.00 | 0.00 | 12 |
| 4593 | 0.00 | 0.00 | 0.00 | 12 |
| 4594 | 0.00 | 0.00 | 0.00 | 10 |
| 4595 | 0.00 | 0.00 | 0.00 | 14 |
| 4596 | 0.00 | 0.00 | 0.00 | 11 |
| 4597 | 0.00 | 0.00 | 0.00 | 11 |
| 4598 | 0.00 | 0.00 | 0.00 | 9 |
| 4599 | 0.00 | 0.00 | 0.00 | 7 |
| 4600 | 0.00 | 0.00 | 0.00 | 11 |
| 4601 | 0.00 | 0.00 | 0.00 | 12 |

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| 4601 | 0.00 | 0.00 | 0.00 | 12 |
| 4602 | 0.00 | 0.00 | 0.00 | 9 |
| 4603 | 0.00 | 0.00 | 0.00 | 13 |
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| 4605 | 0.00 | 0.00 | 0.00 | 11 |
| 4606 | 0.00 | 0.00 | 0.00 | 9 |
| 4607 | 0.00 | 0.00 | 0.00 | 10 |
| 4608 | 0.00 | 0.00 | 0.00 | 6 |
| 4609 | 0.00 | 0.00 | 0.00 | 6 |
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| 4612 | 0.00 | 0.00 | 0.00 | 13 |
| 4613 | 0.00 | 0.00 | 0.00 | 14 |
| 4614 | 0.00 | 0.00 | 0.00 | 8 |
| 4615 | 0.00 | 0.00 | 0.00 | 12 |
| 4616 | 0.00 | 0.00 | 0.00 | 13 |
| 4617 | 0.00 | 0.00 | 0.00 | 7 |
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| 4619 | 0.00 | 0.00 | 0.00 | 14 |
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| 4622 | 0.00 | 0.00 | 0.00 | 6 |
| 4623 | 0.00 | 0.00 | 0.00 | 12 |
| 4624 | 0.00 | 0.00 | 0.00 | 11 |
| 4625 | 0.00 | 0.00 | 0.00 | 10 |
| 4626 | 0.00 | 0.00 | 0.00 | 9 |
| 4627 | 0.00 | 0.00 | 0.00 | 8 |
| 4628 | 0.00 | 0.00 | 0.00 | 11 |
| 4629 | 0.00 | 0.00 | 0.00 | 11 |
| 4630 | 0.00 | 0.00 | 0.00 | 13 |
| 4631 | 0.00 | 0.00 | 0.00 | 15 |
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| 4633 | 0.00 | 0.00 | 0.00 | 7 |
| 4634 | 0.00 | 0.00 | 0.00 | 11 |
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| 4636 | 0.00 | 0.00 | 0.00 | 7 |
| 4637 | 0.00 | 0.00 | 0.00 | 8 |
| 4638 | 0.00 | 0.00 | 0.00 | 9 |
| 4639 | 0.00 | 0.00 | 0.00 | 13 |
| 4640 | 0.00 | 0.00 | 0.00 | 12 |
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| 4642 | 0.00 | 0.00 | 0.00 | 8 |
| 4643 | 0.00 | 0.00 | 0.00 | 12 |
| 4644 | 0.00 | 0.00 | 0.00 | 9 |
| 4645 | 0.00 | 0.00 | 0.00 | 12 |
| 4646 | 0.00 | 0.00 | 0.00 | 10 |
| 4647 | 0.00 | 0.00 | 0.00 | 17 |
| 4648 | 0.00 | 0.00 | 0.00 | 10 |
| 4649 | 0.00 | 0.00 | 0.00 | 12 |
| 4650 | 0.00 | 0.00 | 0.00 | 13 |
| 4651 | 0.00 | 0.00 | 0.00 | 12 |
| 4652 | 0.00 | 0.00 | 0.00 | 11 |
| 4653 | 0.00 | 0.00 | 0.00 | 10 |
| 4654 | 0.00 | 0.00 | 0.00 | 11 |
| 4655 | 0.00 | 0.00 | 0.00 | 14 |
| 4656 | 0.00 | 0.00 | 0.00 | 10 |
| 4657 | 0.00 | 0.00 | 0.00 | 9 |
| 4658 | 0.00 | 0.00 | 0.00 | 9 |
| 4659 | 0.00 | 0.00 | 0.00 | 9 |
| 4660 | 0.00 | 0.00 | 0.00 | 13 |
| 4661 | 0.00 | 0.00 | 0.00 | 8 |
| 4662 | 0.00 | 0.00 | 0.00 | 12 |
| 4663 | 0.00 | 0.00 | 0.00 | 12 |
| 4664 | 0.00 | 0.00 | 0.00 | 14 |
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| 4666 | 0.00 | 0.00 | 0.00 | 9 |
| 4667 | 0.00 | 0.00 | 0.00 | 7 |
| 4668 | 0.00 | 0.00 | 0.00 | 8 |
| 4669 | 0.00 | 0.00 | 0.00 | 6 |
| 4670 | 0.00 | 0.00 | 0.00 | 12 |
| 4671 | 0.00 | 0.00 | 0.00 | 6 |
| 4672 | 0.00 | 0.00 | 0.00 | 14 |
| 4673 | 0.00 | 0.00 | 0.00 | 14 |
| 4674 | 0.00 | 0.00 | 0.00 | 13 |
| 4675 | 0.00 | 0.00 | 0.00 | 12 |
| 4676 | 0.00 | 0.00 | 0.00 | 13 |
| 4677 | 0.00 | 0.00 | 0.00 | 12 |
| 4678 | 0.00 | 0.00 | 0.00 | 11 |

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| 4678 | 0.00 | 0.00 | 0.00 | 11 |
| 4679 | 0.00 | 0.00 | 0.00 | 14 |
| 4680 | 0.00 | 0.00 | 0.00 | 7 |
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| 4682 | 0.00 | 0.00 | 0.00 | 15 |
| 4683 | 0.00 | 0.00 | 0.00 | 10 |
| 4684 | 0.00 | 0.00 | 0.00 | 7 |
| 4685 | 0.00 | 0.00 | 0.00 | 12 |
| 4686 | 0.00 | 0.00 | 0.00 | 9 |
| 4687 | 0.00 | 0.00 | 0.00 | 11 |
| 4688 | 0.00 | 0.00 | 0.00 | 10 |
| 4689 | 0.00 | 0.00 | 0.00 | 17 |
| 4690 | 0.00 | 0.00 | 0.00 | 11 |
| 4691 | 0.00 | 0.00 | 0.00 | 16 |
| 4692 | 0.00 | 0.00 | 0.00 | 12 |
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| 4694 | 0.00 | 0.00 | 0.00 | 16 |
| 4695 | 0.00 | 0.00 | 0.00 | 10 |
| 4696 | 0.00 | 0.00 | 0.00 | 13 |
| 4697 | 0.00 | 0.00 | 0.00 | 10 |
| 4698 | 0.00 | 0.00 | 0.00 | 13 |
| 4699 | 0.00 | 0.00 | 0.00 | 12 |
| 4700 | 0.00 | 0.00 | 0.00 | 16 |
| 4701 | 0.00 | 0.00 | 0.00 | 5 |
| 4702 | 0.00 | 0.00 | 0.00 | 10 |
| 4703 | 0.00 | 0.00 | 0.00 | 8 |
| 4704 | 0.00 | 0.00 | 0.00 | 17 |
| 4705 | 0.00 | 0.00 | 0.00 | 12 |
| 4706 | 0.00 | 0.00 | 0.00 | 5 |
| 4707 | 0.00 | 0.00 | 0.00 | 11 |
| 4708 | 0.00 | 0.00 | 0.00 | 13 |
| 4709 | 0.00 | 0.00 | 0.00 | 11 |
| 4710 | 0.00 | 0.00 | 0.00 | 10 |
| 4711 | 0.00 | 0.00 | 0.00 | 12 |
| 4712 | 0.00 | 0.00 | 0.00 | 9 |
| 4713 | 0.00 | 0.00 | 0.00 | 14 |
| 4714 | 0.00 | 0.00 | 0.00 | 14 |
| 4715 | 0.00 | 0.00 | 0.00 | 11 |
| 4716 | 0.00 | 0.00 | 0.00 | 10 |
| 4717 | 0.00 | 0.00 | 0.00 | 16 |
| 4718 | 0.00 | 0.00 | 0.00 | 15 |
| 4719 | 0.00 | 0.00 | 0.00 | 14 |
| 4720 | 0.00 | 0.00 | 0.00 | 10 |
| 4721 | 0.00 | 0.00 | 0.00 | 18 |
| 4722 | 0.00 | 0.00 | 0.00 | 9 |
| 4723 | 0.00 | 0.00 | 0.00 | 15 |
| 4724 | 0.00 | 0.00 | 0.00 | 10 |
| 4725 | 0.00 | 0.00 | 0.00 | 6 |
| 4726 | 0.00 | 0.00 | 0.00 | 8 |
| 4727 | 0.00 | 0.00 | 0.00 | 9 |
| 4728 | 0.00 | 0.00 | 0.00 | 12 |
| 4729 | 0.00 | 0.00 | 0.00 | 10 |
| 4730 | 0.00 | 0.00 | 0.00 | 16 |
| 4731 | 0.00 | 0.00 | 0.00 | 9 |
| 4732 | 0.00 | 0.00 | 0.00 | 10 |
| 4733 | 0.00 | 0.00 | 0.00 | 13 |
| 4734 | 0.00 | 0.00 | 0.00 | 14 |
| 4735 | 0.00 | 0.00 | 0.00 | 20 |
| 4736 | 0.00 | 0.00 | 0.00 | 9 |
| 4737 | 0.00 | 0.00 | 0.00 | 8 |
| 4738 | 0.00 | 0.00 | 0.00 | 16 |
| 4739 | 0.00 | 0.00 | 0.00 | 6 |
| 4740 | 0.00 | 0.00 | 0.00 | 10 |
| 4741 | 0.00 | 0.00 | 0.00 | 10 |
| 4742 | 0.00 | 0.00 | 0.00 | 10 |
| 4743 | 0.00 | 0.00 | 0.00 | 8 |
| 4744 | 0.00 | 0.00 | 0.00 | 9 |
| 4745 | 0.00 | 0.00 | 0.00 | 12 |
| 4746 | 0.00 | 0.00 | 0.00 | 11 |
| 4747 | 0.00 | 0.00 | 0.00 | 18 |
| 4748 | 0.00 | 0.00 | 0.00 | 7 |
| 4749 | 0.00 | 0.00 | 0.00 | 10 |
| 4750 | 0.00 | 0.00 | 0.00 | 12 |
| 4751 | 0.00 | 0.00 | 0.00 | 13 |
| 4752 | 0.00 | 0.00 | 0.00 | 9 |
| 4753 | 0.00 | 0.00 | 0.00 | 8 |
| 4754 | 0.00 | 0.00 | 0.00 | 10 |
| 4755 | 0.00 | 0.00 | 0.00 | 14 |

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| 4755 | 0.00 | 0.00 | 0.00 | 14 |
| 4756 | 0.00 | 0.00 | 0.00 | 17 |
| 4757 | 0.00 | 0.00 | 0.00 | 15 |
| 4758 | 0.00 | 0.00 | 0.00 | 11 |
| 4759 | 0.00 | 0.00 | 0.00 | 10 |
| 4760 | 0.00 | 0.00 | 0.00 | 10 |
| 4761 | 0.00 | 0.00 | 0.00 | 14 |
| 4762 | 0.00 | 0.00 | 0.00 | 13 |
| 4763 | 0.00 | 0.00 | 0.00 | 13 |
| 4764 | 0.00 | 0.00 | 0.00 | 12 |
| 4765 | 0.00 | 0.00 | 0.00 | 8 |
| 4766 | 0.00 | 0.00 | 0.00 | 7 |
| 4767 | 0.00 | 0.00 | 0.00 | 14 |
| 4768 | 0.00 | 0.00 | 0.00 | 10 |
| 4769 | 0.00 | 0.00 | 0.00 | 11 |
| 4770 | 0.00 | 0.00 | 0.00 | 12 |
| 4771 | 0.00 | 0.00 | 0.00 | 11 |
| 4772 | 0.00 | 0.00 | 0.00 | 11 |
| 4773 | 0.00 | 0.00 | 0.00 | 17 |
| 4774 | 0.00 | 0.00 | 0.00 | 5 |
| 4775 | 0.00 | 0.00 | 0.00 | 5 |
| 4776 | 0.00 | 0.00 | 0.00 | 12 |
| 4777 | 0.00 | 0.00 | 0.00 | 12 |
| 4778 | 0.00 | 0.00 | 0.00 | 10 |
| 4779 | 0.00 | 0.00 | 0.00 | 16 |
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| 4781 | 0.00 | 0.00 | 0.00 | 5 |
| 4782 | 0.00 | 0.00 | 0.00 | 11 |
| 4783 | 0.00 | 0.00 | 0.00 | 7 |
| 4784 | 0.00 | 0.00 | 0.00 | 13 |
| 4785 | 0.00 | 0.00 | 0.00 | 8 |
| 4786 | 0.00 | 0.00 | 0.00 | 15 |
| 4787 | 0.00 | 0.00 | 0.00 | 8 |
| 4788 | 0.00 | 0.00 | 0.00 | 7 |
| 4789 | 0.00 | 0.00 | 0.00 | 10 |
| 4790 | 0.00 | 0.00 | 0.00 | 12 |
| 4791 | 0.00 | 0.00 | 0.00 | 11 |
| 4792 | 0.00 | 0.00 | 0.00 | 10 |
| 4793 | 0.00 | 0.00 | 0.00 | 13 |
| 4794 | 0.00 | 0.00 | 0.00 | 18 |
| 4795 | 0.00 | 0.00 | 0.00 | 6 |
| 4796 | 0.00 | 0.00 | 0.00 | 11 |
| 4797 | 0.00 | 0.00 | 0.00 | 9 |
| 4798 | 0.00 | 0.00 | 0.00 | 11 |
| 4799 | 0.00 | 0.00 | 0.00 | 10 |
| 4800 | 0.00 | 0.00 | 0.00 | 14 |
| 4801 | 0.00 | 0.00 | 0.00 | 9 |
| 4802 | 0.00 | 0.00 | 0.00 | 11 |
| 4803 | 0.00 | 0.00 | 0.00 | 12 |
| 4804 | 0.00 | 0.00 | 0.00 | 19 |
| 4805 | 0.00 | 0.00 | 0.00 | 10 |
| 4806 | 0.00 | 0.00 | 0.00 | 12 |
| 4807 | 0.00 | 0.00 | 0.00 | 12 |
| 4808 | 0.00 | 0.00 | 0.00 | 14 |
| 4809 | 0.00 | 0.00 | 0.00 | 12 |
| 4810 | 0.00 | 0.00 | 0.00 | 7 |
| 4811 | 0.00 | 0.00 | 0.00 | 16 |
| 4812 | 0.00 | 0.00 | 0.00 | 10 |
| 4813 | 0.00 | 0.00 | 0.00 | 14 |
| 4814 | 0.00 | 0.00 | 0.00 | 10 |
| 4815 | 0.00 | 0.00 | 0.00 | 10 |
| 4816 | 0.00 | 0.00 | 0.00 | 12 |
| 4817 | 0.00 | 0.00 | 0.00 | 14 |
| 4818 | 0.00 | 0.00 | 0.00 | 9 |
| 4819 | 0.00 | 0.00 | 0.00 | 13 |
| 4820 | 0.00 | 0.00 | 0.00 | 15 |
| 4821 | 0.00 | 0.00 | 0.00 | 5 |
| 4822 | 0.00 | 0.00 | 0.00 | 12 |
| 4823 | 0.00 | 0.00 | 0.00 | 11 |
| 4824 | 0.00 | 0.00 | 0.00 | 18 |
| 4825 | 0.00 | 0.00 | 0.00 | 8 |
| 4826 | 0.00 | 0.00 | 0.00 | 7 |
| 4827 | 0.00 | 0.00 | 0.00 | 13 |
| 4828 | 0.00 | 0.00 | 0.00 | 16 |
| 4829 | 0.00 | 0.00 | 0.00 | 5 |
| 4830 | 0.00 | 0.00 | 0.00 | 9 |
| 4831 | 0.00 | 0.00 | 0.00 | 12 |
| 4832 | 0.00 | 0.00 | 0.00 | 10 |

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| 4832 | 0.00 | 0.00 | 0.00 | 12 |
| 4833 | 0.00 | 0.00 | 0.00 | 12 |
| 4834 | 0.00 | 0.00 | 0.00 | 16 |
| 4835 | 0.00 | 0.00 | 0.00 | 9 |
| 4836 | 0.00 | 0.00 | 0.00 | 8 |
| 4837 | 0.00 | 0.00 | 0.00 | 10 |
| 4838 | 0.00 | 0.00 | 0.00 | 12 |
| 4839 | 0.00 | 0.00 | 0.00 | 10 |
| 4840 | 0.00 | 0.00 | 0.00 | 8 |
| 4841 | 0.00 | 0.00 | 0.00 | 13 |
| 4842 | 0.00 | 0.00 | 0.00 | 8 |
| 4843 | 0.00 | 0.00 | 0.00 | 10 |
| 4844 | 0.00 | 0.00 | 0.00 | 6 |
| 4845 | 0.00 | 0.00 | 0.00 | 13 |
| 4846 | 0.00 | 0.00 | 0.00 | 15 |
| 4847 | 0.00 | 0.00 | 0.00 | 16 |
| 4848 | 0.00 | 0.00 | 0.00 | 12 |
| 4849 | 0.00 | 0.00 | 0.00 | 13 |
| 4850 | 0.00 | 0.00 | 0.00 | 16 |
| 4851 | 0.00 | 0.00 | 0.00 | 13 |
| 4852 | 0.00 | 0.00 | 0.00 | 11 |
| 4853 | 0.00 | 0.00 | 0.00 | 10 |
| 4854 | 0.00 | 0.00 | 0.00 | 10 |
| 4855 | 0.00 | 0.00 | 0.00 | 7 |
| 4856 | 0.00 | 0.00 | 0.00 | 9 |
| 4857 | 0.00 | 0.00 | 0.00 | 12 |
| 4858 | 0.00 | 0.00 | 0.00 | 9 |
| 4859 | 0.00 | 0.00 | 0.00 | 11 |
| 4860 | 0.00 | 0.00 | 0.00 | 11 |
| 4861 | 0.00 | 0.00 | 0.00 | 15 |
| 4862 | 0.00 | 0.00 | 0.00 | 10 |
| 4863 | 0.00 | 0.00 | 0.00 | 9 |
| 4864 | 0.00 | 0.00 | 0.00 | 6 |
| 4865 | 0.00 | 0.00 | 0.00 | 14 |
| 4866 | 0.00 | 0.00 | 0.00 | 7 |
| 4867 | 0.00 | 0.00 | 0.00 | 8 |
| 4868 | 0.00 | 0.00 | 0.00 | 14 |
| 4869 | 0.00 | 0.00 | 0.00 | 10 |
| 4870 | 0.00 | 0.00 | 0.00 | 11 |
| 4871 | 0.00 | 0.00 | 0.00 | 11 |
| 4872 | 0.00 | 0.00 | 0.00 | 13 |
| 4873 | 0.00 | 0.00 | 0.00 | 9 |
| 4874 | 0.00 | 0.00 | 0.00 | 8 |
| 4875 | 0.00 | 0.00 | 0.00 | 10 |
| 4876 | 0.00 | 0.00 | 0.00 | 8 |
| 4877 | 0.00 | 0.00 | 0.00 | 8 |
| 4878 | 0.00 | 0.00 | 0.00 | 14 |
| 4879 | 0.00 | 0.00 | 0.00 | 11 |
| 4880 | 0.00 | 0.00 | 0.00 | 5 |
| 4881 | 0.00 | 0.00 | 0.00 | 10 |
| 4882 | 0.00 | 0.00 | 0.00 | 9 |
| 4883 | 0.00 | 0.00 | 0.00 | 10 |
| 4884 | 0.00 | 0.00 | 0.00 | 15 |
| 4885 | 0.00 | 0.00 | 0.00 | 11 |
| 4886 | 0.00 | 0.00 | 0.00 | 18 |
| 4887 | 0.00 | 0.00 | 0.00 | 12 |
| 4888 | 0.00 | 0.00 | 0.00 | 13 |
| 4889 | 0.00 | 0.00 | 0.00 | 8 |
| 4890 | 0.00 | 0.00 | 0.00 | 4 |
| 4891 | 0.00 | 0.00 | 0.00 | 10 |
| 4892 | 0.00 | 0.00 | 0.00 | 14 |
| 4893 | 0.00 | 0.00 | 0.00 | 12 |
| 4894 | 0.00 | 0.00 | 0.00 | 9 |
| 4895 | 1.00 | 0.12 | 0.22 | 8 |
| 4896 | 0.00 | 0.00 | 0.00 | 11 |
| 4897 | 0.00 | 0.00 | 0.00 | 14 |
| 4898 | 0.00 | 0.00 | 0.00 | 12 |
| 4899 | 0.00 | 0.00 | 0.00 | 11 |
| 4900 | 0.00 | 0.00 | 0.00 | 12 |
| 4901 | 0.00 | 0.00 | 0.00 | 13 |
| 4902 | 0.00 | 0.00 | 0.00 | 12 |
| 4903 | 0.00 | 0.00 | 0.00 | 11 |
| 4904 | 0.00 | 0.00 | 0.00 | 10 |
| 4905 | 0.00 | 0.00 | 0.00 | 11 |
| 4906 | 0.00 | 0.00 | 0.00 | 8 |
| 4907 | 0.00 | 0.00 | 0.00 | 9 |
| 4908 | 0.00 | 0.00 | 0.00 | 7 |

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|------|------|------|------|----|
| 4909 | 0.00 | 0.00 | 0.00 | 13 |
| 4910 | 0.00 | 0.00 | 0.00 | 10 |
| 4911 | 0.00 | 0.00 | 0.00 | 10 |
| 4912 | 0.00 | 0.00 | 0.00 | 9 |
| 4913 | 0.00 | 0.00 | 0.00 | 13 |
| 4914 | 0.00 | 0.00 | 0.00 | 14 |
| 4915 | 0.00 | 0.00 | 0.00 | 12 |
| 4916 | 0.00 | 0.00 | 0.00 | 6 |
| 4917 | 0.00 | 0.00 | 0.00 | 8 |
| 4918 | 0.00 | 0.00 | 0.00 | 6 |
| 4919 | 0.00 | 0.00 | 0.00 | 6 |
| 4920 | 0.00 | 0.00 | 0.00 | 15 |
| 4921 | 0.00 | 0.00 | 0.00 | 10 |
| 4922 | 0.00 | 0.00 | 0.00 | 12 |
| 4923 | 0.00 | 0.00 | 0.00 | 7 |
| 4924 | 0.00 | 0.00 | 0.00 | 16 |
| 4925 | 0.00 | 0.00 | 0.00 | 13 |
| 4926 | 0.00 | 0.00 | 0.00 | 10 |
| 4927 | 0.00 | 0.00 | 0.00 | 8 |
| 4928 | 0.00 | 0.00 | 0.00 | 10 |
| 4929 | 0.00 | 0.00 | 0.00 | 10 |
| 4930 | 0.00 | 0.00 | 0.00 | 12 |
| 4931 | 0.00 | 0.00 | 0.00 | 11 |
| 4932 | 0.00 | 0.00 | 0.00 | 10 |
| 4933 | 0.00 | 0.00 | 0.00 | 11 |
| 4934 | 0.00 | 0.00 | 0.00 | 7 |
| 4935 | 0.00 | 0.00 | 0.00 | 13 |
| 4936 | 0.00 | 0.00 | 0.00 | 10 |
| 4937 | 0.00 | 0.00 | 0.00 | 13 |
| 4938 | 0.00 | 0.00 | 0.00 | 17 |
| 4939 | 0.00 | 0.00 | 0.00 | 13 |
| 4940 | 0.00 | 0.00 | 0.00 | 15 |
| 4941 | 0.00 | 0.00 | 0.00 | 13 |
| 4942 | 0.00 | 0.00 | 0.00 | 15 |
| 4943 | 0.00 | 0.00 | 0.00 | 13 |
| 4944 | 0.00 | 0.00 | 0.00 | 10 |
| 4945 | 0.00 | 0.00 | 0.00 | 9 |
| 4946 | 0.00 | 0.00 | 0.00 | 13 |
| 4947 | 0.00 | 0.00 | 0.00 | 7 |
| 4948 | 0.00 | 0.00 | 0.00 | 10 |
| 4949 | 0.00 | 0.00 | 0.00 | 9 |
| 4950 | 0.00 | 0.00 | 0.00 | 13 |
| 4951 | 0.00 | 0.00 | 0.00 | 12 |
| 4952 | 0.00 | 0.00 | 0.00 | 8 |
| 4953 | 0.00 | 0.00 | 0.00 | 14 |
| 4954 | 0.00 | 0.00 | 0.00 | 11 |
| 4955 | 0.00 | 0.00 | 0.00 | 11 |
| 4956 | 0.00 | 0.00 | 0.00 | 11 |
| 4957 | 0.00 | 0.00 | 0.00 | 8 |
| 4958 | 0.00 | 0.00 | 0.00 | 8 |
| 4959 | 0.00 | 0.00 | 0.00 | 13 |
| 4960 | 0.00 | 0.00 | 0.00 | 9 |
| 4961 | 0.00 | 0.00 | 0.00 | 12 |
| 4962 | 0.00 | 0.00 | 0.00 | 8 |
| 4963 | 0.00 | 0.00 | 0.00 | 3 |
| 4964 | 0.00 | 0.00 | 0.00 | 8 |
| 4965 | 0.00 | 0.00 | 0.00 | 14 |
| 4966 | 0.00 | 0.00 | 0.00 | 9 |
| 4967 | 0.00 | 0.00 | 0.00 | 12 |
| 4968 | 0.00 | 0.00 | 0.00 | 8 |
| 4969 | 0.00 | 0.00 | 0.00 | 7 |
| 4970 | 0.00 | 0.00 | 0.00 | 11 |
| 4971 | 0.00 | 0.00 | 0.00 | 8 |
| 4972 | 0.00 | 0.00 | 0.00 | 13 |
| 4973 | 0.00 | 0.00 | 0.00 | 12 |
| 4974 | 0.00 | 0.00 | 0.00 | 9 |
| 4975 | 0.00 | 0.00 | 0.00 | 14 |
| 4976 | 0.00 | 0.00 | 0.00 | 12 |
| 4977 | 0.00 | 0.00 | 0.00 | 8 |
| 4978 | 0.00 | 0.00 | 0.00 | 16 |
| 4979 | 0.00 | 0.00 | 0.00 | 12 |
| 4980 | 0.00 | 0.00 | 0.00 | 6 |
| 4981 | 0.00 | 0.00 | 0.00 | 15 |
| 4982 | 0.00 | 0.00 | 0.00 | 4 |
| 4983 | 0.00 | 0.00 | 0.00 | 8 |
| 4984 | 0.00 | 0.00 | 0.00 | 9 |
| 4985 | 0.00 | 0.00 | 0.00 | 13 |

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|------|------|------|------|----|
| 4986 | 0.00 | 0.00 | 0.00 | 14 |
| 4987 | 0.00 | 0.00 | 0.00 | 7 |
| 4988 | 0.00 | 0.00 | 0.00 | 12 |
| 4989 | 0.00 | 0.00 | 0.00 | 15 |
| 4990 | 0.00 | 0.00 | 0.00 | 9 |
| 4991 | 0.00 | 0.00 | 0.00 | 13 |
| 4992 | 0.00 | 0.00 | 0.00 | 10 |
| 4993 | 0.00 | 0.00 | 0.00 | 8 |
| 4994 | 0.00 | 0.00 | 0.00 | 10 |
| 4995 | 0.00 | 0.00 | 0.00 | 11 |
| 4996 | 0.00 | 0.00 | 0.00 | 10 |
| 4997 | 0.00 | 0.00 | 0.00 | 4 |
| 4998 | 0.00 | 0.00 | 0.00 | 13 |
| 4999 | 0.00 | 0.00 | 0.00 | 8 |
| 5000 | 0.00 | 0.00 | 0.00 | 11 |
| 5001 | 0.00 | 0.00 | 0.00 | 5 |
| 5002 | 0.00 | 0.00 | 0.00 | 9 |
| 5003 | 0.00 | 0.00 | 0.00 | 6 |
| 5004 | 0.00 | 0.00 | 0.00 | 10 |
| 5005 | 0.00 | 0.00 | 0.00 | 8 |
| 5006 | 0.00 | 0.00 | 0.00 | 15 |
| 5007 | 0.00 | 0.00 | 0.00 | 14 |
| 5008 | 1.00 | 0.12 | 0.22 | 8 |
| 5009 | 0.00 | 0.00 | 0.00 | 10 |
| 5010 | 0.00 | 0.00 | 0.00 | 11 |
| 5011 | 0.00 | 0.00 | 0.00 | 10 |
| 5012 | 0.00 | 0.00 | 0.00 | 11 |
| 5013 | 0.00 | 0.00 | 0.00 | 14 |
| 5014 | 0.00 | 0.00 | 0.00 | 8 |
| 5015 | 0.00 | 0.00 | 0.00 | 14 |
| 5016 | 0.00 | 0.00 | 0.00 | 14 |
| 5017 | 0.00 | 0.00 | 0.00 | 11 |
| 5018 | 0.00 | 0.00 | 0.00 | 9 |
| 5019 | 0.00 | 0.00 | 0.00 | 14 |
| 5020 | 0.00 | 0.00 | 0.00 | 10 |
| 5021 | 0.00 | 0.00 | 0.00 | 15 |
| 5022 | 0.00 | 0.00 | 0.00 | 11 |
| 5023 | 0.00 | 0.00 | 0.00 | 6 |
| 5024 | 0.00 | 0.00 | 0.00 | 14 |
| 5025 | 0.00 | 0.00 | 0.00 | 8 |
| 5026 | 0.00 | 0.00 | 0.00 | 14 |
| 5027 | 0.00 | 0.00 | 0.00 | 6 |
| 5028 | 0.00 | 0.00 | 0.00 | 13 |
| 5029 | 0.00 | 0.00 | 0.00 | 5 |
| 5030 | 0.00 | 0.00 | 0.00 | 15 |
| 5031 | 0.00 | 0.00 | 0.00 | 8 |
| 5032 | 0.00 | 0.00 | 0.00 | 12 |
| 5033 | 0.00 | 0.00 | 0.00 | 13 |
| 5034 | 0.00 | 0.00 | 0.00 | 8 |
| 5035 | 0.00 | 0.00 | 0.00 | 11 |
| 5036 | 0.00 | 0.00 | 0.00 | 11 |
| 5037 | 0.00 | 0.00 | 0.00 | 12 |
| 5038 | 0.00 | 0.00 | 0.00 | 12 |
| 5039 | 0.00 | 0.00 | 0.00 | 17 |
| 5040 | 0.00 | 0.00 | 0.00 | 8 |
| 5041 | 0.00 | 0.00 | 0.00 | 9 |
| 5042 | 0.00 | 0.00 | 0.00 | 9 |
| 5043 | 0.00 | 0.00 | 0.00 | 14 |
| 5044 | 0.00 | 0.00 | 0.00 | 11 |
| 5045 | 0.00 | 0.00 | 0.00 | 9 |
| 5046 | 0.00 | 0.00 | 0.00 | 10 |
| 5047 | 0.00 | 0.00 | 0.00 | 10 |
| 5048 | 0.00 | 0.00 | 0.00 | 7 |
| 5049 | 0.00 | 0.00 | 0.00 | 9 |
| 5050 | 0.00 | 0.00 | 0.00 | 5 |
| 5051 | 0.00 | 0.00 | 0.00 | 10 |
| 5052 | 0.00 | 0.00 | 0.00 | 10 |
| 5053 | 0.00 | 0.00 | 0.00 | 14 |
| 5054 | 0.00 | 0.00 | 0.00 | 13 |
| 5055 | 0.00 | 0.00 | 0.00 | 7 |
| 5056 | 0.00 | 0.00 | 0.00 | 15 |
| 5057 | 0.00 | 0.00 | 0.00 | 8 |
| 5058 | 0.00 | 0.00 | 0.00 | 11 |
| 5059 | 0.00 | 0.00 | 0.00 | 9 |
| 5060 | 0.00 | 0.00 | 0.00 | 13 |
| 5061 | 0.00 | 0.00 | 0.00 | 13 |
| 5062 | 0.00 | 0.00 | 0.00 | 7 |

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|------|------|------|------|----|
| 5063 | 0.00 | 0.00 | 0.00 | 14 |
| 5064 | 0.00 | 0.00 | 0.00 | 8 |
| 5065 | 0.00 | 0.00 | 0.00 | 6 |
| 5066 | 0.00 | 0.00 | 0.00 | 7 |
| 5067 | 0.00 | 0.00 | 0.00 | 10 |
| 5068 | 0.00 | 0.00 | 0.00 | 12 |
| 5069 | 0.00 | 0.00 | 0.00 | 9 |
| 5070 | 0.00 | 0.00 | 0.00 | 11 |
| 5071 | 0.00 | 0.00 | 0.00 | 8 |
| 5072 | 0.00 | 0.00 | 0.00 | 4 |
| 5073 | 0.00 | 0.00 | 0.00 | 14 |
| 5074 | 0.00 | 0.00 | 0.00 | 11 |
| 5075 | 0.00 | 0.00 | 0.00 | 14 |
| 5076 | 0.00 | 0.00 | 0.00 | 7 |
| 5077 | 0.00 | 0.00 | 0.00 | 10 |
| 5078 | 0.00 | 0.00 | 0.00 | 11 |
| 5079 | 0.00 | 0.00 | 0.00 | 10 |
| 5080 | 0.00 | 0.00 | 0.00 | 13 |
| 5081 | 0.00 | 0.00 | 0.00 | 12 |
| 5082 | 0.00 | 0.00 | 0.00 | 8 |
| 5083 | 0.00 | 0.00 | 0.00 | 15 |
| 5084 | 0.00 | 0.00 | 0.00 | 15 |
| 5085 | 0.00 | 0.00 | 0.00 | 11 |
| 5086 | 0.00 | 0.00 | 0.00 | 12 |
| 5087 | 0.00 | 0.00 | 0.00 | 9 |
| 5088 | 0.00 | 0.00 | 0.00 | 4 |
| 5089 | 0.00 | 0.00 | 0.00 | 8 |
| 5090 | 0.00 | 0.00 | 0.00 | 11 |
| 5091 | 0.00 | 0.00 | 0.00 | 6 |
| 5092 | 0.00 | 0.00 | 0.00 | 9 |
| 5093 | 0.00 | 0.00 | 0.00 | 10 |
| 5094 | 0.00 | 0.00 | 0.00 | 18 |
| 5095 | 0.00 | 0.00 | 0.00 | 6 |
| 5096 | 0.00 | 0.00 | 0.00 | 12 |
| 5097 | 0.00 | 0.00 | 0.00 | 9 |
| 5098 | 0.00 | 0.00 | 0.00 | 11 |
| 5099 | 0.00 | 0.00 | 0.00 | 7 |
| 5100 | 0.00 | 0.00 | 0.00 | 12 |
| 5101 | 0.00 | 0.00 | 0.00 | 7 |
| 5102 | 0.00 | 0.00 | 0.00 | 5 |
| 5103 | 0.00 | 0.00 | 0.00 | 11 |
| 5104 | 0.00 | 0.00 | 0.00 | 13 |
| 5105 | 0.00 | 0.00 | 0.00 | 10 |
| 5106 | 0.00 | 0.00 | 0.00 | 12 |
| 5107 | 0.00 | 0.00 | 0.00 | 7 |
| 5108 | 0.00 | 0.00 | 0.00 | 14 |
| 5109 | 0.00 | 0.00 | 0.00 | 11 |
| 5110 | 0.00 | 0.00 | 0.00 | 8 |
| 5111 | 0.00 | 0.00 | 0.00 | 10 |
| 5112 | 0.00 | 0.00 | 0.00 | 10 |
| 5113 | 0.00 | 0.00 | 0.00 | 9 |
| 5114 | 0.00 | 0.00 | 0.00 | 13 |
| 5115 | 0.00 | 0.00 | 0.00 | 8 |
| 5116 | 0.00 | 0.00 | 0.00 | 10 |
| 5117 | 0.00 | 0.00 | 0.00 | 8 |
| 5118 | 0.00 | 0.00 | 0.00 | 12 |
| 5119 | 0.00 | 0.00 | 0.00 | 8 |
| 5120 | 0.00 | 0.00 | 0.00 | 7 |
| 5121 | 0.00 | 0.00 | 0.00 | 12 |
| 5122 | 0.00 | 0.00 | 0.00 | 9 |
| 5123 | 0.00 | 0.00 | 0.00 | 9 |
| 5124 | 0.00 | 0.00 | 0.00 | 8 |
| 5125 | 0.00 | 0.00 | 0.00 | 8 |
| 5126 | 0.00 | 0.00 | 0.00 | 8 |
| 5127 | 0.00 | 0.00 | 0.00 | 13 |
| 5128 | 0.00 | 0.00 | 0.00 | 8 |
| 5129 | 0.00 | 0.00 | 0.00 | 9 |
| 5130 | 0.00 | 0.00 | 0.00 | 8 |
| 5131 | 0.00 | 0.00 | 0.00 | 10 |
| 5132 | 0.00 | 0.00 | 0.00 | 11 |
| 5133 | 0.00 | 0.00 | 0.00 | 11 |
| 5134 | 0.00 | 0.00 | 0.00 | 6 |
| 5135 | 0.00 | 0.00 | 0.00 | 11 |
| 5136 | 0.00 | 0.00 | 0.00 | 11 |
| 5137 | 0.00 | 0.00 | 0.00 | 12 |
| 5138 | 0.00 | 0.00 | 0.00 | 8 |
| 5139 | 0.00 | 0.00 | 0.00 | 10 |

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| 5140 | 0.00 | 0.00 | 0.00 | 10 |
| 5141 | 0.00 | 0.00 | 0.00 | 10 |
| 5142 | 0.00 | 0.00 | 0.00 | 10 |
| 5143 | 0.00 | 0.00 | 0.00 | 5 |
| 5144 | 0.00 | 0.00 | 0.00 | 13 |
| 5145 | 0.00 | 0.00 | 0.00 | 11 |
| 5146 | 0.00 | 0.00 | 0.00 | 12 |
| 5147 | 0.00 | 0.00 | 0.00 | 9 |
| 5148 | 0.00 | 0.00 | 0.00 | 12 |
| 5149 | 0.00 | 0.00 | 0.00 | 8 |
| 5150 | 0.00 | 0.00 | 0.00 | 11 |
| 5151 | 0.00 | 0.00 | 0.00 | 10 |
| 5152 | 0.00 | 0.00 | 0.00 | 12 |
| 5153 | 0.00 | 0.00 | 0.00 | 12 |
| 5154 | 0.00 | 0.00 | 0.00 | 10 |
| 5155 | 0.00 | 0.00 | 0.00 | 10 |
| 5156 | 0.00 | 0.00 | 0.00 | 9 |
| 5157 | 0.00 | 0.00 | 0.00 | 13 |
| 5158 | 0.00 | 0.00 | 0.00 | 10 |
| 5159 | 0.00 | 0.00 | 0.00 | 6 |
| 5160 | 0.00 | 0.00 | 0.00 | 10 |
| 5161 | 0.00 | 0.00 | 0.00 | 12 |
| 5162 | 0.00 | 0.00 | 0.00 | 8 |
| 5163 | 0.00 | 0.00 | 0.00 | 10 |
| 5164 | 0.00 | 0.00 | 0.00 | 9 |
| 5165 | 0.00 | 0.00 | 0.00 | 11 |
| 5166 | 0.00 | 0.00 | 0.00 | 8 |
| 5167 | 0.00 | 0.00 | 0.00 | 9 |
| 5168 | 0.00 | 0.00 | 0.00 | 9 |
| 5169 | 0.00 | 0.00 | 0.00 | 8 |
| 5170 | 0.00 | 0.00 | 0.00 | 12 |
| 5171 | 0.00 | 0.00 | 0.00 | 6 |
| 5172 | 0.00 | 0.00 | 0.00 | 13 |
| 5173 | 0.00 | 0.00 | 0.00 | 11 |
| 5174 | 0.00 | 0.00 | 0.00 | 7 |
| 5175 | 0.00 | 0.00 | 0.00 | 7 |
| 5176 | 0.00 | 0.00 | 0.00 | 15 |
| 5177 | 0.00 | 0.00 | 0.00 | 10 |
| 5178 | 0.00 | 0.00 | 0.00 | 9 |
| 5179 | 0.00 | 0.00 | 0.00 | 7 |
| 5180 | 0.00 | 0.00 | 0.00 | 7 |
| 5181 | 0.00 | 0.00 | 0.00 | 11 |
| 5182 | 0.00 | 0.00 | 0.00 | 5 |
| 5183 | 0.00 | 0.00 | 0.00 | 17 |
| 5184 | 0.00 | 0.00 | 0.00 | 4 |
| 5185 | 0.00 | 0.00 | 0.00 | 7 |
| 5186 | 0.00 | 0.00 | 0.00 | 7 |
| 5187 | 0.00 | 0.00 | 0.00 | 10 |
| 5188 | 0.00 | 0.00 | 0.00 | 11 |
| 5189 | 0.00 | 0.00 | 0.00 | 13 |
| 5190 | 1.00 | 0.10 | 0.18 | 10 |
| 5191 | 0.00 | 0.00 | 0.00 | 8 |
| 5192 | 0.00 | 0.00 | 0.00 | 14 |
| 5193 | 0.00 | 0.00 | 0.00 | 12 |
| 5194 | 0.00 | 0.00 | 0.00 | 18 |
| 5195 | 0.00 | 0.00 | 0.00 | 10 |
| 5196 | 0.00 | 0.00 | 0.00 | 8 |
| 5197 | 0.00 | 0.00 | 0.00 | 8 |
| 5198 | 0.00 | 0.00 | 0.00 | 8 |
| 5199 | 0.00 | 0.00 | 0.00 | 11 |
| 5200 | 0.00 | 0.00 | 0.00 | 14 |
| 5201 | 0.00 | 0.00 | 0.00 | 12 |
| 5202 | 0.00 | 0.00 | 0.00 | 14 |
| 5203 | 0.00 | 0.00 | 0.00 | 13 |
| 5204 | 0.00 | 0.00 | 0.00 | 8 |
| 5205 | 0.00 | 0.00 | 0.00 | 10 |
| 5206 | 0.00 | 0.00 | 0.00 | 16 |
| 5207 | 0.00 | 0.00 | 0.00 | 9 |
| 5208 | 0.00 | 0.00 | 0.00 | 6 |
| 5209 | 0.00 | 0.00 | 0.00 | 8 |
| 5210 | 0.00 | 0.00 | 0.00 | 11 |
| 5211 | 0.00 | 0.00 | 0.00 | 11 |
| 5212 | 0.00 | 0.00 | 0.00 | 14 |
| 5213 | 0.00 | 0.00 | 0.00 | 6 |
| 5214 | 0.00 | 0.00 | 0.00 | 8 |
| 5215 | 0.00 | 0.00 | 0.00 | 11 |
| 5216 | 0.00 | 0.00 | 0.00 | 11 |

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| 5217 | 0.00 | 0.00 | 0.00 | 9 |
| 5218 | 0.00 | 0.00 | 0.00 | 9 |
| 5219 | 0.00 | 0.00 | 0.00 | 10 |
| 5220 | 0.00 | 0.00 | 0.00 | 10 |
| 5221 | 0.00 | 0.00 | 0.00 | 10 |
| 5222 | 0.00 | 0.00 | 0.00 | 8 |
| 5223 | 0.00 | 0.00 | 0.00 | 8 |
| 5224 | 0.00 | 0.00 | 0.00 | 7 |
| 5225 | 0.00 | 0.00 | 0.00 | 7 |
| 5226 | 0.00 | 0.00 | 0.00 | 8 |
| 5227 | 0.00 | 0.00 | 0.00 | 13 |
| 5228 | 0.00 | 0.00 | 0.00 | 7 |
| 5229 | 0.00 | 0.00 | 0.00 | 6 |
| 5230 | 0.00 | 0.00 | 0.00 | 7 |
| 5231 | 0.00 | 0.00 | 0.00 | 10 |
| 5232 | 0.00 | 0.00 | 0.00 | 7 |
| 5233 | 0.00 | 0.00 | 0.00 | 9 |
| 5234 | 0.00 | 0.00 | 0.00 | 5 |
| 5235 | 0.00 | 0.00 | 0.00 | 1 |
| 5236 | 0.00 | 0.00 | 0.00 | 16 |
| 5237 | 0.00 | 0.00 | 0.00 | 7 |
| 5238 | 0.00 | 0.00 | 0.00 | 10 |
| 5239 | 0.00 | 0.00 | 0.00 | 14 |
| 5240 | 0.00 | 0.00 | 0.00 | 8 |
| 5241 | 0.00 | 0.00 | 0.00 | 8 |
| 5242 | 0.00 | 0.00 | 0.00 | 8 |
| 5243 | 0.00 | 0.00 | 0.00 | 5 |
| 5244 | 0.00 | 0.00 | 0.00 | 11 |
| 5245 | 0.00 | 0.00 | 0.00 | 8 |
| 5246 | 0.00 | 0.00 | 0.00 | 11 |
| 5247 | 0.00 | 0.00 | 0.00 | 11 |
| 5248 | 0.00 | 0.00 | 0.00 | 10 |
| 5249 | 0.00 | 0.00 | 0.00 | 13 |
| 5250 | 0.00 | 0.00 | 0.00 | 10 |
| 5251 | 0.00 | 0.00 | 0.00 | 12 |
| 5252 | 0.00 | 0.00 | 0.00 | 11 |
| 5253 | 0.00 | 0.00 | 0.00 | 12 |
| 5254 | 0.00 | 0.00 | 0.00 | 12 |
| 5255 | 0.00 | 0.00 | 0.00 | 10 |
| 5256 | 0.00 | 0.00 | 0.00 | 12 |
| 5257 | 0.00 | 0.00 | 0.00 | 11 |
| 5258 | 0.00 | 0.00 | 0.00 | 10 |
| 5259 | 0.00 | 0.00 | 0.00 | 8 |
| 5260 | 0.00 | 0.00 | 0.00 | 11 |
| 5261 | 0.00 | 0.00 | 0.00 | 10 |
| 5262 | 0.00 | 0.00 | 0.00 | 9 |
| 5263 | 0.00 | 0.00 | 0.00 | 10 |
| 5264 | 0.00 | 0.00 | 0.00 | 12 |
| 5265 | 1.00 | 0.09 | 0.17 | 11 |
| 5266 | 0.00 | 0.00 | 0.00 | 8 |
| 5267 | 0.00 | 0.00 | 0.00 | 12 |
| 5268 | 0.00 | 0.00 | 0.00 | 7 |
| 5269 | 0.00 | 0.00 | 0.00 | 9 |
| 5270 | 0.00 | 0.00 | 0.00 | 11 |
| 5271 | 0.00 | 0.00 | 0.00 | 9 |
| 5272 | 0.00 | 0.00 | 0.00 | 11 |
| 5273 | 0.00 | 0.00 | 0.00 | 7 |
| 5274 | 0.00 | 0.00 | 0.00 | 11 |
| 5275 | 0.00 | 0.00 | 0.00 | 11 |
| 5276 | 0.00 | 0.00 | 0.00 | 9 |
| 5277 | 0.00 | 0.00 | 0.00 | 7 |
| 5278 | 0.00 | 0.00 | 0.00 | 7 |
| 5279 | 0.00 | 0.00 | 0.00 | 8 |
| 5280 | 0.00 | 0.00 | 0.00 | 5 |
| 5281 | 0.00 | 0.00 | 0.00 | 8 |
| 5282 | 0.00 | 0.00 | 0.00 | 8 |
| 5283 | 0.00 | 0.00 | 0.00 | 13 |
| 5284 | 0.00 | 0.00 | 0.00 | 11 |
| 5285 | 0.00 | 0.00 | 0.00 | 6 |
| 5286 | 0.00 | 0.00 | 0.00 | 13 |
| 5287 | 0.00 | 0.00 | 0.00 | 15 |
| 5288 | 0.00 | 0.00 | 0.00 | 7 |
| 5289 | 0.00 | 0.00 | 0.00 | 8 |
| 5290 | 0.00 | 0.00 | 0.00 | 6 |
| 5291 | 0.00 | 0.00 | 0.00 | 9 |
| 5292 | 0.00 | 0.00 | 0.00 | 6 |
| 5293 | 0.00 | 0.00 | 0.00 | 9 |

| | | | | |
|------|------|------|------|----|
| 5294 | 0.00 | 0.00 | 0.00 | 13 |
| 5295 | 0.00 | 0.00 | 0.00 | 11 |
| 5296 | 0.00 | 0.00 | 0.00 | 10 |
| 5297 | 0.00 | 0.00 | 0.00 | 13 |
| 5298 | 0.00 | 0.00 | 0.00 | 14 |
| 5299 | 0.00 | 0.00 | 0.00 | 10 |
| 5300 | 0.00 | 0.00 | 0.00 | 14 |
| 5301 | 0.00 | 0.00 | 0.00 | 11 |
| 5302 | 0.00 | 0.00 | 0.00 | 6 |
| 5303 | 0.00 | 0.00 | 0.00 | 6 |
| 5304 | 0.00 | 0.00 | 0.00 | 7 |
| 5305 | 0.00 | 0.00 | 0.00 | 9 |
| 5306 | 0.00 | 0.00 | 0.00 | 6 |
| 5307 | 0.00 | 0.00 | 0.00 | 10 |
| 5308 | 0.00 | 0.00 | 0.00 | 11 |
| 5309 | 0.00 | 0.00 | 0.00 | 11 |
| 5310 | 0.00 | 0.00 | 0.00 | 14 |
| 5311 | 0.00 | 0.00 | 0.00 | 10 |
| 5312 | 0.00 | 0.00 | 0.00 | 11 |
| 5313 | 0.00 | 0.00 | 0.00 | 11 |
| 5314 | 0.00 | 0.00 | 0.00 | 11 |
| 5315 | 0.00 | 0.00 | 0.00 | 11 |
| 5316 | 0.00 | 0.00 | 0.00 | 2 |
| 5317 | 0.00 | 0.00 | 0.00 | 5 |
| 5318 | 0.00 | 0.00 | 0.00 | 11 |
| 5319 | 0.00 | 0.00 | 0.00 | 12 |
| 5320 | 0.00 | 0.00 | 0.00 | 7 |
| 5321 | 0.00 | 0.00 | 0.00 | 7 |
| 5322 | 0.00 | 0.00 | 0.00 | 9 |
| 5323 | 0.00 | 0.00 | 0.00 | 9 |
| 5324 | 0.00 | 0.00 | 0.00 | 8 |
| 5325 | 0.00 | 0.00 | 0.00 | 10 |
| 5326 | 0.00 | 0.00 | 0.00 | 3 |
| 5327 | 0.00 | 0.00 | 0.00 | 13 |
| 5328 | 0.00 | 0.00 | 0.00 | 13 |
| 5329 | 0.00 | 0.00 | 0.00 | 7 |
| 5330 | 0.00 | 0.00 | 0.00 | 8 |
| 5331 | 0.00 | 0.00 | 0.00 | 9 |
| 5332 | 0.00 | 0.00 | 0.00 | 8 |
| 5333 | 0.00 | 0.00 | 0.00 | 11 |
| 5334 | 0.00 | 0.00 | 0.00 | 11 |
| 5335 | 0.00 | 0.00 | 0.00 | 6 |
| 5336 | 0.00 | 0.00 | 0.00 | 6 |
| 5337 | 0.00 | 0.00 | 0.00 | 6 |
| 5338 | 0.00 | 0.00 | 0.00 | 11 |
| 5339 | 0.00 | 0.00 | 0.00 | 12 |
| 5340 | 0.00 | 0.00 | 0.00 | 9 |
| 5341 | 0.00 | 0.00 | 0.00 | 8 |
| 5342 | 0.00 | 0.00 | 0.00 | 8 |
| 5343 | 0.00 | 0.00 | 0.00 | 7 |
| 5344 | 0.00 | 0.00 | 0.00 | 5 |
| 5345 | 0.00 | 0.00 | 0.00 | 11 |
| 5346 | 0.00 | 0.00 | 0.00 | 13 |
| 5347 | 0.00 | 0.00 | 0.00 | 10 |
| 5348 | 0.00 | 0.00 | 0.00 | 11 |
| 5349 | 0.00 | 0.00 | 0.00 | 7 |
| 5350 | 0.00 | 0.00 | 0.00 | 10 |
| 5351 | 0.00 | 0.00 | 0.00 | 7 |
| 5352 | 0.00 | 0.00 | 0.00 | 7 |
| 5353 | 0.00 | 0.00 | 0.00 | 11 |
| 5354 | 0.00 | 0.00 | 0.00 | 12 |
| 5355 | 0.00 | 0.00 | 0.00 | 12 |
| 5356 | 0.00 | 0.00 | 0.00 | 10 |
| 5357 | 0.00 | 0.00 | 0.00 | 9 |
| 5358 | 0.00 | 0.00 | 0.00 | 8 |
| 5359 | 0.00 | 0.00 | 0.00 | 7 |
| 5360 | 0.00 | 0.00 | 0.00 | 10 |
| 5361 | 0.00 | 0.00 | 0.00 | 6 |
| 5362 | 0.00 | 0.00 | 0.00 | 6 |
| 5363 | 0.00 | 0.00 | 0.00 | 9 |
| 5364 | 0.00 | 0.00 | 0.00 | 9 |
| 5365 | 0.00 | 0.00 | 0.00 | 17 |
| 5366 | 0.00 | 0.00 | 0.00 | 8 |
| 5367 | 0.00 | 0.00 | 0.00 | 9 |
| 5368 | 0.00 | 0.00 | 0.00 | 8 |
| 5369 | 0.00 | 0.00 | 0.00 | 8 |
| 5370 | 0.00 | 0.00 | 0.00 | 18 |

| | | | | |
|------|------|------|------|----|
| 5371 | 0.00 | 0.00 | 0.00 | 14 |
| 5372 | 0.00 | 0.00 | 0.00 | 10 |
| 5373 | 0.00 | 0.00 | 0.00 | 7 |
| 5374 | 0.00 | 0.00 | 0.00 | 6 |
| 5375 | 0.00 | 0.00 | 0.00 | 12 |
| 5376 | 0.00 | 0.00 | 0.00 | 13 |
| 5377 | 0.00 | 0.00 | 0.00 | 9 |
| 5378 | 0.00 | 0.00 | 0.00 | 10 |
| 5379 | 0.00 | 0.00 | 0.00 | 10 |
| 5380 | 0.00 | 0.00 | 0.00 | 9 |
| 5381 | 0.00 | 0.00 | 0.00 | 7 |
| 5382 | 0.00 | 0.00 | 0.00 | 10 |
| 5383 | 0.00 | 0.00 | 0.00 | 9 |
| 5384 | 0.00 | 0.00 | 0.00 | 12 |
| 5385 | 0.00 | 0.00 | 0.00 | 15 |
| 5386 | 0.00 | 0.00 | 0.00 | 7 |
| 5387 | 0.00 | 0.00 | 0.00 | 8 |
| 5388 | 0.00 | 0.00 | 0.00 | 4 |
| 5389 | 0.00 | 0.00 | 0.00 | 7 |
| 5390 | 0.00 | 0.00 | 0.00 | 8 |
| 5391 | 0.00 | 0.00 | 0.00 | 4 |
| 5392 | 0.00 | 0.00 | 0.00 | 10 |
| 5393 | 0.00 | 0.00 | 0.00 | 7 |
| 5394 | 0.00 | 0.00 | 0.00 | 8 |
| 5395 | 0.00 | 0.00 | 0.00 | 16 |
| 5396 | 0.00 | 0.00 | 0.00 | 13 |
| 5397 | 0.00 | 0.00 | 0.00 | 11 |
| 5398 | 0.00 | 0.00 | 0.00 | 5 |
| 5399 | 0.00 | 0.00 | 0.00 | 5 |
| 5400 | 0.00 | 0.00 | 0.00 | 12 |
| 5401 | 0.00 | 0.00 | 0.00 | 7 |
| 5402 | 0.00 | 0.00 | 0.00 | 5 |
| 5403 | 0.00 | 0.00 | 0.00 | 12 |
| 5404 | 0.00 | 0.00 | 0.00 | 5 |
| 5405 | 0.00 | 0.00 | 0.00 | 10 |
| 5406 | 0.00 | 0.00 | 0.00 | 7 |
| 5407 | 0.00 | 0.00 | 0.00 | 12 |
| 5408 | 0.00 | 0.00 | 0.00 | 9 |
| 5409 | 0.00 | 0.00 | 0.00 | 9 |
| 5410 | 0.00 | 0.00 | 0.00 | 8 |
| 5411 | 0.00 | 0.00 | 0.00 | 6 |
| 5412 | 0.00 | 0.00 | 0.00 | 8 |
| 5413 | 0.00 | 0.00 | 0.00 | 6 |
| 5414 | 0.00 | 0.00 | 0.00 | 8 |
| 5415 | 0.00 | 0.00 | 0.00 | 16 |
| 5416 | 0.00 | 0.00 | 0.00 | 9 |
| 5417 | 0.00 | 0.00 | 0.00 | 11 |
| 5418 | 0.00 | 0.00 | 0.00 | 9 |
| 5419 | 0.00 | 0.00 | 0.00 | 14 |
| 5420 | 0.00 | 0.00 | 0.00 | 6 |
| 5421 | 0.00 | 0.00 | 0.00 | 11 |
| 5422 | 0.00 | 0.00 | 0.00 | 12 |
| 5423 | 0.00 | 0.00 | 0.00 | 8 |
| 5424 | 0.00 | 0.00 | 0.00 | 13 |
| 5425 | 0.00 | 0.00 | 0.00 | 4 |
| 5426 | 0.00 | 0.00 | 0.00 | 10 |
| 5427 | 0.00 | 0.00 | 0.00 | 9 |
| 5428 | 0.00 | 0.00 | 0.00 | 12 |
| 5429 | 0.00 | 0.00 | 0.00 | 11 |
| 5430 | 0.00 | 0.00 | 0.00 | 9 |
| 5431 | 0.00 | 0.00 | 0.00 | 15 |
| 5432 | 0.00 | 0.00 | 0.00 | 12 |
| 5433 | 0.00 | 0.00 | 0.00 | 8 |
| 5434 | 0.00 | 0.00 | 0.00 | 6 |
| 5435 | 0.00 | 0.00 | 0.00 | 12 |
| 5436 | 0.00 | 0.00 | 0.00 | 11 |
| 5437 | 0.00 | 0.00 | 0.00 | 10 |
| 5438 | 0.00 | 0.00 | 0.00 | 7 |
| 5439 | 0.00 | 0.00 | 0.00 | 9 |
| 5440 | 0.00 | 0.00 | 0.00 | 12 |
| 5441 | 0.00 | 0.00 | 0.00 | 10 |
| 5442 | 0.00 | 0.00 | 0.00 | 7 |
| 5443 | 0.00 | 0.00 | 0.00 | 12 |
| 5444 | 0.00 | 0.00 | 0.00 | 7 |
| 5445 | 0.00 | 0.00 | 0.00 | 9 |
| 5446 | 0.00 | 0.00 | 0.00 | 7 |
| 5447 | 0.00 | 0.00 | 0.00 | 6 |

| | | | | |
|-------------|------|------|------|--------|
| 5448 | 0.00 | 0.00 | 0.00 | 12 |
| 5449 | 0.00 | 0.00 | 0.00 | 9 |
| 5450 | 0.00 | 0.00 | 0.00 | 10 |
| 5451 | 0.00 | 0.00 | 0.00 | 6 |
| 5452 | 0.00 | 0.00 | 0.00 | 11 |
| 5453 | 0.00 | 0.00 | 0.00 | 7 |
| 5454 | 0.00 | 0.00 | 0.00 | 9 |
| 5455 | 0.00 | 0.00 | 0.00 | 11 |
| 5456 | 0.00 | 0.00 | 0.00 | 7 |
| 5457 | 0.00 | 0.00 | 0.00 | 9 |
| 5458 | 0.00 | 0.00 | 0.00 | 8 |
| 5459 | 0.00 | 0.00 | 0.00 | 11 |
| 5460 | 0.00 | 0.00 | 0.00 | 7 |
| 5461 | 0.00 | 0.00 | 0.00 | 11 |
| 5462 | 0.00 | 0.00 | 0.00 | 10 |
| 5463 | 0.00 | 0.00 | 0.00 | 9 |
| 5464 | 0.00 | 0.00 | 0.00 | 9 |
| 5465 | 0.00 | 0.00 | 0.00 | 7 |
| 5466 | 0.00 | 0.00 | 0.00 | 9 |
| 5467 | 0.00 | 0.00 | 0.00 | 14 |
| 5468 | 0.00 | 0.00 | 0.00 | 9 |
| 5469 | 0.00 | 0.00 | 0.00 | 12 |
| 5470 | 0.00 | 0.00 | 0.00 | 11 |
| 5471 | 0.00 | 0.00 | 0.00 | 8 |
| 5472 | 0.00 | 0.00 | 0.00 | 15 |
| 5473 | 0.00 | 0.00 | 0.00 | 4 |
| 5474 | 0.00 | 0.00 | 0.00 | 8 |
| 5475 | 0.00 | 0.00 | 0.00 | 9 |
| 5476 | 0.00 | 0.00 | 0.00 | 11 |
| 5477 | 0.00 | 0.00 | 0.00 | 8 |
| 5478 | 0.00 | 0.00 | 0.00 | 6 |
| 5479 | 0.00 | 0.00 | 0.00 | 7 |
| 5480 | 0.00 | 0.00 | 0.00 | 7 |
| 5481 | 0.00 | 0.00 | 0.00 | 10 |
| 5482 | 0.00 | 0.00 | 0.00 | 12 |
| 5483 | 0.00 | 0.00 | 0.00 | 6 |
| 5484 | 0.00 | 0.00 | 0.00 | 9 |
| 5485 | 0.00 | 0.00 | 0.00 | 8 |
| 5486 | 0.00 | 0.00 | 0.00 | 8 |
| 5487 | 0.00 | 0.00 | 0.00 | 9 |
| 5488 | 0.00 | 0.00 | 0.00 | 7 |
| 5489 | 0.00 | 0.00 | 0.00 | 10 |
| 5490 | 0.00 | 0.00 | 0.00 | 12 |
| 5491 | 0.00 | 0.00 | 0.00 | 6 |
| 5492 | 0.00 | 0.00 | 0.00 | 8 |
| 5493 | 0.00 | 0.00 | 0.00 | 13 |
| 5494 | 0.00 | 0.00 | 0.00 | 6 |
| 5495 | 0.00 | 0.00 | 0.00 | 10 |
| 5496 | 0.00 | 0.00 | 0.00 | 7 |
| 5497 | 0.00 | 0.00 | 0.00 | 9 |
| 5498 | 0.00 | 0.00 | 0.00 | 6 |
| 5499 | 0.00 | 0.00 | 0.00 | 13 |
| avg / total | 0.53 | 0.26 | 0.33 | 530065 |

In [0]:

```
from sklearn.externals import joblib
joblib.dump(classifier, 'lr_with_equal_weight.pkl')
```

4.5 Modeling with less data points (0.5M data points) and more weight to title and 500 tags only.

In [0]:

```
sql_create_table = """CREATE TABLE IF NOT EXISTS QuestionsProcessed (question text NOT NULL, code
text, tags text, words_pre integer, words_post integer, is_code integer);"""
create_database_table("Titlmoreweight.db", sql_create_table)
```

Tables in the databse:
QuestionsProcessed

In [0]:

```
# http://www.sqlitetutorial.net/sqlite-delete/
# https://stackoverflow.com/questions/2279706/select-random-row-from-a-sqlite-table

read_db = 'train_no_dup.db'
write_db = 'Titlemoreweight.db'
train_datasize = 400000
if os.path.isfile(read_db):
    conn_r = create_connection(read_db)
    if conn_r is not None:
        reader = conn_r.cursor()
        # for selecting first 0.5M rows
        reader.execute("SELECT Title, Body, Tags From no_dup_train LIMIT 500001;")
        # for selecting random points
        #reader.execute("SELECT Title, Body, Tags From no_dup_train ORDER BY RANDOM() LIMIT
500001;")

if os.path.isfile(write_db):
    conn_w = create_connection(write_db)
    if conn_w is not None:
        tables = checkTableExists(conn_w)
        writer = conn_w.cursor()
        if tables != 0:
            writer.execute("DELETE FROM QuestionsProcessed WHERE 1")
            print("Cleared All the rows")
```

Tables in the database:

QuestionsProcessed

Cleared All the rows

4.5.1 Preprocessing of questions

1. Separate Code from Body
2. Remove Special characters from Question title and description (not in code)
3. **Give more weightage to title : Add title three times to the question**
4. Remove stop words (Except 'C')
5. Remove HTML Tags
6. Convert all the characters into small letters
7. Use SnowballStemmer to stem the words

In [0]:

```
#http://www.bernzilla.com/2008/05/13/selecting-a-random-row-from-an-sqlite-table/
start = datetime.now()
preprocessed_data_list=[]
reader.fetchone()
questions_with_code=0
len_pre=0
len_post=0
questions_processed = 0
for row in reader:

    is_code = 0

    title, question, tags = row[0], row[1], str(row[2])

    if '<code>' in question:
        questions_with_code+=1
        is_code = 1
    x = len(question)+len(title)
    len_pre+=x

    code = str(re.findall(r'<code>(.*?)</code>', question, flags=re.DOTALL))

    question=re.sub('<code>(.*?)</code>', '', question, flags=re.MULTILINE|re.DOTALL)
    question=striphtml(question.encode('utf-8'))

    title=title.encode('utf-8')
```

```

# adding title three time to the data to increase its weight
# add tags string to the training data

question=str(title)+" "+str(title)+" "+str(title)+" "+question

# if questions_proccesed<=train_datasize:
#     question=str(title)+" "+str(title)+" "+str(title)+" "+question+" "+str(tags)
# else:
#     question=str(title)+" "+str(title)+" "+str(title)+" "+question

question=re.sub(r'^A-Za-z0-9#+.\-]+',' ',question)
words=word_tokenize(str(question.lower()))

#Removing all single letter and and stopwords from question exceptt for the letter 'c'
question=' '.join(str(stemmer.stem(j)) for j in words if j not in stop_words and (len(j)!=1 or
j=='c'))

len_post+=len(question)
tup = (question,code,tags,x,len(question),is_code)
questions_proccesed += 1
writer.execute("insert into
QuestionsProcessed(question,code,tags,words_pre,words_post,is_code) values (?,?,?,?,?,?)",tup)
if (questions_proccesed%100000==0):
    print("number of questions completed=",questions_proccesed)

no_dup_avg_len_pre=(len_pre*1.0)/questions_proccesed
no_dup_avg_len_post=(len_post*1.0)/questions_proccesed

print( "Avg. length of questions(Title+Body) before processing: %d"%no_dup_avg_len_pre)
print( "Avg. length of questions(Title+Body) after processing: %d"%no_dup_avg_len_post)
print( "Percent of questions containing code: %d"%((questions_with_code*100.0)/questions_proccesed)
)

print("Time taken to run this cell :", datetime.now() - start)

```

```

number of questions completed= 100000
number of questions completed= 200000
number of questions completed= 300000
number of questions completed= 400000
number of questions completed= 500000
Avg. length of questions(Title+Body) before processing: 1239
Avg. length of questions(Title+Body) after processing: 424
Percent of questions containing code: 57
Time taken to run this cell : 0:23:12.329039

```

In [0]:

```

# never forget to close the conections or else we will end up with database locks
conn_r.commit()
conn_w.commit()
conn_r.close()
conn_w.close()

```

Sample quesitons after preprocessing of data

In [0]:

```

if os.path.isfile(write_db):
    conn_r = create_connection(write_db)
    if conn_r is not None:
        reader =conn_r.cursor()
        reader.execute("SELECT question From QuestionsProcessed LIMIT 10")
        print("Questions after preprocessed")
        print('='*100)
        reader.fetchone()
        for row in reader:
            print(row)
            print('-'*100)
conn_r.commit()
conn_r.close()

```

Questions after preprocessed

=====

```
( 'dynam datagrid bind silverlight dynam datagrid bind silverlight dynam datagrid bind silverlight
bind datagrid dynam code wrote code debug code block seem bind correct grid come column form come
grid column although necessari bind nthank repli advance..',)
-----
('java.lang.noclassdeffoundererror javax servlet jsp tagext taglibraryvalid
java.lang.noclassdeffoundererror javax servlet jsp tagext taglibraryvalid
java.lang.noclassdeffoundererror javax servlet jsp tagext taglibraryvalid follow guid link instal js
tl got follow error tri launch jsp page java.lang.noclassdeffoundererror javax servlet jsp tagext ta
glibraryvalid taglib declar instal jstl 1.1 tomcat webapp tri project work also tri version 1.2 js
tl still messag caus solv',)
-----
('java.sql.sqlexcept microsoft odbc driver manag invalid descriptor index java.sql.sqlexcept
microsoft odbc driver manag invalid descriptor index java.sql.sqlexcept microsoft odbc driver
manag invalid descriptor index use follow code display caus solv',)
-----
('better way updat feed fb php sdk better way updat feed fb php sdk better way updat feed fb php s
dk novic facebook api read mani tutori still confused.i find post feed api method like correct sec
ond way use curl someth like way better',)
-----
('btnadd click event open two window record ad btnadd click event open two window record ad btnadd
click event open two window record ad open window search.aspx use code hav add button search.aspx
nwhen insert record btnadd click event open anoth window nafter insert record close window',)
-----
('sql inject issu prevent correct form submiss php sql inject issu prevent correct form submiss ph
p sql inject issu prevent correct form submiss php check everyth think make sure input field safe
type sql inject good news safe bad news one tag mess form submiss place even touch life figur exac
t html use templat file forgiv okay entir php script get execut see data post none forum field pos
t problem use someth titl field none data get post current use print post see submit noth work fla
wless statement though also mention script work flawless local machin use host come across problem
state list input test mess',)
-----
('countabl subaddit lebesgu measur countabl subaddit lebesgu measur countabl subaddit lebesgu meas
ur let lbrace rbrace sequenc set sigma -algebra mathcal want show left bigcup right leq sum left r
ight countabl addit measur defin set sigma algebra mathcal think use monoton properti somewher pro
of start appreci littl help nthank ad han answer make follow addit construct given han answer clea
r bigcup bigcup cap emptyset neq left bigcup right left bigcup right sum left right also construct
subset monoton left right leq left right final would sum leq sum result follow',)
-----
('hql equival sql queri hql equival sql queri hql equival sql queri hql queri replac name class pr
operti name error occur hql error',)
-----
('undefin symbol architectur i386 objc class skpsmtpmessag referenc error undefin symbol
architectur i386 objc class skpsmtpmessag referenc error undefin symbol architectur i386 objc
class skpsmtpmessag referenc error import framework send email applic background import framework
i.e skpsmtpmessag somebodi suggest get error collect2 ld return exit status import framework corre
ct sorc taken framework follow mfmcomposeviewcontrol question lock field updat answer drag drop
folder project click copi nthat',)
-----
```

Saving Preprocessed data to a Database

In [0]:

```
#Taking 0.5 Million entries to a dataframe.
write_db = 'Titlemoreweight.db'
if os.path.isfile(write_db):
    conn_r = create_connection(write_db)
    if conn_r is not None:
        preprocessed_data = pd.read_sql_query("""SELECT question, Tags FROM QuestionsProcessed""",
conn_r)
    conn_r.commit()
    conn_r.close()
```

In [0]:

```
preprocessed_data.head()
```

Out[0]:

| | question | tags |
|---|---|-----------------------------|
| 0 | dynam datagrid bind silverlight dynam datagrid... | c# silverlight data-binding |

| | | | | |
|---|---|----------|-------------------------------|-----------|
| 1 | dynam datagrid bind silverlight dynam datagrid... | question | c# silverlight data-binding | tags |
| 2 | java.lang.noclassdeffoundererror javax servlet j... | | | jsp jstl |
| 3 | java.sql.sqllexcept microsoft odbc driver manag... | | | java jdbc |
| 4 | better way updat feed fb php sdk better way up... | | facebook api facebook-php-sdk | |

In [0]:

```
print("number of data points in sample :", preprocessed_data.shape[0])
print("number of dimensions :", preprocessed_data.shape[1])
```

number of data points in sample : 500000
number of dimensions : 2

Converting string Tags to multilable output variables

In [0]:

```
vectorizer = CountVectorizer(tokenizer = lambda x: x.split(), binary='true')
multilabel_y = vectorizer.fit_transform(preprocessed_data['tags'])
```

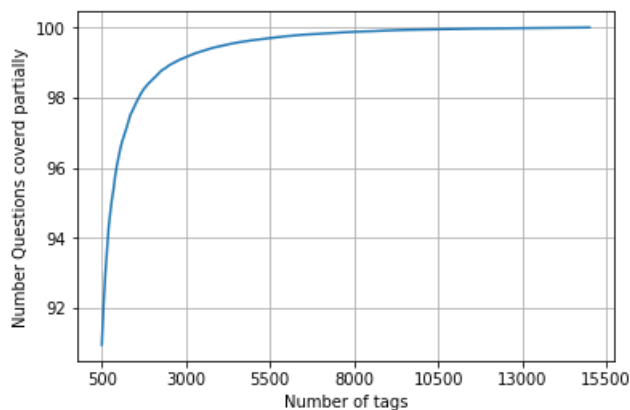
Selecting 500 Tags

In [0]:

```
questions_explained = []
total_tags=multilabel_y.shape[1]
total_qs=preprocessed_data.shape[0]
for i in range(500, total_tags, 100):
    questions_explained.append(np.round(((total_qs-questions_explained_fn(i))/total_qs)*100,3))
```

In [0]:

```
fig, ax = plt.subplots()
ax.plot(questions_explained)
xlabel = list(500+np.array(range(-50,450,50))*50)
ax.set_xticklabels(xlabel)
plt.xlabel("Number of tags")
plt.ylabel("Number Questions covered partially")
plt.grid()
plt.show()
# you can choose any number of tags based on your computing power, minimun is 500(it covers 90% of the tags)
print("with ",5500,"tags we are covering ",questions_explained[50],"% of questions")
print("with ",500,"tags we are covering ",questions_explained[0],"% of questions")
```



with 5500 tags we are covering 99.157 % of questions
with 500 tags we are covering 90.956 % of questions

In [0]:

```
# we will be taking 500 tags
multilabel_yx = tags_to_choose(500)
print("number of questions that are not covered :", questions_explained_fn(500),"out of ", total_qs)
```

number of questions that are not covered : 45221 out of 500000

In [0]:

```
x_train=preprocessed_data.head(train_datasize)
x_test=preprocessed_data.tail(preprocessed_data.shape[0] - 400000)

y_train = multilabel_yx[0:train_datasize,:]
y_test = multilabel_yx[train_datasize:preprocessed_data.shape[0],:]
```

In [0]:

```
print("Number of data points in train data :", y_train.shape)
print("Number of data points in test data :", y_test.shape)
```

Number of data points in train data : (400000, 500)
Number of data points in test data : (100000, 500)

4.5.2 Featurizing data with Tfidf vectorizer

In [0]:

```
start = datetime.now()
vectorizer = TfidfVectorizer(min_df=0.00009, max_features=200000, smooth_idf=True, norm="l2", \
                             tokenizer = lambda x: x.split(), sublinear_tf=False, ngram_range=(1,3))
x_train_multilabel = vectorizer.fit_transform(x_train['question'])
x_test_multilabel = vectorizer.transform(x_test['question'])
print("Time taken to run this cell :", datetime.now() - start)
```

Time taken to run this cell : 0:03:52.522389

In [0]:

```
print("Dimensions of train data X:",x_train_multilabel.shape, "Y :",y_train.shape)
print("Dimensions of test data X:",x_test_multilabel.shape,"Y:",y_test.shape)
```

Dimensions of train data X: (400000, 94927) Y : (400000, 500)
Dimensions of test data X: (100000, 94927) Y: (100000, 500)

4.5.3 Applying Logistic Regression with OneVsRest Classifier

In [0]:

```
start = datetime.now()
classifier = OneVsRestClassifier(SGDClassifier(loss='log', alpha=0.00001, penalty='l1'), n_jobs=-1)
classifier.fit(x_train_multilabel, y_train)
predictions = classifier.predict(x_test_multilabel)

print("Accuracy :",metrics.accuracy_score(y_test, predictions))
print("Hamming loss ",metrics.hamming_loss(y_test,predictions))

precision = precision_score(y_test, predictions, average='micro')
recall = recall_score(y_test, predictions, average='micro')
f1 = f1_score(y_test, predictions, average='micro')

print("Micro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))
```

```

precision = precision_score(y_test, predictions, average='macro')
recall = recall_score(y_test, predictions, average='macro')
f1 = f1_score(y_test, predictions, average='macro')

print("Macro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

print(metrics.classification_report(y_test, predictions))
print("Time taken to run this cell :", datetime.now() - start)

```

```

Accuracy : 0.23623
Hamming loss 0.00278088
Micro-average quality numbers
Precision: 0.7216, Recall: 0.3256, F1-measure: 0.4488
Macro-average quality numbers
Precision: 0.5473, Recall: 0.2572, F1-measure: 0.3339

```

| | precision | recall | f1-score | support |
|--|-----------|--------|----------|---------|
|--|-----------|--------|----------|---------|

| | | | | |
|----|------|------|------|------|
| 0 | 0.94 | 0.64 | 0.76 | 5519 |
| 1 | 0.69 | 0.26 | 0.38 | 8190 |
| 2 | 0.81 | 0.37 | 0.51 | 6529 |
| 3 | 0.81 | 0.43 | 0.56 | 3231 |
| 4 | 0.81 | 0.40 | 0.54 | 6430 |
| 5 | 0.82 | 0.33 | 0.47 | 2879 |
| 6 | 0.87 | 0.50 | 0.63 | 5086 |
| 7 | 0.87 | 0.54 | 0.67 | 4533 |
| 8 | 0.60 | 0.13 | 0.22 | 3000 |
| 9 | 0.81 | 0.53 | 0.64 | 2765 |
| 10 | 0.59 | 0.17 | 0.26 | 3051 |
| 11 | 0.70 | 0.33 | 0.45 | 3009 |
| 12 | 0.64 | 0.24 | 0.35 | 2630 |
| 13 | 0.71 | 0.23 | 0.35 | 1426 |
| 14 | 0.90 | 0.53 | 0.67 | 2548 |
| 15 | 0.66 | 0.18 | 0.28 | 2371 |
| 16 | 0.65 | 0.23 | 0.34 | 873 |
| 17 | 0.89 | 0.61 | 0.72 | 2151 |
| 18 | 0.62 | 0.23 | 0.33 | 2204 |
| 19 | 0.71 | 0.40 | 0.51 | 831 |
| 20 | 0.77 | 0.41 | 0.53 | 1860 |
| 21 | 0.27 | 0.07 | 0.11 | 2023 |
| 22 | 0.49 | 0.23 | 0.31 | 1513 |
| 23 | 0.91 | 0.49 | 0.64 | 1207 |
| 24 | 0.56 | 0.29 | 0.38 | 506 |
| 25 | 0.68 | 0.30 | 0.42 | 425 |
| 26 | 0.65 | 0.40 | 0.49 | 793 |
| 27 | 0.60 | 0.32 | 0.42 | 1291 |
| 28 | 0.75 | 0.36 | 0.48 | 1208 |
| 29 | 0.42 | 0.09 | 0.15 | 406 |
| 30 | 0.75 | 0.18 | 0.29 | 504 |
| 31 | 0.29 | 0.10 | 0.14 | 732 |
| 32 | 0.59 | 0.24 | 0.35 | 441 |
| 33 | 0.56 | 0.18 | 0.27 | 1645 |
| 34 | 0.71 | 0.25 | 0.37 | 1058 |
| 35 | 0.83 | 0.54 | 0.66 | 946 |
| 36 | 0.69 | 0.21 | 0.32 | 644 |
| 37 | 0.96 | 0.68 | 0.79 | 136 |
| 38 | 0.64 | 0.37 | 0.47 | 570 |
| 39 | 0.85 | 0.29 | 0.43 | 766 |
| 40 | 0.62 | 0.28 | 0.38 | 1132 |
| 41 | 0.46 | 0.19 | 0.27 | 174 |
| 42 | 0.81 | 0.51 | 0.63 | 210 |
| 43 | 0.80 | 0.41 | 0.54 | 433 |
| 44 | 0.66 | 0.50 | 0.57 | 626 |
| 45 | 0.75 | 0.32 | 0.45 | 852 |
| 46 | 0.75 | 0.42 | 0.54 | 534 |
| 47 | 0.34 | 0.14 | 0.20 | 350 |
| 48 | 0.74 | 0.51 | 0.60 | 496 |
| 49 | 0.79 | 0.62 | 0.70 | 785 |
| 50 | 0.16 | 0.04 | 0.06 | 475 |
| 51 | 0.33 | 0.10 | 0.15 | 305 |
| 52 | 0.50 | 0.04 | 0.07 | 251 |
| 53 | 0.68 | 0.40 | 0.50 | 914 |
| 54 | 0.45 | 0.16 | 0.23 | 728 |
| 55 | 0.31 | 0.02 | 0.03 | 258 |
| 56 | 0.46 | 0.19 | 0.27 | 821 |
| 57 | 0.47 | 0.09 | 0.15 | 541 |
| 58 | 0.70 | 0.27 | 0.41 | 740 |

| | | | | |
|-----|------|------|------|-----|
| 58 | 0.78 | 0.27 | 0.41 | 748 |
| 59 | 0.94 | 0.62 | 0.75 | 724 |
| 60 | 0.34 | 0.07 | 0.12 | 660 |
| 61 | 0.83 | 0.19 | 0.31 | 235 |
| 62 | 0.91 | 0.71 | 0.80 | 718 |
| 63 | 0.83 | 0.63 | 0.71 | 468 |
| 64 | 0.55 | 0.33 | 0.41 | 191 |
| 65 | 0.36 | 0.11 | 0.17 | 429 |
| 66 | 0.29 | 0.05 | 0.08 | 415 |
| 67 | 0.76 | 0.49 | 0.60 | 274 |
| 68 | 0.82 | 0.52 | 0.64 | 510 |
| 69 | 0.67 | 0.45 | 0.54 | 466 |
| 70 | 0.30 | 0.06 | 0.10 | 305 |
| 71 | 0.49 | 0.15 | 0.23 | 247 |
| 72 | 0.79 | 0.47 | 0.59 | 401 |
| 73 | 0.98 | 0.73 | 0.84 | 86 |
| 74 | 0.73 | 0.36 | 0.48 | 120 |
| 75 | 0.89 | 0.68 | 0.77 | 129 |
| 76 | 0.50 | 0.00 | 0.01 | 473 |
| 77 | 0.36 | 0.25 | 0.30 | 143 |
| 78 | 0.79 | 0.44 | 0.57 | 347 |
| 79 | 0.72 | 0.23 | 0.35 | 479 |
| 80 | 0.53 | 0.30 | 0.39 | 279 |
| 81 | 0.78 | 0.18 | 0.29 | 461 |
| 82 | 0.16 | 0.01 | 0.02 | 298 |
| 83 | 0.77 | 0.45 | 0.56 | 396 |
| 84 | 0.55 | 0.33 | 0.41 | 184 |
| 85 | 0.67 | 0.21 | 0.32 | 573 |
| 86 | 0.48 | 0.05 | 0.09 | 325 |
| 87 | 0.48 | 0.27 | 0.35 | 273 |
| 88 | 0.43 | 0.21 | 0.28 | 135 |
| 89 | 0.28 | 0.06 | 0.10 | 232 |
| 90 | 0.55 | 0.30 | 0.39 | 409 |
| 91 | 0.63 | 0.25 | 0.36 | 420 |
| 92 | 0.76 | 0.53 | 0.63 | 408 |
| 93 | 0.69 | 0.49 | 0.58 | 241 |
| 94 | 0.31 | 0.04 | 0.07 | 211 |
| 95 | 0.34 | 0.08 | 0.12 | 277 |
| 96 | 0.26 | 0.03 | 0.05 | 410 |
| 97 | 0.90 | 0.33 | 0.48 | 501 |
| 98 | 0.76 | 0.57 | 0.65 | 136 |
| 99 | 0.54 | 0.31 | 0.40 | 239 |
| 100 | 0.55 | 0.13 | 0.21 | 324 |
| 101 | 0.93 | 0.59 | 0.72 | 277 |
| 102 | 0.92 | 0.70 | 0.79 | 613 |
| 103 | 0.48 | 0.17 | 0.25 | 157 |
| 104 | 0.21 | 0.05 | 0.09 | 295 |
| 105 | 0.84 | 0.34 | 0.49 | 334 |
| 106 | 0.77 | 0.12 | 0.21 | 335 |
| 107 | 0.75 | 0.50 | 0.60 | 389 |
| 108 | 0.58 | 0.24 | 0.34 | 251 |
| 109 | 0.54 | 0.40 | 0.46 | 317 |
| 110 | 0.78 | 0.07 | 0.14 | 187 |
| 111 | 0.54 | 0.10 | 0.17 | 140 |
| 112 | 0.56 | 0.24 | 0.34 | 154 |
| 113 | 0.64 | 0.18 | 0.28 | 332 |
| 114 | 0.44 | 0.27 | 0.33 | 323 |
| 115 | 0.47 | 0.22 | 0.30 | 344 |
| 116 | 0.77 | 0.49 | 0.60 | 370 |
| 117 | 0.57 | 0.22 | 0.32 | 313 |
| 118 | 0.78 | 0.68 | 0.73 | 874 |
| 119 | 0.50 | 0.21 | 0.29 | 293 |
| 120 | 0.00 | 0.00 | 0.00 | 200 |
| 121 | 0.77 | 0.48 | 0.59 | 463 |
| 122 | 0.40 | 0.10 | 0.16 | 119 |
| 123 | 0.75 | 0.01 | 0.02 | 256 |
| 124 | 0.91 | 0.70 | 0.79 | 195 |
| 125 | 0.40 | 0.12 | 0.18 | 138 |
| 126 | 0.79 | 0.49 | 0.60 | 376 |
| 127 | 0.14 | 0.03 | 0.05 | 122 |
| 128 | 0.14 | 0.03 | 0.05 | 252 |
| 129 | 0.45 | 0.10 | 0.16 | 144 |
| 130 | 0.44 | 0.08 | 0.14 | 150 |
| 131 | 0.14 | 0.01 | 0.02 | 210 |
| 132 | 0.66 | 0.26 | 0.37 | 361 |
| 133 | 0.94 | 0.54 | 0.69 | 453 |
| 134 | 0.89 | 0.72 | 0.79 | 124 |
| 135 | 0.89 | 0.72 | 0.79 | 124 |

| | | | | |
|-----|------|------|------|-----|
| 135 | 0.31 | 0.04 | 0.08 | 91 |
| 136 | 0.68 | 0.27 | 0.38 | 128 |
| 137 | 0.57 | 0.35 | 0.43 | 218 |
| 138 | 0.77 | 0.15 | 0.25 | 243 |
| 139 | 0.39 | 0.18 | 0.25 | 149 |
| 140 | 0.76 | 0.43 | 0.55 | 318 |
| 141 | 0.29 | 0.11 | 0.16 | 159 |
| 142 | 0.66 | 0.36 | 0.47 | 274 |
| 143 | 0.86 | 0.72 | 0.79 | 362 |
| 144 | 0.59 | 0.17 | 0.26 | 118 |
| 145 | 0.65 | 0.36 | 0.46 | 164 |
| 146 | 0.58 | 0.27 | 0.37 | 461 |
| 147 | 0.66 | 0.39 | 0.49 | 159 |
| 148 | 0.32 | 0.13 | 0.19 | 166 |
| 149 | 0.98 | 0.46 | 0.62 | 346 |
| 150 | 0.62 | 0.08 | 0.14 | 350 |
| 151 | 0.90 | 0.64 | 0.74 | 55 |
| 152 | 0.79 | 0.45 | 0.58 | 387 |
| 153 | 0.52 | 0.10 | 0.17 | 150 |
| 154 | 0.60 | 0.12 | 0.20 | 281 |
| 155 | 0.30 | 0.05 | 0.09 | 202 |
| 156 | 0.76 | 0.62 | 0.68 | 130 |
| 157 | 0.26 | 0.07 | 0.11 | 245 |
| 158 | 0.88 | 0.58 | 0.70 | 177 |
| 159 | 0.49 | 0.26 | 0.34 | 130 |
| 160 | 0.50 | 0.13 | 0.21 | 336 |
| 161 | 0.93 | 0.57 | 0.71 | 220 |
| 162 | 0.12 | 0.02 | 0.03 | 229 |
| 163 | 0.90 | 0.41 | 0.56 | 316 |
| 164 | 0.74 | 0.34 | 0.47 | 283 |
| 165 | 0.63 | 0.32 | 0.43 | 197 |
| 166 | 0.48 | 0.24 | 0.32 | 101 |
| 167 | 0.47 | 0.18 | 0.26 | 231 |
| 168 | 0.58 | 0.21 | 0.31 | 370 |
| 169 | 0.44 | 0.20 | 0.27 | 258 |
| 170 | 0.29 | 0.05 | 0.08 | 101 |
| 171 | 0.39 | 0.22 | 0.29 | 89 |
| 172 | 0.50 | 0.32 | 0.39 | 193 |
| 173 | 0.44 | 0.22 | 0.29 | 309 |
| 174 | 0.51 | 0.14 | 0.22 | 172 |
| 175 | 0.94 | 0.71 | 0.81 | 95 |
| 176 | 0.94 | 0.59 | 0.73 | 346 |
| 177 | 0.92 | 0.45 | 0.60 | 322 |
| 178 | 0.64 | 0.46 | 0.54 | 232 |
| 179 | 0.35 | 0.06 | 0.11 | 125 |
| 180 | 0.56 | 0.27 | 0.36 | 145 |
| 181 | 0.37 | 0.09 | 0.15 | 77 |
| 182 | 0.17 | 0.02 | 0.04 | 182 |
| 183 | 0.61 | 0.32 | 0.42 | 257 |
| 184 | 0.08 | 0.01 | 0.02 | 216 |
| 185 | 0.36 | 0.07 | 0.11 | 242 |
| 186 | 0.39 | 0.16 | 0.23 | 165 |
| 187 | 0.76 | 0.57 | 0.65 | 263 |
| 188 | 0.31 | 0.10 | 0.15 | 174 |
| 189 | 0.71 | 0.29 | 0.41 | 136 |
| 190 | 0.88 | 0.49 | 0.63 | 202 |
| 191 | 0.42 | 0.16 | 0.23 | 134 |
| 192 | 0.71 | 0.40 | 0.51 | 230 |
| 193 | 0.44 | 0.18 | 0.25 | 90 |
| 194 | 0.57 | 0.47 | 0.52 | 185 |
| 195 | 0.16 | 0.04 | 0.06 | 156 |
| 196 | 0.41 | 0.07 | 0.13 | 160 |
| 197 | 0.57 | 0.06 | 0.11 | 266 |
| 198 | 0.39 | 0.05 | 0.09 | 284 |
| 199 | 0.35 | 0.06 | 0.10 | 145 |
| 200 | 0.94 | 0.70 | 0.80 | 212 |
| 201 | 0.67 | 0.21 | 0.32 | 317 |
| 202 | 0.78 | 0.53 | 0.63 | 427 |
| 203 | 0.31 | 0.08 | 0.13 | 232 |
| 204 | 0.51 | 0.23 | 0.32 | 217 |
| 205 | 0.48 | 0.43 | 0.45 | 527 |
| 206 | 0.13 | 0.02 | 0.03 | 124 |
| 207 | 0.52 | 0.11 | 0.18 | 103 |
| 208 | 0.89 | 0.49 | 0.63 | 287 |
| 209 | 0.33 | 0.08 | 0.13 | 193 |
| 210 | 0.72 | 0.31 | 0.44 | 220 |
| 211 | 0.82 | 0.19 | 0.31 | 140 |

| | | | | |
|-----|------|------|------|-----|
| 212 | 0.14 | 0.02 | 0.03 | 161 |
| 213 | 0.52 | 0.21 | 0.30 | 72 |
| 214 | 0.60 | 0.44 | 0.51 | 396 |
| 215 | 0.87 | 0.34 | 0.49 | 134 |
| 216 | 0.53 | 0.06 | 0.11 | 400 |
| 217 | 0.53 | 0.24 | 0.33 | 75 |
| 218 | 0.97 | 0.76 | 0.85 | 219 |
| 219 | 0.74 | 0.36 | 0.48 | 210 |
| 220 | 0.90 | 0.59 | 0.71 | 298 |
| 221 | 0.97 | 0.59 | 0.73 | 266 |
| 222 | 0.78 | 0.41 | 0.54 | 290 |
| 223 | 0.09 | 0.01 | 0.01 | 128 |
| 224 | 0.80 | 0.40 | 0.53 | 159 |
| 225 | 0.59 | 0.29 | 0.39 | 164 |
| 226 | 0.63 | 0.36 | 0.46 | 144 |
| 227 | 0.56 | 0.32 | 0.40 | 276 |
| 228 | 0.15 | 0.02 | 0.03 | 235 |
| 229 | 0.23 | 0.01 | 0.03 | 216 |
| 230 | 0.36 | 0.18 | 0.24 | 228 |
| 231 | 0.70 | 0.47 | 0.56 | 64 |
| 232 | 0.44 | 0.07 | 0.12 | 103 |
| 233 | 0.71 | 0.30 | 0.42 | 216 |
| 234 | 0.71 | 0.09 | 0.15 | 116 |
| 235 | 0.60 | 0.40 | 0.48 | 77 |
| 236 | 0.96 | 0.64 | 0.77 | 67 |
| 237 | 0.54 | 0.06 | 0.11 | 218 |
| 238 | 0.26 | 0.05 | 0.08 | 139 |
| 239 | 0.17 | 0.01 | 0.02 | 94 |
| 240 | 0.55 | 0.30 | 0.39 | 77 |
| 241 | 0.50 | 0.08 | 0.14 | 167 |
| 242 | 0.83 | 0.28 | 0.42 | 86 |
| 243 | 0.40 | 0.14 | 0.21 | 58 |
| 244 | 0.64 | 0.19 | 0.29 | 269 |
| 245 | 0.19 | 0.05 | 0.08 | 112 |
| 246 | 0.95 | 0.73 | 0.83 | 255 |
| 247 | 0.46 | 0.19 | 0.27 | 58 |
| 248 | 0.25 | 0.02 | 0.04 | 81 |
| 249 | 0.00 | 0.00 | 0.00 | 131 |
| 250 | 0.40 | 0.20 | 0.27 | 93 |
| 251 | 0.67 | 0.28 | 0.39 | 154 |
| 252 | 0.40 | 0.05 | 0.08 | 129 |
| 253 | 0.61 | 0.30 | 0.40 | 83 |
| 254 | 0.38 | 0.09 | 0.14 | 191 |
| 255 | 0.15 | 0.02 | 0.04 | 219 |
| 256 | 0.35 | 0.05 | 0.08 | 130 |
| 257 | 0.46 | 0.29 | 0.36 | 93 |
| 258 | 0.69 | 0.41 | 0.52 | 217 |
| 259 | 0.32 | 0.09 | 0.14 | 141 |
| 260 | 0.95 | 0.13 | 0.23 | 143 |
| 261 | 0.52 | 0.11 | 0.17 | 219 |
| 262 | 0.53 | 0.28 | 0.37 | 107 |
| 263 | 0.39 | 0.23 | 0.29 | 236 |
| 264 | 0.26 | 0.17 | 0.21 | 119 |
| 265 | 0.34 | 0.14 | 0.20 | 72 |
| 266 | 0.00 | 0.00 | 0.00 | 70 |
| 267 | 0.28 | 0.12 | 0.17 | 107 |
| 268 | 0.66 | 0.41 | 0.51 | 169 |
| 269 | 0.29 | 0.09 | 0.14 | 129 |
| 270 | 0.74 | 0.52 | 0.61 | 159 |
| 271 | 0.82 | 0.33 | 0.47 | 190 |
| 272 | 0.62 | 0.22 | 0.33 | 248 |
| 273 | 0.91 | 0.70 | 0.79 | 264 |
| 274 | 0.92 | 0.63 | 0.75 | 105 |
| 275 | 0.62 | 0.08 | 0.14 | 104 |
| 276 | 0.14 | 0.02 | 0.03 | 115 |
| 277 | 0.83 | 0.60 | 0.70 | 170 |
| 278 | 0.66 | 0.24 | 0.35 | 145 |
| 279 | 0.91 | 0.60 | 0.72 | 230 |
| 280 | 0.57 | 0.41 | 0.48 | 80 |
| 281 | 0.67 | 0.55 | 0.61 | 217 |
| 282 | 0.74 | 0.47 | 0.58 | 175 |
| 283 | 0.33 | 0.06 | 0.11 | 269 |
| 284 | 0.65 | 0.27 | 0.38 | 74 |
| 285 | 0.86 | 0.50 | 0.63 | 206 |
| 286 | 0.90 | 0.59 | 0.71 | 227 |
| 287 | 0.85 | 0.30 | 0.44 | 130 |
| 288 | 0.35 | 0.06 | 0.11 | 129 |

| | | | | |
|-----|------|------|------|-----|
| 289 | 0.50 | 0.03 | 0.05 | 80 |
| 290 | 0.13 | 0.06 | 0.08 | 99 |
| 291 | 0.77 | 0.31 | 0.44 | 208 |
| 292 | 0.25 | 0.03 | 0.05 | 67 |
| 293 | 0.81 | 0.43 | 0.56 | 109 |
| 294 | 0.40 | 0.24 | 0.30 | 140 |
| 295 | 0.24 | 0.08 | 0.12 | 241 |
| 296 | 0.22 | 0.08 | 0.12 | 72 |
| 297 | 0.22 | 0.04 | 0.06 | 107 |
| 298 | 0.77 | 0.38 | 0.51 | 61 |
| 299 | 0.93 | 0.35 | 0.51 | 77 |
| 300 | 0.18 | 0.06 | 0.09 | 111 |
| 301 | 0.00 | 0.00 | 0.00 | 126 |
| 302 | 0.00 | 0.00 | 0.00 | 73 |
| 303 | 0.57 | 0.35 | 0.44 | 176 |
| 304 | 0.96 | 0.71 | 0.82 | 230 |
| 305 | 0.95 | 0.60 | 0.74 | 156 |
| 306 | 0.51 | 0.37 | 0.43 | 146 |
| 307 | 0.29 | 0.08 | 0.13 | 98 |
| 308 | 0.00 | 0.00 | 0.00 | 78 |
| 309 | 0.78 | 0.07 | 0.14 | 94 |
| 310 | 0.76 | 0.35 | 0.48 | 162 |
| 311 | 0.81 | 0.52 | 0.63 | 116 |
| 312 | 0.48 | 0.26 | 0.34 | 57 |
| 313 | 0.75 | 0.05 | 0.09 | 65 |
| 314 | 0.50 | 0.36 | 0.42 | 138 |
| 315 | 0.54 | 0.21 | 0.30 | 195 |
| 316 | 0.43 | 0.23 | 0.30 | 69 |
| 317 | 0.35 | 0.10 | 0.15 | 134 |
| 318 | 0.49 | 0.34 | 0.40 | 148 |
| 319 | 0.85 | 0.44 | 0.58 | 161 |
| 320 | 0.20 | 0.14 | 0.17 | 104 |
| 321 | 0.86 | 0.55 | 0.67 | 156 |
| 322 | 0.59 | 0.33 | 0.42 | 134 |
| 323 | 0.56 | 0.36 | 0.44 | 232 |
| 324 | 0.41 | 0.17 | 0.24 | 92 |
| 325 | 0.45 | 0.30 | 0.36 | 197 |
| 326 | 0.10 | 0.02 | 0.03 | 126 |
| 327 | 0.45 | 0.04 | 0.08 | 115 |
| 328 | 0.98 | 0.64 | 0.77 | 198 |
| 329 | 0.61 | 0.30 | 0.40 | 125 |
| 330 | 0.78 | 0.17 | 0.28 | 81 |
| 331 | 0.50 | 0.09 | 0.15 | 94 |
| 332 | 1.00 | 0.02 | 0.04 | 56 |
| 333 | 0.15 | 0.03 | 0.05 | 260 |
| 334 | 0.20 | 0.03 | 0.06 | 60 |
| 335 | 0.28 | 0.07 | 0.12 | 110 |
| 336 | 0.64 | 0.42 | 0.51 | 71 |
| 337 | 0.13 | 0.03 | 0.05 | 66 |
| 338 | 0.45 | 0.31 | 0.37 | 150 |
| 339 | 0.00 | 0.00 | 0.00 | 54 |
| 340 | 0.85 | 0.53 | 0.65 | 195 |
| 341 | 0.93 | 0.18 | 0.30 | 79 |
| 342 | 0.41 | 0.18 | 0.25 | 38 |
| 343 | 0.68 | 0.40 | 0.50 | 43 |
| 344 | 0.52 | 0.22 | 0.31 | 68 |
| 345 | 0.69 | 0.40 | 0.50 | 73 |
| 346 | 0.27 | 0.03 | 0.05 | 116 |
| 347 | 0.89 | 0.36 | 0.51 | 111 |
| 348 | 0.30 | 0.10 | 0.14 | 63 |
| 349 | 0.83 | 0.62 | 0.71 | 104 |
| 350 | 0.63 | 0.43 | 0.51 | 44 |
| 351 | 0.70 | 0.17 | 0.28 | 40 |
| 352 | 0.98 | 0.39 | 0.56 | 136 |
| 353 | 0.44 | 0.22 | 0.30 | 54 |
| 354 | 0.43 | 0.04 | 0.08 | 134 |
| 355 | 0.59 | 0.28 | 0.38 | 120 |
| 356 | 0.51 | 0.21 | 0.29 | 228 |
| 357 | 0.66 | 0.28 | 0.39 | 269 |
| 358 | 0.69 | 0.36 | 0.48 | 80 |
| 359 | 0.87 | 0.41 | 0.56 | 140 |
| 360 | 0.37 | 0.13 | 0.19 | 125 |
| 361 | 0.89 | 0.61 | 0.72 | 169 |
| 362 | 0.11 | 0.04 | 0.05 | 56 |
| 363 | 0.94 | 0.66 | 0.77 | 154 |
| 364 | 0.45 | 0.09 | 0.14 | 58 |
| 365 | 0.23 | 0.11 | 0.15 | 71 |

| | | | | |
|-----|------|------|------|-----|
| 366 | 1.00 | 0.63 | 0.77 | 54 |
| 367 | 0.33 | 0.04 | 0.08 | 116 |
| 368 | 0.00 | 0.00 | 0.00 | 54 |
| 369 | 0.00 | 0.00 | 0.00 | 71 |
| 370 | 0.20 | 0.03 | 0.06 | 61 |
| 371 | 0.40 | 0.06 | 0.10 | 71 |
| 372 | 0.66 | 0.48 | 0.56 | 52 |
| 373 | 0.79 | 0.36 | 0.50 | 150 |
| 374 | 0.33 | 0.13 | 0.19 | 93 |
| 375 | 0.14 | 0.03 | 0.05 | 67 |
| 376 | 0.00 | 0.00 | 0.00 | 76 |
| 377 | 0.73 | 0.18 | 0.29 | 106 |
| 378 | 0.27 | 0.03 | 0.06 | 86 |
| 379 | 0.33 | 0.07 | 0.12 | 14 |
| 380 | 1.00 | 0.40 | 0.57 | 122 |
| 381 | 0.19 | 0.03 | 0.05 | 104 |
| 382 | 0.28 | 0.08 | 0.12 | 66 |
| 383 | 0.50 | 0.28 | 0.36 | 110 |
| 384 | 0.00 | 0.00 | 0.00 | 155 |
| 385 | 0.36 | 0.08 | 0.13 | 50 |
| 386 | 0.25 | 0.11 | 0.15 | 64 |
| 387 | 0.36 | 0.05 | 0.09 | 93 |
| 388 | 0.59 | 0.28 | 0.38 | 102 |
| 389 | 0.07 | 0.01 | 0.02 | 108 |
| 390 | 0.96 | 0.65 | 0.78 | 178 |
| 391 | 0.62 | 0.17 | 0.27 | 115 |
| 392 | 0.78 | 0.43 | 0.55 | 42 |
| 393 | 0.00 | 0.00 | 0.00 | 134 |
| 394 | 0.50 | 0.02 | 0.03 | 112 |
| 395 | 0.38 | 0.11 | 0.17 | 176 |
| 396 | 0.48 | 0.10 | 0.16 | 125 |
| 397 | 0.73 | 0.21 | 0.33 | 224 |
| 398 | 0.90 | 0.56 | 0.69 | 63 |
| 399 | 0.00 | 0.00 | 0.00 | 59 |
| 400 | 0.47 | 0.30 | 0.37 | 63 |
| 401 | 0.46 | 0.17 | 0.25 | 98 |
| 402 | 0.57 | 0.17 | 0.26 | 162 |
| 403 | 0.41 | 0.14 | 0.21 | 83 |
| 404 | 0.73 | 0.84 | 0.78 | 19 |
| 405 | 0.30 | 0.07 | 0.11 | 92 |
| 406 | 0.83 | 0.12 | 0.21 | 41 |
| 407 | 0.64 | 0.33 | 0.43 | 43 |
| 408 | 0.82 | 0.34 | 0.48 | 160 |
| 409 | 0.14 | 0.08 | 0.10 | 50 |
| 410 | 0.00 | 0.00 | 0.00 | 19 |
| 411 | 0.37 | 0.10 | 0.15 | 175 |
| 412 | 0.33 | 0.06 | 0.10 | 72 |
| 413 | 0.56 | 0.05 | 0.10 | 95 |
| 414 | 0.19 | 0.03 | 0.05 | 97 |
| 415 | 0.33 | 0.17 | 0.22 | 48 |
| 416 | 0.45 | 0.30 | 0.36 | 83 |
| 417 | 0.50 | 0.07 | 0.13 | 40 |
| 418 | 0.33 | 0.07 | 0.11 | 91 |
| 419 | 0.51 | 0.30 | 0.38 | 90 |
| 420 | 0.29 | 0.22 | 0.25 | 37 |
| 421 | 0.00 | 0.00 | 0.00 | 66 |
| 422 | 0.61 | 0.34 | 0.44 | 73 |
| 423 | 0.48 | 0.25 | 0.33 | 56 |
| 424 | 0.93 | 0.82 | 0.87 | 33 |
| 425 | 0.00 | 0.00 | 0.00 | 76 |
| 426 | 0.25 | 0.05 | 0.08 | 81 |
| 427 | 0.99 | 0.67 | 0.80 | 150 |
| 428 | 0.95 | 0.66 | 0.78 | 29 |
| 429 | 0.99 | 0.70 | 0.82 | 389 |
| 430 | 0.63 | 0.35 | 0.45 | 167 |
| 431 | 0.48 | 0.08 | 0.14 | 123 |
| 432 | 0.43 | 0.33 | 0.38 | 39 |
| 433 | 0.30 | 0.16 | 0.21 | 82 |
| 434 | 1.00 | 0.64 | 0.78 | 66 |
| 435 | 0.66 | 0.45 | 0.54 | 93 |
| 436 | 0.51 | 0.25 | 0.34 | 87 |
| 437 | 0.22 | 0.05 | 0.08 | 86 |
| 438 | 0.74 | 0.47 | 0.58 | 104 |
| 439 | 0.62 | 0.13 | 0.21 | 100 |
| 440 | 0.20 | 0.01 | 0.01 | 141 |
| 441 | 0.43 | 0.24 | 0.31 | 110 |
| 442 | 0.37 | 0.13 | 0.19 | 123 |

| | | | | |
|-----|------|------|------|-----|
| 443 | 0.47 | 0.11 | 0.18 | 71 |
| 444 | 0.39 | 0.06 | 0.11 | 109 |
| 445 | 0.39 | 0.19 | 0.25 | 48 |
| 446 | 0.43 | 0.25 | 0.32 | 76 |
| 447 | 0.28 | 0.13 | 0.18 | 38 |
| 448 | 0.68 | 0.52 | 0.59 | 81 |
| 449 | 0.53 | 0.14 | 0.23 | 132 |
| 450 | 0.47 | 0.28 | 0.35 | 81 |
| 451 | 0.88 | 0.29 | 0.44 | 76 |
| 452 | 0.00 | 0.00 | 0.00 | 44 |
| 453 | 0.00 | 0.00 | 0.00 | 44 |
| 454 | 0.94 | 0.43 | 0.59 | 70 |
| 455 | 0.30 | 0.04 | 0.07 | 155 |
| 456 | 0.47 | 0.16 | 0.24 | 43 |
| 457 | 0.48 | 0.19 | 0.28 | 72 |
| 458 | 0.31 | 0.08 | 0.13 | 62 |
| 459 | 0.71 | 0.14 | 0.24 | 69 |
| 460 | 0.08 | 0.01 | 0.02 | 119 |
| 461 | 0.79 | 0.14 | 0.24 | 79 |
| 462 | 0.69 | 0.23 | 0.35 | 47 |
| 463 | 0.20 | 0.04 | 0.06 | 104 |
| 464 | 0.66 | 0.33 | 0.44 | 106 |
| 465 | 0.50 | 0.11 | 0.18 | 64 |
| 466 | 0.56 | 0.28 | 0.37 | 173 |
| 467 | 0.81 | 0.36 | 0.50 | 107 |
| 468 | 0.82 | 0.11 | 0.20 | 126 |
| 469 | 0.00 | 0.00 | 0.00 | 114 |
| 470 | 0.94 | 0.79 | 0.86 | 140 |
| 471 | 0.92 | 0.28 | 0.43 | 79 |
| 472 | 0.41 | 0.30 | 0.35 | 143 |
| 473 | 0.69 | 0.30 | 0.42 | 158 |
| 474 | 0.36 | 0.07 | 0.11 | 138 |
| 475 | 0.00 | 0.00 | 0.00 | 59 |
| 476 | 0.57 | 0.30 | 0.39 | 88 |
| 477 | 0.86 | 0.56 | 0.68 | 176 |
| 478 | 0.94 | 0.71 | 0.81 | 24 |
| 479 | 0.09 | 0.01 | 0.02 | 92 |
| 480 | 0.82 | 0.50 | 0.62 | 100 |
| 481 | 0.47 | 0.17 | 0.26 | 103 |
| 482 | 0.47 | 0.23 | 0.31 | 74 |
| 483 | 0.85 | 0.57 | 0.68 | 105 |
| 484 | 0.25 | 0.02 | 0.04 | 83 |
| 485 | 0.17 | 0.01 | 0.02 | 82 |
| 486 | 0.36 | 0.11 | 0.17 | 71 |
| 487 | 0.43 | 0.18 | 0.26 | 120 |
| 488 | 0.33 | 0.02 | 0.04 | 105 |
| 489 | 0.72 | 0.30 | 0.42 | 87 |
| 490 | 1.00 | 0.81 | 0.90 | 32 |
| 491 | 0.00 | 0.00 | 0.00 | 69 |
| 492 | 0.00 | 0.00 | 0.00 | 49 |
| 493 | 0.00 | 0.00 | 0.00 | 117 |
| 494 | 0.52 | 0.18 | 0.27 | 61 |
| 495 | 0.98 | 0.65 | 0.78 | 344 |
| 496 | 0.36 | 0.19 | 0.25 | 52 |
| 497 | 0.60 | 0.18 | 0.28 | 137 |
| 498 | 0.33 | 0.04 | 0.07 | 98 |
| 499 | 0.65 | 0.16 | 0.26 | 79 |

avg / total 0.67 0.33 0.43 173812

Time taken to run this cell : 0:10:14.264591

In [0]:

```
joblib.dump(classifier, 'lr_with_more_title_weight.pkl')
```

Out[0]:

```
['lr_with_more_title_weight.pkl']
```

In [0]:

```
start = datetime.now()
classifier_2 = OneVsRestClassifier(LogisticRegression(penalty='l1'), n_jobs=-1)
classifier_2.fit(x_train_multilabel, y_train)
```



```

predictions_2 = classifier_2.predict(x_test_multilabel)
print("Accuracy :",metrics.accuracy_score(y_test, predictions_2))
print("Hamming loss ",metrics.hamming_loss(y_test,predictions_2))

precision = precision_score(y_test, predictions_2, average='micro')
recall = recall_score(y_test, predictions_2, average='micro')
f1 = f1_score(y_test, predictions_2, average='micro')

print("Micro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

precision = precision_score(y_test, predictions_2, average='macro')
recall = recall_score(y_test, predictions_2, average='macro')
f1 = f1_score(y_test, predictions_2, average='macro')

print("Macro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

print (metrics.classification_report(y_test, predictions_2))
print("Time taken to run this cell :", datetime.now() - start)

```

```

Accuracy : 0.25108
Hamming loss 0.00270302
Micro-average quality numbers
Precision: 0.7172, Recall: 0.3672, F1-measure: 0.4858
Macro-average quality numbers
Precision: 0.5570, Recall: 0.2950, F1-measure: 0.3710

```

| | precision | recall | f1-score | support |
|----|-----------|--------|----------|---------|
| 0 | 0.94 | 0.72 | 0.82 | 5519 |
| 1 | 0.70 | 0.34 | 0.45 | 8190 |
| 2 | 0.80 | 0.42 | 0.55 | 6529 |
| 3 | 0.82 | 0.49 | 0.61 | 3231 |
| 4 | 0.80 | 0.44 | 0.57 | 6430 |
| 5 | 0.82 | 0.38 | 0.52 | 2879 |
| 6 | 0.86 | 0.53 | 0.66 | 5086 |
| 7 | 0.87 | 0.58 | 0.70 | 4533 |
| 8 | 0.60 | 0.13 | 0.22 | 3000 |
| 9 | 0.82 | 0.57 | 0.67 | 2765 |
| 10 | 0.60 | 0.20 | 0.30 | 3051 |
| 11 | 0.68 | 0.38 | 0.49 | 3009 |
| 12 | 0.62 | 0.29 | 0.40 | 2630 |
| 13 | 0.73 | 0.30 | 0.43 | 1426 |
| 14 | 0.89 | 0.57 | 0.70 | 2548 |
| 15 | 0.65 | 0.23 | 0.34 | 2371 |
| 16 | 0.65 | 0.25 | 0.37 | 873 |
| 17 | 0.89 | 0.63 | 0.74 | 2151 |
| 18 | 0.60 | 0.25 | 0.35 | 2204 |
| 19 | 0.71 | 0.41 | 0.52 | 831 |
| 20 | 0.76 | 0.47 | 0.58 | 1860 |
| 21 | 0.29 | 0.09 | 0.14 | 2023 |
| 22 | 0.52 | 0.24 | 0.33 | 1513 |
| 23 | 0.89 | 0.55 | 0.68 | 1207 |
| 24 | 0.56 | 0.28 | 0.38 | 506 |
| 25 | 0.69 | 0.34 | 0.45 | 425 |
| 26 | 0.65 | 0.43 | 0.52 | 793 |
| 27 | 0.62 | 0.38 | 0.47 | 1291 |
| 28 | 0.74 | 0.39 | 0.51 | 1208 |
| 29 | 0.46 | 0.10 | 0.17 | 406 |
| 30 | 0.76 | 0.21 | 0.33 | 504 |
| 31 | 0.26 | 0.08 | 0.12 | 732 |
| 32 | 0.60 | 0.29 | 0.39 | 441 |
| 33 | 0.60 | 0.27 | 0.38 | 1645 |
| 34 | 0.69 | 0.26 | 0.38 | 1058 |
| 35 | 0.83 | 0.58 | 0.68 | 946 |
| 36 | 0.65 | 0.24 | 0.35 | 644 |
| 37 | 0.98 | 0.65 | 0.78 | 136 |
| 38 | 0.62 | 0.38 | 0.47 | 570 |
| 39 | 0.84 | 0.31 | 0.45 | 766 |
| 40 | 0.59 | 0.35 | 0.44 | 1132 |
| 41 | 0.47 | 0.18 | 0.26 | 174 |
| 42 | 0.76 | 0.49 | 0.59 | 210 |
| 43 | 0.75 | 0.42 | 0.54 | 433 |
| 44 | 0.66 | 0.52 | 0.58 | 626 |
| 45 | 0.71 | 0.36 | 0.47 | 852 |

| | | | | |
|-----|------|------|------|-----|
| 46 | 0.77 | 0.45 | 0.57 | 534 |
| 47 | 0.37 | 0.15 | 0.22 | 350 |
| 48 | 0.75 | 0.52 | 0.62 | 496 |
| 49 | 0.78 | 0.64 | 0.71 | 785 |
| 50 | 0.21 | 0.06 | 0.09 | 475 |
| 51 | 0.37 | 0.13 | 0.19 | 305 |
| 52 | 0.42 | 0.03 | 0.06 | 251 |
| 53 | 0.66 | 0.40 | 0.50 | 914 |
| 54 | 0.49 | 0.17 | 0.26 | 728 |
| 55 | 0.47 | 0.03 | 0.05 | 258 |
| 56 | 0.45 | 0.24 | 0.31 | 821 |
| 57 | 0.46 | 0.10 | 0.17 | 541 |
| 58 | 0.76 | 0.31 | 0.45 | 748 |
| 59 | 0.94 | 0.66 | 0.77 | 724 |
| 60 | 0.35 | 0.10 | 0.15 | 660 |
| 61 | 0.78 | 0.20 | 0.31 | 235 |
| 62 | 0.92 | 0.74 | 0.82 | 718 |
| 63 | 0.83 | 0.69 | 0.75 | 468 |
| 64 | 0.55 | 0.36 | 0.43 | 191 |
| 65 | 0.33 | 0.11 | 0.17 | 429 |
| 66 | 0.29 | 0.06 | 0.10 | 415 |
| 67 | 0.74 | 0.50 | 0.59 | 274 |
| 68 | 0.82 | 0.53 | 0.64 | 510 |
| 69 | 0.67 | 0.45 | 0.54 | 466 |
| 70 | 0.30 | 0.09 | 0.13 | 305 |
| 71 | 0.49 | 0.17 | 0.25 | 247 |
| 72 | 0.78 | 0.53 | 0.64 | 401 |
| 73 | 0.99 | 0.77 | 0.86 | 86 |
| 74 | 0.72 | 0.42 | 0.53 | 120 |
| 75 | 0.92 | 0.67 | 0.78 | 129 |
| 76 | 0.47 | 0.02 | 0.04 | 473 |
| 77 | 0.40 | 0.29 | 0.33 | 143 |
| 78 | 0.79 | 0.49 | 0.60 | 347 |
| 79 | 0.69 | 0.25 | 0.36 | 479 |
| 80 | 0.56 | 0.34 | 0.43 | 279 |
| 81 | 0.70 | 0.23 | 0.34 | 461 |
| 82 | 0.34 | 0.04 | 0.07 | 298 |
| 83 | 0.78 | 0.50 | 0.61 | 396 |
| 84 | 0.55 | 0.29 | 0.38 | 184 |
| 85 | 0.61 | 0.24 | 0.35 | 573 |
| 86 | 0.50 | 0.07 | 0.12 | 325 |
| 87 | 0.51 | 0.29 | 0.37 | 273 |
| 88 | 0.49 | 0.21 | 0.30 | 135 |
| 89 | 0.36 | 0.11 | 0.17 | 232 |
| 90 | 0.56 | 0.34 | 0.43 | 409 |
| 91 | 0.61 | 0.27 | 0.37 | 420 |
| 92 | 0.78 | 0.57 | 0.66 | 408 |
| 93 | 0.66 | 0.44 | 0.53 | 241 |
| 94 | 0.30 | 0.04 | 0.07 | 211 |
| 95 | 0.37 | 0.10 | 0.15 | 277 |
| 96 | 0.28 | 0.04 | 0.07 | 410 |
| 97 | 0.86 | 0.43 | 0.57 | 501 |
| 98 | 0.75 | 0.63 | 0.69 | 136 |
| 99 | 0.54 | 0.34 | 0.42 | 239 |
| 100 | 0.57 | 0.15 | 0.24 | 324 |
| 101 | 0.91 | 0.68 | 0.78 | 277 |
| 102 | 0.91 | 0.75 | 0.82 | 613 |
| 103 | 0.47 | 0.17 | 0.25 | 157 |
| 104 | 0.22 | 0.06 | 0.10 | 295 |
| 105 | 0.75 | 0.43 | 0.55 | 334 |
| 106 | 0.88 | 0.28 | 0.43 | 335 |
| 107 | 0.75 | 0.54 | 0.63 | 389 |
| 108 | 0.58 | 0.27 | 0.37 | 251 |
| 109 | 0.58 | 0.45 | 0.51 | 317 |
| 110 | 0.68 | 0.10 | 0.18 | 187 |
| 111 | 0.73 | 0.11 | 0.20 | 140 |
| 112 | 0.67 | 0.43 | 0.52 | 154 |
| 113 | 0.58 | 0.20 | 0.29 | 332 |
| 114 | 0.46 | 0.27 | 0.34 | 323 |
| 115 | 0.47 | 0.26 | 0.33 | 344 |
| 116 | 0.75 | 0.55 | 0.63 | 370 |
| 117 | 0.58 | 0.24 | 0.34 | 313 |
| 118 | 0.78 | 0.73 | 0.75 | 874 |
| 119 | 0.45 | 0.21 | 0.29 | 293 |
| 120 | 0.11 | 0.01 | 0.01 | 200 |
| 121 | 0.77 | 0.51 | 0.61 | 463 |
| 122 | 0.32 | 0.10 | 0.15 | 119 |

| | | | | |
|-----|------|------|------|-----|
| 123 | 0.67 | 0.02 | 0.03 | 256 |
| 124 | 0.91 | 0.70 | 0.79 | 195 |
| 125 | 0.44 | 0.14 | 0.21 | 138 |
| 126 | 0.81 | 0.53 | 0.64 | 376 |
| 127 | 0.27 | 0.03 | 0.06 | 122 |
| 128 | 0.20 | 0.04 | 0.07 | 252 |
| 129 | 0.48 | 0.22 | 0.30 | 144 |
| 130 | 0.42 | 0.11 | 0.18 | 150 |
| 131 | 0.33 | 0.03 | 0.06 | 210 |
| 132 | 0.65 | 0.28 | 0.39 | 361 |
| 133 | 0.92 | 0.59 | 0.72 | 453 |
| 134 | 0.89 | 0.77 | 0.82 | 124 |
| 135 | 0.31 | 0.05 | 0.09 | 91 |
| 136 | 0.69 | 0.28 | 0.40 | 128 |
| 137 | 0.55 | 0.38 | 0.45 | 218 |
| 138 | 0.67 | 0.18 | 0.28 | 243 |
| 139 | 0.45 | 0.18 | 0.26 | 149 |
| 140 | 0.77 | 0.46 | 0.58 | 318 |
| 141 | 0.32 | 0.10 | 0.15 | 159 |
| 142 | 0.63 | 0.38 | 0.47 | 274 |
| 143 | 0.85 | 0.79 | 0.82 | 362 |
| 144 | 0.54 | 0.21 | 0.30 | 118 |
| 145 | 0.63 | 0.39 | 0.48 | 164 |
| 146 | 0.54 | 0.31 | 0.39 | 461 |
| 147 | 0.68 | 0.45 | 0.54 | 159 |
| 148 | 0.30 | 0.12 | 0.17 | 166 |
| 149 | 0.97 | 0.55 | 0.70 | 346 |
| 150 | 0.64 | 0.13 | 0.21 | 350 |
| 151 | 0.93 | 0.67 | 0.78 | 55 |
| 152 | 0.78 | 0.52 | 0.63 | 387 |
| 153 | 0.51 | 0.17 | 0.25 | 150 |
| 154 | 0.58 | 0.12 | 0.21 | 281 |
| 155 | 0.25 | 0.06 | 0.10 | 202 |
| 156 | 0.81 | 0.67 | 0.73 | 130 |
| 157 | 0.28 | 0.06 | 0.10 | 245 |
| 158 | 0.93 | 0.63 | 0.75 | 177 |
| 159 | 0.53 | 0.34 | 0.41 | 130 |
| 160 | 0.48 | 0.18 | 0.26 | 336 |
| 161 | 0.90 | 0.65 | 0.75 | 220 |
| 162 | 0.28 | 0.06 | 0.09 | 229 |
| 163 | 0.87 | 0.44 | 0.58 | 316 |
| 164 | 0.78 | 0.44 | 0.56 | 283 |
| 165 | 0.60 | 0.34 | 0.44 | 197 |
| 166 | 0.65 | 0.43 | 0.51 | 101 |
| 167 | 0.45 | 0.18 | 0.26 | 231 |
| 168 | 0.56 | 0.27 | 0.36 | 370 |
| 169 | 0.40 | 0.21 | 0.27 | 258 |
| 170 | 0.36 | 0.08 | 0.13 | 101 |
| 171 | 0.38 | 0.24 | 0.29 | 89 |
| 172 | 0.53 | 0.36 | 0.43 | 193 |
| 173 | 0.47 | 0.26 | 0.33 | 309 |
| 174 | 0.62 | 0.14 | 0.23 | 172 |
| 175 | 0.92 | 0.73 | 0.81 | 95 |
| 176 | 0.93 | 0.62 | 0.74 | 346 |
| 177 | 0.86 | 0.57 | 0.69 | 322 |
| 178 | 0.65 | 0.51 | 0.57 | 232 |
| 179 | 0.20 | 0.04 | 0.07 | 125 |
| 180 | 0.65 | 0.33 | 0.44 | 145 |
| 181 | 0.44 | 0.10 | 0.17 | 77 |
| 182 | 0.26 | 0.06 | 0.10 | 182 |
| 183 | 0.60 | 0.32 | 0.41 | 257 |
| 184 | 0.21 | 0.03 | 0.05 | 216 |
| 185 | 0.35 | 0.09 | 0.14 | 242 |
| 186 | 0.43 | 0.18 | 0.25 | 165 |
| 187 | 0.75 | 0.59 | 0.66 | 263 |
| 188 | 0.39 | 0.12 | 0.18 | 174 |
| 189 | 0.75 | 0.40 | 0.53 | 136 |
| 190 | 0.89 | 0.55 | 0.68 | 202 |
| 191 | 0.44 | 0.16 | 0.24 | 134 |
| 192 | 0.68 | 0.40 | 0.51 | 230 |
| 193 | 0.44 | 0.18 | 0.25 | 90 |
| 194 | 0.57 | 0.48 | 0.52 | 185 |
| 195 | 0.26 | 0.05 | 0.09 | 156 |
| 196 | 0.33 | 0.07 | 0.11 | 160 |
| 197 | 0.49 | 0.10 | 0.16 | 266 |
| 198 | 0.47 | 0.13 | 0.20 | 284 |
| 199 | 0.32 | 0.04 | 0.07 | 145 |

| | | | | |
|-----|------|------|------|-----|
| 200 | 0.93 | 0.74 | 0.82 | 212 |
| 201 | 0.65 | 0.26 | 0.37 | 317 |
| 202 | 0.78 | 0.59 | 0.67 | 427 |
| 203 | 0.36 | 0.11 | 0.17 | 232 |
| 204 | 0.51 | 0.29 | 0.37 | 217 |
| 205 | 0.50 | 0.46 | 0.48 | 527 |
| 206 | 0.24 | 0.03 | 0.06 | 124 |
| 207 | 0.50 | 0.17 | 0.26 | 103 |
| 208 | 0.85 | 0.53 | 0.65 | 287 |
| 209 | 0.33 | 0.11 | 0.16 | 193 |
| 210 | 0.75 | 0.38 | 0.50 | 220 |
| 211 | 0.72 | 0.21 | 0.32 | 140 |
| 212 | 0.12 | 0.02 | 0.03 | 161 |
| 213 | 0.63 | 0.43 | 0.51 | 72 |
| 214 | 0.64 | 0.45 | 0.53 | 396 |
| 215 | 0.87 | 0.34 | 0.49 | 134 |
| 216 | 0.61 | 0.17 | 0.27 | 400 |
| 217 | 0.51 | 0.24 | 0.33 | 75 |
| 218 | 0.96 | 0.76 | 0.85 | 219 |
| 219 | 0.77 | 0.42 | 0.54 | 210 |
| 220 | 0.88 | 0.64 | 0.74 | 298 |
| 221 | 0.96 | 0.70 | 0.81 | 266 |
| 222 | 0.76 | 0.45 | 0.57 | 290 |
| 223 | 0.11 | 0.01 | 0.01 | 128 |
| 224 | 0.78 | 0.45 | 0.57 | 159 |
| 225 | 0.55 | 0.29 | 0.38 | 164 |
| 226 | 0.58 | 0.31 | 0.41 | 144 |
| 227 | 0.56 | 0.29 | 0.38 | 276 |
| 228 | 0.19 | 0.03 | 0.05 | 235 |
| 229 | 0.33 | 0.03 | 0.06 | 216 |
| 230 | 0.40 | 0.17 | 0.23 | 228 |
| 231 | 0.70 | 0.48 | 0.57 | 64 |
| 232 | 0.48 | 0.10 | 0.16 | 103 |
| 233 | 0.72 | 0.35 | 0.47 | 216 |
| 234 | 0.72 | 0.11 | 0.19 | 116 |
| 235 | 0.54 | 0.36 | 0.43 | 77 |
| 236 | 0.90 | 0.67 | 0.77 | 67 |
| 237 | 0.57 | 0.12 | 0.20 | 218 |
| 238 | 0.40 | 0.14 | 0.20 | 139 |
| 239 | 0.00 | 0.00 | 0.00 | 94 |
| 240 | 0.54 | 0.34 | 0.42 | 77 |
| 241 | 0.47 | 0.08 | 0.14 | 167 |
| 242 | 0.78 | 0.37 | 0.50 | 86 |
| 243 | 0.40 | 0.10 | 0.16 | 58 |
| 244 | 0.62 | 0.27 | 0.38 | 269 |
| 245 | 0.16 | 0.04 | 0.07 | 112 |
| 246 | 0.95 | 0.76 | 0.84 | 255 |
| 247 | 0.44 | 0.24 | 0.31 | 58 |
| 248 | 0.44 | 0.05 | 0.09 | 81 |
| 249 | 0.23 | 0.02 | 0.04 | 131 |
| 250 | 0.43 | 0.24 | 0.31 | 93 |
| 251 | 0.61 | 0.29 | 0.39 | 154 |
| 252 | 0.36 | 0.04 | 0.07 | 129 |
| 253 | 0.69 | 0.40 | 0.50 | 83 |
| 254 | 0.34 | 0.08 | 0.13 | 191 |
| 255 | 0.15 | 0.03 | 0.05 | 219 |
| 256 | 0.32 | 0.05 | 0.09 | 130 |
| 257 | 0.48 | 0.26 | 0.34 | 93 |
| 258 | 0.65 | 0.48 | 0.55 | 217 |
| 259 | 0.41 | 0.13 | 0.20 | 141 |
| 260 | 0.86 | 0.17 | 0.29 | 143 |
| 261 | 0.62 | 0.17 | 0.27 | 219 |
| 262 | 0.55 | 0.27 | 0.36 | 107 |
| 263 | 0.41 | 0.27 | 0.32 | 236 |
| 264 | 0.33 | 0.22 | 0.26 | 119 |
| 265 | 0.57 | 0.24 | 0.33 | 72 |
| 266 | 0.00 | 0.00 | 0.00 | 70 |
| 267 | 0.36 | 0.14 | 0.20 | 107 |
| 268 | 0.67 | 0.44 | 0.53 | 169 |
| 269 | 0.32 | 0.14 | 0.19 | 129 |
| 270 | 0.74 | 0.53 | 0.62 | 159 |
| 271 | 0.88 | 0.48 | 0.62 | 190 |
| 272 | 0.61 | 0.27 | 0.37 | 248 |
| 273 | 0.90 | 0.75 | 0.82 | 264 |
| 274 | 0.90 | 0.68 | 0.77 | 105 |
| 275 | 0.52 | 0.12 | 0.20 | 104 |
| 276 | 0.08 | 0.01 | 0.02 | 115 |

| | | | | |
|-----|------|------|------|-----|
| 277 | 0.83 | 0.63 | 0.72 | 170 |
| 278 | 0.74 | 0.41 | 0.52 | 145 |
| 279 | 0.90 | 0.70 | 0.78 | 230 |
| 280 | 0.58 | 0.42 | 0.49 | 80 |
| 281 | 0.66 | 0.54 | 0.59 | 217 |
| 282 | 0.75 | 0.50 | 0.60 | 175 |
| 283 | 0.33 | 0.13 | 0.18 | 269 |
| 284 | 0.65 | 0.32 | 0.43 | 74 |
| 285 | 0.82 | 0.49 | 0.61 | 206 |
| 286 | 0.89 | 0.66 | 0.75 | 227 |
| 287 | 0.84 | 0.41 | 0.55 | 130 |
| 288 | 0.32 | 0.07 | 0.11 | 129 |
| 289 | 0.57 | 0.05 | 0.09 | 80 |
| 290 | 0.21 | 0.09 | 0.13 | 99 |
| 291 | 0.76 | 0.35 | 0.48 | 208 |
| 292 | 0.42 | 0.07 | 0.13 | 67 |
| 293 | 0.84 | 0.48 | 0.61 | 109 |
| 294 | 0.46 | 0.26 | 0.34 | 140 |
| 295 | 0.24 | 0.12 | 0.16 | 241 |
| 296 | 0.31 | 0.12 | 0.18 | 72 |
| 297 | 0.44 | 0.11 | 0.18 | 107 |
| 298 | 0.77 | 0.49 | 0.60 | 61 |
| 299 | 0.89 | 0.51 | 0.64 | 77 |
| 300 | 0.21 | 0.08 | 0.12 | 111 |
| 301 | 0.00 | 0.00 | 0.00 | 126 |
| 302 | 0.25 | 0.01 | 0.03 | 73 |
| 303 | 0.57 | 0.43 | 0.49 | 176 |
| 304 | 0.91 | 0.79 | 0.85 | 230 |
| 305 | 0.92 | 0.72 | 0.81 | 156 |
| 306 | 0.50 | 0.37 | 0.43 | 146 |
| 307 | 0.34 | 0.11 | 0.17 | 98 |
| 308 | 0.00 | 0.00 | 0.00 | 78 |
| 309 | 0.80 | 0.13 | 0.22 | 94 |
| 310 | 0.74 | 0.41 | 0.53 | 162 |
| 311 | 0.79 | 0.51 | 0.62 | 116 |
| 312 | 0.52 | 0.28 | 0.36 | 57 |
| 313 | 0.83 | 0.08 | 0.14 | 65 |
| 314 | 0.52 | 0.36 | 0.42 | 138 |
| 315 | 0.54 | 0.22 | 0.31 | 195 |
| 316 | 0.56 | 0.35 | 0.43 | 69 |
| 317 | 0.29 | 0.13 | 0.18 | 134 |
| 318 | 0.56 | 0.39 | 0.46 | 148 |
| 319 | 0.84 | 0.50 | 0.63 | 161 |
| 320 | 0.24 | 0.19 | 0.21 | 104 |
| 321 | 0.82 | 0.61 | 0.70 | 156 |
| 322 | 0.60 | 0.37 | 0.46 | 134 |
| 323 | 0.58 | 0.44 | 0.50 | 232 |
| 324 | 0.34 | 0.15 | 0.21 | 92 |
| 325 | 0.41 | 0.24 | 0.31 | 197 |
| 326 | 0.14 | 0.03 | 0.05 | 126 |
| 327 | 0.20 | 0.03 | 0.05 | 115 |
| 328 | 0.99 | 0.70 | 0.82 | 198 |
| 329 | 0.59 | 0.32 | 0.41 | 125 |
| 330 | 0.73 | 0.20 | 0.31 | 81 |
| 331 | 0.45 | 0.10 | 0.16 | 94 |
| 332 | 0.54 | 0.12 | 0.20 | 56 |
| 333 | 0.19 | 0.05 | 0.08 | 260 |
| 334 | 0.42 | 0.13 | 0.20 | 60 |
| 335 | 0.35 | 0.08 | 0.13 | 110 |
| 336 | 0.62 | 0.49 | 0.55 | 71 |
| 337 | 0.18 | 0.05 | 0.07 | 66 |
| 338 | 0.47 | 0.36 | 0.41 | 150 |
| 339 | 0.00 | 0.00 | 0.00 | 54 |
| 340 | 0.84 | 0.57 | 0.68 | 195 |
| 341 | 0.91 | 0.52 | 0.66 | 79 |
| 342 | 0.38 | 0.26 | 0.31 | 38 |
| 343 | 0.62 | 0.42 | 0.50 | 43 |
| 344 | 0.56 | 0.29 | 0.38 | 68 |
| 345 | 0.62 | 0.33 | 0.43 | 73 |
| 346 | 0.14 | 0.03 | 0.04 | 116 |
| 347 | 0.86 | 0.43 | 0.57 | 111 |
| 348 | 0.33 | 0.11 | 0.17 | 63 |
| 349 | 0.84 | 0.65 | 0.74 | 104 |
| 350 | 0.62 | 0.48 | 0.54 | 44 |
| 351 | 0.57 | 0.30 | 0.39 | 40 |
| 352 | 0.93 | 0.57 | 0.70 | 136 |
| 353 | 0.38 | 0.15 | 0.21 | 54 |

| | | | | |
|-----|------|------|------|-----|
| 354 | 0.39 | 0.09 | 0.15 | 134 |
| 355 | 0.64 | 0.35 | 0.45 | 120 |
| 356 | 0.54 | 0.29 | 0.38 | 228 |
| 357 | 0.66 | 0.36 | 0.47 | 269 |
| 358 | 0.62 | 0.38 | 0.47 | 80 |
| 359 | 0.84 | 0.59 | 0.69 | 140 |
| 360 | 0.39 | 0.18 | 0.24 | 125 |
| 361 | 0.90 | 0.71 | 0.79 | 169 |
| 362 | 0.14 | 0.05 | 0.08 | 56 |
| 363 | 0.92 | 0.73 | 0.82 | 154 |
| 364 | 0.46 | 0.10 | 0.17 | 58 |
| 365 | 0.22 | 0.08 | 0.12 | 71 |
| 366 | 1.00 | 0.69 | 0.81 | 54 |
| 367 | 0.30 | 0.07 | 0.11 | 116 |
| 368 | 0.38 | 0.06 | 0.10 | 54 |
| 369 | 0.33 | 0.03 | 0.05 | 71 |
| 370 | 0.00 | 0.00 | 0.00 | 61 |
| 371 | 0.40 | 0.08 | 0.14 | 71 |
| 372 | 0.72 | 0.44 | 0.55 | 52 |
| 373 | 0.78 | 0.41 | 0.54 | 150 |
| 374 | 0.41 | 0.14 | 0.21 | 93 |
| 375 | 0.20 | 0.04 | 0.07 | 67 |
| 376 | 0.00 | 0.00 | 0.00 | 76 |
| 377 | 0.58 | 0.28 | 0.38 | 106 |
| 378 | 0.25 | 0.02 | 0.04 | 86 |
| 379 | 0.50 | 0.14 | 0.22 | 14 |
| 380 | 0.93 | 0.52 | 0.67 | 122 |
| 381 | 0.23 | 0.07 | 0.10 | 104 |
| 382 | 0.46 | 0.20 | 0.28 | 66 |
| 383 | 0.54 | 0.35 | 0.42 | 110 |
| 384 | 0.14 | 0.01 | 0.01 | 155 |
| 385 | 0.69 | 0.22 | 0.33 | 50 |
| 386 | 0.20 | 0.06 | 0.10 | 64 |
| 387 | 0.32 | 0.08 | 0.12 | 93 |
| 388 | 0.53 | 0.24 | 0.33 | 102 |
| 389 | 0.07 | 0.01 | 0.02 | 108 |
| 390 | 0.96 | 0.68 | 0.80 | 178 |
| 391 | 0.49 | 0.17 | 0.26 | 115 |
| 392 | 0.81 | 0.40 | 0.54 | 42 |
| 393 | 0.00 | 0.00 | 0.00 | 134 |
| 394 | 0.22 | 0.04 | 0.06 | 112 |
| 395 | 0.54 | 0.27 | 0.36 | 176 |
| 396 | 0.47 | 0.13 | 0.20 | 125 |
| 397 | 0.74 | 0.37 | 0.49 | 224 |
| 398 | 0.84 | 0.67 | 0.74 | 63 |
| 399 | 0.30 | 0.05 | 0.09 | 59 |
| 400 | 0.51 | 0.32 | 0.39 | 63 |
| 401 | 0.49 | 0.23 | 0.32 | 98 |
| 402 | 0.51 | 0.19 | 0.27 | 162 |
| 403 | 0.38 | 0.14 | 0.21 | 83 |
| 404 | 0.76 | 0.84 | 0.80 | 19 |
| 405 | 0.34 | 0.11 | 0.17 | 92 |
| 406 | 0.69 | 0.22 | 0.33 | 41 |
| 407 | 0.64 | 0.37 | 0.47 | 43 |
| 408 | 0.80 | 0.46 | 0.58 | 160 |
| 409 | 0.20 | 0.12 | 0.15 | 50 |
| 410 | 0.00 | 0.00 | 0.00 | 19 |
| 411 | 0.35 | 0.11 | 0.17 | 175 |
| 412 | 0.28 | 0.07 | 0.11 | 72 |
| 413 | 0.38 | 0.05 | 0.09 | 95 |
| 414 | 0.12 | 0.02 | 0.04 | 97 |
| 415 | 0.33 | 0.10 | 0.16 | 48 |
| 416 | 0.53 | 0.35 | 0.42 | 83 |
| 417 | 0.43 | 0.07 | 0.13 | 40 |
| 418 | 0.48 | 0.16 | 0.25 | 91 |
| 419 | 0.53 | 0.37 | 0.43 | 90 |
| 420 | 0.38 | 0.27 | 0.32 | 37 |
| 421 | 0.04 | 0.02 | 0.02 | 66 |
| 422 | 0.69 | 0.45 | 0.55 | 73 |
| 423 | 0.48 | 0.25 | 0.33 | 56 |
| 424 | 0.94 | 0.88 | 0.91 | 33 |
| 425 | 0.00 | 0.00 | 0.00 | 76 |
| 426 | 0.27 | 0.05 | 0.08 | 81 |
| 427 | 0.98 | 0.73 | 0.84 | 150 |
| 428 | 0.95 | 0.69 | 0.80 | 29 |
| 429 | 0.99 | 0.93 | 0.96 | 389 |
| 430 | 0.63 | 0.40 | 0.49 | 167 |

| | | | | |
|-----|------|------|------|-----|
| 431 | 0.57 | 0.11 | 0.18 | 123 |
| 432 | 0.52 | 0.31 | 0.39 | 39 |
| 433 | 0.33 | 0.21 | 0.25 | 82 |
| 434 | 1.00 | 0.70 | 0.82 | 66 |
| 435 | 0.55 | 0.38 | 0.45 | 93 |
| 436 | 0.56 | 0.37 | 0.44 | 87 |
| 437 | 0.10 | 0.02 | 0.04 | 86 |
| 438 | 0.72 | 0.53 | 0.61 | 104 |
| 439 | 0.54 | 0.13 | 0.21 | 100 |
| 440 | 0.38 | 0.04 | 0.06 | 141 |
| 441 | 0.43 | 0.33 | 0.37 | 110 |
| 442 | 0.37 | 0.15 | 0.22 | 123 |
| 443 | 0.57 | 0.18 | 0.28 | 71 |
| 444 | 0.32 | 0.06 | 0.11 | 109 |
| 445 | 0.45 | 0.31 | 0.37 | 48 |
| 446 | 0.47 | 0.29 | 0.36 | 76 |
| 447 | 0.39 | 0.18 | 0.25 | 38 |
| 448 | 0.67 | 0.54 | 0.60 | 81 |
| 449 | 0.67 | 0.26 | 0.37 | 132 |
| 450 | 0.42 | 0.27 | 0.33 | 81 |
| 451 | 0.89 | 0.32 | 0.47 | 76 |
| 452 | 0.00 | 0.00 | 0.00 | 44 |
| 453 | 0.00 | 0.00 | 0.00 | 44 |
| 454 | 0.84 | 0.51 | 0.64 | 70 |
| 455 | 0.39 | 0.18 | 0.25 | 155 |
| 456 | 0.50 | 0.21 | 0.30 | 43 |
| 457 | 0.54 | 0.28 | 0.37 | 72 |
| 458 | 0.35 | 0.13 | 0.19 | 62 |
| 459 | 0.63 | 0.25 | 0.35 | 69 |
| 460 | 0.00 | 0.00 | 0.00 | 119 |
| 461 | 0.71 | 0.19 | 0.30 | 79 |
| 462 | 0.61 | 0.23 | 0.34 | 47 |
| 463 | 0.39 | 0.14 | 0.21 | 104 |
| 464 | 0.70 | 0.42 | 0.52 | 106 |
| 465 | 0.64 | 0.22 | 0.33 | 64 |
| 466 | 0.55 | 0.35 | 0.43 | 173 |
| 467 | 0.78 | 0.42 | 0.55 | 107 |
| 468 | 0.56 | 0.26 | 0.36 | 126 |
| 469 | 0.20 | 0.01 | 0.02 | 114 |
| 470 | 0.93 | 0.81 | 0.87 | 140 |
| 471 | 0.85 | 0.42 | 0.56 | 79 |
| 472 | 0.40 | 0.35 | 0.37 | 143 |
| 473 | 0.67 | 0.37 | 0.47 | 158 |
| 474 | 0.48 | 0.10 | 0.17 | 138 |
| 475 | 0.00 | 0.00 | 0.00 | 59 |
| 476 | 0.63 | 0.33 | 0.43 | 88 |
| 477 | 0.83 | 0.65 | 0.73 | 176 |
| 478 | 0.95 | 0.79 | 0.86 | 24 |
| 479 | 0.22 | 0.04 | 0.07 | 92 |
| 480 | 0.79 | 0.50 | 0.61 | 100 |
| 481 | 0.51 | 0.28 | 0.36 | 103 |
| 482 | 0.40 | 0.22 | 0.28 | 74 |
| 483 | 0.78 | 0.63 | 0.69 | 105 |
| 484 | 0.20 | 0.02 | 0.04 | 83 |
| 485 | 0.20 | 0.02 | 0.04 | 82 |
| 486 | 0.48 | 0.15 | 0.23 | 71 |
| 487 | 0.45 | 0.21 | 0.29 | 120 |
| 488 | 0.50 | 0.06 | 0.10 | 105 |
| 489 | 0.73 | 0.37 | 0.49 | 87 |
| 490 | 1.00 | 0.81 | 0.90 | 32 |
| 491 | 0.33 | 0.03 | 0.05 | 69 |
| 492 | 0.33 | 0.02 | 0.04 | 49 |
| 493 | 0.11 | 0.02 | 0.03 | 117 |
| 494 | 0.52 | 0.23 | 0.32 | 61 |
| 495 | 0.95 | 0.79 | 0.87 | 344 |
| 496 | 0.32 | 0.13 | 0.19 | 52 |
| 497 | 0.59 | 0.28 | 0.38 | 137 |
| 498 | 0.31 | 0.10 | 0.15 | 98 |
| 499 | 0.48 | 0.20 | 0.29 | 79 |

| | | | | |
|-------------|------|------|------|--------|
| avg / total | 0.67 | 0.37 | 0.46 | 173812 |
|-------------|------|------|------|--------|

Time taken to run this cell : 1:09:41.236859

5. Assignments

1. Use bag of words upto 4 grams and compute the micro f1 score with Logistic regression(OvR)
2. Perform hyperparam tuning on alpha (or lambda) for Logistic regression to improve the performance using GridSearch
3. Try OneVsRestClassifier with Linear-SVM (SGDClassifier with loss-hinge)

In [11]:

```
from google.colab import drive
drive.mount('/content/drive')
```

Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).

In [0]:

```
#Taking 0.5 Million entries to a dataframe.
write_db = '/content/drive/My Drive/Classroom/data/Titlemoreweight.db'
if os.path.isfile(write_db):
    conn_r = create_connection(write_db)
    if conn_r is not None:
        sampled_data = pd.read_sql_query("""SELECT question, Tags FROM QuestionsProcessed""", conn_r)
    conn_r.commit()
    conn_r.close()

#Display 10 questions.
sampled_data.head(10)
```

Out[0]:

| | question | tags |
|---|---|-------------------------------------|
| 0 | dynam datagrid bind silverlight dynam datagrid... | c# silverlight data-binding |
| 1 | dynam datagrid bind silverlight dynam datagrid... | c# silverlight data-binding columns |
| 2 | java.lang.noclassdeffounderror javax servlet j... | jsp jstl |
| 3 | java.sql.sqlexcept microsoft odbc driver manag... | java jdbc |
| 4 | better way updat feed fb php sdk better way up... | facebook api facebook-php-sdk |
| 5 | btnadd click event open two window record ad b... | javascript asp.net web |
| 6 | sql inject issu prevent correct form submiss p... | php forms |
| 7 | countabl subaddit lebesgu measur countabl suba... | real-analysis measure-theory |
| 8 | hql equival sql queri hql equival sql queri hq... | hibernate hql |
| 9 | undefin symbol architectur i386 objc class skp... | iphone email-integration |

In [0]:

```
print("Number of data points in sample :", sampled_data.shape[0])
print("Number of dimensions :", sampled_data.shape[1])
```

Number of data points in sample : 500000

Number of dimensions : 2

In [0]:

```
vectorizer = CountVectorizer(tokenizer = lambda x: x.split(), binary='true')
multilabel_y = vectorizer.fit_transform(sampled_data['tags'])
```

In [0]:

```
def tags_to_choose(n):
    t = multilabel_y.sum(axis=0).tolist()[0]
    sorted_tags_i = sorted(range(len(t)), key=lambda i: t[i], reverse=True)
    multilabel_yn=multilabel_y[:, sorted_tags_i[:n]]
```



```

multilabel_yn=multilabel_y[:,sorted_tags_1[1:n]]
return multilabel_yn

def questions_explained_fn(n):
    multilabel_yn = tags_to_choose(n)
    x= multilabel_yn.sum(axis=1)
    return (np.count_nonzero(x==0))

```

In [0]:

```

questions_explained = []
total_tags=multilabel_y.shape[1]
total_qs=sampled_data.shape[0]
for i in range(500, total_tags, 100):
    questions_explained.append(np.round(((total_qs-questions_explained_fn(i))/total_qs)*100,3))

```

In [0]:

```

# we will be taking 500 tags
multilabel_yx = tags_to_choose(500)
print("Number of questions that are not covered: ", questions_explained_fn(500),"out of ", total_qs)

```

Number of questions that are not covered: 45221 out of 500000

In [0]:

```

train_datasize = 400000

x_train=sampled_data.head(train_datasize)
x_test=sampled_data.tail(sampled_data.shape[0] - train_datasize)

y_train = multilabel_yx[0:train_datasize,:]
y_test = multilabel_yx[train_datasize:sampled_data.shape[0],:]

```

In [0]:

```

print("Number of data points in train data: ", y_train.shape)
print("Number of data points in test data: ", y_test.shape)

```

Number of data points in train data: (400000, 500)

Number of data points in test data: (100000, 500)

BOW REPRESENTATION FOR 5 lakh datapoints using n_gram range from 1 to 4

In [0]:

```

start = datetime.now()
vectorizer = CountVectorizer(min_df=0.00009, max_features=100000, analyzer='word', tokenizer = lambda x: x.split(), ngram_range=(1,4))
x_train_multilabel = vectorizer.fit_transform(x_train['question'])
x_test_multilabel = vectorizer.transform(x_test['question'])
print("Time taken to featurize the class labels using BOW representation :", datetime.now() - start)

#Sorting indices to get rid of Value Error: WRITEBACKIFCOPY base is read-only
x_train_multilabel.sort_indices()
x_test_multilabel.sort_indices()

print("Dimensions of train and test data:")
print("x_train:",x_train_multilabel.shape, "y_train :",y_train.shape)
print("x_test:",x_test_multilabel.shape, "y_test :",y_test.shape)

```

Time taken to featurize the class labels using BOW representation : 0:05:53.501353

Dimensions of train and test data:

x_train: (400000, 95585) y_train : (400000, 500)

x_test: (100000, 95585) y_test : (100000, 500)

Saving the variables as pickle files so that we can use later

In [0]:

```
#Save the data for later use.
import pickle
with open('x_train_multilabel.pkl', 'wb') as file:
    pickle.dump(x_train_multilabel, file)

with open('y_train.pkl', 'wb') as file:
    pickle.dump(y_train, file)

with open('x_test_multilabel.pkl', 'wb') as file:
    pickle.dump(x_test_multilabel, file)

with open('y_test.pkl', 'wb') as file:
    pickle.dump(y_test, file)
```

loading the saved pickle variables

In [12]:

```
import pickle

with open('/content/drive/My Drive/TAG PREDICTION/x_train_multilabel.pkl', 'rb') as file:
    x_train_multilabel = pickle.load(file)

with open('/content/drive/My Drive/y_train.pkl', 'rb') as file:
    y_train = pickle.load(file)

with open('/content/drive/My Drive/TAG PREDICTION/x_test_multilabel.pkl', 'rb') as file:
    x_test_multilabel = pickle.load(file)

with open('/content/drive/My Drive/TAG PREDICTION/y_test.pkl', 'rb') as file:
    y_test = pickle.load(file)

print("Dimensions of train and test data:")
print("x_train:", x_train_multilabel.shape, "y_train :", y_train.shape)
print("x_test:", x_test_multilabel.shape, "y_test :", y_test.shape)
```

```
Dimensions of train and test data:
x_train: (400000, 95585) y_train : (400000, 500)
x_test: (100000, 95585) y_test : (100000, 500)
```

Training Logistic regression model without any hyperparameter tuning

In [0]:

```
start = datetime.now()
classifier = OneVsRestClassifier(SGDClassifier(loss='log', alpha=0.00001, penalty='l1'), n_jobs=-1)
classifier.fit(x_train_multilabel, y_train)
predictions = classifier.predict(x_test_multilabel)

print("Accuracy :", metrics.accuracy_score(y_test, predictions))
print("Hamming loss ", metrics.hamming_loss(y_test, predictions))

precision = precision_score(y_test, predictions, average='micro')
recall = recall_score(y_test, predictions, average='micro')
f1 = f1_score(y_test, predictions, average='micro')

print("Micro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))
precision = precision_score(y_test, predictions, average='macro')
```

```

precision = precision_score(y_test, predictions, average='macro')
recall = recall_score(y_test, predictions, average='macro')
f1 = f1_score(y_test, predictions, average='macro')

print("Macro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

print(metrics.classification_report(y_test, predictions))
print("Time taken to run this cell :", datetime.now() - start)

```

```

Accuracy : 0.09695
Hamming loss 0.00579056
Micro-average quality numbers
Precision: 0.2919, Recall: 0.4669, F1-measure: 0.3592
Macro-average quality numbers
Precision: 0.2076, Recall: 0.4096, F1-measure: 0.2669

```

| | precision | recall | f1-score | support |
|--|-----------|--------|----------|---------|
|--|-----------|--------|----------|---------|

| | | | | |
|----|------|------|------|------|
| 0 | 0.74 | 0.79 | 0.76 | 5519 |
| 1 | 0.44 | 0.43 | 0.44 | 8190 |
| 2 | 0.52 | 0.49 | 0.50 | 6529 |
| 3 | 0.52 | 0.60 | 0.56 | 3231 |
| 4 | 0.56 | 0.51 | 0.53 | 6430 |
| 5 | 0.44 | 0.45 | 0.44 | 2879 |
| 6 | 0.59 | 0.61 | 0.60 | 5086 |
| 7 | 0.64 | 0.62 | 0.63 | 4533 |
| 8 | 0.24 | 0.20 | 0.22 | 3000 |
| 9 | 0.56 | 0.63 | 0.59 | 2765 |
| 10 | 0.32 | 0.30 | 0.31 | 3051 |
| 11 | 0.46 | 0.49 | 0.47 | 3009 |
| 12 | 0.38 | 0.39 | 0.39 | 2630 |
| 13 | 0.35 | 0.44 | 0.39 | 1426 |
| 14 | 0.58 | 0.66 | 0.62 | 2548 |
| 15 | 0.35 | 0.36 | 0.35 | 2371 |
| 16 | 0.27 | 0.36 | 0.31 | 873 |
| 17 | 0.62 | 0.69 | 0.65 | 2151 |
| 18 | 0.33 | 0.34 | 0.33 | 2204 |
| 19 | 0.29 | 0.46 | 0.36 | 831 |
| 20 | 0.50 | 0.57 | 0.53 | 1860 |
| 21 | 0.20 | 0.20 | 0.20 | 2023 |
| 22 | 0.32 | 0.37 | 0.34 | 1513 |
| 23 | 0.50 | 0.67 | 0.57 | 1207 |
| 24 | 0.24 | 0.35 | 0.29 | 506 |
| 25 | 0.22 | 0.46 | 0.30 | 425 |
| 26 | 0.37 | 0.52 | 0.44 | 793 |
| 27 | 0.39 | 0.50 | 0.44 | 1291 |
| 28 | 0.41 | 0.50 | 0.45 | 1208 |
| 29 | 0.15 | 0.25 | 0.19 | 406 |
| 30 | 0.21 | 0.33 | 0.26 | 504 |
| 31 | 0.14 | 0.24 | 0.18 | 732 |
| 32 | 0.21 | 0.38 | 0.27 | 441 |
| 33 | 0.36 | 0.43 | 0.39 | 1645 |
| 34 | 0.27 | 0.35 | 0.31 | 1058 |
| 35 | 0.47 | 0.62 | 0.53 | 946 |
| 36 | 0.23 | 0.40 | 0.29 | 644 |
| 37 | 0.26 | 0.75 | 0.39 | 136 |
| 38 | 0.31 | 0.47 | 0.37 | 570 |
| 39 | 0.30 | 0.42 | 0.35 | 766 |
| 40 | 0.31 | 0.46 | 0.37 | 1132 |
| 41 | 0.13 | 0.34 | 0.18 | 174 |
| 42 | 0.30 | 0.59 | 0.39 | 210 |
| 43 | 0.28 | 0.53 | 0.37 | 433 |
| 44 | 0.36 | 0.53 | 0.43 | 626 |
| 45 | 0.30 | 0.46 | 0.36 | 852 |
| 46 | 0.34 | 0.57 | 0.43 | 534 |
| 47 | 0.16 | 0.33 | 0.22 | 350 |
| 48 | 0.35 | 0.55 | 0.43 | 496 |
| 49 | 0.54 | 0.69 | 0.61 | 785 |
| 50 | 0.14 | 0.20 | 0.17 | 475 |
| 51 | 0.13 | 0.29 | 0.18 | 305 |
| 52 | 0.10 | 0.16 | 0.12 | 251 |
| 53 | 0.32 | 0.48 | 0.38 | 914 |
| 54 | 0.21 | 0.27 | 0.24 | 728 |
| 55 | 0.08 | 0.13 | 0.10 | 258 |
| 56 | 0.23 | 0.39 | 0.29 | 821 |
| 57 | 0.15 | 0.24 | 0.18 | 541 |
| 58 | 0.31 | 0.41 | 0.36 | 748 |

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|-----|------|------|------|-----|
| 59 | 0.59 | 0.76 | 0.66 | 724 |
| 60 | 0.19 | 0.28 | 0.23 | 660 |
| 61 | 0.17 | 0.32 | 0.22 | 235 |
| 62 | 0.53 | 0.81 | 0.64 | 718 |
| 63 | 0.46 | 0.71 | 0.56 | 468 |
| 64 | 0.18 | 0.48 | 0.27 | 191 |
| 65 | 0.16 | 0.25 | 0.19 | 429 |
| 66 | 0.13 | 0.22 | 0.17 | 415 |
| 67 | 0.29 | 0.59 | 0.39 | 274 |
| 68 | 0.35 | 0.58 | 0.44 | 510 |
| 69 | 0.31 | 0.53 | 0.39 | 466 |
| 70 | 0.09 | 0.19 | 0.12 | 305 |
| 71 | 0.12 | 0.30 | 0.17 | 247 |
| 72 | 0.38 | 0.58 | 0.46 | 401 |
| 73 | 0.25 | 0.83 | 0.39 | 86 |
| 74 | 0.17 | 0.49 | 0.25 | 120 |
| 75 | 0.35 | 0.73 | 0.47 | 129 |
| 76 | 0.10 | 0.13 | 0.11 | 473 |
| 77 | 0.11 | 0.36 | 0.17 | 143 |
| 78 | 0.32 | 0.59 | 0.41 | 347 |
| 79 | 0.21 | 0.33 | 0.26 | 479 |
| 80 | 0.20 | 0.51 | 0.28 | 279 |
| 81 | 0.24 | 0.38 | 0.29 | 461 |
| 82 | 0.09 | 0.18 | 0.12 | 298 |
| 83 | 0.33 | 0.59 | 0.42 | 396 |
| 84 | 0.21 | 0.48 | 0.29 | 184 |
| 85 | 0.23 | 0.35 | 0.27 | 573 |
| 86 | 0.12 | 0.18 | 0.14 | 325 |
| 87 | 0.19 | 0.40 | 0.26 | 273 |
| 88 | 0.09 | 0.27 | 0.14 | 135 |
| 89 | 0.13 | 0.28 | 0.18 | 232 |
| 90 | 0.30 | 0.50 | 0.38 | 409 |
| 91 | 0.24 | 0.40 | 0.30 | 420 |
| 92 | 0.38 | 0.64 | 0.48 | 408 |
| 93 | 0.23 | 0.61 | 0.33 | 241 |
| 94 | 0.13 | 0.21 | 0.16 | 211 |
| 95 | 0.12 | 0.25 | 0.16 | 277 |
| 96 | 0.12 | 0.21 | 0.15 | 410 |
| 97 | 0.43 | 0.60 | 0.50 | 501 |
| 98 | 0.19 | 0.62 | 0.29 | 136 |
| 99 | 0.22 | 0.40 | 0.29 | 239 |
| 100 | 0.15 | 0.30 | 0.20 | 324 |
| 101 | 0.54 | 0.77 | 0.63 | 277 |
| 102 | 0.58 | 0.80 | 0.67 | 613 |
| 103 | 0.11 | 0.29 | 0.16 | 157 |
| 104 | 0.10 | 0.21 | 0.14 | 295 |
| 105 | 0.31 | 0.54 | 0.39 | 334 |
| 106 | 0.26 | 0.44 | 0.32 | 335 |
| 107 | 0.35 | 0.61 | 0.45 | 389 |
| 108 | 0.19 | 0.37 | 0.26 | 251 |
| 109 | 0.25 | 0.52 | 0.34 | 317 |
| 110 | 0.07 | 0.18 | 0.10 | 187 |
| 111 | 0.07 | 0.26 | 0.10 | 140 |
| 112 | 0.20 | 0.58 | 0.30 | 154 |
| 113 | 0.21 | 0.37 | 0.26 | 332 |
| 114 | 0.20 | 0.36 | 0.26 | 323 |
| 115 | 0.18 | 0.34 | 0.24 | 344 |
| 116 | 0.38 | 0.57 | 0.45 | 370 |
| 117 | 0.20 | 0.36 | 0.26 | 313 |
| 118 | 0.59 | 0.78 | 0.67 | 874 |
| 119 | 0.18 | 0.37 | 0.24 | 293 |
| 120 | 0.06 | 0.13 | 0.08 | 200 |
| 121 | 0.36 | 0.56 | 0.44 | 463 |
| 122 | 0.12 | 0.28 | 0.16 | 119 |
| 123 | 0.04 | 0.06 | 0.05 | 256 |
| 124 | 0.49 | 0.75 | 0.59 | 195 |
| 125 | 0.11 | 0.34 | 0.16 | 138 |
| 126 | 0.42 | 0.59 | 0.49 | 376 |
| 127 | 0.02 | 0.08 | 0.04 | 122 |
| 128 | 0.08 | 0.15 | 0.11 | 252 |
| 129 | 0.22 | 0.38 | 0.28 | 144 |
| 130 | 0.09 | 0.30 | 0.14 | 150 |
| 131 | 0.10 | 0.20 | 0.13 | 210 |
| 132 | 0.20 | 0.37 | 0.26 | 361 |
| 133 | 0.55 | 0.71 | 0.62 | 453 |
| 134 | 0.45 | 0.82 | 0.58 | 124 |
| 135 | 0.05 | 0.19 | 0.08 | 91 |

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|-----|------|------|------|-----|
| 136 | 0.12 | 0.42 | 0.19 | 128 |
| 137 | 0.21 | 0.50 | 0.29 | 218 |
| 138 | 0.13 | 0.28 | 0.18 | 243 |
| 139 | 0.12 | 0.32 | 0.17 | 149 |
| 140 | 0.40 | 0.58 | 0.47 | 318 |
| 141 | 0.07 | 0.24 | 0.11 | 159 |
| 142 | 0.30 | 0.54 | 0.39 | 274 |
| 143 | 0.58 | 0.82 | 0.68 | 362 |
| 144 | 0.08 | 0.31 | 0.12 | 118 |
| 145 | 0.19 | 0.49 | 0.28 | 164 |
| 146 | 0.26 | 0.46 | 0.33 | 461 |
| 147 | 0.21 | 0.50 | 0.30 | 159 |
| 148 | 0.10 | 0.25 | 0.15 | 166 |
| 149 | 0.44 | 0.64 | 0.52 | 346 |
| 150 | 0.15 | 0.29 | 0.19 | 350 |
| 151 | 0.18 | 0.69 | 0.29 | 55 |
| 152 | 0.36 | 0.61 | 0.45 | 387 |
| 153 | 0.20 | 0.33 | 0.25 | 150 |
| 154 | 0.11 | 0.22 | 0.15 | 281 |
| 155 | 0.11 | 0.24 | 0.15 | 202 |
| 156 | 0.27 | 0.70 | 0.39 | 130 |
| 157 | 0.15 | 0.25 | 0.18 | 245 |
| 158 | 0.42 | 0.72 | 0.53 | 177 |
| 159 | 0.15 | 0.45 | 0.22 | 130 |
| 160 | 0.16 | 0.30 | 0.21 | 336 |
| 161 | 0.39 | 0.70 | 0.50 | 220 |
| 162 | 0.11 | 0.27 | 0.15 | 229 |
| 163 | 0.36 | 0.56 | 0.44 | 316 |
| 164 | 0.26 | 0.52 | 0.35 | 283 |
| 165 | 0.17 | 0.34 | 0.22 | 197 |
| 166 | 0.19 | 0.54 | 0.28 | 101 |
| 167 | 0.12 | 0.27 | 0.17 | 231 |
| 168 | 0.18 | 0.39 | 0.25 | 370 |
| 169 | 0.19 | 0.37 | 0.25 | 258 |
| 170 | 0.04 | 0.19 | 0.07 | 101 |
| 171 | 0.09 | 0.35 | 0.14 | 89 |
| 172 | 0.18 | 0.48 | 0.26 | 193 |
| 173 | 0.27 | 0.49 | 0.34 | 309 |
| 174 | 0.10 | 0.22 | 0.13 | 172 |
| 175 | 0.28 | 0.82 | 0.41 | 95 |
| 176 | 0.54 | 0.73 | 0.62 | 346 |
| 177 | 0.47 | 0.67 | 0.55 | 322 |
| 178 | 0.25 | 0.58 | 0.35 | 232 |
| 179 | 0.07 | 0.18 | 0.10 | 125 |
| 180 | 0.14 | 0.43 | 0.21 | 145 |
| 181 | 0.03 | 0.23 | 0.06 | 77 |
| 182 | 0.10 | 0.27 | 0.14 | 182 |
| 183 | 0.25 | 0.47 | 0.33 | 257 |
| 184 | 0.10 | 0.21 | 0.13 | 216 |
| 185 | 0.10 | 0.20 | 0.13 | 242 |
| 186 | 0.12 | 0.31 | 0.17 | 165 |
| 187 | 0.32 | 0.59 | 0.42 | 263 |
| 188 | 0.08 | 0.20 | 0.12 | 174 |
| 189 | 0.35 | 0.56 | 0.43 | 136 |
| 190 | 0.40 | 0.70 | 0.51 | 202 |
| 191 | 0.08 | 0.26 | 0.12 | 134 |
| 192 | 0.19 | 0.50 | 0.28 | 230 |
| 193 | 0.11 | 0.38 | 0.17 | 90 |
| 194 | 0.24 | 0.52 | 0.33 | 185 |
| 195 | 0.06 | 0.17 | 0.09 | 156 |
| 196 | 0.07 | 0.18 | 0.10 | 160 |
| 197 | 0.13 | 0.25 | 0.17 | 266 |
| 198 | 0.15 | 0.29 | 0.19 | 284 |
| 199 | 0.10 | 0.21 | 0.14 | 145 |
| 200 | 0.47 | 0.80 | 0.59 | 212 |
| 201 | 0.20 | 0.38 | 0.26 | 317 |
| 202 | 0.42 | 0.61 | 0.50 | 427 |
| 203 | 0.13 | 0.26 | 0.18 | 232 |
| 204 | 0.19 | 0.45 | 0.27 | 217 |
| 205 | 0.35 | 0.56 | 0.43 | 527 |
| 206 | 0.04 | 0.13 | 0.06 | 124 |
| 207 | 0.20 | 0.42 | 0.27 | 103 |
| 208 | 0.36 | 0.56 | 0.44 | 287 |
| 209 | 0.08 | 0.19 | 0.11 | 193 |
| 210 | 0.20 | 0.49 | 0.28 | 220 |
| 211 | 0.13 | 0.35 | 0.19 | 140 |
| 212 | 0.08 | 0.23 | 0.12 | 161 |

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|-----|------|------|------|-----|
| 213 | 0.16 | 0.51 | 0.25 | 72 |
| 214 | 0.39 | 0.49 | 0.43 | 396 |
| 215 | 0.17 | 0.50 | 0.26 | 134 |
| 216 | 0.20 | 0.28 | 0.23 | 400 |
| 217 | 0.14 | 0.44 | 0.21 | 75 |
| 218 | 0.57 | 0.83 | 0.67 | 219 |
| 219 | 0.22 | 0.48 | 0.30 | 210 |
| 220 | 0.52 | 0.75 | 0.61 | 298 |
| 221 | 0.55 | 0.78 | 0.65 | 266 |
| 222 | 0.32 | 0.59 | 0.41 | 290 |
| 223 | 0.04 | 0.11 | 0.06 | 128 |
| 224 | 0.17 | 0.47 | 0.25 | 159 |
| 225 | 0.16 | 0.45 | 0.24 | 164 |
| 226 | 0.22 | 0.47 | 0.30 | 144 |
| 227 | 0.32 | 0.52 | 0.40 | 276 |
| 228 | 0.04 | 0.10 | 0.06 | 235 |
| 229 | 0.08 | 0.19 | 0.11 | 216 |
| 230 | 0.10 | 0.27 | 0.14 | 228 |
| 231 | 0.17 | 0.64 | 0.26 | 64 |
| 232 | 0.06 | 0.21 | 0.09 | 103 |
| 233 | 0.27 | 0.50 | 0.35 | 216 |
| 234 | 0.14 | 0.34 | 0.20 | 116 |
| 235 | 0.13 | 0.44 | 0.20 | 77 |
| 236 | 0.30 | 0.76 | 0.43 | 67 |
| 237 | 0.10 | 0.27 | 0.15 | 218 |
| 238 | 0.08 | 0.25 | 0.12 | 139 |
| 239 | 0.04 | 0.12 | 0.06 | 94 |
| 240 | 0.10 | 0.39 | 0.16 | 77 |
| 241 | 0.07 | 0.17 | 0.10 | 167 |
| 242 | 0.25 | 0.52 | 0.34 | 86 |
| 243 | 0.06 | 0.31 | 0.10 | 58 |
| 244 | 0.30 | 0.48 | 0.37 | 269 |
| 245 | 0.06 | 0.21 | 0.10 | 112 |
| 246 | 0.59 | 0.85 | 0.70 | 255 |
| 247 | 0.04 | 0.22 | 0.07 | 58 |
| 248 | 0.02 | 0.10 | 0.04 | 81 |
| 249 | 0.06 | 0.19 | 0.09 | 131 |
| 250 | 0.08 | 0.33 | 0.13 | 93 |
| 251 | 0.19 | 0.45 | 0.27 | 154 |
| 252 | 0.04 | 0.12 | 0.06 | 129 |
| 253 | 0.15 | 0.52 | 0.23 | 83 |
| 254 | 0.11 | 0.23 | 0.15 | 191 |
| 255 | 0.06 | 0.12 | 0.08 | 219 |
| 256 | 0.05 | 0.15 | 0.07 | 130 |
| 257 | 0.11 | 0.38 | 0.17 | 93 |
| 258 | 0.31 | 0.59 | 0.40 | 217 |
| 259 | 0.10 | 0.33 | 0.15 | 141 |
| 260 | 0.20 | 0.41 | 0.27 | 143 |
| 261 | 0.14 | 0.28 | 0.19 | 219 |
| 262 | 0.15 | 0.46 | 0.22 | 107 |
| 263 | 0.24 | 0.45 | 0.31 | 236 |
| 264 | 0.09 | 0.32 | 0.14 | 119 |
| 265 | 0.12 | 0.44 | 0.19 | 72 |
| 266 | 0.05 | 0.16 | 0.08 | 70 |
| 267 | 0.11 | 0.31 | 0.16 | 107 |
| 268 | 0.24 | 0.51 | 0.33 | 169 |
| 269 | 0.16 | 0.36 | 0.23 | 129 |
| 270 | 0.26 | 0.67 | 0.37 | 159 |
| 271 | 0.30 | 0.62 | 0.40 | 190 |
| 272 | 0.20 | 0.41 | 0.27 | 248 |
| 273 | 0.58 | 0.80 | 0.68 | 264 |
| 274 | 0.37 | 0.74 | 0.49 | 105 |
| 275 | 0.07 | 0.25 | 0.11 | 104 |
| 276 | 0.03 | 0.12 | 0.05 | 115 |
| 277 | 0.35 | 0.63 | 0.45 | 170 |
| 278 | 0.32 | 0.60 | 0.41 | 145 |
| 279 | 0.53 | 0.78 | 0.63 | 230 |
| 280 | 0.18 | 0.51 | 0.27 | 80 |
| 281 | 0.41 | 0.65 | 0.50 | 217 |
| 282 | 0.29 | 0.57 | 0.38 | 175 |
| 283 | 0.14 | 0.31 | 0.19 | 269 |
| 284 | 0.14 | 0.49 | 0.22 | 74 |
| 285 | 0.31 | 0.65 | 0.42 | 206 |
| 286 | 0.41 | 0.77 | 0.54 | 227 |
| 287 | 0.18 | 0.64 | 0.28 | 130 |
| 288 | 0.06 | 0.13 | 0.08 | 129 |
| 289 | 0.06 | 0.34 | 0.10 | 80 |

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|-----|------|------|------|-----|
| 289 | 0.00 | 0.01 | 0.10 | 99 |
| 290 | 0.07 | 0.25 | 0.11 | 99 |
| 291 | 0.25 | 0.51 | 0.34 | 208 |
| 292 | 0.05 | 0.21 | 0.08 | 67 |
| 293 | 0.27 | 0.62 | 0.38 | 109 |
| 294 | 0.14 | 0.43 | 0.21 | 140 |
| 295 | 0.13 | 0.31 | 0.18 | 241 |
| 296 | 0.10 | 0.36 | 0.16 | 72 |
| 297 | 0.08 | 0.26 | 0.12 | 107 |
| 298 | 0.20 | 0.57 | 0.30 | 61 |
| 299 | 0.30 | 0.68 | 0.41 | 77 |
| 300 | 0.07 | 0.19 | 0.10 | 111 |
| 301 | 0.01 | 0.02 | 0.01 | 126 |
| 302 | 0.06 | 0.22 | 0.09 | 73 |
| 303 | 0.23 | 0.50 | 0.31 | 176 |
| 304 | 0.74 | 0.83 | 0.78 | 230 |
| 305 | 0.54 | 0.78 | 0.64 | 156 |
| 306 | 0.26 | 0.47 | 0.33 | 146 |
| 307 | 0.12 | 0.35 | 0.18 | 98 |
| 308 | 0.01 | 0.04 | 0.01 | 78 |
| 309 | 0.07 | 0.23 | 0.11 | 94 |
| 310 | 0.21 | 0.43 | 0.28 | 162 |
| 311 | 0.27 | 0.57 | 0.37 | 116 |
| 312 | 0.12 | 0.39 | 0.19 | 57 |
| 313 | 0.05 | 0.22 | 0.07 | 65 |
| 314 | 0.16 | 0.41 | 0.23 | 138 |
| 315 | 0.22 | 0.45 | 0.29 | 195 |
| 316 | 0.16 | 0.46 | 0.24 | 69 |
| 317 | 0.11 | 0.31 | 0.17 | 134 |
| 318 | 0.21 | 0.45 | 0.28 | 148 |
| 319 | 0.49 | 0.58 | 0.53 | 161 |
| 320 | 0.09 | 0.38 | 0.15 | 104 |
| 321 | 0.30 | 0.60 | 0.40 | 156 |
| 322 | 0.25 | 0.53 | 0.34 | 134 |
| 323 | 0.31 | 0.53 | 0.39 | 232 |
| 324 | 0.06 | 0.21 | 0.09 | 92 |
| 325 | 0.18 | 0.37 | 0.24 | 197 |
| 326 | 0.05 | 0.14 | 0.07 | 126 |
| 327 | 0.04 | 0.10 | 0.06 | 115 |
| 328 | 0.59 | 0.69 | 0.63 | 198 |
| 329 | 0.17 | 0.38 | 0.24 | 125 |
| 330 | 0.15 | 0.32 | 0.21 | 81 |
| 331 | 0.11 | 0.28 | 0.16 | 94 |
| 332 | 0.09 | 0.23 | 0.13 | 56 |
| 333 | 0.08 | 0.21 | 0.12 | 260 |
| 334 | 0.05 | 0.17 | 0.07 | 60 |
| 335 | 0.09 | 0.23 | 0.12 | 110 |
| 336 | 0.23 | 0.61 | 0.33 | 71 |
| 337 | 0.03 | 0.17 | 0.06 | 66 |
| 338 | 0.18 | 0.49 | 0.27 | 150 |
| 339 | 0.01 | 0.04 | 0.01 | 54 |
| 340 | 0.40 | 0.70 | 0.51 | 195 |
| 341 | 0.33 | 0.58 | 0.42 | 79 |
| 342 | 0.10 | 0.47 | 0.17 | 38 |
| 343 | 0.12 | 0.44 | 0.19 | 43 |
| 344 | 0.20 | 0.37 | 0.26 | 68 |
| 345 | 0.26 | 0.38 | 0.31 | 73 |
| 346 | 0.07 | 0.17 | 0.10 | 116 |
| 347 | 0.17 | 0.59 | 0.26 | 111 |
| 348 | 0.04 | 0.19 | 0.06 | 63 |
| 349 | 0.35 | 0.76 | 0.48 | 104 |
| 350 | 0.20 | 0.57 | 0.30 | 44 |
| 351 | 0.12 | 0.30 | 0.17 | 40 |
| 352 | 0.35 | 0.64 | 0.45 | 136 |
| 353 | 0.09 | 0.31 | 0.13 | 54 |
| 354 | 0.07 | 0.22 | 0.10 | 134 |
| 355 | 0.16 | 0.43 | 0.23 | 120 |
| 356 | 0.25 | 0.40 | 0.30 | 228 |
| 357 | 0.31 | 0.49 | 0.38 | 269 |
| 358 | 0.14 | 0.44 | 0.22 | 80 |
| 359 | 0.30 | 0.66 | 0.41 | 140 |
| 360 | 0.11 | 0.34 | 0.17 | 125 |
| 361 | 0.58 | 0.80 | 0.68 | 169 |
| 362 | 0.05 | 0.18 | 0.07 | 56 |
| 363 | 0.54 | 0.79 | 0.64 | 154 |
| 364 | 0.09 | 0.28 | 0.13 | 58 |
| 365 | 0.08 | 0.31 | 0.13 | 71 |
| 366 | 0.41 | 0.72 | 0.53 | 54 |

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|-----|------|------|------|-----|
| 366 | 0.11 | 0.12 | 0.00 | 37 |
| 367 | 0.04 | 0.16 | 0.07 | 116 |
| 368 | 0.06 | 0.20 | 0.09 | 54 |
| 369 | 0.02 | 0.14 | 0.04 | 71 |
| 370 | 0.02 | 0.10 | 0.04 | 61 |
| 371 | 0.05 | 0.20 | 0.08 | 71 |
| 372 | 0.20 | 0.58 | 0.30 | 52 |
| 373 | 0.33 | 0.59 | 0.43 | 150 |
| 374 | 0.11 | 0.49 | 0.18 | 93 |
| 375 | 0.06 | 0.21 | 0.10 | 67 |
| 376 | 0.02 | 0.04 | 0.02 | 76 |
| 377 | 0.19 | 0.39 | 0.26 | 106 |
| 378 | 0.08 | 0.10 | 0.09 | 86 |
| 379 | 0.02 | 0.36 | 0.04 | 14 |
| 380 | 0.23 | 0.61 | 0.34 | 122 |
| 381 | 0.04 | 0.13 | 0.06 | 104 |
| 382 | 0.05 | 0.17 | 0.07 | 66 |
| 383 | 0.21 | 0.44 | 0.29 | 110 |
| 384 | 0.04 | 0.13 | 0.06 | 155 |
| 385 | 0.10 | 0.48 | 0.17 | 50 |
| 386 | 0.07 | 0.22 | 0.11 | 64 |
| 387 | 0.06 | 0.15 | 0.08 | 93 |
| 388 | 0.18 | 0.49 | 0.27 | 102 |
| 389 | 0.04 | 0.12 | 0.06 | 108 |
| 390 | 0.54 | 0.75 | 0.63 | 178 |
| 391 | 0.13 | 0.27 | 0.17 | 115 |
| 392 | 0.22 | 0.50 | 0.30 | 42 |
| 393 | 0.03 | 0.08 | 0.05 | 134 |
| 394 | 0.07 | 0.27 | 0.12 | 112 |
| 395 | 0.14 | 0.41 | 0.21 | 176 |
| 396 | 0.09 | 0.25 | 0.13 | 125 |
| 397 | 0.38 | 0.54 | 0.45 | 224 |
| 398 | 0.25 | 0.73 | 0.37 | 63 |
| 399 | 0.03 | 0.12 | 0.05 | 59 |
| 400 | 0.12 | 0.51 | 0.19 | 63 |
| 401 | 0.10 | 0.38 | 0.16 | 98 |
| 402 | 0.14 | 0.35 | 0.20 | 162 |
| 403 | 0.08 | 0.30 | 0.13 | 83 |
| 404 | 0.17 | 0.79 | 0.28 | 19 |
| 405 | 0.10 | 0.32 | 0.15 | 92 |
| 406 | 0.10 | 0.54 | 0.16 | 41 |
| 407 | 0.19 | 0.35 | 0.25 | 43 |
| 408 | 0.27 | 0.56 | 0.36 | 160 |
| 409 | 0.09 | 0.32 | 0.14 | 50 |
| 410 | 0.01 | 0.11 | 0.02 | 19 |
| 411 | 0.18 | 0.38 | 0.24 | 175 |
| 412 | 0.05 | 0.21 | 0.08 | 72 |
| 413 | 0.04 | 0.15 | 0.07 | 95 |
| 414 | 0.10 | 0.34 | 0.15 | 97 |
| 415 | 0.05 | 0.19 | 0.08 | 48 |
| 416 | 0.14 | 0.35 | 0.20 | 83 |
| 417 | 0.04 | 0.17 | 0.07 | 40 |
| 418 | 0.08 | 0.23 | 0.11 | 91 |
| 419 | 0.17 | 0.46 | 0.25 | 90 |
| 420 | 0.09 | 0.38 | 0.15 | 37 |
| 421 | 0.07 | 0.20 | 0.10 | 66 |
| 422 | 0.13 | 0.53 | 0.22 | 73 |
| 423 | 0.07 | 0.30 | 0.12 | 56 |
| 424 | 0.37 | 0.88 | 0.52 | 33 |
| 425 | 0.03 | 0.12 | 0.05 | 76 |
| 426 | 0.04 | 0.10 | 0.06 | 81 |
| 427 | 0.53 | 0.77 | 0.63 | 150 |
| 428 | 0.27 | 0.69 | 0.39 | 29 |
| 429 | 0.94 | 0.91 | 0.92 | 389 |
| 430 | 0.23 | 0.49 | 0.31 | 167 |
| 431 | 0.07 | 0.20 | 0.10 | 123 |
| 432 | 0.08 | 0.44 | 0.14 | 39 |
| 433 | 0.11 | 0.39 | 0.18 | 82 |
| 434 | 0.36 | 0.79 | 0.49 | 66 |
| 435 | 0.19 | 0.41 | 0.26 | 93 |
| 436 | 0.17 | 0.54 | 0.26 | 87 |
| 437 | 0.05 | 0.14 | 0.07 | 86 |
| 438 | 0.26 | 0.61 | 0.36 | 104 |
| 439 | 0.08 | 0.27 | 0.13 | 100 |
| 440 | 0.05 | 0.12 | 0.07 | 141 |
| 441 | 0.20 | 0.56 | 0.30 | 110 |
| 442 | 0.09 | 0.24 | 0.12 | 123 |
| 443 | 0.13 | 0.32 | 0.19 | 71 |

| | | | | |
|--------------|------|------|------|--------|
| 443 | 0.10 | 0.25 | 0.14 | 109 |
| 444 | 0.10 | 0.25 | 0.14 | 109 |
| 445 | 0.11 | 0.42 | 0.18 | 48 |
| 446 | 0.14 | 0.46 | 0.21 | 76 |
| 447 | 0.05 | 0.29 | 0.08 | 38 |
| 448 | 0.32 | 0.75 | 0.45 | 81 |
| 449 | 0.28 | 0.47 | 0.35 | 132 |
| 450 | 0.14 | 0.41 | 0.21 | 81 |
| 451 | 0.15 | 0.41 | 0.22 | 76 |
| 452 | 0.07 | 0.25 | 0.11 | 44 |
| 453 | 0.04 | 0.18 | 0.06 | 44 |
| 454 | 0.23 | 0.64 | 0.34 | 70 |
| 455 | 0.11 | 0.35 | 0.17 | 155 |
| 456 | 0.08 | 0.33 | 0.13 | 43 |
| 457 | 0.10 | 0.39 | 0.16 | 72 |
| 458 | 0.03 | 0.13 | 0.05 | 62 |
| 459 | 0.07 | 0.33 | 0.12 | 69 |
| 460 | 0.03 | 0.08 | 0.04 | 119 |
| 461 | 0.27 | 0.47 | 0.34 | 79 |
| 462 | 0.09 | 0.32 | 0.14 | 47 |
| 463 | 0.11 | 0.36 | 0.17 | 104 |
| 464 | 0.27 | 0.50 | 0.35 | 106 |
| 465 | 0.10 | 0.42 | 0.16 | 64 |
| 466 | 0.23 | 0.42 | 0.30 | 173 |
| 467 | 0.20 | 0.56 | 0.29 | 107 |
| 468 | 0.14 | 0.39 | 0.21 | 126 |
| 469 | 0.05 | 0.10 | 0.07 | 114 |
| 470 | 0.59 | 0.85 | 0.69 | 140 |
| 471 | 0.13 | 0.49 | 0.21 | 79 |
| 472 | 0.23 | 0.38 | 0.28 | 143 |
| 473 | 0.35 | 0.52 | 0.42 | 158 |
| 474 | 0.08 | 0.15 | 0.10 | 138 |
| 475 | 0.05 | 0.19 | 0.08 | 59 |
| 476 | 0.16 | 0.42 | 0.23 | 88 |
| 477 | 0.43 | 0.73 | 0.54 | 176 |
| 478 | 0.30 | 0.88 | 0.45 | 24 |
| 479 | 0.04 | 0.13 | 0.06 | 92 |
| 480 | 0.31 | 0.59 | 0.41 | 100 |
| 481 | 0.26 | 0.48 | 0.34 | 103 |
| 482 | 0.08 | 0.30 | 0.12 | 74 |
| 483 | 0.33 | 0.62 | 0.43 | 105 |
| 484 | 0.06 | 0.17 | 0.08 | 83 |
| 485 | 0.03 | 0.10 | 0.05 | 82 |
| 486 | 0.05 | 0.20 | 0.08 | 71 |
| 487 | 0.14 | 0.30 | 0.19 | 120 |
| 488 | 0.10 | 0.19 | 0.13 | 105 |
| 489 | 0.21 | 0.48 | 0.29 | 87 |
| 490 | 0.44 | 0.88 | 0.59 | 32 |
| 491 | 0.02 | 0.10 | 0.03 | 69 |
| 492 | 0.02 | 0.06 | 0.03 | 49 |
| 493 | 0.04 | 0.13 | 0.06 | 117 |
| 494 | 0.09 | 0.30 | 0.14 | 61 |
| 495 | 0.78 | 0.87 | 0.83 | 344 |
| 496 | 0.14 | 0.27 | 0.18 | 52 |
| 497 | 0.21 | 0.39 | 0.27 | 137 |
| 498 | 0.09 | 0.27 | 0.14 | 98 |
| 499 | 0.09 | 0.34 | 0.14 | 79 |
| micro avg | 0.29 | 0.47 | 0.36 | 173812 |
| macro avg | 0.21 | 0.41 | 0.27 | 173812 |
| weighted avg | 0.36 | 0.47 | 0.39 | 173812 |
| samples avg | 0.35 | 0.44 | 0.35 | 173812 |

Time taken to run this cell : 1:10:15.320523

Performing Hyperparameter tuning for Logistic regression to improve micro F1score using Grid searchCV.

In [0]:

```
#hyper-parameter tuning of alpha
start = datetime.now()
alpha = [10**-8, 10**-6, 10**-4, 10**-2]
for i in alpha:
```

```

classifier = OneVsRestClassifier(SGDClassifier(loss='log', alpha=i, penalty='l1', n_jobs=-1)
classifier.fit(x_train_multilabel,y_train)
predictions = classifier.predict(x_test_multilabel)
print("For alpha value = {}, Micro f1 score = {}".format(i, f1_score(y_test, predictions, average = 'micro')))
print("Time taken to run this cell :", datetime.now() - start)

```

```

For alpha value = 1e-08, Micro f1 score = 0.36335258836713785
For alpha value = 1e-06, Micro f1 score = 0.31365407812934953
For alpha value = 0.0001, Micro f1 score = 0.44154294402345434
For alpha value = 0.01, Micro f1 score = 0.19581010220856984
Time taken to run this cell : 4:47:56.835197

```

Best alpha value is 0.0001 and using the value below

In [0]:

```

start = datetime.now()
classifier_LR = OneVsRestClassifier(SGDClassifier(loss='log', alpha=0.0001, penalty='l1', n_jobs=-1)
classifier_LR.fit(x_train_multilabel, y_train)
predictions = classifier_LR.predict (x_test_multilabel)

print("Accuracy :",metrics.accuracy_score(y_test, predictions))
print("Hamming loss ",metrics.hamming_loss(y_test,predictions))

precision = precision_score(y_test, predictions, average='micro')
recall = recall_score(y_test, predictions, average='micro')
f1 = f1_score(y_test, predictions, average='micro')

print("Micro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

precision = precision_score(y_test, predictions, average='macro')
recall = recall_score(y_test, predictions, average='macro')
f1 = f1_score(y_test, predictions, average='macro')

print("Macro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

print (metrics.classification_report(y_test, predictions))
print("Time taken to run this cell :", datetime.now() - start)

```

```

Accuracy : 0.1603
Hamming loss 0.00365196
Micro-average quality numbers
Precision: 0.4717, Recall: 0.4208, F1-measure: 0.4448
Macro-average quality numbers
Precision: 0.3589, Recall: 0.3627, F1-measure: 0.3492

```

| | precision | recall | f1-score | support |
|----|-----------|--------|----------|---------|
| 0 | 0.78 | 0.77 | 0.78 | 5519 |
| 1 | 0.54 | 0.30 | 0.38 | 8190 |
| 2 | 0.65 | 0.44 | 0.52 | 6529 |
| 3 | 0.60 | 0.56 | 0.57 | 3231 |
| 4 | 0.63 | 0.46 | 0.54 | 6430 |
| 5 | 0.63 | 0.43 | 0.52 | 2879 |
| 6 | 0.71 | 0.57 | 0.63 | 5086 |
| 7 | 0.74 | 0.61 | 0.67 | 4533 |
| 8 | 0.36 | 0.16 | 0.22 | 3000 |
| 9 | 0.67 | 0.63 | 0.65 | 2765 |
| 10 | 0.41 | 0.21 | 0.28 | 3051 |
| 11 | 0.59 | 0.41 | 0.48 | 3009 |
| 12 | 0.47 | 0.31 | 0.37 | 2630 |
| 13 | 0.42 | 0.39 | 0.40 | 1426 |
| 14 | 0.75 | 0.65 | 0.70 | 2548 |
| 15 | 0.44 | 0.31 | 0.36 | 2371 |
| 16 | 0.42 | 0.34 | 0.37 | 873 |
| 17 | 0.62 | 0.69 | 0.65 | 2151 |
| 18 | 0.48 | 0.26 | 0.34 | 2204 |
| 19 | 0.56 | 0.45 | 0.50 | 831 |

| | | | | |
|----|------|------|------|------|
| 20 | 0.63 | 0.52 | 0.57 | 1860 |
| 21 | 0.22 | 0.11 | 0.15 | 2023 |
| 22 | 0.35 | 0.34 | 0.35 | 1513 |
| 23 | 0.61 | 0.65 | 0.63 | 1207 |
| 24 | 0.39 | 0.31 | 0.34 | 506 |
| 25 | 0.47 | 0.44 | 0.46 | 425 |
| 26 | 0.50 | 0.44 | 0.46 | 793 |
| 27 | 0.47 | 0.43 | 0.45 | 1291 |
| 28 | 0.66 | 0.46 | 0.54 | 1208 |
| 29 | 0.17 | 0.20 | 0.18 | 406 |
| 30 | 0.41 | 0.32 | 0.36 | 504 |
| 31 | 0.20 | 0.19 | 0.19 | 732 |
| 32 | 0.33 | 0.41 | 0.37 | 441 |
| 33 | 0.40 | 0.41 | 0.40 | 1645 |
| 34 | 0.46 | 0.31 | 0.37 | 1058 |
| 35 | 0.64 | 0.60 | 0.62 | 946 |
| 36 | 0.36 | 0.33 | 0.35 | 644 |
| 37 | 0.32 | 0.76 | 0.45 | 136 |
| 38 | 0.51 | 0.47 | 0.49 | 570 |
| 39 | 0.61 | 0.42 | 0.50 | 766 |
| 40 | 0.46 | 0.41 | 0.43 | 1132 |
| 41 | 0.26 | 0.34 | 0.30 | 174 |
| 42 | 0.47 | 0.65 | 0.55 | 210 |
| 43 | 0.48 | 0.51 | 0.49 | 433 |
| 44 | 0.54 | 0.54 | 0.54 | 626 |
| 45 | 0.42 | 0.43 | 0.42 | 852 |
| 46 | 0.60 | 0.48 | 0.53 | 534 |
| 47 | 0.23 | 0.24 | 0.24 | 350 |
| 48 | 0.59 | 0.54 | 0.56 | 496 |
| 49 | 0.61 | 0.74 | 0.67 | 785 |
| 50 | 0.17 | 0.16 | 0.16 | 475 |
| 51 | 0.27 | 0.18 | 0.22 | 305 |
| 52 | 0.14 | 0.08 | 0.10 | 251 |
| 53 | 0.44 | 0.51 | 0.47 | 914 |
| 54 | 0.38 | 0.22 | 0.28 | 728 |
| 55 | 0.22 | 0.09 | 0.13 | 258 |
| 56 | 0.24 | 0.32 | 0.27 | 821 |
| 57 | 0.29 | 0.12 | 0.17 | 541 |
| 58 | 0.56 | 0.36 | 0.44 | 748 |
| 59 | 0.80 | 0.74 | 0.77 | 724 |
| 60 | 0.22 | 0.17 | 0.19 | 660 |
| 61 | 0.42 | 0.30 | 0.35 | 235 |
| 62 | 0.74 | 0.82 | 0.77 | 718 |
| 63 | 0.62 | 0.77 | 0.69 | 468 |
| 64 | 0.33 | 0.50 | 0.39 | 191 |
| 65 | 0.22 | 0.18 | 0.20 | 429 |
| 66 | 0.15 | 0.14 | 0.15 | 415 |
| 67 | 0.56 | 0.57 | 0.56 | 274 |
| 68 | 0.65 | 0.61 | 0.63 | 510 |
| 69 | 0.53 | 0.47 | 0.50 | 466 |
| 70 | 0.14 | 0.14 | 0.14 | 305 |
| 71 | 0.31 | 0.21 | 0.25 | 247 |
| 72 | 0.70 | 0.54 | 0.61 | 401 |
| 73 | 0.48 | 0.85 | 0.61 | 86 |
| 74 | 0.45 | 0.53 | 0.49 | 120 |
| 75 | 0.49 | 0.74 | 0.59 | 129 |
| 76 | 0.14 | 0.01 | 0.03 | 473 |
| 77 | 0.28 | 0.32 | 0.30 | 143 |
| 78 | 0.66 | 0.57 | 0.61 | 347 |
| 79 | 0.51 | 0.29 | 0.37 | 479 |
| 80 | 0.37 | 0.43 | 0.40 | 279 |
| 81 | 0.67 | 0.29 | 0.40 | 461 |
| 82 | 0.08 | 0.05 | 0.06 | 298 |
| 83 | 0.56 | 0.56 | 0.56 | 396 |
| 84 | 0.30 | 0.39 | 0.33 | 184 |
| 85 | 0.29 | 0.28 | 0.29 | 573 |
| 86 | 0.12 | 0.16 | 0.14 | 325 |
| 87 | 0.45 | 0.36 | 0.40 | 273 |
| 88 | 0.18 | 0.19 | 0.19 | 135 |
| 89 | 0.12 | 0.21 | 0.16 | 232 |
| 90 | 0.36 | 0.49 | 0.42 | 409 |
| 91 | 0.32 | 0.34 | 0.33 | 420 |
| 92 | 0.57 | 0.63 | 0.60 | 408 |
| 93 | 0.34 | 0.52 | 0.41 | 241 |
| 94 | 0.17 | 0.07 | 0.10 | 211 |
| 95 | 0.21 | 0.14 | 0.17 | 277 |
| 96 | 0.16 | 0.15 | 0.15 | 410 |

| | | | | |
|-----|------|------|------|-----|
| 97 | 0.78 | 0.51 | 0.61 | 501 |
| 98 | 0.38 | 0.68 | 0.49 | 136 |
| 99 | 0.28 | 0.36 | 0.31 | 239 |
| 100 | 0.24 | 0.18 | 0.21 | 324 |
| 101 | 0.44 | 0.73 | 0.55 | 277 |
| 102 | 0.80 | 0.82 | 0.81 | 613 |
| 103 | 0.39 | 0.26 | 0.31 | 157 |
| 104 | 0.15 | 0.19 | 0.17 | 295 |
| 105 | 0.34 | 0.50 | 0.41 | 334 |
| 106 | 0.37 | 0.34 | 0.36 | 335 |
| 107 | 0.47 | 0.61 | 0.53 | 389 |
| 108 | 0.36 | 0.37 | 0.36 | 251 |
| 109 | 0.37 | 0.49 | 0.42 | 317 |
| 110 | 0.19 | 0.12 | 0.14 | 187 |
| 111 | 0.23 | 0.28 | 0.25 | 140 |
| 112 | 0.32 | 0.47 | 0.38 | 154 |
| 113 | 0.43 | 0.33 | 0.37 | 332 |
| 114 | 0.29 | 0.31 | 0.30 | 323 |
| 115 | 0.33 | 0.28 | 0.30 | 344 |
| 116 | 0.60 | 0.57 | 0.58 | 370 |
| 117 | 0.44 | 0.32 | 0.37 | 313 |
| 118 | 0.73 | 0.77 | 0.75 | 874 |
| 119 | 0.23 | 0.34 | 0.28 | 293 |
| 120 | 0.07 | 0.03 | 0.04 | 200 |
| 121 | 0.51 | 0.60 | 0.55 | 463 |
| 122 | 0.23 | 0.30 | 0.26 | 119 |
| 123 | 0.12 | 0.02 | 0.03 | 256 |
| 124 | 0.70 | 0.77 | 0.73 | 195 |
| 125 | 0.24 | 0.23 | 0.24 | 138 |
| 126 | 0.65 | 0.56 | 0.60 | 376 |
| 127 | 0.13 | 0.09 | 0.11 | 122 |
| 128 | 0.15 | 0.10 | 0.12 | 252 |
| 129 | 0.19 | 0.28 | 0.23 | 144 |
| 130 | 0.38 | 0.20 | 0.26 | 150 |
| 131 | 0.09 | 0.13 | 0.11 | 210 |
| 132 | 0.35 | 0.38 | 0.36 | 361 |
| 133 | 0.71 | 0.67 | 0.69 | 453 |
| 134 | 0.58 | 0.82 | 0.68 | 124 |
| 135 | 0.13 | 0.07 | 0.09 | 91 |
| 136 | 0.39 | 0.34 | 0.36 | 128 |
| 137 | 0.36 | 0.44 | 0.39 | 218 |
| 138 | 0.47 | 0.28 | 0.35 | 243 |
| 139 | 0.18 | 0.21 | 0.20 | 149 |
| 140 | 0.64 | 0.55 | 0.59 | 318 |
| 141 | 0.12 | 0.18 | 0.15 | 159 |
| 142 | 0.53 | 0.47 | 0.50 | 274 |
| 143 | 0.73 | 0.88 | 0.80 | 362 |
| 144 | 0.24 | 0.30 | 0.27 | 118 |
| 145 | 0.25 | 0.52 | 0.34 | 164 |
| 146 | 0.36 | 0.42 | 0.38 | 461 |
| 147 | 0.49 | 0.58 | 0.53 | 159 |
| 148 | 0.19 | 0.17 | 0.18 | 166 |
| 149 | 0.81 | 0.62 | 0.70 | 346 |
| 150 | 0.41 | 0.17 | 0.24 | 350 |
| 151 | 0.34 | 0.71 | 0.46 | 55 |
| 152 | 0.55 | 0.57 | 0.56 | 387 |
| 153 | 0.29 | 0.25 | 0.27 | 150 |
| 154 | 0.50 | 0.15 | 0.23 | 281 |
| 155 | 0.12 | 0.20 | 0.15 | 202 |
| 156 | 0.50 | 0.68 | 0.58 | 130 |
| 157 | 0.19 | 0.15 | 0.17 | 245 |
| 158 | 0.57 | 0.67 | 0.62 | 177 |
| 159 | 0.36 | 0.46 | 0.40 | 130 |
| 160 | 0.27 | 0.25 | 0.26 | 336 |
| 161 | 0.68 | 0.75 | 0.71 | 220 |
| 162 | 0.15 | 0.12 | 0.13 | 229 |
| 163 | 0.60 | 0.54 | 0.57 | 316 |
| 164 | 0.42 | 0.45 | 0.43 | 283 |
| 165 | 0.22 | 0.32 | 0.26 | 197 |
| 166 | 0.31 | 0.50 | 0.38 | 101 |
| 167 | 0.25 | 0.25 | 0.25 | 231 |
| 168 | 0.18 | 0.35 | 0.24 | 370 |
| 169 | 0.30 | 0.41 | 0.34 | 258 |
| 170 | 0.23 | 0.18 | 0.20 | 101 |
| 171 | 0.24 | 0.35 | 0.28 | 89 |
| 172 | 0.28 | 0.38 | 0.32 | 193 |
| 173 | 0.36 | 0.33 | 0.35 | 309 |

| | | | | |
|-----|------|------|------|-----|
| 174 | 0.24 | 0.17 | 0.20 | 172 |
| 175 | 0.50 | 0.87 | 0.64 | 95 |
| 176 | 0.76 | 0.71 | 0.74 | 346 |
| 177 | 0.78 | 0.61 | 0.68 | 322 |
| 178 | 0.41 | 0.53 | 0.46 | 232 |
| 179 | 0.11 | 0.10 | 0.10 | 125 |
| 180 | 0.24 | 0.39 | 0.30 | 145 |
| 181 | 0.09 | 0.23 | 0.13 | 77 |
| 182 | 0.11 | 0.13 | 0.12 | 182 |
| 183 | 0.46 | 0.40 | 0.42 | 257 |
| 184 | 0.17 | 0.07 | 0.10 | 216 |
| 185 | 0.24 | 0.17 | 0.20 | 242 |
| 186 | 0.19 | 0.30 | 0.24 | 165 |
| 187 | 0.49 | 0.57 | 0.53 | 263 |
| 188 | 0.21 | 0.23 | 0.22 | 174 |
| 189 | 0.45 | 0.46 | 0.45 | 136 |
| 190 | 0.45 | 0.67 | 0.54 | 202 |
| 191 | 0.21 | 0.28 | 0.24 | 134 |
| 192 | 0.56 | 0.48 | 0.52 | 230 |
| 193 | 0.10 | 0.28 | 0.15 | 90 |
| 194 | 0.34 | 0.63 | 0.44 | 185 |
| 195 | 0.10 | 0.09 | 0.10 | 156 |
| 196 | 0.24 | 0.14 | 0.17 | 160 |
| 197 | 0.35 | 0.16 | 0.22 | 266 |
| 198 | 0.39 | 0.18 | 0.25 | 284 |
| 199 | 0.11 | 0.12 | 0.12 | 145 |
| 200 | 0.83 | 0.81 | 0.82 | 212 |
| 201 | 0.43 | 0.24 | 0.31 | 317 |
| 202 | 0.61 | 0.66 | 0.63 | 427 |
| 203 | 0.26 | 0.24 | 0.25 | 232 |
| 204 | 0.34 | 0.39 | 0.36 | 217 |
| 205 | 0.42 | 0.57 | 0.48 | 527 |
| 206 | 0.06 | 0.05 | 0.05 | 124 |
| 207 | 0.16 | 0.25 | 0.19 | 103 |
| 208 | 0.66 | 0.59 | 0.62 | 287 |
| 209 | 0.11 | 0.15 | 0.13 | 193 |
| 210 | 0.39 | 0.48 | 0.43 | 220 |
| 211 | 0.58 | 0.30 | 0.39 | 140 |
| 212 | 0.10 | 0.14 | 0.12 | 161 |
| 213 | 0.27 | 0.42 | 0.33 | 72 |
| 214 | 0.59 | 0.52 | 0.55 | 396 |
| 215 | 0.60 | 0.48 | 0.53 | 134 |
| 216 | 0.34 | 0.20 | 0.26 | 400 |
| 217 | 0.28 | 0.33 | 0.30 | 75 |
| 218 | 0.76 | 0.79 | 0.77 | 219 |
| 219 | 0.44 | 0.50 | 0.47 | 210 |
| 220 | 0.79 | 0.79 | 0.79 | 298 |
| 221 | 0.84 | 0.70 | 0.76 | 266 |
| 222 | 0.60 | 0.56 | 0.58 | 290 |
| 223 | 0.18 | 0.10 | 0.13 | 128 |
| 224 | 0.52 | 0.50 | 0.51 | 159 |
| 225 | 0.32 | 0.37 | 0.34 | 164 |
| 226 | 0.50 | 0.43 | 0.46 | 144 |
| 227 | 0.43 | 0.55 | 0.48 | 276 |
| 228 | 0.09 | 0.04 | 0.06 | 235 |
| 229 | 0.23 | 0.06 | 0.10 | 216 |
| 230 | 0.18 | 0.27 | 0.21 | 228 |
| 231 | 0.54 | 0.58 | 0.56 | 64 |
| 232 | 0.09 | 0.15 | 0.11 | 103 |
| 233 | 0.55 | 0.49 | 0.52 | 216 |
| 234 | 0.22 | 0.14 | 0.17 | 116 |
| 235 | 0.43 | 0.48 | 0.45 | 77 |
| 236 | 0.46 | 0.72 | 0.56 | 67 |
| 237 | 0.26 | 0.14 | 0.18 | 218 |
| 238 | 0.09 | 0.13 | 0.11 | 139 |
| 239 | 0.15 | 0.07 | 0.10 | 94 |
| 240 | 0.32 | 0.44 | 0.37 | 77 |
| 241 | 0.37 | 0.11 | 0.17 | 167 |
| 242 | 0.33 | 0.48 | 0.39 | 86 |
| 243 | 0.26 | 0.28 | 0.27 | 58 |
| 244 | 0.29 | 0.38 | 0.33 | 269 |
| 245 | 0.12 | 0.12 | 0.12 | 112 |
| 246 | 0.84 | 0.78 | 0.81 | 255 |
| 247 | 0.19 | 0.34 | 0.25 | 58 |
| 248 | 0.11 | 0.10 | 0.11 | 81 |
| 249 | 0.10 | 0.10 | 0.10 | 131 |
| 250 | 0.17 | 0.23 | 0.20 | 93 |

| | | | | |
|-----|------|------|------|-----|
| 251 | 0.39 | 0.38 | 0.38 | 154 |
| 252 | 0.12 | 0.04 | 0.06 | 129 |
| 253 | 0.27 | 0.40 | 0.32 | 83 |
| 254 | 0.26 | 0.20 | 0.23 | 191 |
| 255 | 0.12 | 0.11 | 0.11 | 219 |
| 256 | 0.16 | 0.12 | 0.14 | 130 |
| 257 | 0.24 | 0.34 | 0.28 | 93 |
| 258 | 0.57 | 0.59 | 0.58 | 217 |
| 259 | 0.15 | 0.27 | 0.19 | 141 |
| 260 | 0.36 | 0.28 | 0.32 | 143 |
| 261 | 0.51 | 0.16 | 0.24 | 219 |
| 262 | 0.24 | 0.33 | 0.28 | 107 |
| 263 | 0.31 | 0.41 | 0.35 | 236 |
| 264 | 0.19 | 0.25 | 0.22 | 119 |
| 265 | 0.23 | 0.50 | 0.32 | 72 |
| 266 | 0.15 | 0.21 | 0.18 | 70 |
| 267 | 0.23 | 0.25 | 0.24 | 107 |
| 268 | 0.47 | 0.59 | 0.52 | 169 |
| 269 | 0.17 | 0.27 | 0.21 | 129 |
| 270 | 0.49 | 0.62 | 0.55 | 159 |
| 271 | 0.32 | 0.51 | 0.39 | 190 |
| 272 | 0.35 | 0.38 | 0.36 | 248 |
| 273 | 0.82 | 0.81 | 0.81 | 264 |
| 274 | 0.69 | 0.75 | 0.72 | 105 |
| 275 | 0.06 | 0.15 | 0.08 | 104 |
| 276 | 0.04 | 0.07 | 0.05 | 115 |
| 277 | 0.67 | 0.69 | 0.68 | 170 |
| 278 | 0.46 | 0.56 | 0.50 | 145 |
| 279 | 0.81 | 0.75 | 0.78 | 230 |
| 280 | 0.28 | 0.44 | 0.34 | 80 |
| 281 | 0.59 | 0.63 | 0.61 | 217 |
| 282 | 0.69 | 0.59 | 0.64 | 175 |
| 283 | 0.23 | 0.26 | 0.24 | 269 |
| 284 | 0.49 | 0.47 | 0.48 | 74 |
| 285 | 0.61 | 0.61 | 0.61 | 206 |
| 286 | 0.63 | 0.67 | 0.65 | 227 |
| 287 | 0.19 | 0.47 | 0.27 | 130 |
| 288 | 0.27 | 0.15 | 0.19 | 129 |
| 289 | 0.07 | 0.14 | 0.09 | 80 |
| 290 | 0.08 | 0.17 | 0.11 | 99 |
| 291 | 0.51 | 0.50 | 0.51 | 208 |
| 292 | 0.15 | 0.13 | 0.14 | 67 |
| 293 | 0.27 | 0.51 | 0.35 | 109 |
| 294 | 0.19 | 0.37 | 0.25 | 140 |
| 295 | 0.14 | 0.27 | 0.18 | 241 |
| 296 | 0.21 | 0.26 | 0.23 | 72 |
| 297 | 0.15 | 0.14 | 0.15 | 107 |
| 298 | 0.22 | 0.56 | 0.31 | 61 |
| 299 | 0.35 | 0.51 | 0.41 | 77 |
| 300 | 0.17 | 0.15 | 0.16 | 111 |
| 301 | 0.03 | 0.01 | 0.01 | 126 |
| 302 | 0.12 | 0.03 | 0.04 | 73 |
| 303 | 0.41 | 0.55 | 0.47 | 176 |
| 304 | 0.81 | 0.84 | 0.83 | 230 |
| 305 | 0.59 | 0.79 | 0.68 | 156 |
| 306 | 0.30 | 0.48 | 0.37 | 146 |
| 307 | 0.30 | 0.16 | 0.21 | 98 |
| 308 | 0.00 | 0.00 | 0.00 | 78 |
| 309 | 0.47 | 0.23 | 0.31 | 94 |
| 310 | 0.36 | 0.51 | 0.42 | 162 |
| 311 | 0.54 | 0.61 | 0.57 | 116 |
| 312 | 0.42 | 0.39 | 0.40 | 57 |
| 313 | 0.50 | 0.06 | 0.11 | 65 |
| 314 | 0.45 | 0.40 | 0.42 | 138 |
| 315 | 0.31 | 0.37 | 0.34 | 195 |
| 316 | 0.22 | 0.36 | 0.27 | 69 |
| 317 | 0.18 | 0.25 | 0.21 | 134 |
| 318 | 0.22 | 0.35 | 0.27 | 148 |
| 319 | 0.75 | 0.55 | 0.64 | 161 |
| 320 | 0.17 | 0.33 | 0.22 | 104 |
| 321 | 0.65 | 0.60 | 0.62 | 156 |
| 322 | 0.36 | 0.46 | 0.40 | 134 |
| 323 | 0.50 | 0.42 | 0.45 | 232 |
| 324 | 0.18 | 0.18 | 0.18 | 92 |
| 325 | 0.26 | 0.29 | 0.28 | 197 |
| 326 | 0.07 | 0.03 | 0.04 | 126 |
| 327 | 0.13 | 0.07 | 0.09 | 115 |

| | | | | |
|-----|------|------|------|-----|
| 328 | 0.90 | 0.77 | 0.83 | 198 |
| 329 | 0.41 | 0.36 | 0.38 | 125 |
| 330 | 0.38 | 0.33 | 0.35 | 81 |
| 331 | 0.10 | 0.15 | 0.12 | 94 |
| 332 | 0.00 | 0.00 | 0.00 | 56 |
| 333 | 0.13 | 0.15 | 0.14 | 260 |
| 334 | 0.33 | 0.12 | 0.17 | 60 |
| 335 | 0.17 | 0.25 | 0.21 | 110 |
| 336 | 0.32 | 0.58 | 0.41 | 71 |
| 337 | 0.17 | 0.21 | 0.19 | 66 |
| 338 | 0.30 | 0.38 | 0.33 | 150 |
| 339 | 0.01 | 0.02 | 0.01 | 54 |
| 340 | 0.68 | 0.67 | 0.67 | 195 |
| 341 | 0.50 | 0.35 | 0.41 | 79 |
| 342 | 0.22 | 0.42 | 0.29 | 38 |
| 343 | 0.23 | 0.49 | 0.32 | 43 |
| 344 | 0.16 | 0.15 | 0.15 | 68 |
| 345 | 0.49 | 0.47 | 0.48 | 73 |
| 346 | 0.12 | 0.11 | 0.12 | 116 |
| 347 | 0.76 | 0.60 | 0.67 | 111 |
| 348 | 0.06 | 0.16 | 0.09 | 63 |
| 349 | 0.62 | 0.78 | 0.69 | 104 |
| 350 | 0.40 | 0.57 | 0.47 | 44 |
| 351 | 0.19 | 0.35 | 0.25 | 40 |
| 352 | 0.77 | 0.57 | 0.65 | 136 |
| 353 | 0.45 | 0.37 | 0.41 | 54 |
| 354 | 0.25 | 0.11 | 0.16 | 134 |
| 355 | 0.39 | 0.42 | 0.40 | 120 |
| 356 | 0.37 | 0.46 | 0.41 | 228 |
| 357 | 0.43 | 0.45 | 0.44 | 269 |
| 358 | 0.35 | 0.45 | 0.39 | 80 |
| 359 | 0.73 | 0.72 | 0.73 | 140 |
| 360 | 0.14 | 0.24 | 0.18 | 125 |
| 361 | 0.70 | 0.76 | 0.73 | 169 |
| 362 | 0.05 | 0.09 | 0.06 | 56 |
| 363 | 0.69 | 0.82 | 0.75 | 154 |
| 364 | 0.40 | 0.14 | 0.21 | 58 |
| 365 | 0.14 | 0.25 | 0.18 | 71 |
| 366 | 0.82 | 0.76 | 0.79 | 54 |
| 367 | 0.25 | 0.14 | 0.18 | 116 |
| 368 | 0.02 | 0.07 | 0.03 | 54 |
| 369 | 0.06 | 0.04 | 0.05 | 71 |
| 370 | 0.07 | 0.03 | 0.05 | 61 |
| 371 | 0.17 | 0.14 | 0.15 | 71 |
| 372 | 0.31 | 0.54 | 0.39 | 52 |
| 373 | 0.53 | 0.49 | 0.51 | 150 |
| 374 | 0.28 | 0.26 | 0.27 | 93 |
| 375 | 0.10 | 0.06 | 0.08 | 67 |
| 376 | 0.05 | 0.04 | 0.04 | 76 |
| 377 | 0.28 | 0.24 | 0.26 | 106 |
| 378 | 0.11 | 0.05 | 0.06 | 86 |
| 379 | 0.09 | 0.21 | 0.12 | 14 |
| 380 | 0.72 | 0.61 | 0.66 | 122 |
| 381 | 0.07 | 0.11 | 0.08 | 104 |
| 382 | 0.15 | 0.27 | 0.19 | 66 |
| 383 | 0.36 | 0.42 | 0.38 | 110 |
| 384 | 0.11 | 0.05 | 0.06 | 155 |
| 385 | 0.28 | 0.16 | 0.20 | 50 |
| 386 | 0.15 | 0.27 | 0.19 | 64 |
| 387 | 0.12 | 0.09 | 0.10 | 93 |
| 388 | 0.47 | 0.33 | 0.39 | 102 |
| 389 | 0.10 | 0.05 | 0.06 | 108 |
| 390 | 0.77 | 0.77 | 0.77 | 178 |
| 391 | 0.25 | 0.31 | 0.28 | 115 |
| 392 | 0.56 | 0.60 | 0.57 | 42 |
| 393 | 0.00 | 0.00 | 0.00 | 134 |
| 394 | 0.16 | 0.06 | 0.09 | 112 |
| 395 | 0.18 | 0.37 | 0.24 | 176 |
| 396 | 0.31 | 0.12 | 0.17 | 125 |
| 397 | 0.55 | 0.44 | 0.49 | 224 |
| 398 | 0.76 | 0.65 | 0.70 | 63 |
| 399 | 0.03 | 0.02 | 0.02 | 59 |
| 400 | 0.23 | 0.40 | 0.29 | 63 |
| 401 | 0.22 | 0.28 | 0.24 | 98 |
| 402 | 0.34 | 0.32 | 0.33 | 162 |
| 403 | 0.21 | 0.27 | 0.23 | 83 |
| 404 | 0.28 | 0.84 | 0.42 | 19 |

| | | | | |
|-----|------|------|------|-----|
| 405 | 0.08 | 0.15 | 0.11 | 92 |
| 406 | 0.27 | 0.44 | 0.34 | 41 |
| 407 | 0.40 | 0.40 | 0.40 | 43 |
| 408 | 0.58 | 0.42 | 0.49 | 160 |
| 409 | 0.30 | 0.28 | 0.29 | 50 |
| 410 | 0.03 | 0.05 | 0.04 | 19 |
| 411 | 0.24 | 0.25 | 0.24 | 175 |
| 412 | 0.13 | 0.04 | 0.06 | 72 |
| 413 | 0.34 | 0.15 | 0.21 | 95 |
| 414 | 0.17 | 0.20 | 0.18 | 97 |
| 415 | 0.18 | 0.15 | 0.16 | 48 |
| 416 | 0.28 | 0.33 | 0.30 | 83 |
| 417 | 0.57 | 0.10 | 0.17 | 40 |
| 418 | 0.28 | 0.21 | 0.24 | 91 |
| 419 | 0.32 | 0.51 | 0.40 | 90 |
| 420 | 0.20 | 0.30 | 0.24 | 37 |
| 421 | 0.09 | 0.12 | 0.11 | 66 |
| 422 | 0.38 | 0.40 | 0.39 | 73 |
| 423 | 0.30 | 0.30 | 0.30 | 56 |
| 424 | 0.83 | 0.91 | 0.87 | 33 |
| 425 | 0.06 | 0.08 | 0.07 | 76 |
| 426 | 0.12 | 0.06 | 0.08 | 81 |
| 427 | 0.92 | 0.81 | 0.86 | 150 |
| 428 | 0.45 | 0.72 | 0.55 | 29 |
| 429 | 0.99 | 0.89 | 0.94 | 389 |
| 430 | 0.53 | 0.43 | 0.47 | 167 |
| 431 | 0.23 | 0.15 | 0.18 | 123 |
| 432 | 0.21 | 0.38 | 0.27 | 39 |
| 433 | 0.24 | 0.29 | 0.27 | 82 |
| 434 | 0.63 | 0.74 | 0.68 | 66 |
| 435 | 0.50 | 0.48 | 0.49 | 93 |
| 436 | 0.53 | 0.43 | 0.47 | 87 |
| 437 | 0.15 | 0.14 | 0.14 | 86 |
| 438 | 0.67 | 0.66 | 0.67 | 104 |
| 439 | 0.31 | 0.26 | 0.28 | 100 |
| 440 | 0.10 | 0.09 | 0.10 | 141 |
| 441 | 0.26 | 0.45 | 0.33 | 110 |
| 442 | 0.25 | 0.22 | 0.24 | 123 |
| 443 | 0.50 | 0.18 | 0.27 | 71 |
| 444 | 0.23 | 0.12 | 0.16 | 109 |
| 445 | 0.19 | 0.29 | 0.23 | 48 |
| 446 | 0.38 | 0.50 | 0.43 | 76 |
| 447 | 0.17 | 0.29 | 0.22 | 38 |
| 448 | 0.50 | 0.62 | 0.55 | 81 |
| 449 | 0.41 | 0.34 | 0.37 | 132 |
| 450 | 0.44 | 0.38 | 0.41 | 81 |
| 451 | 0.45 | 0.43 | 0.44 | 76 |
| 452 | 0.00 | 0.00 | 0.00 | 44 |
| 453 | 0.05 | 0.02 | 0.03 | 44 |
| 454 | 0.51 | 0.60 | 0.55 | 70 |
| 455 | 0.17 | 0.23 | 0.20 | 155 |
| 456 | 0.11 | 0.33 | 0.16 | 43 |
| 457 | 0.32 | 0.40 | 0.36 | 72 |
| 458 | 0.08 | 0.08 | 0.08 | 62 |
| 459 | 0.32 | 0.23 | 0.27 | 69 |
| 460 | 0.04 | 0.07 | 0.05 | 119 |
| 461 | 0.66 | 0.37 | 0.47 | 79 |
| 462 | 0.11 | 0.15 | 0.13 | 47 |
| 463 | 0.17 | 0.26 | 0.20 | 104 |
| 464 | 0.36 | 0.40 | 0.38 | 106 |
| 465 | 0.25 | 0.20 | 0.22 | 64 |
| 466 | 0.45 | 0.40 | 0.42 | 173 |
| 467 | 0.33 | 0.48 | 0.39 | 107 |
| 468 | 0.51 | 0.21 | 0.30 | 126 |
| 469 | 0.05 | 0.03 | 0.04 | 114 |
| 470 | 0.86 | 0.82 | 0.84 | 140 |
| 471 | 0.49 | 0.47 | 0.48 | 79 |
| 472 | 0.29 | 0.38 | 0.33 | 143 |
| 473 | 0.42 | 0.50 | 0.46 | 158 |
| 474 | 0.15 | 0.10 | 0.12 | 138 |
| 475 | 0.14 | 0.12 | 0.13 | 59 |
| 476 | 0.58 | 0.48 | 0.52 | 88 |
| 477 | 0.72 | 0.67 | 0.70 | 176 |
| 478 | 0.43 | 0.79 | 0.56 | 24 |
| 479 | 0.10 | 0.17 | 0.12 | 92 |
| 480 | 0.53 | 0.56 | 0.55 | 100 |
| 481 | 0.47 | 0.43 | 0.45 | 103 |

| | | | | |
|--------------|------|------|------|--------|
| 481 | 0.17 | 0.15 | 0.15 | 105 |
| 482 | 0.20 | 0.24 | 0.22 | 74 |
| 483 | 0.64 | 0.70 | 0.67 | 105 |
| 484 | 0.15 | 0.18 | 0.16 | 83 |
| 485 | 0.14 | 0.02 | 0.04 | 82 |
| 486 | 0.25 | 0.18 | 0.21 | 71 |
| 487 | 0.30 | 0.23 | 0.26 | 120 |
| 488 | 0.18 | 0.16 | 0.17 | 105 |
| 489 | 0.34 | 0.51 | 0.41 | 87 |
| 490 | 0.93 | 0.81 | 0.87 | 32 |
| 491 | 0.12 | 0.10 | 0.11 | 69 |
| 492 | 0.13 | 0.04 | 0.06 | 49 |
| 493 | 0.08 | 0.03 | 0.05 | 117 |
| 494 | 0.48 | 0.26 | 0.34 | 61 |
| 495 | 0.87 | 0.67 | 0.76 | 344 |
| 496 | 0.22 | 0.21 | 0.22 | 52 |
| 497 | 0.38 | 0.31 | 0.34 | 137 |
| 498 | 0.32 | 0.12 | 0.18 | 98 |
| 499 | 0.18 | 0.33 | 0.23 | 79 |
| | | | | |
| micro avg | 0.47 | 0.42 | 0.44 | 173812 |
| macro avg | 0.36 | 0.36 | 0.35 | 173812 |
| weighted avg | 0.49 | 0.42 | 0.44 | 173812 |
| samples avg | 0.41 | 0.40 | 0.37 | 173812 |

Time taken to run this cell : 0:30:37.201401

3. Linear SVM using SGDClassifier with hinge loss

In [0]:

```
#hyper-parameter tuning of alpha
start = datetime.now()
alpha = [10**-8]
for i in alpha:
    classifier_svm = OneVsRestClassifier(SGDClassifier(loss='hinge', alpha=i, penalty='l1'), n_jobs=-1)
    classifier_svm.fit(x_train_multilabel,y_train)
    predictions = classifier_svm.predict(x_test_multilabel)
    print("For alpha value = {}, Micro f1 score = {}".format(i, f1_score(y_test, predictions, average = 'micro')))
print("Time taken to run this cell :", datetime.now() - start)
```

For alpha value = 1e-08, Micro f1 score = 0.36372071779708887

In [13]:

```
#hyper-parameter tuning of alpha
start = datetime.now()
alpha = [ 10**-6, 10**-4, 10**-2]
for i in alpha:
    classifier_svm = OneVsRestClassifier(SGDClassifier(loss='hinge', alpha=i, penalty='l1'), n_jobs=-1)
    classifier_svm.fit(x_train_multilabel,y_train)
    predictions = classifier_svm.predict(x_test_multilabel)
    print("For alpha value = {}, Micro f1 score = {}".format(i, f1_score(y_test, predictions, average = 'micro')))
print("Time taken to run this cell :", datetime.now() - start)
```

For alpha value = 1e-06, Micro f1 score = 0.3152879223755425

For alpha value = 0.0001, Micro f1 score = 0.4369787540293561

For alpha value = 0.01, Micro f1 score = 0.22562265354697814

Time taken to run this cell : 2:31:59.039233

best hyperparameter value of alpha is 0.0001

In [14]:

```
start = datetime.now()
classifier_svm = OneVsRestClassifier(SGDClassifier(loss='hinge', alpha=0.0001, penalty='l1'), n_jobs=-1)
```

```

classifier_SVM = OneVsRestClassifier(LogisticRegression(solver='lbfgs', alpha=0.0001, penalty='l1', n_jobs=-1))
classifier_SVM.fit(x_train_multilabel, y_train)
predictions = classifier_SVM.predict(x_test_multilabel)

print("Accuracy :", metrics.accuracy_score(y_test, predictions))
print("Hamming loss ", metrics.hamming_loss(y_test, predictions))

precision = precision_score(y_test, predictions, average='micro')
recall = recall_score(y_test, predictions, average='micro')
f1 = f1_score(y_test, predictions, average='micro')

print("Micro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

precision = precision_score(y_test, predictions, average='macro')
recall = recall_score(y_test, predictions, average='macro')
f1 = f1_score(y_test, predictions, average='macro')

print("Macro-average quality numbers")
print("Precision: {:.4f}, Recall: {:.4f}, F1-measure: {:.4f}".format(precision, recall, f1))

print(metrics.classification_report(y_test, predictions))
print("Time taken to run this cell :", datetime.now() - start)

```

```

Accuracy : 0.15043
Hamming loss 0.0037375
Micro-average quality numbers
Precision: 0.4586, Recall: 0.4166, F1-measure: 0.4366
Macro-average quality numbers
Precision: 0.3403, Recall: 0.3592, F1-measure: 0.3363

```

| | precision | recall | f1-score | support |
|----|-----------|--------|----------|---------|
| 0 | 0.80 | 0.77 | 0.78 | 5519 |
| 1 | 0.52 | 0.32 | 0.40 | 8190 |
| 2 | 0.67 | 0.43 | 0.52 | 6529 |
| 3 | 0.63 | 0.55 | 0.59 | 3231 |
| 4 | 0.68 | 0.45 | 0.54 | 6430 |
| 5 | 0.55 | 0.46 | 0.50 | 2879 |
| 6 | 0.69 | 0.57 | 0.63 | 5086 |
| 7 | 0.71 | 0.61 | 0.66 | 4533 |
| 8 | 0.38 | 0.14 | 0.21 | 3000 |
| 9 | 0.63 | 0.63 | 0.63 | 2765 |
| 10 | 0.41 | 0.19 | 0.26 | 3051 |
| 11 | 0.51 | 0.44 | 0.47 | 3009 |
| 12 | 0.45 | 0.36 | 0.40 | 2630 |
| 13 | 0.46 | 0.34 | 0.39 | 1426 |
| 14 | 0.80 | 0.64 | 0.71 | 2548 |
| 15 | 0.48 | 0.28 | 0.35 | 2371 |
| 16 | 0.41 | 0.33 | 0.36 | 873 |
| 17 | 0.70 | 0.67 | 0.68 | 2151 |
| 18 | 0.43 | 0.29 | 0.35 | 2204 |
| 19 | 0.41 | 0.52 | 0.46 | 831 |
| 20 | 0.60 | 0.54 | 0.57 | 1860 |
| 21 | 0.21 | 0.15 | 0.18 | 2023 |
| 22 | 0.35 | 0.31 | 0.33 | 1513 |
| 23 | 0.65 | 0.67 | 0.66 | 1207 |
| 24 | 0.38 | 0.37 | 0.38 | 506 |
| 25 | 0.36 | 0.42 | 0.38 | 425 |
| 26 | 0.49 | 0.43 | 0.46 | 793 |
| 27 | 0.47 | 0.43 | 0.45 | 1291 |
| 28 | 0.54 | 0.49 | 0.51 | 1208 |
| 29 | 0.26 | 0.18 | 0.22 | 406 |
| 30 | 0.42 | 0.29 | 0.34 | 504 |
| 31 | 0.17 | 0.12 | 0.14 | 732 |
| 32 | 0.29 | 0.41 | 0.34 | 441 |
| 33 | 0.43 | 0.27 | 0.33 | 1645 |
| 34 | 0.47 | 0.30 | 0.36 | 1058 |
| 35 | 0.61 | 0.58 | 0.60 | 946 |
| 36 | 0.46 | 0.38 | 0.41 | 644 |
| 37 | 0.62 | 0.77 | 0.69 | 136 |
| 38 | 0.38 | 0.47 | 0.42 | 570 |
| 39 | 0.54 | 0.42 | 0.47 | 766 |
| 40 | 0.48 | 0.38 | 0.43 | 1132 |
| 41 | 0.25 | 0.31 | 0.28 | 174 |

| | | | | |
|-----|------|------|------|-----|
| 42 | 0.53 | 0.66 | 0.59 | 210 |
| 43 | 0.51 | 0.51 | 0.51 | 433 |
| 44 | 0.47 | 0.54 | 0.50 | 626 |
| 45 | 0.51 | 0.37 | 0.43 | 852 |
| 46 | 0.48 | 0.55 | 0.51 | 534 |
| 47 | 0.27 | 0.15 | 0.19 | 350 |
| 48 | 0.52 | 0.55 | 0.54 | 496 |
| 49 | 0.65 | 0.69 | 0.67 | 785 |
| 50 | 0.16 | 0.03 | 0.05 | 475 |
| 51 | 0.20 | 0.19 | 0.19 | 305 |
| 52 | 0.09 | 0.04 | 0.06 | 251 |
| 53 | 0.45 | 0.47 | 0.46 | 914 |
| 54 | 0.33 | 0.20 | 0.25 | 728 |
| 55 | 0.18 | 0.03 | 0.06 | 258 |
| 56 | 0.32 | 0.27 | 0.29 | 821 |
| 57 | 0.24 | 0.18 | 0.20 | 541 |
| 58 | 0.58 | 0.33 | 0.42 | 748 |
| 59 | 0.81 | 0.73 | 0.76 | 724 |
| 60 | 0.22 | 0.19 | 0.20 | 660 |
| 61 | 0.51 | 0.29 | 0.37 | 235 |
| 62 | 0.80 | 0.76 | 0.78 | 718 |
| 63 | 0.73 | 0.70 | 0.71 | 468 |
| 64 | 0.32 | 0.47 | 0.38 | 191 |
| 65 | 0.21 | 0.17 | 0.18 | 429 |
| 66 | 0.17 | 0.12 | 0.14 | 415 |
| 67 | 0.33 | 0.56 | 0.42 | 274 |
| 68 | 0.73 | 0.58 | 0.64 | 510 |
| 69 | 0.47 | 0.52 | 0.49 | 466 |
| 70 | 0.19 | 0.20 | 0.19 | 305 |
| 71 | 0.12 | 0.26 | 0.17 | 247 |
| 72 | 0.48 | 0.54 | 0.51 | 401 |
| 73 | 0.48 | 0.81 | 0.60 | 86 |
| 74 | 0.30 | 0.58 | 0.39 | 120 |
| 75 | 0.74 | 0.71 | 0.73 | 129 |
| 76 | 0.10 | 0.03 | 0.05 | 473 |
| 77 | 0.27 | 0.38 | 0.32 | 143 |
| 78 | 0.43 | 0.56 | 0.48 | 347 |
| 79 | 0.48 | 0.35 | 0.41 | 479 |
| 80 | 0.37 | 0.44 | 0.41 | 279 |
| 81 | 0.34 | 0.29 | 0.31 | 461 |
| 82 | 0.08 | 0.07 | 0.07 | 298 |
| 83 | 0.53 | 0.57 | 0.55 | 396 |
| 84 | 0.28 | 0.45 | 0.34 | 184 |
| 85 | 0.31 | 0.34 | 0.33 | 573 |
| 86 | 0.09 | 0.22 | 0.13 | 325 |
| 87 | 0.30 | 0.41 | 0.34 | 273 |
| 88 | 0.27 | 0.33 | 0.30 | 135 |
| 89 | 0.19 | 0.15 | 0.17 | 232 |
| 90 | 0.36 | 0.48 | 0.41 | 409 |
| 91 | 0.32 | 0.34 | 0.33 | 420 |
| 92 | 0.52 | 0.65 | 0.57 | 408 |
| 93 | 0.29 | 0.57 | 0.38 | 241 |
| 94 | 0.20 | 0.02 | 0.04 | 211 |
| 95 | 0.18 | 0.07 | 0.10 | 277 |
| 96 | 0.18 | 0.08 | 0.11 | 410 |
| 97 | 0.68 | 0.48 | 0.56 | 501 |
| 98 | 0.46 | 0.68 | 0.55 | 136 |
| 99 | 0.39 | 0.41 | 0.40 | 239 |
| 100 | 0.23 | 0.17 | 0.19 | 324 |
| 101 | 0.79 | 0.76 | 0.78 | 277 |
| 102 | 0.81 | 0.81 | 0.81 | 613 |
| 103 | 0.23 | 0.23 | 0.23 | 157 |
| 104 | 0.14 | 0.17 | 0.15 | 295 |
| 105 | 0.37 | 0.53 | 0.44 | 334 |
| 106 | 0.25 | 0.30 | 0.27 | 335 |
| 107 | 0.55 | 0.56 | 0.56 | 389 |
| 108 | 0.28 | 0.37 | 0.32 | 251 |
| 109 | 0.32 | 0.53 | 0.40 | 317 |
| 110 | 0.16 | 0.04 | 0.07 | 187 |
| 111 | 0.25 | 0.25 | 0.25 | 140 |
| 112 | 0.18 | 0.53 | 0.27 | 154 |
| 113 | 0.41 | 0.32 | 0.36 | 332 |
| 114 | 0.32 | 0.27 | 0.29 | 323 |
| 115 | 0.31 | 0.27 | 0.29 | 344 |
| 116 | 0.53 | 0.61 | 0.56 | 370 |
| 117 | 0.30 | 0.38 | 0.33 | 313 |
| 118 | 0.67 | 0.76 | 0.71 | 874 |

| | | | | |
|-----|------|------|------|-----|
| 119 | 0.26 | 0.35 | 0.30 | 293 |
| 120 | 0.04 | 0.03 | 0.03 | 200 |
| 121 | 0.62 | 0.61 | 0.62 | 463 |
| 122 | 0.09 | 0.22 | 0.13 | 119 |
| 123 | 0.19 | 0.02 | 0.04 | 256 |
| 124 | 0.73 | 0.82 | 0.77 | 195 |
| 125 | 0.21 | 0.31 | 0.25 | 138 |
| 126 | 0.48 | 0.57 | 0.52 | 376 |
| 127 | 0.04 | 0.12 | 0.06 | 122 |
| 128 | 0.07 | 0.03 | 0.04 | 252 |
| 129 | 0.36 | 0.18 | 0.24 | 144 |
| 130 | 0.32 | 0.25 | 0.28 | 150 |
| 131 | 0.09 | 0.08 | 0.08 | 210 |
| 132 | 0.44 | 0.32 | 0.38 | 361 |
| 133 | 0.69 | 0.66 | 0.68 | 453 |
| 134 | 0.54 | 0.88 | 0.67 | 124 |
| 135 | 0.14 | 0.11 | 0.12 | 91 |
| 136 | 0.15 | 0.34 | 0.21 | 128 |
| 137 | 0.26 | 0.47 | 0.33 | 218 |
| 138 | 0.50 | 0.29 | 0.37 | 243 |
| 139 | 0.25 | 0.26 | 0.25 | 149 |
| 140 | 0.64 | 0.60 | 0.62 | 318 |
| 141 | 0.11 | 0.19 | 0.14 | 159 |
| 142 | 0.41 | 0.46 | 0.43 | 274 |
| 143 | 0.70 | 0.81 | 0.75 | 362 |
| 144 | 0.34 | 0.42 | 0.37 | 118 |
| 145 | 0.21 | 0.45 | 0.29 | 164 |
| 146 | 0.45 | 0.37 | 0.41 | 461 |
| 147 | 0.34 | 0.50 | 0.41 | 159 |
| 148 | 0.19 | 0.23 | 0.21 | 166 |
| 149 | 0.79 | 0.63 | 0.70 | 346 |
| 150 | 0.44 | 0.21 | 0.29 | 350 |
| 151 | 0.36 | 0.73 | 0.48 | 55 |
| 152 | 0.45 | 0.57 | 0.50 | 387 |
| 153 | 0.23 | 0.21 | 0.22 | 150 |
| 154 | 0.29 | 0.16 | 0.21 | 281 |
| 155 | 0.22 | 0.12 | 0.15 | 202 |
| 156 | 0.53 | 0.75 | 0.62 | 130 |
| 157 | 0.13 | 0.14 | 0.13 | 245 |
| 158 | 0.66 | 0.68 | 0.67 | 177 |
| 159 | 0.27 | 0.43 | 0.33 | 130 |
| 160 | 0.24 | 0.30 | 0.27 | 336 |
| 161 | 0.66 | 0.73 | 0.69 | 220 |
| 162 | 0.13 | 0.07 | 0.10 | 229 |
| 163 | 0.78 | 0.58 | 0.66 | 316 |
| 164 | 0.38 | 0.45 | 0.41 | 283 |
| 165 | 0.27 | 0.33 | 0.30 | 197 |
| 166 | 0.23 | 0.52 | 0.32 | 101 |
| 167 | 0.20 | 0.24 | 0.22 | 231 |
| 168 | 0.27 | 0.32 | 0.29 | 370 |
| 169 | 0.32 | 0.29 | 0.31 | 258 |
| 170 | 0.15 | 0.13 | 0.14 | 101 |
| 171 | 0.14 | 0.35 | 0.20 | 89 |
| 172 | 0.19 | 0.34 | 0.24 | 193 |
| 173 | 0.37 | 0.39 | 0.38 | 309 |
| 174 | 0.16 | 0.26 | 0.20 | 172 |
| 175 | 0.68 | 0.84 | 0.75 | 95 |
| 176 | 0.66 | 0.71 | 0.69 | 346 |
| 177 | 0.73 | 0.57 | 0.64 | 322 |
| 178 | 0.39 | 0.54 | 0.46 | 232 |
| 179 | 0.11 | 0.10 | 0.10 | 125 |
| 180 | 0.34 | 0.39 | 0.37 | 145 |
| 181 | 0.15 | 0.18 | 0.17 | 77 |
| 182 | 0.27 | 0.04 | 0.07 | 182 |
| 183 | 0.36 | 0.44 | 0.40 | 257 |
| 184 | 0.07 | 0.04 | 0.05 | 216 |
| 185 | 0.20 | 0.18 | 0.19 | 242 |
| 186 | 0.13 | 0.22 | 0.17 | 165 |
| 187 | 0.59 | 0.70 | 0.64 | 263 |
| 188 | 0.20 | 0.21 | 0.20 | 174 |
| 189 | 0.39 | 0.54 | 0.45 | 136 |
| 190 | 0.72 | 0.69 | 0.70 | 202 |
| 191 | 0.34 | 0.18 | 0.24 | 134 |
| 192 | 0.50 | 0.52 | 0.51 | 230 |
| 193 | 0.30 | 0.33 | 0.31 | 90 |
| 194 | 0.42 | 0.56 | 0.48 | 185 |
| 195 | 0.15 | 0.03 | 0.05 | 156 |

| | | | | |
|-----|------|------|------|-----|
| 196 | 0.13 | 0.11 | 0.12 | 160 |
| 197 | 0.22 | 0.17 | 0.19 | 266 |
| 198 | 0.24 | 0.15 | 0.18 | 284 |
| 199 | 0.13 | 0.09 | 0.11 | 145 |
| 200 | 0.70 | 0.81 | 0.75 | 212 |
| 201 | 0.30 | 0.32 | 0.31 | 317 |
| 202 | 0.57 | 0.65 | 0.61 | 427 |
| 203 | 0.30 | 0.14 | 0.19 | 232 |
| 204 | 0.24 | 0.38 | 0.29 | 217 |
| 205 | 0.43 | 0.47 | 0.45 | 527 |
| 206 | 0.04 | 0.02 | 0.02 | 124 |
| 207 | 0.17 | 0.33 | 0.23 | 103 |
| 208 | 0.63 | 0.60 | 0.61 | 287 |
| 209 | 0.14 | 0.16 | 0.15 | 193 |
| 210 | 0.30 | 0.47 | 0.37 | 220 |
| 211 | 0.42 | 0.26 | 0.32 | 140 |
| 212 | 0.16 | 0.19 | 0.17 | 161 |
| 213 | 0.25 | 0.56 | 0.34 | 72 |
| 214 | 0.57 | 0.58 | 0.58 | 396 |
| 215 | 0.47 | 0.45 | 0.46 | 134 |
| 216 | 0.19 | 0.21 | 0.20 | 400 |
| 217 | 0.32 | 0.36 | 0.34 | 75 |
| 218 | 0.85 | 0.83 | 0.84 | 219 |
| 219 | 0.55 | 0.48 | 0.51 | 210 |
| 220 | 0.82 | 0.70 | 0.75 | 298 |
| 221 | 0.89 | 0.72 | 0.80 | 266 |
| 222 | 0.59 | 0.53 | 0.56 | 290 |
| 223 | 0.06 | 0.06 | 0.06 | 128 |
| 224 | 0.34 | 0.53 | 0.41 | 159 |
| 225 | 0.24 | 0.37 | 0.29 | 164 |
| 226 | 0.33 | 0.42 | 0.37 | 144 |
| 227 | 0.49 | 0.41 | 0.44 | 276 |
| 228 | 0.06 | 0.09 | 0.07 | 235 |
| 229 | 0.49 | 0.09 | 0.15 | 216 |
| 230 | 0.21 | 0.23 | 0.22 | 228 |
| 231 | 0.51 | 0.64 | 0.57 | 64 |
| 232 | 0.17 | 0.18 | 0.18 | 103 |
| 233 | 0.42 | 0.40 | 0.41 | 216 |
| 234 | 0.18 | 0.27 | 0.21 | 116 |
| 235 | 0.43 | 0.48 | 0.45 | 77 |
| 236 | 0.37 | 0.70 | 0.48 | 67 |
| 237 | 0.43 | 0.17 | 0.24 | 218 |
| 238 | 0.10 | 0.14 | 0.12 | 139 |
| 239 | 0.25 | 0.05 | 0.09 | 94 |
| 240 | 0.43 | 0.49 | 0.46 | 77 |
| 241 | 0.23 | 0.13 | 0.17 | 167 |
| 242 | 0.58 | 0.43 | 0.49 | 86 |
| 243 | 0.19 | 0.29 | 0.23 | 58 |
| 244 | 0.25 | 0.38 | 0.30 | 269 |
| 245 | 0.25 | 0.03 | 0.05 | 112 |
| 246 | 0.76 | 0.82 | 0.79 | 255 |
| 247 | 0.12 | 0.31 | 0.18 | 58 |
| 248 | 0.08 | 0.11 | 0.09 | 81 |
| 249 | 0.06 | 0.06 | 0.06 | 131 |
| 250 | 0.14 | 0.25 | 0.18 | 93 |
| 251 | 0.36 | 0.45 | 0.40 | 154 |
| 252 | 0.17 | 0.03 | 0.05 | 129 |
| 253 | 0.23 | 0.35 | 0.28 | 83 |
| 254 | 0.15 | 0.15 | 0.15 | 191 |
| 255 | 0.00 | 0.00 | 0.00 | 219 |
| 256 | 0.04 | 0.02 | 0.02 | 130 |
| 257 | 0.18 | 0.30 | 0.22 | 93 |
| 258 | 0.58 | 0.58 | 0.58 | 217 |
| 259 | 0.13 | 0.21 | 0.16 | 141 |
| 260 | 0.69 | 0.29 | 0.41 | 143 |
| 261 | 0.37 | 0.21 | 0.26 | 219 |
| 262 | 0.33 | 0.45 | 0.38 | 107 |
| 263 | 0.26 | 0.33 | 0.29 | 236 |
| 264 | 0.14 | 0.39 | 0.21 | 119 |
| 265 | 0.31 | 0.42 | 0.35 | 72 |
| 266 | 0.12 | 0.16 | 0.14 | 70 |
| 267 | 0.15 | 0.25 | 0.19 | 107 |
| 268 | 0.45 | 0.59 | 0.51 | 169 |
| 269 | 0.22 | 0.26 | 0.24 | 129 |
| 270 | 0.46 | 0.62 | 0.52 | 159 |
| 271 | 0.69 | 0.54 | 0.61 | 190 |
| 272 | 0.38 | 0.31 | 0.34 | 248 |

| | | | | |
|-----|------|------|------|-----|
| 273 | 0.81 | 0.78 | 0.79 | 264 |
| 274 | 0.72 | 0.76 | 0.74 | 105 |
| 275 | 0.09 | 0.13 | 0.11 | 104 |
| 276 | 0.05 | 0.04 | 0.04 | 115 |
| 277 | 0.72 | 0.64 | 0.68 | 170 |
| 278 | 0.53 | 0.50 | 0.51 | 145 |
| 279 | 0.79 | 0.73 | 0.76 | 230 |
| 280 | 0.27 | 0.46 | 0.34 | 80 |
| 281 | 0.61 | 0.69 | 0.65 | 217 |
| 282 | 0.44 | 0.63 | 0.52 | 175 |
| 283 | 0.25 | 0.26 | 0.25 | 269 |
| 284 | 0.22 | 0.47 | 0.30 | 74 |
| 285 | 0.57 | 0.60 | 0.59 | 206 |
| 286 | 0.59 | 0.72 | 0.65 | 227 |
| 287 | 0.49 | 0.62 | 0.55 | 130 |
| 288 | 0.15 | 0.16 | 0.15 | 129 |
| 289 | 0.05 | 0.15 | 0.08 | 80 |
| 290 | 0.08 | 0.19 | 0.12 | 99 |
| 291 | 0.44 | 0.52 | 0.47 | 208 |
| 292 | 0.05 | 0.06 | 0.06 | 67 |
| 293 | 0.30 | 0.49 | 0.37 | 109 |
| 294 | 0.15 | 0.41 | 0.22 | 140 |
| 295 | 0.12 | 0.21 | 0.15 | 241 |
| 296 | 0.27 | 0.28 | 0.27 | 72 |
| 297 | 0.11 | 0.16 | 0.13 | 107 |
| 298 | 0.52 | 0.46 | 0.49 | 61 |
| 299 | 0.34 | 0.53 | 0.42 | 77 |
| 300 | 0.15 | 0.02 | 0.03 | 111 |
| 301 | 0.00 | 0.00 | 0.00 | 126 |
| 302 | 0.06 | 0.07 | 0.06 | 73 |
| 303 | 0.34 | 0.49 | 0.40 | 176 |
| 304 | 0.77 | 0.72 | 0.75 | 230 |
| 305 | 0.81 | 0.76 | 0.78 | 156 |
| 306 | 0.31 | 0.41 | 0.36 | 146 |
| 307 | 0.11 | 0.03 | 0.05 | 98 |
| 308 | 0.00 | 0.00 | 0.00 | 78 |
| 309 | 0.25 | 0.23 | 0.24 | 94 |
| 310 | 0.31 | 0.42 | 0.35 | 162 |
| 311 | 0.68 | 0.65 | 0.66 | 116 |
| 312 | 0.43 | 0.46 | 0.44 | 57 |
| 313 | 0.08 | 0.14 | 0.11 | 65 |
| 314 | 0.36 | 0.38 | 0.37 | 138 |
| 315 | 0.35 | 0.34 | 0.35 | 195 |
| 316 | 0.27 | 0.36 | 0.31 | 69 |
| 317 | 0.17 | 0.25 | 0.20 | 134 |
| 318 | 0.25 | 0.39 | 0.31 | 148 |
| 319 | 0.82 | 0.54 | 0.65 | 161 |
| 320 | 0.16 | 0.27 | 0.20 | 104 |
| 321 | 0.48 | 0.67 | 0.56 | 156 |
| 322 | 0.38 | 0.51 | 0.44 | 134 |
| 323 | 0.43 | 0.49 | 0.46 | 232 |
| 324 | 0.13 | 0.22 | 0.16 | 92 |
| 325 | 0.14 | 0.35 | 0.20 | 197 |
| 326 | 0.24 | 0.04 | 0.07 | 126 |
| 327 | 0.07 | 0.09 | 0.08 | 115 |
| 328 | 0.72 | 0.68 | 0.70 | 198 |
| 329 | 0.37 | 0.37 | 0.37 | 125 |
| 330 | 0.62 | 0.35 | 0.44 | 81 |
| 331 | 0.25 | 0.10 | 0.14 | 94 |
| 332 | 0.05 | 0.04 | 0.04 | 56 |
| 333 | 0.09 | 0.10 | 0.10 | 260 |
| 334 | 0.29 | 0.25 | 0.27 | 60 |
| 335 | 0.11 | 0.15 | 0.13 | 110 |
| 336 | 0.43 | 0.61 | 0.51 | 71 |
| 337 | 0.07 | 0.20 | 0.10 | 66 |
| 338 | 0.24 | 0.37 | 0.29 | 150 |
| 339 | 0.00 | 0.00 | 0.00 | 54 |
| 340 | 0.65 | 0.75 | 0.70 | 195 |
| 341 | 0.19 | 0.27 | 0.22 | 79 |
| 342 | 0.13 | 0.32 | 0.19 | 38 |
| 343 | 0.31 | 0.51 | 0.39 | 43 |
| 344 | 0.21 | 0.31 | 0.25 | 68 |
| 345 | 0.36 | 0.41 | 0.38 | 73 |
| 346 | 0.12 | 0.14 | 0.13 | 116 |
| 347 | 0.61 | 0.54 | 0.57 | 111 |
| 348 | 0.06 | 0.10 | 0.07 | 63 |
| 349 | 0.61 | 0.74 | 0.67 | 104 |

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|-----|------|------|------|-----|
| 350 | 0.26 | 0.57 | 0.36 | 44 |
| 351 | 0.10 | 0.33 | 0.15 | 40 |
| 352 | 0.42 | 0.60 | 0.50 | 136 |
| 353 | 0.30 | 0.35 | 0.32 | 54 |
| 354 | 0.40 | 0.03 | 0.06 | 134 |
| 355 | 0.45 | 0.40 | 0.42 | 120 |
| 356 | 0.33 | 0.46 | 0.38 | 228 |
| 357 | 0.41 | 0.50 | 0.45 | 269 |
| 358 | 0.30 | 0.45 | 0.36 | 80 |
| 359 | 0.41 | 0.58 | 0.48 | 140 |
| 360 | 0.14 | 0.18 | 0.16 | 125 |
| 361 | 0.84 | 0.78 | 0.81 | 169 |
| 362 | 0.07 | 0.14 | 0.09 | 56 |
| 363 | 0.71 | 0.81 | 0.76 | 154 |
| 364 | 0.44 | 0.19 | 0.27 | 58 |
| 365 | 0.15 | 0.21 | 0.17 | 71 |
| 366 | 0.62 | 0.74 | 0.68 | 54 |
| 367 | 0.14 | 0.17 | 0.16 | 116 |
| 368 | 0.50 | 0.06 | 0.10 | 54 |
| 369 | 0.00 | 0.00 | 0.00 | 71 |
| 370 | 0.02 | 0.03 | 0.03 | 61 |
| 371 | 0.06 | 0.20 | 0.10 | 71 |
| 372 | 0.38 | 0.62 | 0.47 | 52 |
| 373 | 0.71 | 0.51 | 0.60 | 150 |
| 374 | 0.22 | 0.29 | 0.25 | 93 |
| 375 | 0.04 | 0.07 | 0.05 | 67 |
| 376 | 0.05 | 0.03 | 0.04 | 76 |
| 377 | 0.25 | 0.30 | 0.27 | 106 |
| 378 | 0.03 | 0.03 | 0.03 | 86 |
| 379 | 0.12 | 0.21 | 0.16 | 14 |
| 380 | 0.67 | 0.49 | 0.57 | 122 |
| 381 | 0.09 | 0.13 | 0.11 | 104 |
| 382 | 0.09 | 0.24 | 0.14 | 66 |
| 383 | 0.39 | 0.40 | 0.40 | 110 |
| 384 | 0.00 | 0.00 | 0.00 | 155 |
| 385 | 0.13 | 0.22 | 0.16 | 50 |
| 386 | 0.18 | 0.28 | 0.22 | 64 |
| 387 | 0.06 | 0.06 | 0.06 | 93 |
| 388 | 0.38 | 0.34 | 0.36 | 102 |
| 389 | 0.00 | 0.00 | 0.00 | 108 |
| 390 | 0.87 | 0.77 | 0.82 | 178 |
| 391 | 0.39 | 0.27 | 0.32 | 115 |
| 392 | 0.20 | 0.45 | 0.28 | 42 |
| 393 | 0.00 | 0.00 | 0.00 | 134 |
| 394 | 0.06 | 0.04 | 0.04 | 112 |
| 395 | 0.36 | 0.27 | 0.31 | 176 |
| 396 | 0.22 | 0.16 | 0.18 | 125 |
| 397 | 0.61 | 0.56 | 0.58 | 224 |
| 398 | 0.56 | 0.56 | 0.56 | 63 |
| 399 | 0.04 | 0.02 | 0.02 | 59 |
| 400 | 0.22 | 0.33 | 0.27 | 63 |
| 401 | 0.09 | 0.23 | 0.13 | 98 |
| 402 | 0.21 | 0.15 | 0.18 | 162 |
| 403 | 0.19 | 0.24 | 0.21 | 83 |
| 404 | 0.34 | 0.95 | 0.50 | 19 |
| 405 | 0.11 | 0.14 | 0.12 | 92 |
| 406 | 0.28 | 0.39 | 0.33 | 41 |
| 407 | 0.26 | 0.47 | 0.33 | 43 |
| 408 | 0.36 | 0.41 | 0.38 | 160 |
| 409 | 0.23 | 0.26 | 0.24 | 50 |
| 410 | 0.05 | 0.11 | 0.06 | 19 |
| 411 | 0.20 | 0.17 | 0.18 | 175 |
| 412 | 0.06 | 0.01 | 0.02 | 72 |
| 413 | 0.17 | 0.13 | 0.14 | 95 |
| 414 | 0.13 | 0.10 | 0.12 | 97 |
| 415 | 0.14 | 0.21 | 0.17 | 48 |
| 416 | 0.32 | 0.42 | 0.37 | 83 |
| 417 | 0.57 | 0.20 | 0.30 | 40 |
| 418 | 0.08 | 0.01 | 0.02 | 91 |
| 419 | 0.34 | 0.48 | 0.40 | 90 |
| 420 | 0.22 | 0.46 | 0.30 | 37 |
| 421 | 0.05 | 0.14 | 0.08 | 66 |
| 422 | 0.43 | 0.41 | 0.42 | 73 |
| 423 | 0.27 | 0.36 | 0.31 | 56 |
| 424 | 0.64 | 0.82 | 0.72 | 33 |
| 425 | 0.05 | 0.07 | 0.06 | 76 |
| 426 | 0.05 | 0.06 | 0.05 | 81 |

| | | | | |
|--------------|------|------|------|--------|
| 426 | 0.00 | 0.00 | 0.00 | 01 |
| 427 | 0.76 | 0.80 | 0.78 | 150 |
| 428 | 0.56 | 0.76 | 0.65 | 29 |
| 429 | 0.96 | 0.85 | 0.90 | 389 |
| 430 | 0.43 | 0.50 | 0.46 | 167 |
| 431 | 0.25 | 0.12 | 0.16 | 123 |
| 432 | 0.38 | 0.46 | 0.42 | 39 |
| 433 | 0.29 | 0.37 | 0.33 | 82 |
| 434 | 0.93 | 0.77 | 0.84 | 66 |
| 435 | 0.33 | 0.49 | 0.40 | 93 |
| 436 | 0.27 | 0.44 | 0.33 | 87 |
| 437 | 0.12 | 0.14 | 0.13 | 86 |
| 438 | 0.56 | 0.65 | 0.60 | 104 |
| 439 | 0.22 | 0.35 | 0.27 | 100 |
| 440 | 0.00 | 0.00 | 0.00 | 141 |
| 441 | 0.24 | 0.40 | 0.30 | 110 |
| 442 | 0.13 | 0.18 | 0.15 | 123 |
| 443 | 0.40 | 0.41 | 0.41 | 71 |
| 444 | 0.17 | 0.17 | 0.17 | 109 |
| 445 | 0.21 | 0.33 | 0.25 | 48 |
| 446 | 0.33 | 0.42 | 0.37 | 76 |
| 447 | 0.11 | 0.34 | 0.17 | 38 |
| 448 | 0.51 | 0.65 | 0.57 | 81 |
| 449 | 0.31 | 0.24 | 0.27 | 132 |
| 450 | 0.26 | 0.37 | 0.30 | 81 |
| 451 | 0.45 | 0.43 | 0.44 | 76 |
| 452 | 0.08 | 0.11 | 0.09 | 44 |
| 453 | 0.03 | 0.02 | 0.02 | 44 |
| 454 | 0.30 | 0.53 | 0.38 | 70 |
| 455 | 0.14 | 0.23 | 0.18 | 155 |
| 456 | 0.24 | 0.37 | 0.29 | 43 |
| 457 | 0.20 | 0.28 | 0.23 | 72 |
| 458 | 0.50 | 0.02 | 0.03 | 62 |
| 459 | 0.10 | 0.26 | 0.14 | 69 |
| 460 | 0.06 | 0.01 | 0.01 | 119 |
| 461 | 0.43 | 0.44 | 0.43 | 79 |
| 462 | 0.25 | 0.26 | 0.25 | 47 |
| 463 | 0.39 | 0.13 | 0.20 | 104 |
| 464 | 0.31 | 0.39 | 0.35 | 106 |
| 465 | 0.13 | 0.19 | 0.15 | 64 |
| 466 | 0.43 | 0.43 | 0.43 | 173 |
| 467 | 0.36 | 0.52 | 0.43 | 107 |
| 468 | 0.34 | 0.25 | 0.29 | 126 |
| 469 | 0.05 | 0.04 | 0.05 | 114 |
| 470 | 0.83 | 0.85 | 0.84 | 140 |
| 471 | 0.46 | 0.46 | 0.46 | 79 |
| 472 | 0.33 | 0.41 | 0.36 | 143 |
| 473 | 0.37 | 0.37 | 0.37 | 158 |
| 474 | 0.15 | 0.10 | 0.12 | 138 |
| 475 | 0.10 | 0.14 | 0.12 | 59 |
| 476 | 0.39 | 0.39 | 0.39 | 88 |
| 477 | 0.72 | 0.76 | 0.74 | 176 |
| 478 | 0.72 | 0.75 | 0.73 | 24 |
| 479 | 0.24 | 0.11 | 0.15 | 92 |
| 480 | 0.62 | 0.56 | 0.59 | 100 |
| 481 | 0.29 | 0.43 | 0.35 | 103 |
| 482 | 0.15 | 0.34 | 0.20 | 74 |
| 483 | 0.65 | 0.66 | 0.65 | 105 |
| 484 | 0.12 | 0.11 | 0.11 | 83 |
| 485 | 0.00 | 0.00 | 0.00 | 82 |
| 486 | 0.18 | 0.28 | 0.22 | 71 |
| 487 | 0.24 | 0.28 | 0.26 | 120 |
| 488 | 0.50 | 0.06 | 0.10 | 105 |
| 489 | 0.51 | 0.57 | 0.54 | 87 |
| 490 | 0.70 | 0.81 | 0.75 | 32 |
| 491 | 0.06 | 0.01 | 0.02 | 69 |
| 492 | 0.08 | 0.08 | 0.08 | 49 |
| 493 | 0.14 | 0.02 | 0.03 | 117 |
| 494 | 0.17 | 0.33 | 0.23 | 61 |
| 495 | 0.84 | 0.71 | 0.77 | 344 |
| 496 | 0.11 | 0.19 | 0.14 | 52 |
| 497 | 0.28 | 0.34 | 0.31 | 137 |
| 498 | 0.12 | 0.16 | 0.14 | 98 |
| 499 | 0.29 | 0.24 | 0.26 | 79 |
| micro avg | 0.46 | 0.42 | 0.44 | 173812 |
| macro avg | 0.34 | 0.36 | 0.34 | 173812 |
| weighted avg | 0.48 | 0.42 | 0.43 | 173812 |

| | | | | |
|--------------|------|------|------|--------|
| weighted avg | 0.40 | 0.42 | 0.43 | 173812 |
| samples avg | 0.40 | 0.39 | 0.36 | 173812 |

Time taken to run this cell : 0:33:49.436075

In [2]:

```
from prettytable import PrettyTable
print("BOW with n_grams range from 1 to 4 and 0.5 million datapoints: ")
p = PrettyTable()
p.field_names = ["Model", "Vectorizer", "Accuracy", "Hamming loss", "Precision", "Recall", "Micro f1"]
p.add_row(["LogisticRegression(Without hyperparameter tuning)", 'BOW ', 0.09695, 0.00579056, 0.2919, 0.4669, 0.3592])
p.add_row(["LogisticRegression(With hyperparameter tuning)", 'BOW ', 0.1603, 0.00365196, 0.4717, 0.4208, 0.4448])
p.add_row(["Linear SVM(With hyperparameter tuning)", 'BOW ', 0.15043, 0.0037375, 0.4586, 0.4166, 0.4366])
print(p)
```

BOW with n_grams range from 1 to 4 and 0.5 million datapoints:

| Model | Vectorizer | Accuracy | Hamming loss | Precision | Recall | Micro f1 |
|---|------------|----------|--------------|-----------|--------|----------|
| LogisticRegression(Without hyperparameter tuning) | BOW | 0.09695 | 0.00579056 | 0.2919 | 0.4669 | 0.3592 |
| LogisticRegression(With hyperparameter tuning) | BOW | 0.1603 | 0.00365196 | 0.4717 | 0.4208 | 0.4448 |
| Linear SVM(With hyperparameter tuning) | BOW | 0.15043 | 0.0037375 | 0.4586 | 0.4166 | 0.4366 |

Cocclusion:

- 1.Linear SVM and Logistic regression have almost similar performance but when we compare all models Logistic regression with hyperparameter performs best.
- 2.Advanced models like tree based models will not work well here due to high dimension of data.
- 3.Linear SVM has high time complexity so training 500 models on linear SVM is not suitable. Hence,we chose SGD classifier with hinge loss.
- 4.We had saved variables using pickle files so that even if Runtime gets disconnected in google colab, we can train with the saved variables as this saves time.
- 5.Training Logistic Regression takes lesser time than Linear SVM.